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See Appendix, Vol. VI, for

COMPLETE TABLES SHOWING THE

POPULATION OF THE UNITED STATES

By STATES AND TERRITORIES, COUNTIES, CITIES, TOWNS, VILLAGES AND BOROUGHS

As returned at the TWELFTH CENSUS, JUNE, 1900

Prepared under the direction of

WILLIAM C. HUNT
Chief Statistician for Population

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SIMPLIFIED SPELLING

TWENTY CLASSES AND THREE HUNDRED WORDS

THE SIMPLIFIED SPELLING BOARD, in Circular No. 2, issued March 21, 1906, mentions twenty distinguishable classes of words, and includes a list of three hundred common words spelled in two ways, of which the BOARD says: "choose the simpler spelling."

The twenty distinguishable classes of words, arranged in the alphabetical order of the letters or affixes affected, are as follows:

1. Words spelled with **ae, æ** or **e**. Rule: choose **e**. Ex.: *Anesthetic, esthetic, medieval*, etc.

2. Words spelled with **-dge-ment** or **-dg-ment**. Rule: Omit **e**. Ex.: *Abridgment, acknowledgment, judgment, lodgment.*

3. Words spelled with **-ed** or **-t**, the preceding single consonant being doubled before **-ed** (*-pped, -ssed*) and left single before **-t** (*-pt, -st*) Rule. Choose **-t** in all cases. Ex.: *dipt, dript, dropt, stept, stopt*, etc., *blest, prest, distrest, mist*, etc., *blusht, husht, washt*, etc.

(Forms like these, being inflections, are commonly omitted in the dictionary lists of words spelled in two or more ways, but they are genuine historical spellings and can not be ignored. Some are very ancient (for example, *kist* is Anglo-Saxon *cyste*, and *mist* is Anglo-Saxon *miste*), and all are frequent and normal in English literature from Spenser, Shakespeare, and Milton to Tennyson and Lowell. For example, Milton has *compast, languisht, vanquisht, admonisht, astonisht, diminisht, polisht, worshipt, supt, ceast, linkt, matcht, scorcht*, etc.—SIMPLIFIED SPELLING BOARD.)

4. Words spelled with **-ence** or **-ense** (Latin **-ens-a**). Rule: Choose **-ense**. Ex.: *Defense, offense, pretense.*

5. Words spelled with **-ette** or **-et**. Rule: Omit **-te**. Ex.: *Coquet, epaulet, etiquet, omelet*, etc.

6. Words spelled with **gh** or **f**. Rule: Choose **f**. Ex.: *Draft.*

7. Words spelled with **-gh** or without. (1) **-ough** or **-ow**. Rule: Choose **-ow**. Ex.: *Plow.* (2) **-ough** or **-o**. Rule: Choose **-o**. Ex.: *Altho* (Buuyan), *tho* (Bunyan), *thoro, -boro* (in place names).

8. Words with the verb suffix, of Greek origin, spelled **-ise** or **-ize**. Rule: Choose **-ize**. Ex.: *Catechize, criticize, exorcize, legatize*, etc.

9. Words spelled with **-ite** or **-it**. Rule: Omit **e**. Ex.: *Deposit, preterit.*

10. Words spelled with **-ll** or **-l** (**-ill** or **-il**). Rule: Choose **-l**. Ex.: *Distil, fulfil, instil.*

11. Words spelled with **-ll-ness** or **-l-ness**. Rule: Omit one l. Ex.: *Dulness, fulness.*

12. Words spelled with **-mme** or **-m**. Rule: Omit **-me**. Ex.: *Gram, program.*

13. Words spelled with **oe, œ** or **e**. Rule: Choose **e**. Ex.: *Ecumenical, esophagus.*

14. Words spelled with **-our** or **-or**. Rule: Choose **-or**. Ex.: *Favor, fervor, flavor, honor, labor, rigor, rumor, tenor, tumor, valor, vapor, vigor.*

15. Words spelled with **ph** or **f**. Rule: Choose **f**. Ex.: *Fantasm, fantasy, fantom, sulfate, sulfur.*

16. Words spelled with **-rr** or **-r**. Rule: Omit one **r**. Ex.: *Bur, pur.*

17. Words spelled with **-re** or **-er**. Rule: Choose **-er**. Ex.: *Center, meter, miter, niter, sepulcher, theater.*

18. Words spelled with **s** or **z** (in the root). Rule: Choose **z**. Ex.: *Apprize, assize, comprize, raze, surprize, teazel.*

19. Words spelled with **s-** or **sc-**. Rule: Omit **c**. Ex.: *Simitar, sithe.*

20. Words spelled with or without silent **-ue**. Rule: Omit **-ue**. Ex.: *Catalog, decalog, demagog, pedagog, prolog.*

The three hundred common words spelled in two ways, arranged in alphabetical order, are as follows:

SIMPLER (New)	OLD
abridgment	abridgement
accouter	accoutre
accnrst	accursed
acknowledgment	acknowledgement
addrest	addressed
adz	adze
affixt	affixed
altho	although
anapest	anapæst, anapæst
anemia	anaemia, anæmia
anesthesia	anaesthesia, anæs-
anesthetic	anaesthetic, anæs-
antipyrin	antipyrine
antitoxin	antitoxine
apothem	apothegm, apophth-
apprize	apprise
arbor	arbour
archeology	archaeology, archæo-
ardor	ardour
armor	armour
artisan	artisan
assize	assise
ax	axe
bans	banns
bark	barque
behavior	behaviour
blest	blessed
blusht	blushed
brazen	brasen
brazier	brasier
bun	bunn
bur	burr
caliber	calibre
caliper	calliper
candor	candour
carest	caressed
catalog	catalogue
catechize	catechise
center	centre
chapt	chapped
check	cheque
checker	chequer
chimera	chimæra, chimæra
civilize	civilise
clamor	clamour
clangor	clangour
clapt	clapped
claspt	clasped
clipt	clipped
clue	clew
coeval	coacval, coæval
color	colour
colter	coulter
commixt	commixed
comprest	compressed
comprize	comprise
confest	confessed
controller	comptroller
coquet	coquette
criticize	criticise
cropt	cropped
crost	crossed
crusht	crushed

SIMPLER (New)	OLD
cue	qucue
curst	cursed
cutlas	cutlass
cyclopedia	cyclopaedia, cyclopæ-
dactyl	dactylie
dasht	dashed
decalog	decalogue
defense	defence
demagog	demagogue
demeanor	demeanour
deposit	deposite
deprest	depressed
develop	develope
dieresis	diaeresis diæresis
dike	dyke
dipt	dipped
discust	discussed
dispatch	despatch
distil	distill
distrest	distressed
dolor	dolour
domicil	domocile
draft	draught
dram	drachm
drest	dressed
dript	dripped
droopt	drooped
dropt	dropped
duluess	dullness
ecumenical	oecumenical, œcu-
edile	aedile, ædile
egis	aegis, ægis
enamor	enamour
encyclopedia	eucyclopaedia, -pædia
endeavor	endeavour
envelop	envelope
Eolian	Aeolian, Æolian
eon	aeon, æon
epaulet	epaulette
eponym	epouyme
era	aera, æra
esophagus	oesophagus, œsoph-
esthetic	aesthetic, æsthetic
esthetics	aesthetics, æsthetics
estivate	aestivate, æstivate
ether	aether, æther
etiology	aetiology, ætiology
exorcize	exorcise
exprest	expressed
fagot	faggot
fantasm	phantasm
fantasy	phantasy
fantom	phantom
favor	favonr
favorite	favourite
fervor	fervour
fiber	fibre
fixt	fixed
flavor	flavonr
fulfil	fulfill
fulness	fullness
gage	gauge
gazel	gazelle
gelatin	gelatine
gild	gnild
gipsy	gypsy
gloze	glose
glycerin	glycerine
good-by	good-bye
gram	gramme
gript	gripped
harbor	harbour
harken	hearken
heapt	heaped
hematin	hæmatin, hæmatin
hiccup	hiccough
hock	hough
homeopathy	homœopathy, homœ-
homonym	homonyme

SIMPLER (New)	OLD
honor	honour
humor	humour
husht	hushed
hypotenuse	hypothenuse
idolize	idolise
imprest	impressed
instil	instill
jail	gaol
judgment	judgement
kist	kissed
labor	labour
lacrimal	lachrymal
lapt	lapped
lasht	lashed
leapt	leaped
legalize	legalise
license	licence
licorice	liquorice
liter	litre
lodgment	lodgement
lookt	looked
lopt	lopped
luster	lustre
mama	mamma
maneuver	manœuver, -œuvre
materialize	materialise
meager	meagre
medievai	mediaeval, mediævai
meter	metre
miist	missed
miter	mitre
mixt	mixed
moid	monid
moider	monider
molding	mouidiug
moidy	mouidy
moit	moult
mulien	mulieln
naturalize	naturalise
neighbor	neighbonr
niter	nitre
uipt	nipped
ocher	ochre
odor	odonr
offense	offence
omelet	omelette
oppress	oppressed
orthopedic	orthopaedic, -pædic
paleography	palaeography, palæo-
paleolithic	palaeolithic, palæo-
paleontology	palaeontology, palæ-
paleozoic	palaeozoic, palæozoic
paraffin	paraffine
parlor	parlour
partizau	partisan
past	passed
patronize	patronise
pedagog	pedagogue, pæda-
pedobaptist	paedobaptist, pædo-
phenix	phoenix, phœnix
pheuomenon	phaeuomeuon, phæn-
pigmy	pygmy
piow	plough
polyp	polype
possest	possessed
practise, v. and n.	practice
prefixt	prefixed
prenomeu	praenomen, præuo-
prest	pressed
pretense	pretence
preterit	preterite, præterite
pretermit	praetermit, præter-
primeval	primaeval, primæval
profest	professed
program	programme
prolog	prologue
propt	propped
pnr	purr
quartet	quartette

SIMPLER (New)	OLD
questor	quaestor, quæstor
quintet	quintette
rancor	rancour
rapt	rapped
raze	rase
recognize	recoguise
recounoiter	reconuoitre
rigor	rigour
rime	rhyme
ript	ripped
rumor	rumour
saber	sabre
saltpeter	saltpetre
savior	saviour
savor	savour
scepter	sceptre
septet	septette
sepulcher	sepulchre
sextet	sextette
sylvan	syivan
simitar	scimitar, cimeter, etc.
sipt	sipped
sithe	scythe
skilful	skillful
skipt	skipped
slipt	slipped
smolder	smoulder
snapt	snapped
somber	sombre
specter	spectre
splendor	spiendour
stedfast	steadfast
stept	stepped
stopt	stopped
strest	stressed
stript	stripped
subpena	subpoena, subpœna
succor	succour
suffixt	suffixed
sulfate	sulphate
sulfur	sulphur
sumac	sumach
suppress	suppressed
surprize	surprise
synouym	synonyme
tabor	tabour
tapt	tapped
teazel	teasel, teasle, teazle
teuor	tenour
theater	theatre
tho	though, tho'
thoro	thorough, thoro'
thorofare	thoroughfare
thoroly	thoroughly
thru	through, thro', thro
thruout	throughout
tipt	tipped
topt	topped
tost	tossed
transgress	transgressed
trapt	trapped
tript	tripped
tumor	tumour
valor	valour
vapor	vapour
vext	vexed
vigor	vigour
vizor	visor
wagon	waggon
washt	washed
whipt	whipped
whisky	whiskey
wilful	willful
winkt	winked
wisht	wished
wo	woe
woful	woeful
woolen	woollen
wrapt	wrapped

ease. Persius, the only other satirist of note whose works have coms down to us, is a nervous and lively writer, but has more of the fire and force of Juvenal than of the politeness of Horace. Though the name *satire* usually is confined to poetical compositions, proso works of a satirical character are frequently included under the same head. Modern nations have not generally furnished many distingnished satirists. Among the French may be mentioned Rabelais, Montaigne, and Voltaire, and in England, Pops, Swift, Fielding, Byron, and Thackeray.

Satir'ic, Satir'ical, *a.* [Fr. *satirique.*] Belonging to, or conveying, satire; having the nature of satire; as, a *satiric* style, a *satirical* effusion. — Censorious; severe in langnage; cutting; incisive; caustic; trenchant; poignant; bitter; reproachful; abusivo; sarcastic; as, a *satirical* vein of humor, a *satirical* tongue.

Satir'ically, *adv.* With severity of remark; with caustic invective; with disposition or intsnt to censure sarcastically: as, to speak or write *satirically.*

Satir'icalness, *n.* State or quality of being satirical.

Sat'irist, *n.* Oue who writes or spsaks satire; as, Pope, Byron, and Thackeray are the chief English *satirists.*

Sat'irize, *v. a.* [Fr. *satiriser.*] To expose by satire; to censure with scathing keenncss or severity; to lampoon; as, he was one who *satirized* his betters.

Satisfaction, (*-făk'shun,*) *v. a.* [Fr.; Lat. *satisfactio—satis,* enough, and *facio,* to make.] Act of satisfying, or state of being satisfied; that state of the mind which resnlts from the full gratification of desire; repose of mind, or contentment with present possession and enjoyment; pleasure of the miud in the certainty of anything; contentment. — That state which results from relief from suspense, doubt, or uncertainty; conviction; compensation; atonement.

"Pay the rigid *satisfaction* — death for death." — *Milton.*

—Indemnification; recompense; amends; payment or settlement of a claim, due, right, demand, &c.; discharge, as of a debt; as, an acquittance in full *satisfaction* of all demands.

Satisfac'torily, *adv.* In a manner to give satisfaction or content; in a manner to express or command conviction or belief; in a satisfactory mauner; as, hs answered *satisfactorily* the qusstions put to him.

Satisfac'toriness, *n.* State, quality, or condition of beiug satisfactory or satisfied; power of giving content or satisfaction; as, ths *satisfactoriness* of a promise or agreement.

Satisfac'tory, *a.* [Fr. *satisfactoire.*] Giving or producing satisfaction; yielding content; relieving the mind from doubt or uncertainty, and enabling it to rest with confidence; as, a *satisfactory* account of a thing, person, or transaction. — Making amends, indemnification, or recompense; atoning; causing to cease from claims, and to rest content; as, to make *satisfactory* compensatiou, to render a *satisfactory* excuse or apology, &c.

Sat'isfiable, *a.* That may be satisfied.

Sat'isfier, *n.* One who gives or renders satisfaction.

Sat'isfy, *v. a.* (*imp.* and *pp.* SATISFIED.) [Fr. *satisfaire.*] To do that which is enough to; to afford full gratification, as to wants, wishes, needs, or dcsires; to supply, as possession or enjoyment, till no more is desired; to gratify; to content; to feed to the full; to suffice; to satiate; to supply fully, as what is nccessary and demanded by natural laws; as, to *satisfy* oue's appetite. — To pay to content, or to the full extent of claims or demands; to recompense; to discharge, as a debt; to indemnify; to requite; to compensate; to remunerate; to appease by punishment; as, to *satisfy* a judgment. — To free from doubt, suspense, or uncertainty; to convince; to cause to rest in confidence by ascertaining the truth; as, to *satisfy* one's self by personal observation.

—*v. n.* To do that which gives satisfaction or content; to afford gratification.—To feed or supply to the full. — To atone; to make payment or compensation.

Sat'isfyingly, *adv.* In a manuer to afford satisfaction.

Sativa (*sa-tee'va*), a town of the Repnblic of Colombia, 60 m. N.E. of Tunja.

Satorally-Ujahely, (*sa-to-ral'ya oo-je-le,*) a town of N. Hungary, 8 m. W.S.W. of Zemplin; *pop.* 7,600.

Sat'rap, *n.* [Fr. *satrape,* from Gr. *satrapēs;* a word of Persian origin.] In ancient Persia, the governor or viceroy of a province.

Sat'rapy, *n.* The government or jurisdiction of a satrap.

Sat'sop Riv'er, in *Washington,* rises in Sawamish co., and flows in a southerly direction into the Chehalis river, 22 miles from its mouth.

Sattara', a state of British India, presidency of Bombay, bet. Lat. 16° 22′ and 18° 32′ N., Lon. 73° 30′ and 76° E. *Area,* 16,222 sq. m. *Cap.* Sattara. *Pop.* 1,000,000.

Sat'urable, *a.* [Fr.] That may be saturated; susceptible of saturation.

Sat'urant, *a.* [Lat. *saturans.*] Saturating; absorbing or impregnating to the full.

—*n.* (*Med.*) A medicine which serves to neutralize an acidulous condition of the stomach.

Saturate, (*săt'yu-rāt,*) *v. a.* [Lat. *saturo, saturatus.*] To fill or supply to fulness; to impregnate or unite with till no more can be received or absorbed; to glut; to sate; as, the earth is *saturated* with rain.

—*a.* [Lat. *saturatus.*] Soaked or filled with to repletion; as, leaves *saturate* with moisture.

Saturation, (*săt-yū-rā'shun,*) *n.* [Fr., from L. Lat. *saturatio.*] Act of saturating, or state of being saturated; a filling or impregnation to fulness.

(*Chem.*) A term signifying a fluid which has absorbed as much of an article as it can hold in solution. If a quantity of salt be gradually added to a glass of water, and the liquid stirred after each addition till the fresh supply is dissolved, the water will eventually become so loaded or charged with salt that all fresh additions, instead of being taken up by the water, will fall to the bottom of the vessel just as they were put in. When the fluid has reached the point at which it can dissolve or hold no more, it is said to be *saturated.*

Sat'urn, *n.* [Symbol ♄, a sickle.] (*Astron.*) Beyond Jupiter, and at a distance almost twice as great, is the ring-engirdled planet Saturn, the most distant planet from the sun known to the ancients. It is in several respects the most interesting planet in the solar system, being environed with 3, probably 5, stupendous rings, and accompanied by at least 9 moons, the last of which was discovered in 1898, by the aid of photography. A volume would be required to treat exhaustively of a world so unique, and on a scale so extensive, as compared with our little world. In size Saturn ranks next to Jupiter, its diameter being 73,000 miles. Its year is nearly 29½ times longer than ours, and though exceeding the earth in bulk nearly 750 times, its rotation period is much less, being only 10h. 14m. Saturn's distance from the sun is 875,000,000 miles. It would take an express train, at 40 miles an hour, 2,535 years to make the journey thither, and 16,000 years to pass round the circle of its orbit. Yet this mighty globe, with its rings and moons, accomplishes the distance in 29½ years, at the speed of 6 miles a second. Its oblateness, owing to rapid rotation and small density (about equal to that of pine wood), exceeds that of any planet, amounting to 6,170 miles. This rapid rotation, combined with the great length of the year, gives 25,200 days to the Saturnian year, or 3 times as many days as our year has hours. The appearance of Saturn through a telescope of adequate size and power affords a marvellous and resistless fascination to every beholder. As far as known, it is the only planet surrounded with a ring, or rather with multiple rings.

The following data and physical details are the result

Fig. 2308.—SATURN.

of a recent and prolonged series of measurements and observations by Dr. E. E. Barnard, with the 36-inch telescope at the Lick Observatory, Mt. Hamilton, Cal. They were made in 1894, and are more trustworthy than any heretofore published, except those made by Prof. Asaph Hall, at the Naval Observatory, Washington, in 1884–7, with a 23-inch telescope. These results are strikingly in accord, which lends an additional assurance to their correctness. The ring system is triple, and often appears to be quintuple. The outer ring, though much narrower than the middle one, is sometimes seen with one, and then again with two, black, hair-like lines, which strongly suggest that they are temporary divisions. This conclusion is strengthened by the fact that they have been seen on both sides of the ring. The inner ring is transparent, tho body of the plant being easily visible through it, showing that it is not solid, but composed of discrete particles. Various opinions have been entertained regarding the composition of the other two. The telescope was inadequate to the task, but the spectroscope, which has solved so many mysteries, has settled the controversy, and decides that they are also composed of separate solid particles, destitute of coherence. The method of solution was briefly as follows: Let it be understood that the spectral lines in a stationary light, and a stationary spectroscope, always occupy their several places undeviatingly; while the light is moving toward the spectroscope the lines will be displaced toward the violet end of the spectrum, and, if it be receding, the same lines will be moved slightly toward the red. In this way the motion of stars in the line of sight can be determined, which cannot be done with a telescope. Now, if the ring be a solid, the outer edge will move faster than the inner edge. On the other hand, if the ring be composed of movable particles, the inner edge will move the faster, being nearer the planet, the same as Mercury moves faster than Venus, and the earth faster than Mars. The test was applied by Prof. Keeler, of the Allegheny Observatory, Pa. The lines from the inner edge were seen to be moved toward the violet, and those from the outer edge toward the red. The theory is as beautiful as it is ingenious. The inner ring, from its translucency, is called the crape ring. The following table gives Dr. Barnard's values of the dimensions of the planet and its rings:

Equatorial diameter of Saturn..	76,150 miles.
Polar diameter of Saturn	69,980 miles.
Polar compression.....	6,170 miles.
Outer diameter of outer ring.....	172,730 miles.
Inner diameter of outer ring...	149,620 miles.
Outer diameter of middle ring..	144,830 miles.
Inner diameter of middle ring..	109,530 miles.
Inner diameter of crape ring...	90,260 miles.
Width of space between outer and middle rings.....	2,395 miles.

Ilis measures indicate that the globe of Saturn is centrally placed within the rings. As the edge of the rings is parallel with the line of sight only once in nearly 15 years, and was not thus parallel when the above measures were made, their thickness was not of course susceptible of measurement. They are supposed to be from 50 to 100 miles in thickness. As the year of Saturn is 29½ times the length of ours, it follows that the polar regions are alternately 14¾ years in light and darkness. The first known ring was discovered by Galileo, but of its nature he was ignorant. He announced his discovery to Kepler in the following logograph (word riddle): a a a a, b, e o e e, g, i i i i, m n m m m, n n, o, p, r r, s s s, t t t, v v, which, arranged properly, reads: "Altissimum planetam tergeminum observavi" ("I have observed the most distant planet to be threefold.") He died ignorant of the cause of its triplex appearance. Not until the lapse of 50 years was the mystery solved by Huyghens, which, like Galileo, he announced logographically, as follows: a a a a a a a, c c c c c, d, e e e e e, g, h, i i i i i, l l l, m m, n n n n n n n n, o o o o, p p, q, r r, s, t t t t, u n n n u. When he had assured himself that his discovery was a certainty, he restored the letters to their allotted places, forming a Latin sentence, which translated reads: "The planet is surrounded by a slender flat ring, nowhere touching it, inclined to the ecliptic."

The discovery excited an immense amount of popular enthusiasm, but poor Galileo had died in ignorance of the cause of what he had seen, and which he thought might be handles to the planet. All ths rings lie in one plane, and revolve around the planet in about 10h. 30m. Ths inner edge of the inner transparent ring is but 10,000 miles from the surface of the planet. A magnifying power therefore of 2,000 diameters would bring it to within 5 miles of an observer when in its zenith. The view of ths planet from ths ring would be inexpressively grand, filling as it would nearly the whole sky, leaving only a narrow margin near the horizon. The two sides of the flat rings are alternately in light and darkness for 14¾ years. Mimas is the nearest moon, and when in the zenith is but 17,000 miles from an observer, if any there be, and would appear 350 times as large as our moon. (See SATELLITE). The frequency and prolonged duration of the eclipses of the sun by the ring is another of ths many marvels visible to a Saturnian inhabitant. The following statement shows the great length of the duration of totality as seen from a few latitudes, both north and south: In N. Lat. 40°, the sun will rise and set totally eclipsed for 1 year and 28 days, passing clear of the ring at noon; in N. Lat. 20°, tho period will be 9 years and 48 days; in S. Lat. 20°, the eclipse will be total some part of the day for 11 years and 306 days, and in S. Lat. 40°, at summer solstice, it will last all day for 6 years and 236 days. The assigned limit of this paper forbids a more complete statement of the many eclipses by the different rings, and their sudden ending while passing across the spaces between them, and of their re-commencement as the sun crosses the next ring, sometimes being total, at other times partial, affording an unending source of delight if there be anyone there to enjoy the scene. Another set of eclipses of the sun are almost hourly occurring by Saturn's satellites, to say nothing of their being themselves eclipsed by the planet, full details of which would fill a volume to describe.

(*Alchemy.*) The metal lead.

(*Her.*) Same as SABLE (*q. v.*).

Satur'nian, *a.* [Lat. *Saturnius.*] (*Myth.*) Pertaining to Saturn, whose fabulous age or reign, from the mildness and wisdom of his government, is called the *Golden Age.* — Hence, golden; happy; distinguished for purity, integrity, and simplicity.

"Th' Augustus, born to bring *Saturnian* times." — *Pope.*

Sat'urnine, *a.* [Fr. *saturnien,* from Lat. *saturninus,* from *Saturnus.*] Born under the planet Saturn, and supposed to be under his influence. — Hence, dull; heavy; grave; lethargic; phlegmatic; not readily susceptible of excitement; not mercurial; as, a *saturnine* temper, a *saturnine* face.

(*Alchemy.*) Pertaining, or relating, to lead.

Sat'urnist, *n.* A person of grave, melancholic, or phlegmatic temperament.

Satyr, (*sā'tĕr,*) *n.* [Fr. *satyr;* Lat. *satyrus;* Gr. *satyros,* a faun.] (*Myth.*) A mythological sylvan deity or

Fig. 2309. — A SATYR.

demi-god, represented as part man and part goat, and extremely wanton and lascivious; a faun.

Satyria'sis, *n.* [Lat. and Gr.] (*Med.*) Immoderate desire for venery; priapism.

Satyr'ic, *a.* Pertaining, or having reference, to satyrs; as, the *satyric* drama.

Satyr'idæ, *n. pl.* (*Zoöl.*) A family of lepidopterous insects, comprising butterflies which have the wings broad and more or less rounded. The larvæ are pale-green. The genus *Satyrus*, or *Hipparchia*, has the wings of a most delicate brown color, with eye-like spots near the outer margins. The species have a wing expause of 2 to 3 inches.

Satyr'ium, *n.* (*Bot.*) A genus of plants, order *Orchidaceæ*, possessing supposed aphrodisiac properties.

Sauce, (*saws,*) *n.* [O. Fr. *saulce;* Fr. *sauce*, from Lat. *salsus*, from *salio*, to salt.] That which gives relish or savor to food; a mixture or compound to be eaten with food for improving its gusto; an appetizing condiment; a piquant or pungent bonne-bouche serving as a quickener of the palate.—Culinary vegetables and esculents eaten with flesh-meat. (Used as colloquial American and provincial English.)—Insolence; impertinence; indecorous language; oral abuse; as, give mo no *sauce*. (Vulgar.)

To serve one the same sauce, to retaliate in kind, as by one injury for another.

—*v. a.* To make savory with sauce; to accompany meat with some condiment to give it a higher relish or flavor; to furnish with an appetizing concomitant.—To gratify with rich tastes; to please; to pamper;—hence, to cover, mix, or dress, as if with sauce. (R.)—To render poignant, pungent, or piquant; to give zest, gusto, flavor, or interest to; to set off; to vary and causo to be attractive.

"Thou say'st his meat was *sauced* with thy upbraidings." *Shaks.*

—To be impudent or saucy to; to treat with pert, insolent, or shrewish language; as, his wife *sauces* him when she notices him to be the worse for liquor. (Colloq. and vulgar.)

Sauce'-boat, *n.* A sauce-tureen; a vessel with a lip for pouring out sance at table.

Sauce'box, *n.* A saucy, pert, impudent person.

Sauceli'to, in *California*, a village and shipping station of Marin co., on San Francisco Bay, 9 m. N.W. of San Francisco.

Sauce'pan, *n.* A small skillet in whicb sauce, &c., is boiled or prepared; a kind of stew-pan.

Saucer, (*saw'sr,*) *n.* [Fr. *saucière.*] A circular plate, like a deep dish, in which a tea-cup or coffee-cup is set.

—*a.* Round and deep-set; as, *saucer* eyes.

Sauce-tureen', *n.* Same as SAUCE-BOAT, *q. v.*

Sau'con, in *Pennsylvania*, a township of Northampton co.

Saucon Creek, in *Pennsylvania*, flows into the Lehigh River near Easton, from Northampton co.

Sau'cily, *adv.* [From *saucy.*] Impudently; pertly; with impertinent boldness or contemptuous insonciance; as, she spokc quite *saucily*.

Sauciness, (*saw'si-nes,*) *n.* Qnality of being sancy; impudence of language; pertness or petulance of speech; contemptuous disrespect manifested toward superiors; impertinent insouciance or boldness of manner.

"Imputing it to the natural *sauciness* of a pedant, they made him eat his words."—*L'Estrange.*

Saucisse, Saucisson, (*sō-sees', sō-sees-sōng',*) *n.* [Fr., from *saucisse*, sausage.] (*Gun.*) A fascine of more than the usual length,—but the principal application of the term is to the apparatus for firing a military mine. This consists of a long bag or pipe of linen, cloth, or leather, from one inch to one-and-a-half inches in diameter, and charged with gunpowder. One end is laid in the minc to be exploded; the other is conducted through the galleries to a place where the engineers can fire it in safety. The *electric spark* is now preferred to the *saucisson*.

(*Fortif.*) A long bundle of fascines for erecting batteries, &c.

Saucy, (*saw'sy,*) *a.* (*comp.* SAUCIER; *superl.* SAUCIEST.) [From *sauce;* Lat. *salsus*, salt, sharp, pungent.] Indulging in a pungent sort of wit or humor; impudent; insolent; impertinent; rude; bold to excess; transgressing the rules of decorum; contemptuously insouciant or petulant; as, a *saucy* domestic.

"No *saucy* citizen shall dare to strike a soldier."—*Dryden.*

—Expressivo of insouciance or impudence; as, she has a *saucy* look.

Sau'cy-bark, *n.* Same as SASSY-BARK, *q. v.*

Saud, *n.* See SAADH.

Sauer-kraut, (*sour'-krout,*) *n.* [Ger. *sauer*, sour, and *kraut*, cabbage.] (*Cookery.*) A salted preparation of cabbage much esteemed in Germany, and among the German population of the U. States, and of which large quantities are got ready for winter use. It is made by shredding the cabbages, and packing them in layers in barrels with salt, whole pepper, and a few cloves, the whole mass being firmly pressed down with weights. Partial fermentation soon sets in, and the watery juice rises to the surface. This expressed juice is, after a time, poured off, and water containing a solution of salt poured in, and changed from time to time till it ceases to rise with a scum and fetid smell. The cabbage is then fit for keeping, and is stored in barrels, still under pressure, in cellars, and continues in excellent condition for use till late in the spring. When used, it is washed with soft water, and stewed with bacon or salted meat, and is said to be very wholesome.

Saugatuck', in *Connecticut*, a post-vill. of Fairfield co.—A river flowing into Long Island Sound from Fairfield co.

Saugatuck, in *Michigan*, a post-village of Allegan co., 40 m. S.W. of Grand Rapids.

Sau'gerties, in *New York*, a post-village and township of Ulster co., on the Hudson, abt. 100 m. N. of New York.

Sau'gus, in *Massachusetts*, a post-township of Essex co., 11 m. N. of Boston.

Sauk, in *Wisconsin*, a S.W. central co., bordering on the Wiscousin river; *area*, 850 sq. m. *Rivers.* The Baraboo is the principal. *Surface*, undulating; *soil*, fertile; timber is abundant. *Cap.* Barahoo. *Pop.* (1895) 32,919.

Sauk Cen'ter, in *Minnesota*, a city of Stearns co., 45 m. W.N.W. of St. Cloud. *Pop.* (1895) 2,015.

Sauk City, in *Minn.*, a v. of Stcarns co., 3 m. N. of St. Cloud.—In *Wis.*, a p.-v. of Sauk co., 16 m. S. of Baraboo.

Sauk Rapids, in *Minn.*, a p.-v. and twp.., cap. of Benton co., on the Mississippi, 80 m. N.W. of St. Paul. April 14, 1886, this town was almost destroyed by a cyclone, about 30 persons were killed and over 100 wounded.

Sauk River, in *Minnesota*, formed from several lakes in Stearns co., and flows E. into the Mississippi abt. 3 m. N. of St. Cloud.

Sauk'ville, in *Wisconsin*, a post-village and township of Ozaukee county, 26 miles north of Milwaukee city.

Saul, (*sawl.*) (*Script.*) The son of Kish, of the tribe of Benjamin, the first king of the Israelites, anointed by Samuel, B. C. 1091, and after a reign of forty years, filled with various events, slain with his sons on Mount Gilboa. He was succeeded by David, who was his son-in-law, and whom he had endeavored to put to death. His history is contained in 1 *Sam.* x.–xxxi.

(*Bot.*) See SNOREA.

Sault, (*sōō.*) *n.* [O. Fr.] A rapid in certain rivers; as, the *Sault* de Ste. Marie.

Sault aux Récollets, (*soo-o-ra-kol-la',*) a village of prov. of Quebec, on the island of Montreal, 8 m. from the city of Montreal.

Sault Sainte Marie (*soo-sent-ma'ree*), in *Michigan*, an important city of Chippewa co., on St. Mary's river. *Pop.* (1897) 8,560. See SECTION II.

Sault Saint Mary, a village of Ontario., on St. Mary's River, abt. 12 m. E. of Lake Superior.

Saumur, (*so'moor,*) a town of France, dept. of Malne-et-Loire, on the Loire, 28 m. S.E. of Angers. *Manuf.* Linens and cambrics. *Pop.* 14,500.

Saun'ders, *n.* See SANDERS.

Saun'ders-blue, *n.* (*Paint.*) An old name for ULTRAMARINE, *q. v.*

Saunder's Island, in the S. Atlantic Ocean; Lat. 57° 49′ S., Lon. 26° 44′ W.

Saune'min, or **Saune'man,** in *Illinois*, a township of Livingston co.

Saun'tee, in *Nebraska*, a village of Sarpy co., 28 m. S.W. of Omaha City.

Saunter, (*sán'ter,*) *v. n.* [Icel. *seinlátr*, full of delay.] To wander or stroll about idly or discursively; to lounge; to linger in a dilly-dallying manner; as, to *saunter* about town.

—*n.* A sauntering or strolling about idly; also, a place for sauntering; as, he takes his daily *saunter* up and down Broadway.

Saun'terer, *n.* One who saunters, or wanders about idly; as, he is a well-known *saunterer* about the clubs.

Sau'quoit, in *New York*, a post-village of Onelda co., 9 m. S. of Utica.

Saur, *n.* [From Gael. *sal*, filth.] Urine from a shippon or cow-house.

Sau'ria, or **Sau'rians,** *n. pl.* [Gr. *sauros*, a lizard.] (*Zoöl.*) An order of reptiles founded by Cuvier, and now divided into the two orders of *Lacertilia*, lizards, and *Crocodilia*, crocodilians. The most gigantic and remarkable species of saurian reptiles are now extinct, but their fossil remains, immense in size and wonderful as they appear, afford incontestable evidence of their similarity in structure to the harmless little lizard of the present day. The diversity in the habits of the existing saurians is very considerable—some being more or less aquatic, others strictly terrestrial, while others are essentially arboreal. The greater part feed on animal substances; some of them preferring fish, and others attacking small animals, while some are entirely insectivorous, and a few are herbivorous. They are all furnished with teeth, which are of a simple conical form, and adapted rather for securing and tearing their prey, than for masticating it; their toes are generally furnished with claws, and they all have a tail more or less strong, and generally very thick at the base. A few species, exceptions to the general character, have only two legs. The distinguishing characteristics of different Saurian reptiles will be found under the words CROCODILE, ALLIGATOR, CHAMELEON, AEAMA, LIZARD, IGUANA, GECKO, PLESICSAURUS, ICHTHYOSAURUS, &c.

Sau'roid, *n.* [Gr. *sauros*, lizard, and *eidos*, form.] Resembling the lizard in various characteristics; as, *sauroid* fish.

Sau'ridæ, *n. pl.* (*Zoöl.*) The Gar-pike family, comprising elongated fishes covered with scales of stony hardness, which are extended into imbricated spines upon the first rays of all the fins; about 25 species, all American, are known. The genus *Lepidosteus*, containing the Gar-fishes of the Northern lakes, Western and Southern rivers, is characterized by elongated slightly unequal jaws, which are furnished over their whole inner surface with rasp-like teeth, and a row of long, pointed teeth along their edges.

Saurura'ceæ, *n.* (*Bot.*) The Lizard-tail family, a small order of plants, alliance *Piperales*, consisting of marshy herbs, with alternate stipulate leaves and spiked achlamydeous flowers. They are natives of N. America, N. India, and China. They are of no economic importance.

Sau'rurus, *n.* (*Zoöl.*) The typical genus of the order SAURURACEÆ, *q. v.*

Sausage, (*saw'saj,*) *n.* [Fr. *saucisse*, from Lat. *salsus*, seasoned, from *sal*, salt.] The prepared intestine of an ox, sheep, or pig, stuffed with minced meat seasoned, and sometimes prepared by being simply rolled, without stuffing.

Sau'sage-meat, *n.* Meat minced and seasoned for cooking into sausages.

Sau'sage-roll, *n.* (*Cookery.*) A patty consisting of a sausage baked between layers of light puff paste.

Saussure, (*sos'soor.*) HORACE BENEDICT DE, a celebrated naturalist, B. at Geneva, 1740; attained an early proficiency in the mathematical and physical sciences, and was for several years professor of philosophy at Geneva. He at first applied himself to the study of botany. He travelled in France, England, Italy, &c., and by the valuable observations which he made, particularly among the glaciers of the Alps, he contributed much to the advancement of geology and meteorology. *S.* first visited Chamouni in 1760. In 1788 he spent seventeen days on the pass of the Col du Géant. *S.* constructed several improved scientific instruments, viz., a thermometer, a hygrometer, a eudiometer, an electrometer, &c. His most important work is the record of his Alpine observations.—*Voyages dans les Alpes*, in 4 vols., published between 1779–96. D. 1799.

Saus'surite, *n.* [Named after *Saussure*, q. v.] (*Min.*) A compact variety of equidote of a green or ash-gray color, forming the jade or nephrite of the Swiss Alps.

Santerelle, (*sōt'rel,*) *n.* An instrument used by stone-cutters and carpenters to trace and form angles.

Sauterne, (*sō-tairn,*) *n.* [F.] A favorite growth of the Bordeaux class of French white wines.

Sauvage'siaceæ, *n. pl.* (*Bot.*) The *Sauvagesia* family, a small order of plants, alliance *Violales*, by some botanists regarded as a sub-order of *Violaceæ*, but distinguished by several minor characters. The plants of this order are natives of South America and the West Indies. Their properties have not been investigated. *S. erecta*, the species best known, contains much mucilage, and has been used internally as a diuretic, also externally in diseases of the eye.

Sauvegarde, (*sōu'gahrd.*) *n.* (*Zoöl.*) Same as MONITOR, *q. v.*

Sauvé, (*sove,*) CHARLOTTE DE LA BAUME SEMBLANÇAY, BARONESS DE, a French lady, B. 1551, was equally distinguished for her beauty and wit. She was one of the attendants upon Catherine de Medici, and was beloved by the King of Navarre, afterwards Henri IV., over whom she, for a long time, held considerable ascendency. She was subsequently married to the Marquis de Noirmoutier. D. 1617.

Sav'able, *a.* [From *save.*] That may be saved; as, a *savable* condition of the soul.

Sav'ableness, *n.* Susceptibility of being saved.

Savacon, (*sāv'a-kon.*) *n.* (*Zoöl.*) Same as BOAT-BILL, *q. v.*

Savage, (*sāv'aj,*) *a.* [Fr. *sauvage*; Sp. *salvage*; It. *selvaggio*, from Lat. *selva*, a wood, *sylvaticus*, a sylvan.] Pertaining to the forest; remote from human abodes and civilization; wild; uncultivated; as, a *savage* wilderness.—Without tameness or gentleness; wild; fierce; as, a *savage* beast of prey.—Without civilization or refinement; untaught; unpolished; rude; coarse; as, *savage* life or manners, *savage* instincts.—Barbarous; inhuman; murderous; merciless; truculent; characterized by fierceness or cruelty; as, a *savage* disposition, a *savage* deed.

—*n.* A human being in his native state of rudeness, inhabiting the forest or wilderness; one who is untaught, uncivilized, or without cultivation of mind or manners.—A man of extreme or brutal cruelty of disposition: a barbarian; one destitute of human feeling.

—*v. a.* To make wild, barbarous, or cruel; as, *savaged* by woe.

Sav'age Islands, a group in the S. Pacific Ocean, Lat. 19° 1′ S., Lon. 169° 37′ W. The largest is 33 m. in circumference.

Sav'agely, *adv.* In a savage manner; barbaronsly; brutally; cruelly; as, a person *savagely* abused.

Sav'age Mountain, extending from Alleghany co., Maryland, to Somerset co., Pennsylvania.

Sav'ageness, *n.* State or quality of being savage; wildness; an untamed, uncultivated, or uncivilized condition.—Cruelty; brutality; barbarousness; as, the *savageness* of a grizzly bear.

Sav'agery, *n.* [Fr. *sauvagerie.*] State or condition of being savage; a wild, rude, aboriginal condition; barbarism.—A deed of cruelty; an act of barbarity or brutality.

Sav'age's Station, in *Virginia*, on the Richmond and York River Railroad, in Henrico co., abt. 10 m E. of Richmond, noted as the scene of one of the "Seven Days'" battles in June, 1862.

Savagism, (*sāv'aj-izm,*) *n.* Quality of being savage; state of men in their rude, uncouth, and uncivilized state.

Sav'aua la Mar', a seaport-town of the island of Hayti, on the Bay of Samana, 15 m. S.W. of Samana.

Savana la Mar, a town of the island of Jamaica; Lat. 18° 12′ N., Lon. 78° 6′ W.

Savanilla (*sa-van-eel'ya*), a seaport town of the Republic of Colombia, 60 m. N.E. of Cartagena.

Savanillo, a town of Cuba, 18 m. S. of Matanzas; *pop.* abt. 600.

Savan'na, Savan'nah, *n.* [Sp. *savana, sabana*, a counterpane, from Lat. *sabunum;* Gr. *sabanon*, a linen cloth.] An extensive, open, grassy plain or prairie, destitute of, or sparsely dotted with, trees or shrubs. See PRAIRIE.

Savan'nah, an important river of the U. S., which forms the boundary between Georgia and S. Carolina, rises in the Alleghanies, on the S.W. border of N. Carolina, and flowing S.S.E. about 450 m., enters the Atlantic

18 miles S.E. of Savannah city. It is navigable for large vessels to Savannah; for small vessels of 150 tons to Augusta, 230 m. from its mouth; and for small boats 150 m. higher.

Savan'nah, in *Georgia*, a city and port of entry of the U States on the river of its own name, about 12 m. from its mouth, and 80 m. S.W. of Charlestou. Savannah stands on a bluff sandy point, rising about 40 feet above the river, from which it has an imposing appearance; its spacious and regular streets, and handsome public buildings, being interspersed with many trees. Previous to 1820, when it suffered from a terrible fire, it was mostly built of wood, and it was formerly also insalubrious from the contiguity of rice swamps. This evil has, however, been greatly obviated; and being now principally of neat stone houses, it is one of the handsomest cities in the U. S., see fig. 1145. It has numerous churches, an exchange, and many academies. Previous to the breaking out of the great Civil War, it was one of the principal ports in the U. S. for the export of cotton, a trade it has long since recovered, being to-day the third largest cotton-shipping port in the U. S. In addition, it has a large export trade in rice, lumber, and naval stores, and ships early fruits and vegetables to Northern cities. Its manufacturing interests are mainly confined to fertilizers, foundry and machine-shop work, and rice cleaning and polishing. The harbor admits vessels of 14-feet draught to the wharf at high water; large ships discharge and load 3 miles below. The city is defended by Forts Pulaski and Jackson. It was founded in 1733. In 1776, a British fleet, attempting to take the town, was repulsed after a severe action; but the British took possession of *S.* in 1778, and in the following year the French and American armies, under Count d'Estaing and General Lincoln, were unsuccessful in their attempt to recaptnre it. In the Civil War, after many unsuccessful attacks by sea, it was taken by General Sherman, in Feb., 1865. *Pop.* (1897) 51,200.

Savannah, or **Savanna,** in *Illinois*, a city of Carroll co., on Mississippi river. *Pop.* (1897) 13,520.

Savannah, in *Iowa*, a post-village of Davis co.

Savannah, in *Missouri*, a post-town, cap. of Andrew co., 15 m. N. of St. Joseph.

Savannah, in *New York*, a post-village of Wayne co.

Savannah, in *Ohio*, a post-village of Ashland co.

Savannah, in *Tennessee*, a post-town, cap. of Hardin co., 120 m. S.W. of Nashville.

Savant, (*sa'vŏng'*) *n.*; *pl.* SAVANTS, or SAVANS, (*sa-vŏng'.*) [Fr., from *savoir*, to know, from Lat. *sapere.*] A person eminent for his literary or scientific learning or accomplishments; a man of erudition; a philosopher; a virtuoso. — *pl.* Men of learning and science; the literati.

Savary, ANNE JEAN MARIE, DUKE DE ROVIGO, (*sa-va-re,*) a French general, B. at Champagne, 1774. He entered the army in 1790; was rapidly promoted; and having distinguished himself in the army of the Rhine, he was named aide-de-camp to General Desaix, and accompanied him in the expedition to Egypt and Syria. At the battle of Marengo, in which Desaix was killed, Savary rescued his chief's body and conveyed it to the headquarters of Napoleon. He was then made aide-de-camp to Napoleon, and was almost constantly employed by him on important missions for the next five years. The mock-trial and shameful murder of the young Duke d'Enghien was intrusted to his direction, and he never cleared himself of the disgrace which it brought upon him. Made general of division in 1804, *S.* was sent on a private mission to the Emperor Alexander, both before and after the battle of Austerlitz; won the victory of Ostrolenka over the Russians in 1807; and for the part he took at Friedland was created Duke of Rovigo. The next year he was sent to the Peninsula, to observe and to negotiate; and the conferences at Bayonne were the result of his influence. He accompanied Napoleon to the conferences at Erfurt, thence to Spain, and in 1809 throughout the campaign of Wagram. In June, 1810, *S.* was appointed minister of general police, and while he held that post the formidable conspiracy of Mallet broke out. On the return of Napoleon from Elba, *S.* was created peer of France. He would have followed his master to St. Helena, but was refused permission, and was confined some months in Malta. Sentence of death for contumacy having meanwhile passed against him at Paris, he fled to Smyrna, and afterwards to Austria and to England. In 1819, he returned to France, submitted to a trial, and being acquitted, was reinstated in his dignities. D. 1833.

Save, *v. a.* [Fr. *sauver;* L. Lat. *salvo*, from Lat. *salvus*, safe.] To keep safe from injury, destruction, or evil of any kind; to bring out of danger; to preserve; to protect; to rescue; to deliver; to keep from final or everlastiug destruction, or from eternal death; to free from the power or pollution of; as, to *save* a person from drowning, to *save* a woman from outrage, &c. — To hinder from being spent or lost, as time or money; to lay by for preservation; to reservo; to secure from waste or expenditure. — To spare; to relieve from, as something distastcful or harmful; as, let me *save* you the trouble. — To prevent; to hinder from occnrrence; to obviate.

"Will you not speak to *save* a lady's blush?" — *Dryden.*

—To take or use opportunely, so as not to lose; to catch; to be in time for; as, he was just in time to *save* the train.

To save appearances, to preserve a becoming exterior; to avoid exposure of that which is disadvantageous or embarrassing; as, he is polite to his wife in company *to save appearances.*

—*v. n.* To be economical; to avoid expense.

—*prep.* Except; not including; leaving out.

"A prophet is not without honor, *save* in his own country." *Matt.* xiii. 57.

Save, a river of Austria, rising in Illyria, in the N. extremity of Carniola, Lat. 46° 30′ N., Lon. 14° E., which, after an E.S.E. course of 590 m., joins the Danube at Belgrade.

Save'-all, *n.* Any contrivance adapted to avoid waste or loss; especially,

(*Naut.*) A small sail sometimes set under the foot of another sail, to catch the wind that would otherwise pass under it.

Save'loy, *n.* A polony; a kind of dried sausage.

Sa'vendroog, a fortified town of S. India, prov. of Mysore, 20 m. from Bangalore; Lat. 12° 56′ N., Lon. 77° 29′ E.

Sav'er, *n.* One who saves, preserves, or rescues from danger, evil, or destruction; as, the *saver* of a country. — One who escapes loss, but without gain; an economist; one who limits or curtails his expenditure.

Saverne, (*sa'vairn,*) a town of Germany, in Alsace, on the Zorn, a tributary of the Rhine, 19 m. N.W. of Strasburg. *Manuf.* Woollen cloth, hosiery, and hardware. *Pop.* 6,500.

Sav'erton, in *Missouri*, a post-village of Ralls co., 125 m. N.W. of St. Louis.

Savigliano, (*sa'veel-ye-a'no,*) a fortified town of N. Italy, prov. of Coni, 9 m. E. of Saluzzo. *Manuf.* Woollens, silks, and linens. *Pop.* 19,000.

Sav'ille, in *Pennsylvania*, a township of Perry co., 12 m. S. of Mifflin.

Sav'in, *n.* [Fr. *sabine.*] (*Bot.*) See JUNIPERUS.

Saving, (*sāv'ing,*) *p. a.* Not lavish; frugal; economical; avoiding needless expenses; as, a *saving* housewife. — That incurs no loss, though not gainful; returning in an equal amount the sum expended; as, a *saving* bargain.

—*prep.* Excepting; with an exception in favor of.

"*Saving* the reverence due to so great a man."—*Ray.*

—*conj.* Without disrespect to;—with *that*; as, *saving that* your intentions are good.

—*n.* Something saved; something kept from being expended or lost; exception; reservation; as, he effected a considerable *saving* in his expenses.

—*pl.* Earnings; small sums accumulated by thrift, industry, and economy; as, when he married the cook he had an eye to her *savings.*

Sav'ingly, *adv.* In a saving manner; with thrift or parsimony. — So as to be saved from eternal death and damnation.

Sav'inguess, *n.* Quality of being saving; heedfulness not to expend money unnecessarily; thrift; frugality;—also, in a bad sense, parsimony; penuriousness. — Tendency to promote eternal salvation.

Sav'ings-bank, *n.* [From Lat. *salvo*, to keep safe.] An institution of very modern date, established for the purpose of encouraging provident habits among the poorer classes, by enabling them to deposit small sums of money at liberal interest, and returnable on demand. The value of such institutions can scarcely be over-estimated. They enable those who have anything to spare not only to deposit it in safety, but also to receive interest upon it, while the sum itself can be received back at any time it may be required. By this means provident habits are fostered, and in general such habits reqnire only a beginning; and a sum is thus secured against a time of sickness, distress, or old age. The earliest *S. B.*, properly so called, of which we have any account, are those of Hamburg, founded in 1778, and of Berno about 9 years afterwards. Both of them were restricted, more or less closely, to the use of domestic servants, mechanics, and the like. The first institution of this kind in this country was established in Philadelphia, in Nov., 1816, though Franklin had suggested something of the kind 50 years earlier. The second was organized in Boston the same year, and the third in New York in 1819. Since that time they have been greatly multiplied, but are by far more numerous in the Northern than in the Southern States. In each State there are laws for their regulation. The interest formerly allowed was usually 6 per cent. on sums under $500, and 5 per cent. on any excess of that sum. It is now from 3 to 4 per cent. Post-office savings-banks have been established in Great Britain, for which see POSTAL SERVICE. The minimum deposit is generally fixed at $1, but there are now banks receiving 5-cent or dime deposits. The American *S. B.* are for the most part well managed; and from the care with which their deposits are invested, they are generally allowed to reserve a large surplus and erect substantial banking-houses.

Savio, (*sa've-o,*) a river of Central Italy, rising in the prov. of Florence, and after a N.N.E. course of 50 m., falling into the Adriatic, 10 m. S.E. of Ravenna.

Saviour, (*sāv'yur,*) *n.* [Fr. *sauveur;* Lat. *salvator;* Gr. *sōter.*] One who saves, preserves, or delivers from destruction or danger; as, Cincinnatus was the *saviour* of his country.

—Specifically, Jesus Christ, the Redeemer of the world.

Savo'na, a senport-town of Italy, prov. of Genoa, on the Mediterranean, 20 m. S.W. of Genoa. *Manuf.* Silk goods, iron, and earthenware. *Pop.* 18,526.

Savona, in *New York*, a post-village and township of Steuben co., 6 m. S.E. of Bath.

Savonaro'la, GIROLAMO, an Italian monk of the order of Dominicans, B. at Ferrara, 1452. In 1489 he removed to Florence, where he soon became a celebrated preacher, and declaimed with extraordinary freedom and daring, and with unusual success, against every form of hypocrisy, vice, and unbelief. His unbounded influence and constitutional ardor seem to have heated his imagination, and he ventured on occasional predictions, at once novel and startling, and published them in the form of authentic oracles, and under the impression that they were genuine revelations to himself from heaven. With characteristic boldness and energy, he interfered with the politics of Florence, inculcated democracy, and opposed the ascendency of the Medici, so that when they were expelled, he became a leader of the triumphant party. His enemies, in the meantime, accused him to the Pope, Alexander VI., as an impostor and a heretic. The Pope summoned him to Rome, and on his refusal to obey the citation, he was excommunicated and forbidden to preach. But this sentence only excited him to more terrible denunciations, in which the Pope himself was styled a usurper. A Franciscan inquisitor was sent to challenge and confront *S.*, but the citizens interfered and sheltered him. The popular tide at length turned, when he shrank, after some vacillations, from subjecting his cause to an ordeal by fire. On being ultimately condemned to death, with two of his associates, he was first strangled, then his body was tossed into the flames, and his ashes were thrown into the river, May 23d, 1498. He left behind him about 300 *Sermons*, a treatise entitled the *Triumph of the Cross*, and other works.

Sa'vor, *n.* [Fr. *saveur;* Lat. *sapor*, from *sapio*, to taste.] Something that perceptibly affects the organs of taste and smell; taste; relish; flavor; gusto; odor; scent; as, the *savor* of roasted game, a sweet *savor*, a rank *savor*, &c. — The quality which renders a thing valuable; the characteristic property which renders other bodies agreeable to the taste; specific flavor, tinge, taint, &c.

"I taste the *savor* of death in all things." —*Milton.*

—Acute sense of smell; power to trace by scent. (R.)

—*v. n.* To have a peculiar or characteristic taste or smell; — preceding *of*; as, this aroma *savors of* a good dinner. —To partake of the quality or nature; to have the appearance; to indicate the presence; to betoken.

"The duke's answers all *savor* of an humble spirit." —*Wotton.*

—*v. a.* To taste or smell with delectation or delight; to like; to taste intellectually or spiritually. — To have the flavor or quality of; to denote the presence of. (R.)

Sa'vorily, *adv.* [From *savory.*] In a savory or gustable manner; with piquant relish; with delectation.

Sa'voriness, *n.* Quality of being savory; pleasantness of taste or smell; piquant relish; gusto; as, the *savoriness* of a roast duckling.

Sa'vorless, *a.* Lacking savor; tasteless; insipid.

Sa'vorly, *a.* Piquant; properly seasoned; having a good smack or relish.

—*adv.* With a delectable relish or gusto.

Sa'vory, *a.* [From *savor.*] Pleasing and grateful to the organs of taste and smell; possessing savor, relish, or richness of flavor; piquant.

—*n.* [Fr. *savorée.*] (*Bot.*) See SATUREJA.

Savoy, (*sa-voi',*) [Fr. *savoie,*] a former duchy of the kingdom of Sardinia, now annexed to France, and forming the depts. of Savoie and Haute-Savoie, having N. and N.E. Switzerland, S.E. and S. Piedmont, and W. the depts. of Isère and Ain; *area*, 4,270 sq. m. It is the most elevated country of Europe, consisting principally of mountains, the most elevated of which is Mont Blanc, *q. v.* The valleys and low grounds are fertile and well cultivated. *Rivers.* Rhône, Arve, Dranco, and Isère. *Lakes.* Annecy and Bourget. *Prod.* Wheat, oats, barley, rye, and hemp. *Min.* Iron, copper, silver, lead, coal, and salt. *Manuf.* Cotton and woollen fabrics, hosiery, felt-hats, glass, earthenware, &c. *Cap.* of Savoie, Chambery; of Haute-Savoie, Annecy. *S.* was anciently a part of Sapaudia, whence the name *Saboia*, or *Savoy*, is derived. It was erected into a duchy under Amadeus VIII., in 1416, and was ceded to France in 1860. *Pop.* 545,431.

House of Savoy. One of the most ancient royal families, and also distinguished for having produced more great warriors and politicians than any other royal house of Europe. Its origin is not historically established but most genealogists trace it to a German count, Berthold, who, in the 11th century, established himself on the western slope of the Alps between Mont Blanc and Lake Leman. In 1111 his descendants were enrolled among the counts of the Holy Roman Empire. Count Amadeus, in 1383, founded a law of primogeniture which greatly strengthened the family, leading to the immediate acquisition of the territory of Nice. In 1416, the counts of Savoy adopted the title of *Duke;* and, in 1418, they acquired the principality of Piedmont. Taking part in the great wars between France and the Holy Roman Empire, now on the one side and then on the other, as policy dictated, the princes of Savoy increased their possessions in all directions, but chiefly towards the south; and at the peace of Utrecht, in 1713, they obtained the island of Sicily, with the title of *King.* Sicily had to be exchanged, in 1720, for the isle of Sardinia, to which henceforth the royal dignity remained attached. Genoa and the surrounding territory were added to the Sardinian crown at the peace of 1815. The direct male line of the House of Savoy died out with King Charles Felix, in 1831, and the existing Salic law prohibiting the accession of females, the crown fell to Prince Carlo Alberto, of the House of Savoy-Carignan. The latter branch — taking its name from a small town in the province of Turin — was founded by Thomas Francis, born in 1596, a younger son of Duke Carlo Emannele I. of Savoy. King Carlo Alberto, the first of the house of Savoy-Carignan, abdicated the throne, March 23, 1849, in favor of his son, Vittorio Emanuele II., the first King of Italy. See VICTOR EMANUEL.

Savoy', *n.* [Fr. *chou de Savoie.*] (*Bot.*) One of the hardier of the varieties of Cabbage, remarkable for its bullate or blistered leaves. Is is the type of a race of sub-varieties, included under the name *Brassica oleracea —bullata major.*

Savoy, in *Massachusetts*, a post-township of Berkshire co., 125 m. W.N.W. of Boston.

Savoyard, (*săv-oi'yard,*) *n.* [Fr.; It. *Savoyardo.*] (*Geog.*) A native or inhabitant of Savoy.

Savu, (*sa-voo'*,) an island of the Eastern Archipelago, belonging to the Dutch; Lat. 10° 35′ S., Lon. 122° 30′ E. *Ext.* 25 m. long, and 8 broad.

Saw, *imp.* of SEE, *q. v.*

Saw, *n.* [A. S. *sagu.*] A saying; a proverb; a maxim; an axiom; as, "Old *saws* and modern instances."
Haliburton.

—[A. S. *sago.*] A cutting instrument, formed from a plate of sheet-steel, and toothed by means of a press and tools. Circular saws have the advantage of being very accurately divided in their teeth by means of a division-plate; this prevents irregularity of size, and imparts smoothness and uniformity of action. All saws are hardened and tempered in oil. The forms of the teeth do not depend on taste, but are those best fitted for cutting through the particular section, quality, or hardness of the substance to be cut. Iron bars, shaftings, &c., are cut to length by a steel circular saw, which revolves very rapidly. (See CIRCULAR). The iron is presented to the saw red-hot. A bar 2 inches in diameter can thus be cut through in a few seconds.

—*v. a.* [Ger. *sagen*; It. *segare*; Fr. *scier*, to saw, from Lat. *secare*, to cut.] To cut with a saw; to sunder apart with a saw; as to *saw* timber. — To form by cutting with a saw; as, to *saw* planks, or, in other words, to *saw* logs into planks. — To boax; to play upon; to bamboozle. (An Americanism.)

—*v. n.* To use a saw; to practise sawing; as, he *saws* indifferently. — To cut with a saw; as, I never saw a saw *saw* as this saw *saws*. — To be cut or separated with a saw; as, these logs *saw* smoothly.

—*Manuf.* The largest saws in the world for sawing boards and plank are probably those made by R. Hoe & Co., in New York, expressly for the California market, where they are required for the gigantic timber of that region.

Sawarcar'na, former name of the Ree or Grand river, in South Dakota, which flows into the Missouri river in Lat. 45° 40′ N., Lon. 100° 30′ W., after a W. course of 200 m.

Sawar'ra-nut, Saowarl'-nut, *n.* (*Bot.*) See CARYOCAR, *q. v.*

Saw'-bill, *n.* (*Zoöl.*) A family of birds, *Trinitidæ*, order *Insessores*, comprising birds with the bill as long as the head, gently decurved near the tip, but not hooked, and the cutting edges dentated; the tarsi rather long, feet large, the middle and outer toes connected for more than half their length. This family is represented in N. America by *Momotus cæruliceps*, the Saw-bill of Mexico.

Saw'der, *n.* [A corruption of *solder.*] Flattery; blarney; honied speech; — used generally in the phrase *soft sawder*, meaning something which appeals to one's vanity or self-esteem, and is employed, generally, to accomplish some purpose or design; — an expression of American origin, having its equivalent in the English phrase *soft soap.* (Vulgar.)

Saw'dust, *n.* Dust, or small particles of wood or stone made by the action of a saw.

Saw'er, *n.* A sawyer.

Saw'-fish, *n.* (*Zoöl.*) A genus of fishes, family *Squalidæ*, having a very long, depressed snout, annexed on

Fig. 2310. — SAW-FISH.

each side with pointed spines, planted like teeth. The Common Saw-fish, *Pristis antiquorum* (Fig. 2310), found both in polar and tropical seas, attains sometimes the length of 15 feet.

Saw'-file, *n.* A triangular file for sharpening a saw.

Saw'-fly, *n.* (*Zoöl.*) See TENTHREDINETE.

Saw'-frame, *n.* The frame in a saw-mill, in which the saw is set for action.

Saw'-gin, *n.* A cotton-gin.

Sawkehatch'ee Creek, in *Alabama*, flows W. into the Tallapoosa River, from Tallapoosa co.

Saw'-mandrel, *n.* A mandrel for holding a saw firm in a lathe.

Saw'-mill, *n.* A mill for sawing timber, marble, &c., driven by water, steam, or other power.

Saw-mill Flat, in *California*, a village of Tuolumne co., abt. 1 m. E. of Columbia.

Saw'ney, *n.* [Corrupted from *Sandy*, a familiar diminutive of *Alexander.*] A Scotsman; — used as a nickname. (Vulgar.) — A stupid fellow; a gaby; a thick-headed loon

Saw'-pit, *n.* A pit over which timber is sawed by two men, one standing above the timber and the other below.

Saw'-set, Saw'-wrest, *n.* An instrument employed to set or turn the teeth of a saw a little outward.

Saw'-toothed, (*-tŏŏtht,*) *a.* Having a tooth, or teeth, after the manner of a saw.
(*Bot.*) Serrate, as certain leaves.

Saw'-wrest, (*-rĕst,*) *n.* Same as SAW-SET, *q. v.*

Saw'-wurt, *n.* (*Bot.*) The common name for *Serratula*, a genus of plants, order *Asteraceæ*, having the habit and qualities of the thistle, and called from having leaves edged with cutting teeth.

Saw'yer, *n.* One who saws timber into boards or planks; also, a sawyer of wood for fuel.—In the U. S., a limb of a tree, consisting of one or more branches, bobbing above the surface of a stream (as in the Mississippi and other rivers), and presenting a serious and often fatal obstruction to navigation. See SNAG

Saw'yer's Bar, in *California*, a post-village of Siskiyou co., about 20 m. N. of Orleans.

Saw'yer's Mill, in *Massachusetts*, a manufacturing village of Worcester co., 35 m. W. of Boston.

Saw'yer's River, in *New Hampshire*, rises in Grafton co., and flows E., forming one of the sources of Saco River.

Saxa'tile, *a.* [Fr.; Lat. *saxatilis*, from *saxum*, a rock.] Pertaining or relating to, or living among, rocks.

Saxe, MAURICE, COUNT DE, marshal of France, was a natural son of Augustus II., King of Poland, and was B. at Dresden in 1696. He entered the army at an early age, and was present with Prince Eugene at the siege of Belgrade. In 1720 he went to Paris. After an unsuccessful attempt to get himself elected Duke of Courland, he took service in the French army, distinguished himself in the campaign of 1733–35, and was made lieutenant-general. In the general war which followed the death of the Emperor Charles VI., *S.* took a distinguished part. He captured Prague, defended Alsace, and in 1743 was named marshal of France. In the following year he held a command in Flanders. One of his most brilliant achievements was his victory over the English and Hanoverian forces at Fontenoy in May, 1745. He was at the time "nearly dead of dropsy; could not sit on horseback, except for a few minutes; was carried about in a wicker bed; had a lead bullet in his mouth all day, to mitigate the intolerable thirst." (*Carlyle.*) The victories of Roucoux and Laufeldt, and the capture of Maestricht, added to his fame in two following years. *S.* was a man of great size and strength, intrepid, self-possessed, and as a commander won fame for his ingenuity and dash; but he was one of the most dissolute men of his age, and unscrupulous in the gratification of his lust. He D. of putrid fever, the result of his debaucheries, November 21, 1750. Marshal *S.* was author of a work on military affairs, entitled *Mes Rêveries*, issued in 1757. George Saud (*q. v.*), the eminent author, was descended from an illegitimate daughter of his.

Saxe-Al'tenburg, (Duchy of,) a state of N. Germany, inclosed by Saxe-Weimar, the kingdom of Saxony, Prussian Saxony, and Saxe-Meiningen; *area*, 510 sq. m. The surface is undulating and very fertile, and agriculture much advanced. *Prod.* The usual cerealia. The government is a limited monarchy, in accordance with the constitution of 1831. The Duke of *S. A.* was a member of the Germanic Confederation, and the Duchy forms part of the new German Empire. *Cap.* Altenburg.

Saxe-Co'burg-Go'tha, (Duchy of,) a state of N. Germany, inclosed by Prussia, Bavaria, Saxony, Saxe-Meiningen, and Weimar; *area*, 970 sq. m. It is a limited monarchy, under the general law of the new German Empire. *Cap.* Gotha.

Saxe - Mein'ingen - Hild'burghausen, (Duchy of,) a state of N. Germany, consisting of the old duchy of Meiningen, Kranichfeld, and Kamburg; *area*, 970 sq m. It forms part of the new German Empire. *Cap.* Meiningen

Saxeville, (*saxe'vil*), in *Wisconsin*, a post-village and township of Waushara co.

Saxe-Wei'mar-Ei'senach, (Grand-Duchy of,) a principality of N. Germany, consisting, besides Weimar and Eisenach, of Alstadt, Illmenau, Ostheim, and Neustadt; *area*, 1,418 sq. m. Charles Augustus received some acquisition of territory, and the title of Grand-Duke, from the Congress of Vienna, June 9, 1815. Representative government was introduced in 1816. It has one vote in the Federal Council of the Empire. *Chief town.* Weimar.

Sax-horn, *n.* (*Mus.*) A brass instrument, invented by Mr. A. A. J. Sax, constructed in such a manner that the large portion, after passing under the arm of the performer, repasses over his shoulder, presenting the bell to the front. The advantage of this shape is that it avoids the elbows, which would otherwise impair the progress of the sound. They have great powers, more especially the contra bassos in E and B flat; the latter of which has *forty-eight feet* of development in its tube.

Saxifra'ga, *n.* (*Bot.*) The typical genus of the order *Saxifragaceæ*, q. v.

Saxica'vous, *a.* [From Lat. *saxum*, rock, and *cavo*, to hollow.] (*Zoöl.*) Rock-boring; — applied to marine animals which perforate rocks.

Saxi'cola, *n.* (*Zoöl.*) A genus of birds, family *Sylvicolidæ*, including the Furze-chat.

Saxifragaceæ, (*săks-e-frā-gā'se-e,*) *n.* [Lat. *saxum*, a stone, *frangus*, to break, because supposed to break or dissolve stones in the bladder.] (*Bot.*) The Saxifrage family, an order of plants, alliance *Saxifragales.* DIAG. Distinct styles, alternate leaves, and unsymmetrical flowers. — They are herbs, with calyx inferior, or generally more or less superior, 4–5-partite. Stamens perigynous or hypogynous. Ovary superior, or more or less inferior, composed of 2 carpels, united at the base, and diverging at the apex to the carpels. Fruit capsular, 1–2-celled. Seeds numerous, small, with fleshy albumen. The plants of this order are generally natives of northern regions, and usually inhabit mountain districts, being sometimes found at a height of 16,000 feet above the sea. They are generally characterized by astringency. This is particularly the case with *Henchera Americana*, which, under the name of *alum-root*, is much used as an astringent in North America. Some *Saxifraga* are well-known in gardens, and are employed to cover rock-works, &c. *S. umbrosa*, the Ladies' Cushion, None-so-Pretty, London Pride, &c. (Fig. 2311), a native of the hills of Spain, is familiar in our flower-gardens. There are abt. 50 American species.

Fig. 2311. — SAXIFRAGE, (*Saxifraga umbrosa.*)

Saxifraga'les, *n. pl.* (*Bot.*) An alliance of plants, sub-class *Perigynous exogens.* DIAG. Monodichlamydeous flowers, consolidated carpels, sutural or axile placentæ, indefinite, a polypetalous corolla, if any present, and a small taper embryo, with a long radicle and little or no albumen. The alliance includes 5 orders. — SAXIFRAGACEÆ, HYDRANGEACEÆ, CUNONIACEÆ, BREXIACEÆ, and LYTHRACEÆ, *q. v.*

Saxon, (*săks'on*, or *săks'n,*) *n.* [A. S. *Seaxan*, pl. *Seaxe.*] (*Geog.*) One of a nation, or people, who formerly dwelt in the N. part of Germany, and who invaded and conquered Britain in the 5th and 6th centuries; also, a native or inhabitant of the kingdom of Saxony. See SUP'T.
—The language of the ancient Saxons; ANGLO-SAXON, *q. v.*
—*a.* (*Geog.*) Pertaining, or relating, to the ancient Saxons, their country, or to their language; also, belonging, or having reference, to the kingdom of Saxony, or its inhabitants.

Sax'on Architecture. The name usually given to the style of building used in England before the introduction of the Norman architecture after the Conquest. There are few specimens remaining which can be depended upon as genuine. The Saxons built chiefly in wood, and all their wooden edifices are now lost. It seems probable that a rude and simple style, not unlike early Norman, was that used by the Saxons. There are several buildings in England which Mr. Rickman considers entitled to rank as Saxon. Among these, the Tower of Earl's Barton, Northamptonshire (Fig. 2312), is one of the best examples.

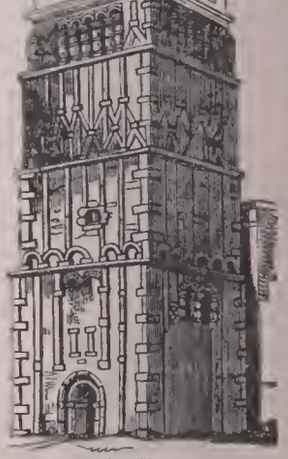


Fig. 2312.
TOWER OF EARL'S BARTON, (Northamptonshire, Eng.)

Sax'on-blue, *n.* (*Dyeing.*) A solution of indigo in concentrated sulphuric acid; — it is much used as a dye-stuff.—SAXON-GREEN, a color obtained by dyeing with yellow upon a ground of Saxon-blue.

Sax'onburgh, in *Pennsylvania*, a post-borough of Butler co., about 9 m. S.S.E. of Butler.

Saxonism, (or *saks'n-,*) *n.* An idiom of the Anglo-Saxon language.

Sax'onist, *n.* One learned in the Anglo-Saxon tongue.

Sax'onville, in *Massachusetts*, a post-village of Middlesex co., 22 m. N.W. of Boston.

Sax'ony, a kingdom situated towards the N.E. of Germany, bounded S. by Bohemia, and N. by the Prussian States; Lat. between 50° 10′ and 51° 28′ N., Lon. between 11° 35′ and 15° 3′ E.; *area*, 6,777 sq. m. Saxony, politically divided into the four circles of Dresden, Leipzig, Zwickau, and Bautzen, is shaped as a triangle, of which the longest line is the frontier on the side of Bohemia, formed by a range of mountains, extending in a long line from S.W. to N.E. In the southern and mountainous parts, the valleys only are well cultivated; but in the level districts in the north, tillage is general. The mean elevation of the country is about 1,100 feet — *Rivers.* The principal are the Elbe, the two Elsters, the two Muldas, the Pleisse, and the Saale. — *Prod.* Wheat, barley, oats, and other grain; also tobacco and hops; and, in a few situations of favorable exposure, vines. Fruit is extensively cultivated, and a fourth of the surface is covered with excellent timber. The breed of the

merino sheep is celebrated, and yields valuable wool, and the cattle are of a superior kind. Horses are not extensively reared. — *Minerals.* Few countries equal Saxony in mineral riches, and in none has this department of natural history been more fully described. The topaz is frequently found, also chrysolites, amethysts, chalcedonies, cornelians, agates, jasper, garnets, and tourmalines; and among the coarser stones, serpentine, asbestos, amianthus, barytes, and fluates of lime. The porcelain clay in the neighborhood of Meissen is well known; there are also fullers'-earth, terra-sigillata, and other minerals with an argillaceous base; petrifactions are very common. The lofty primitive mountains abound in iron; the secondary in copper and lead. Next to these are arsenic, cobalt, antimony, manganese, zinc, sulphur, alum, vitriol, and borax. The salt-mines and springs of Saxony are included in the districts ceded in 1815 to Prussia. There are also a few silver-mines. — *Manuf.* These comprise linen and woollen goods, stockings, fine porcelain called *Dresden china*, cotton-spinning, and silks. Tanneries are general, and paper manufactories are numerous. Every town of consequence has breweries and distilleries. At Dresden, also, there are foundries of cannon and shot. — *Exp.* These comprise minerals, linen, yarn, woollens, and lace. — *Imp.* Silk, flax, cotton, coffee, sugar, wine, and in certain seasons, grain. — *Education.* Good; public instruction being well developed, while the University of Leipzig is one of the best in Germany. — *Govt.* A hereditary limited monarchy. — *Army*, 26,000. After being, during many centuries, an electorate, Saxony was formed, in 1806, into a kingdom, in consequence of the occupancy of Prussia by Napoleon I. The Prussians invaded Saxony in June, 1866, and by a treaty signed Oct. 21, the King of Saxony agreed to pay to Prussia abt. $8,000,000, ceded the fortress of Königstein, and afterwards joined the Confederation of N. Germany. Saxony contributed the XII. Army Corps to the German Empire, with which it was incorporated in 1871. The actual king, Albert was crowned October, 1873. *Pop.* (1897) estimated, 2,645,440.

Sax'ophone, *n.* (*Mus.*) A brass instrument, made of various sizes, soprano, alto, and bass, and played with a mouth-reed, like a clarinet. It was invented by M. Sax.

Sax'ton, in *Minnesota*, a village of Lake co. In *Pennsylvania*, a post-borough of Bedford co.

Say, (*imp.* and *pp.* SAID, contracted from SAYED.) [A. S. *secgan, sægan;* Dn. *zeggen;* Ger. *sagen.*] To put forth or pronounce in articulate sounds; to utter in words; to speak; to declare; as, what do you *say?* she *said* so positively. — To repeat; to rehearse; as, to *say* one's prayers. — To allege, by way of argument; as, it is all that can be *said* for him.

— To report or announce as a judgment, decision, or opinion; — hence, to form an opinion upon; to be determined in mind as to; as it is hard to *say* what is best to be done.

It is said, or *they say*, it is commonly asserted, rumored, or reported; as, *it is said* you have had a fortune left to you, *they say* the old lady likes rum in her tea.

— *Say*, used parenthetically in the imperative for, speak; tell me.

"*Say*, Stella, feel you no content?" — *Swift.*

That is to say, that is; in other words.

— *v. n.* To speak; to tell; to utter; to relate.

— *n.* [A. S. *sagn.*] A speech; that which is said; a saying; a proverb; a current story; as, let him say his *say.* (Colloq.)

Say'brook, in *Connecticut*, a post-township of Middlesex co., on the Connecticut River, 35 m. S.S.E. of Hartford.

Saybrook, in *Ohio*, a post-township of Ashtabula co., abt. 4 m. W. of Ashtabula.

Say'er, *n.* One who says, speaks, or utters; as, a *sayer* of good things.

Sayette', *n.* A mixed fabric of silk and cotton.

Say'ing, *n.* Something said; an expression; a sentence uttered; a declaration; — particularly, an aphorism; a byword; an adage; a maxim; an axiom; a popular or proverbial expression.

Say'lor, in *Iowa*, a post-village and township of Polk co..

Say'lorsburg, in *Pennsylvania*, a post-village of Monroe co., 112 m. N.E. of Harrisburg.

Scab, *n.* [A. S. *scæt;* It. *scabbia*, from Lat. *scabies* — *scabo.*] (*Med.*) An eruption of minute pimples on the skin, which, by its itching, causes those affected with it to scratch; an incrusted substance, dry and rough, formed over a sore in healing.

(*Farriery.*) A contagious disease of sheep, resembling the mange in horses, &c.

— A mean, paltry, dirty fellow. — (*Slang.*) A workman who continues to work during a strike of his fellows.

Scab'bard, *n.* [Icel. *skalpr.*] The sheath of a sword.

— *v. a.* To place in a scabbard or sheath, as a sword.

Scab'bed, *a.* [From *scab.*] Abounding with scabs; scabby.

— Diseased with the scab or mange. — Paltry; sorry; vile; worthless; as, a *scabbed* fruit.

Scab'bedness, *n.* State of being scabbed.

Scab'biness, *n.* Quality or state of being scabby.

Scab'ble, *v. a.* Same as SCAPPLE, *q. v.*

Scab'by, *a.* (*comp.* SCABBIER; *superl.* SCABBIEST.) [From *scab.*] Affected with scabs; full of scabs; as, a *scabby* fetter.

— Diseased with the scab; mangy; as, *scabby* sheep.

Sca'bies, *n.* [Lat.] (*Med.*) The itch. See ITCH.

Scabio'sa, *n.* [Lat. *scaber*, rough, from its hairy surface.] (*Bot.*) The Scabious, a genus of the order *Dipsacaceæ. S. succisa* is said to yield a green dye. It is called the *Devil's-bit Scabious* on account of its abruptly-terminated root, which appears as though a piece had been bitten off. The Sweet Scabious, *S. atropurpura*, of which the Double-dwarf Scabious (Fig. 2313) is a variety, is a well known fragrant garden-flower. It is supposed to be a native of India.

Fig. 2313. — DOUBLE-DWARF SCABIOUS.

Sca'bious, *a.* Consisting of scabs; itchy; leprous; as, *scabious* eruptions.

— *n.* [Fr. *scabieuse.*] (*Bot.*) One of the SCABIOSA, *q. v.*

Scab'line, Scab'ling, *n.* A chip of stone.

Sca'brous, *a.* [Fr. *scabreux*, from Lat. *scaber*, rough.] Having hard, rough, short, jagged points; rugged. — Harsh; unmelodious; unmusical; as, a *scabrous* line in poetry.

Sca'brousness, *n.* State or quality of being scabrous; ruggedness; harshness; roughness.

Scad, *n.* (*Zoöl.*) Same as HORSE-MACKEREL, *q. v.*

Scævo'la. See MUTIUS.

Scaffold, *n.* [Fr. *échafaud;* It. *catafalco;* L. Lat. *catafaltus.*] A temporary gallery or stage raised either for shows or spectators; an assemblage or structure of timbers, boards, or planks, erected by the wall of a building to support the workmen; as, to raise a *scaffold.* — Particularly, a stage or elevated platform erected for the execution of a criminal; as, to perish on the *scaffold.*

— *v. a.* To furnish with a scaffold; to sustain; to prop; to uphold.

Scaffolding, *n.* A frame or structure raised for support in an elevated place; a frame-work; a stage; a scaffold; anything which supports or sustains. — Materials for the construction of scaffolds.

Scaffold-pole, *n.* A long pole used in the building of a scaffold.

Scag'lia, *n.* [It., a scale or shell.] (*Min.*) A reddish variety of chalk.

Scagliola, (*skal-ye-ō'la,*) *n.* [It.] A term applied to ornamental plaster-work, made of finely-ground calcined gypsum worked into a paste with glue. It produces the most perfect imitation of marble, from which it can scarcely be distinguished either by the eye or the touch, as it takes an equally high polish, and is equally hard and cold to the touch. In Italy, *S.* has long been in use, where it was invented by Guido del Conte, or Fassi (1584–1649), an ingenious mason of Cari, near Correggis, in Lombardy. It has been brought into more general use since that time, and the manufacture has not only improved considerably, but can be executed upon a comparatively small outlay. For columns and other interior decorations, it has to a considerable extent superseded the use of colored marbles, being far less costly and quite as durable. In the process of manufacture, the purest of gypsum is first broken into small pieces, and after being calcined, is reduced to powder. It is then passed through a fine sieve, and mixed with Flanders glue, isinglass, &c. While in this condition, it is mixed with different coloring matters, according to the shades of color required in the variety of marble to be imitated. In this state it is laid on like cement. After hardening, the next process is to polish it; this is effected first by rubbing with pumice-stone, and afterwards by rubbing it with tripoli and charcoal on a piece of fine linen, and afterwards with felt dipped in tripoli and oil, and lastly with oil alone. One of the chief advantages of *S.*-work is that it can be applied to columns made of wood and hollow, or else filled with a plaster core. Columns of this kind do not require that support in the floor beneath which is necessary when solid shafts of marble are employed. The use of *S.* is not confined to columns and pilasters only; it can be applied to other ornamental purposes, such as table-slabs, pedestals, borders of floors, &c. By means of *S.*, some of the rarest and most costly stones can be imitated; such as porphyry, verde-antico, giallo-antico, and others.

Scal'able, *a.* That may be scaled; as, *scalable* heights.

Scalade', Scala'do, *n.* (*Mil.*) Same as ESCALADE, *q. v.*

Scala Nova, a seaport-town of Asiatic Turkey, on the Gulf of Scala Nova, 40 m. S. of Smyrna. It has an important export trade. *Pop.* 20,000. — The Gulf of Scala Nova, inclosed at the S. by the island of Samos, is 40 m. long and 20 broad.

Scala'ria, *n.* [Lat., flight of steps.] (*Zoöl.*) The Wentle-trap, a genus of Gasteropodous mollusca, family *Litorimidæ*, distinguished by having the turreted spire covered with longitudinal, elevated, rather sharp ribs, and the mouth being encircled by a varix. The finest species (*Scalaria pretiosa*) (Fig. 2314), was long famous for the rarity and high prices given for a single specimen. It is now found to be not an uncommon shell in the Eastern seas. It is known by the whorls being separated from each other.

Fig. 2314.
SCALARIA PRETIOSA.

Scalar'iform, *a.* Having transverse bars and spaces, after the manner of a ladder.

Scal'awag, *n.* A pitiful scamp; a scapegrace. (Vulgar.)

Scald, (*skawld,*) *v. a.* [Icel. *skālda*, to deprive of hair or bristles.] To deprive of hair or bristles by the application of boiling water; to burn or painfully affect or injure by immersion in, or contact with, a liquor of a boiling heat, or a heat approaching it; as, to *scald* one's fingers, to *scald* the carcass of a pig after killing. — To expose to a boiling or violent heat over a fire, or in water or other liquor; as, to *scald* milk.

— *n.* A burn or injury to the skin or flesh, as by hot liquor, or steam. — Scurf or scab on the head.

Scald, Skald, *n.* [Icel. *skalld.*] (*Scand. Lit.*) One of the poets of the ancient Scandinavian race. They were the companions and chroniclers of their kings and princes, attended them on their martial expeditions, and resided at their courts in times of peace. They sang the praises of the gods and the exploits of their mighty men. They were often richly rewarded for their songs, and sometimes even permitted to marry the daughters of princes. A sacred character was also attached to them, and they performed the office of ambassadors between hostile tribes. See NORWEGIAN LANGUAGE AND LITERATURE.

Scald'er, Skald'er, *n.* A Scandinavian poet or scald.

Scald'-head, SCALLED-HEAD, *n.* (*Med.*) The popular name of a fungous parasitic disease of the scalp (and occasionally of the face and other parts), known in medical phraseology as *Favus, Tinea favosa*, and *Porrigo scutulata.* The primary seat of the parasite is in the lowest portion of the hair-follicles, outside the layer of epithelium which covers the root of the hair. The plant is, however, often found in cup-shaped depressions on the surface of the scalp, forming the yellow honeycomb-like masses which suggested the specific name *Favus* (honey-comb) for the disease. The honeycomb crust continues to increase, preserving its circular form and depressed centre, till it occasionally reaches a diameter of nearly half an inch. These crusts commonly appear in crops, and may be either *distinct* or *confluent.* At a more advanced stage, the epidermis disappears, and a viscid fluid is secreted in such abundance as to form one entire incrustation over the entire head; hence the *Porrigo larvalis* — mask- or visor-like scald-head. The smell of the scab is peculiar, and has been compared to that of the urine of a cat, or of a cage in which mice have been kept. It is probably due to a species of alcoholic fermentation in connection with the vegetable growth. The scab sometimes resembles a lupine, or a minute shield, rather than the cell of the honeycomb, and hence the varieties of scald-head which have been described under the name of *Porrigo lupinosa* and *Porrigo scutulata.* The great point to be aimed at in the treatment of this affection is to destroy the cryptogamic parasite, and to eradicate its germ. For this purpose, the head should be shaved, and poultices then applied till the scabs are removed. Tar-ointment should then be applied, night and morning, the old ointment being washed off with soft-soap and water before the fresh dose is laid on. In the early stage of the disease, in place of the preceding treatment, it is sometimes sufficient to cut the hair close, and to wash the affected parts, night and morning, with oil of turpentine. If the disease does not yield to these applications, the same treatment as that recommended for *ringworm* must be tried.

Scald'ic, Skald'ic, *a.* Pertaining, or relating, to the ancient Scalds, or composed by them; as, *Scaldic* writings.

Scald'ing-hot, *a.* So hot as to scald or blister the skin.

Scale, (*skāl.*) *n.* [A. S. *scale, sceale;* Fr. *écaille.*] The basin or dish of a balance; — hence, the balance itself, or whole apparatus, which is more usually rendered in the plural; as, to turn the *scales.*

— *pl.* (*Astron.*) The sign of the Balance, or Libra, in the zodiac.

(*Zoöl.*) The name applied to the plates, generally thin, small, and imbricated, which defend the skin of fishes. They are substances of different texture, which are developed beneath the true epiderm, and appertain to the system of the *rete mucosum.* The so-called scales of serpents and other reptiles are modifications of the epidermis, and are sometimes termed *scutes.*

(*Bot.*) A small scale-like appendage, resembling a rudimentary leaf; as, the *scale* of a bud, of a pine-cone, &c.

— The thin metallic lining of the handle of a pocket-knife.

— Any incrustation deposited on the interior parts of a steam-boiler, or any vessel in which water is heated.

Scale armor. (*Archæol.*) Ancient armor consisting of small metallic scales overlapping, and fastened upon a lining of leather and cloth.

Scale, *n.* [Fr. *échelle;* Lat. *scala*, from *scando*, to climb.] A ladder, or series of steps, or any means of ascent.

"On these mountains the mark of ancient *scales* or stairs may be seen." — *Addison.*

— Hence, any instrument, figure, line, or scheme, grad-

rated for the purpose of measuring extent or proportions; as, specifically, (1.) In mensuration, a line or rule of a definite length, divided into a given number of equal parts, and used for the purpose of measuring other linear magnitudes; also, a mathematical instrument, consisting of an assemblage of lines and figures engraved on a plane rule, by means of which certain proportional quantities or arithmetical results are obtained by inspection, as, the plane *scale*, the diagonal *scale*, Gunter's *scale*, &c. —(2.) A basis for a numeral system; as, the decimal *scale*, denary *scale*, binary *scale*, &c.—(3.) A scale of distance, denoting miles, yards, feet, &c., for a map, chart, or plan.

—Hence, regular gradation; a series, rising by steps or degrees, like those of a ladder; progressive series; scheme of comparative rank or order; as, "according to their several gradations in the *scale* of beings."—*Cheyne*.

—Anything graduated or marked with degrees at equal distances; as, a map on a *scale* of an inch to the square mile.

(*Mus.*) A series of sounds, rising or falling from any given pitch or tone to the greatest possible distance through such intermediate degrees as make the succession most agreeable and perfect, and which contains all the harmonical divisions most commodiously divided. The scale may be simple, as comprising only the notes of one octave, or compound, as embracing a series of octaves. Taken in the former sense, it presents a limited course of contiguous degrees of different dimensions, as tones and semitones; received in the latter sense, it implies a series of equal degrees, consisting of equal degrees or semitones, and bounded only by the powers of instrumental expression. Again, in its former sense, the scale signifies a measured course of tones and semitones, taken in certain order, as that order which constitutes the *major mode*, or that which forms the *minor mode*; but, in its latter sense, it neither has nor requires any diversified arrangement whatever. The modern scale, consisting as it does of an enumeration of all the diatonic sounds of our system, arranged in order, is properly termed the *universal system*, in the same manner as the Turks combined their three scales (viz., the Diatonic, Chromatic, and Enharmonic, each consisting of four sounds only), under the name of Totrachord. See MUSIC.

—Act of storming a place by mounting the wall on ladders. See ESCALADE.

—*v. a.* [Fr. *escalader*, from Lat. *scala*, a ladder.] To climb, as by a ladder: to mount or ascend by steps; to clamber up; as, to *scale* a mountain peak.

—[From *scale*, a balance.] To measure or compare; to weigh. (R.)

—[From *scale*, the lamina of a fish.] To strip or clear of scales; as, to *scale* a fish. —To take off their laminæ or scales; to pare off a surface. —To scatter or spread about, as manure, straw, &c. (Prov. English.)

(*Gun.*) To clean, as the inside of a cannon, by the explosion of a small quantity of powder.

—*v. n.* To separate and come off in thin layers; to peel off in thin laminæ; as, the surface of a scab *scales* off. —To dispose; to dissipate; to scatter.

Scale'-beam, *n.* The beam or lever of a balance.

Scale-board, (*skāl'urd,*) *n.* A thin veneer used for covering the exterior surface of pieces of furniture, &c.

(*Print.*) A thin slip of wood used to extend a page to its true length, make types register, secure uniformity of margin, and for other purposes.

Scaled, *a.* Possessing scales like a fish; squamous; as, a *scaled* serpent.

Scale'less, *a.* Without scales.

Scalene', *a.* [Fr., from Lat. *scalenus*; Gr. *skalenos*.] (*Geom.*) With the sides and angles unequal; as, a *scalene* triangle. —With the axis inclined to the base; as, a *scalene* cone.

—*n.* (*Geom.*) A triangle presenting unequal sides and angles.

Scalenohe'dron, *n.* [Gr. *skalenos*, unequal, and *hedra*, base.] (*Crystallog.*) A pyramidal form under the rhombohedral system, in which the pyramids are six-sided, and the faces are scalene triangles.

Scal'er, *n.* One who scales.

Scales Mound, in *Illinois*, a post-village and township of Jo Daviess co., 12 m. N.E. of Galena.

Scale'-stone, *n.* (*Min.*) See TABULAR SPAR.

Scaliger, (*skāl'e-jer,*) father and son, both eminent for their vast literary acquirements. JULIUS, the elder, was B. at Verona, 1484. He was at first in the army, then he studied physic; and, after he was forty years of age, he began to study Greek, and became eminent for his prodigious learning and critical writings. He wrote several learned works, and commentaries on some of the ancient authors. D. 1558. — JOSEPH, the younger, was B. in 1540. At the age of seventeen, he wrote a tragedy on the story of "Œdipus," acquired the Greek and Hebrew languages almost without a master, and was esteemed the most learned man of his age, and the "Colossus" of literature. He was professor at Leyden, and annotated on most of the classics. D. 1609.

Scal'iness, *n.* State of being scaly; roughness.

Scal'ing-bar, Scal'ing-ham'mer, *n.* A rod or hammer for removing scale from the heated surfaces of a steam-boiler.

Scal'ing-lad'der, *n.* (*Mil.*) A ladder constructed in lengths of about 12 feet, which are joined together by inserting the end of one portion in staples at the end of another, and securing it.

Scallop, (*skŏl'lup,*) *n.* [Du. *schelp*, a shell.] (*Conch.*) See ESCALLOP.

—A recess or curvature of the edge of anything, like that on the margin of a scallop-shell. — A kind of vessel for baking oysters in.

—*v. a.* To mark, or cut, the edge or border of anything into segments or circles, like those of a scallop. — To cook in the shell, as oysters.

Scalloped, (*skŏl'lupt,*) *a.* Furnished with, or performed by, or in, a scallop. —Cut at the edge into segments of circles.

Scalloped oysters. (*Cookery.*) Opened oysters baked with bread-crumbs strewed over the surface.

Scalp, *n.* [Du. *schelp*, or *schulp*, a shell.] The skin of the cranium on the top of the head; —sometimes, the skull itself, or the fore part of it; —specifically, the skin of the top of the head cut or torn off, as by the N. American Indians.

—*v. a.* To deprive of the scalp or integuments of the head; as, the Arapahoes *scalp* their captives.

Scalp'el, *n.* [Fr., from Lat. *scalpellum*.] A small, surgical, cutting instrument or knife, used in anatomical dissections and surgical operations.

Scalp'er, Scalp'ing-iron, *n.* (*Surg.*) A raspatory.

Scalp'riform, *a.* [Lat. *scalprum*, chisel, and *forma*, form.] Chisel-shaped, as the incisors of rodent animals.

Scal'y, *a.* Rough; covered with, or abounding in, scales; squamose; as, a *scaly* alligator. — Resembling scales, laminæ, or layers. — Mean; scabby; underhand; as, a *scaly* fellow, to served me a *scaly* trick. (Colloquial and vulgar.)

(*Bot.*) Laminate; as, a *scaly* bulb. — Covered with layers; as, a *scaly* stem.

Scal'y-winged, *a.* Having wings in the form of scales, as certain insects.

Scamand'er, or XANTHUS, a river of Asiatic Turkey, rising in Mt. Ida, and flowing W.S.W. into the Ægean Sea.

Scam'ble, *v. n.* [Du. *schommelen*, to stir, to shake.] To be quick, busy, or scrambling; to be bold, turbulent, and rapacious; as, a *scambling* soldier. — To move about in an awkward manner; as, "*scambling* shifts."—*More*.

—*v. n.* To maul; to mangle.

Scam'bler, *n.* One who scambles. — One who sponges; a bold trespasser upon one's hospitality or generosity.

Scam'blingly, *adv.* In a scambling manner.

Scam'mony, *n.* [Lat. *scammonia*.] (*Med.*) A gum-resin, the product of the plant *Convolvulus scammonium*. It is one of the best of our resinous purgatives, being less drastic and irritating than aloes, and more manageable than colocynth or jalap. *S.* is a simple purgative, and acts exclusively on the small intestines; and, according to the amount of it employed, is either a laxative, purgative, or cathartic, and on this account it enters into many of the preparations of the pharmacopœia, and is a great favorite with most medical men for children.

Scamp, *n.* [From O. Fr. *escamper*, to abscond.] A mean knave; a rascally person; a rogue; a petty villain; a pitiful scoundrel. (Colloq.)

Scam'per, *v. n.* (See SCAMP.) Originally, to flee from the field of battle. — Hence, to run with fear and celerity; to hasten flight; as, he *scampered* away home.

—*n.* A hasty flight; a run, as on a horse; as, to take a *scamper*.

Scamp'ish, *a.* Resembling or befitting a scamp; rascally; roguish; with petty villany; as, *scampish* behavior.

Scan, *v. a.* (*imp.* and *pp.* SCANNED,) (*skăn'd.*) [Lat. *scandere*.] To measure or read by its feet, as a verse; to examine, as a verse, by counting the feet; to recite or measure, as verse, by distinguishing the feet in pronunciation. — Hence, to examine with critical care or nicety; to scrutinize.

Scan'dal, *n.* [Fr. *scandale*; Lat. *scandalum*; Gr. *skandalon*.] A cause or occasion of sin; the condition of being imputatively disgraced or subjected to reproach; reproach or reprobation evoked by that which is regarded as wrong, heinous, or flagrant. — Opprobrious censure; reproachful aspersion; defamatory speech or report; something uttered which is false and injurious to reputation; slander or defamatory talk circulated heedlessly or falsely.

(*Equity.*) Anything alleged in the pleadings which is impertinent and reproachful to any person, or which derogates from the dignity of the court, or is contrary to good manners.

—*v. a.* To asperse, traduce, defame, or treat opprobriously. (R.)

Scan'dalize, *v. a.* [Fr. *scandaliser*, from Gr. *skandalizō*.] To offend by some action supposed criminal; to displease; to subject to reproach; to excite the reprobation of: as, he *scandalized* his family by his notorious vices. — To reproach; to defame; to assail with opprobrium; to traduce; to slander; to bring disgrace upon; as, the better class of people looked on *scandalized*.

Scan'dalous, *a.* [Fr. *scandaleux*.] Giving scandal or offence; exciting reprobation; calling forth opprobrium; as, such conduct would be deemed *scandalous*. —That brings shame or ignominy; opprobrious; disgraceful to reputation; as, a *scandalous* vice. — Defamatory; libellous; scurrilous; as, a *scandalous* story.

Scan'dalously, *adv.* Shamefully; in a manner to cause scandal or excite offence. — Censoriously; captiously; with a disposition or propensity to find fault; as, a person *scandalously* nice or particular.

Scan'dalousness, *n.* Quality or state of being scandalous; quality of exciting offence, or of being disgraceful or opprobrious.

Scan'dent, *a.* [Lat. *scandens*, from *scandare*, to climb.] (*Bot.*) Climbing, as a stalk or petiole.

Scan'derbeg, GEORGE CASTRIOTA, an Albanian chief, B. at Croia, 1404, fought for some time under the Crescent for Aumrath II., but becoming possessed of the chief city of his country, which the Turks had taken, he turned against them, abjured Mohammedanism, and raised the whole of Epirus in revolt. For 25 years he withstood all the efforts of the Turks to overcome him, defeating them in many battles, even when led by the Sultan. However, shortly before he died he was compelled to yield to superior forces. D. 1466 or 1467.

Scandinavia, (*skăn-di-nā'vi-ă,*) a general name given by the ancients to the great tract of country lying to the N. of Germany, comprising Denmark, Norway, and Sweden.

Scandina'via, in *Wisconsin*, a post-township of Waupaca co., 7 m. N.W. of Waupaca.

Scan'ning, *n.* (*Poet.*) The measuring a verse by feet, in order to see whether the quantities be duly observed. Thus, a hexameter verse is scanned by reducing it into six feet, a pentameter into five, and so on. It is chiefly used in regard to Greek and Latin verses.

Scan'sion, *n.* [Lat. *scansio*.] The act of scanning.

Scanso'res, SCANSORIALS, or CLIMBERS, *n. pl.* [From Lat. *scandere*, to climb.] (*Zoöl.*) The name of an order of birds, including those which have the toes arranged in pairs, two before and two behind; a conformation of the foot which is well adapted for the act of climbing. This order comprises five families,—*Psittacidæ* or Parrots, *Ramphastidæ* or Toucans, *Trogonidæ* or Trogons, *Cuculidæ* or Cuckoos, and *Picidæ* or Woodpeckers.

Scant, *v. a.* [Dan. *skaane*, to spare.] To limit; to straiten; to treat illiberally or parsimoniously; as, to *scant* one in pay or necessaries.—To cut short; to make narrow, mean, or scanty; as, his allowance of liquor was *scanted*.

—*n.* State of being scant or scanty; scantiness; want of sufficiency; scarcity.

—*a.* Without due proportions; not full, large, or plentiful; scarcely sufficient; rather less than what is required for the purpose; scanty; as, a *scant* allowance of money or provisions.

Scan'tic, in *Connecticut*, a village of Hartford co., 10 m. N.N.E. of Hartford.

Scan'tic River, in *Massachusetts*, rises in Hampden co., and flows S.S.W. into the Connecticut River, abt. 7 m. N. of Hartford.

Scant'ily, *adv.* [From *scanty*.] With scantiness or parsimony; not fully, plentifully, or liberally; sparingly; niggardly; meanly; as, he keeps me *scantily* supplied with money.

Scant'iness, *n.* State of being scanty; narrowness; want of space or compass; deficiency of amplitude, greatness, or abundance; limited extent or quantity; want of sufficiency or fulness; as, the *scantiness* of a man's purse accounts for the *scantiness* of his wardrobe, her beauty made amends for the *scantiness* of her apparel.

Scant'ling, *n.* [Fr. *échantillon*.] A piece of timber cut from a log, of a small size, as for studs, rails, &c. — The transverse dimensions of a piece of timber in breadth and thickness; also, a piece of timber, as a quartering for a partition, or the rafters, purlin, or pole-plate of a roof. All quartering under five inches is termed *scantling*.

(*Masonry.*) The size of the stones cut, in length, breadth, and thickness.

—A rough draught, sketch, pattern, or outline.

Scant'ly, *adv.* In a scant manner.

Scant'ness, *n.* State or quality of being scant.

Scanty', *a.* (*comp.* SCANTIER; *superl.* SCANTIEST.) Narrow; small; scant; insufficient; lacking amplitude or proper quantity or extent. — Barely sufficient; defective; poor; not copious, full, or ample; as, a *scanty* stock of ideas. — Sparing; parsimonious; niggardly; penurious; as, a *scanty* delivery of words.

Scape, *n.* [Fr., from Lat. *scapus*; Gr. *skapos*.] (*Arch.*) The shaft of a column.—The apophyge of a shaft.

(*Bot.*) A flower-stalk springing straight from the root, as in the primrose, snow-drop, &c.

Scape'-gallows, (*-găl'luz,*) *n.* One who has narrowly escaped death on the gallows.

Scape'goat, *n.* [*escape* and *goat*.] (*Jewish Antiq.*) A goat which was brought to the door of the Jewish tabernacle, where the high-priest laid his hands upon him, confessing the sins of the people, and putting them on the head of the goat, after which the goat was sent away and let loose in the wilderness, bearing the iniquities of the people.—Hence, one who is made to suffer or bear the penalty of another's crime or wrong-doing.

Scape'grace, *n.* A graceless, reckless, harum-scarum fellow; a spendthrift; a rake.

Scape'-wheel, *n.* (*Horol.*) The wheel in the escapement of a watch or clock, which drives the balance or pendulum.

Scaphite, (*skăf-īt,*) *n.* [From Gr. *skaphē*, a boat.] (*Pal.*) A genus of elliptical-chambered shells, belonging to the *Ammonitidæ*. They resemble the ancient form of a boat, and are almost peculiar to the chalk formation.

Scaph'oid, *a.* [From Gr. *skaphē*, and *eidos*, form.] (*Anat.*) A name given to some small bones and cavities of bones (Fig. 1044), from their fancied resemblance to a little boat. Sometimes called *navicular*.

Sca'piform, *a.* [Lat. *scapus*, scape, and *forma*, form.] (*Bot.*) Having the form of a scape or flower-stem.

Scap'olite, *n.* [Fr., from Gr. *skapos*, a staff, and *lithos*, stone.] (*Min.*) A silicate of alumina and lime, originally from Arendal in Norway, the crystals of which are often collected in groups of parallel diverging, or intermingled prisms (whence its name). It is generally of a pale color; either white or gray, yellowish, blue, green, or red, and transparent or translucent.

Scap'ple, *v. a.* (*Masonry.*) To reduce a stone to a straight surface without working it smooth.

Scap'poose, in *Oregon*, a precinct of Columbia co.; *pop.* abt. 200.

Scap'ula, *n.* [Lat., the shoulder-blade.] (*Anat.*) The name given to that flat, triangular bone passing from the shoulder-joint in a direction towards the vertebral col-

umn, and extending, when the arms hang loosely, from the first to about the seventh rib. It presents various irregularities, and is so thin in some places as to be transparent. The outer surface is slightly convex, and divided into two unequal parts by a very prominent ridge or plate of bone, termed the "spine." The use of this bone is to afford a movable fulcrum for the motions of the arm, as well as an extensive surface for the attachment of the muscles which effect the movement.

Scap'ular, *a.* [Lat. *scapularis*, from *scapulæ*=Sansk. *skandha*, the shoulder-blade.] Pertaining to the shoulder, or to the shoulder-blade; as, the *scapular* arteries.

—*n.* [Fr. *scapulaire.*] (*Zoöl.*) A feather which takes its origin in the shoulders of a bird, and covers the sides of the back:—otherwise termed *scapular feather.*

Scap'ular, Scap'ulary, *n.* [Fr. *scapulaire*, from Lat. *scapulæ*, the shoulders.] (*Eccl.*) A portion of the dress of the monastic orders in the Roman Catholic Church, consisting of two bands of woollen stuff, of which the one crosses the back or shoulders, and the other the stomach. The scapulary of lay persons consists of two little pieces of stuff, on which the name of the Virgin is embroidered.

(*Surg.*) A broad bandage divided into two tails for three-quarters of its length.

Sca'pus, *n.* [Lat.] (*Arch.*) Same as SCAPE, *q. v.*

(*Zoöl.*) The stem or trunk of a feather, including the hollow base or quill (*calamus*), which is inserted into the skin, and the solid exerted stem supporting the barbs (*rachis*).

(*Bot.*) A scape. See SCAPE.

Scar, *n.* [A. S. *scrun.*] A mark in the skin or flesh of an animal made by a wound or an ulcer, and remaining after the wound or ulcer is healed; any mark denoting previous injury; a cicatrix; a blemish. — A precipitous bluff;—also written *scaur.*

(*Bot.*) A mark left upon a stem or branch by the fall of a leaf, leaflet, frond, &c., or upon a seed by the severance of its stem.

(*Zoöl.*) See SCARUS.

—*v. a.* (*imp.* and *pp.* SCARRED,) (*skärd.*) To mark or cicatrize with a scar, or scars; as, "I'll not *scar* that white skin of hers."—*Shaks.*

—*v. n.* To form a scar; to be covered with a scar; as, the ulcer *scars* over.

Scar, a mountain of Ireland, prov. of Leinster, co. of Wicklow, 2,105 feet high.

Scarabæidæ, (*skar-a-be'e-de,*) *n.* (*Zoöl.*) The Scarabees, a large family of *Coleoptera*, embracing beetles which, though differing in many respects, agree in having the antennæ ending in a knob composed of three or more leaf-like pieces; a projecting plate or clypeus, which extends forwards over the face like a visor; a short, broad, thick, and convex form; legs fitted for digging, being toothed on their outer edges; and feet five-jointed. Some live mainly upon or beneath the surface of the earth, and are hence called *Ground-beetles;* others in the winged state are found upon trees, the leaves of which they devour, and are called *Tree-beetles;* and others, which in the perfect state feed upon the juices of flowers, are called *Flower-beetles.* This group has been much divided, thus appearing in some works as many distinct families. The Goliath (Fig. 1178), and the Inca (Fig. 1371), are among the most splendid species of *S.*, but the type of the family is *Scarabæus*, or *Atenchus sacer* (Fig. 2315), the Sacred Beetle of the Egyptians. The use and meaning of the *scarabæus*, as a symbol, are, as yet, among the mysteries of the archæological science. It was habitually worn by the ancient Egyptians and Etrurians as an amulet. The ancient Egyptian scarabæus was plain, or inscribed with characters, and was made of opaque stone, basalt, or porphyry. The Etrurian scarabæus (found in quantities in the sepulchres) was of semi-transparent stone, cornelian, onyx, sardonyx, agate, or jasper.

Fig. 2315.—SCARABÆUS, (The Sacred Beetle of the Egyptians.)

Scara'bæus, *n.* [Lat.] (*Zoöl.*) The typical genus of the SCARABÆIDÆ, *q. v.*

Scara'bee, *n.* (*Zoöl.*) One of the Scarabæidæ, *q. v.*

Scaramouch, (*skăr'a-mowch,*) *n.* [Fr. *scaramouche;* It. *scaramuccio.*] A personage in the old Italian comedy, dressed in the Spanish or Hispaño-Neapolitan costume, and representing a military personage, a poltroon and braggadocio (a kind of *Captain Bobadil*), who always ended by receiving a beating from the hands of *Harlequin.*—Hence, a buffoon; a bombastic, pretentious character.

Scarba, (*skar'ba,*) a small island of the Hebrides, separated from the N. end of Jura by a narrow sound. *Ext.* 3 m. long, and 3 broad.

Scar'borough, Scar'bro', a seaport-town of England, co. of York, on a bay in the German Ocean, 35 m. N.E. of York, and 227 m. N. of London. Its harbor is extensive, safe, and of easy access. It is much frequented for sea-bathing, and for its mineral springs.

Scarborough, a seaport-town of the Island of Tobago, West Indies, 7 m. N.E. of Milford; Lat. 11° 6′ N., Lon. 60° 30′ W.

Scar'borough, in *Indiana*, a village of Pulaski co., 85 m. S.E. of Chicago.

Scarborough, in *Maine*, a post-village and township of Cumberland co., 60 m. S.W. of Augusta.

Scarce, (*skārs,*) *a.* (*comp.* SCARCER; *superl.* SCARCEST.) [It. *scarse*, rare, scarce.] Being in small quantity in proportion to the demand; not plentiful or abundant; being few in number and scattered; deficient; wanting; rare; infrequent; uncommon; as, money is *scarce*, contentment *scarcer*, happiness *scarcest.*

Scarce, Scarce'ly, *adv.* Hardly; barely; scantly; but just; with difficulty; as, I *scarcely* knew her again, he has *scarce* an enemy in the world.

Scarce'ment, *n.* (*Arch.*) A plain, flat set-off in a wall.

Scarce'ness, Scarcity, (*skār'si-ty,*) *n.* State of being scarce; smallness in quantity, or smallness in proportion to the wants or demands; defect of plenty; a deficiency; dearth; as, a *scarcity* of corn.

"Let the *scarceness* recommend the fare."—*Addison.*

—State of being rare or infrequent; as, the value of an advantage is enhanced by its *scarceness.*

Root of scarcity. (*Bot.*) The Mangel-wurzel. See BETA.

Scare, (*skār,*) *v. a.* [Icel. *skiarr*, apt to flee.] To strike with sudden fright or terror; to frighten; to terrify; to alarm; as, to *scare* a hare from its form.

To scare away, to drive away by frightening; as, they have *scared away* two of my best sheep.

Scare'crow, *n.* Originally, any frightful effigy or thing set up to scare crows, or other birds, from grain-fields;—hence, anything terrifying without danger; a bugbear; any vain object to inspire a momentary feeling of terror.

Scarf, *n.*; *pl.* SCARVES, or SCARFS. [A. S. *scearf*, a fragment; Ger. *scherf*, from *scheren*, to shear, to cut.] A piece of dress that hangs loose from the shoulders; a light, loose vesture worn about the neck and shoulders.

—*v. a.* To throw loosely on, like a scarf.—To cover with a loose vesture; to dress, as with a scarf.

Scarf, *v. a.* [Dan. *skarre*, to joint, to unite timber.] To lap the ends of a plank or piece of timber one over the other, in order to appear like one solid piece, as keelsons, clamps, &c.

—*n.* (*Carp.*) The part cut away from each of two pieces of timber to be joined longitudinally, so that the corresponding ends may fit together in an even joint.—The joint formed by scarfing.

Scarf'ing, *n.* (*Carp.*) The formation of a beam out of two pieces of timber; usually employed when it cannot be conveniently obtained in one length. It is usually performed by cutting the ends obliquely, indenting the faces where they are joined to each other, and bolting them through the tapering ends when brought together.

Scarf'skin, *n.* (*Anat.*) The cuticle or epidermis. See SKIN.

Scarification, (*ska're-fe-kai-shun,*) *n.* [Lat. *scarificatio.*] (*Surg.*) The operation of making small cuts or punctures in the skin by means of lancets or other cutting instruments, particularly the cupping instrument, or *scarificator*, consisting of ten or twelve lancets, which are discharged through apertures in its plane surface by pulling a kind of trigger, so that in passing they make a number of incisions in the part to which the instrument is applied.

Scarifica'tor, *n.* (*Surg.*) See SCARIFICATION.

Scarifi'er, *n.* One who, or that which, scarifies.

(*Agric.*) An implement used for stirring and loosening the soil, without bringing up a fresh surface. Under the same head may be included the *grubber*, the *cultivator*, and the *scuffler*, all of which act on the combined principles of the plough and harrow at the same time. Some of these implements have wheels, by the raising or lowering of which the tines or prongs may be made to sink more or less into the earth.

Scari'fy, *v. a.* (*imp.* and *pp.* SCARIFIED.) [Lat. *scarifico.*] To scratch or cut, as the skin, with a sharp-pointed instrument; or to make small incisions in by means of a lancet or cupping instrument, so as to draw blood from the smaller vessels without opening a large vein.—To stir or loosen the upper soil of; as, to *scarify* a piece of ploughed land.

Sca'riose, Sca'rious, *a.* [Fr. *scarieux.*] (*Bot.*) Tough, thin, dry, and membraneous.

Scar'latina, *n.* [Lat.] (*Med.*) Same as SCARLET FEVER, *q. v.*

Scarlati'nous, *a.* Of a scarlet color;—hence, pertaining, or relating, to the scarlet fever.

Scarlat'ti, ALESSANDRO, an Italian composer, B. at Naples, 1650, who was the founder of the Neapolitan school of music. He is said to have written 200 masses, 100 operas, and 3,000 cantatas. His writings, although they produced a revolution in the style of operatic music, are almost all completely forgotten. D. in Sweden, 1735.

Scar'less, *a.* Without scars; unmarked by cicatrices.

Scar'let, *n.* [Ger. *scharlach;* It. *scarlatto;* Fr. *écarlate.*] A beautiful bright-red color, lighter than crimson; an orange-red color, of various tints and shades; vermilion.—Cochineal furnishes a fine scarlet color, which is still largely employed in dyeing. Scheffer, who produced the best formula for dyeing this color, gives the proportions as follows: Starch, 9 lbs.; cream of tartar, 9 lbs. 6 oz.; solution of tin, 9 lbs. 6 oz.; and cochineal, 12 lbs. 4 oz. These are the quantities required for 100 lbs. of wool or cloth. See ROSANILINE.

—Cloth of a scarlet color.—*Shaks.*

—*a.* Of the color called *scarlet;* of a light orange-red hue; as, a *scarlet* coat, a *scarlet* lip, she blushed *scarlet*, &c.

Scarlet'-bean, SCARLET-RUNNER, *n.* (*Bot.*) The *Phaseolus multiflorus*, extensively cultivated in England as an esculent. See BEAN.

Scar'let Fever, or SCARLATINA, *n.* (*Med.*) A contagious febrile disease, almost always attended during a part of its course by a rash and by sore throat. Sometimes only one of these features is well marked, sometimes both. Though persons of all ages are susceptible of it, it is eminently a disease of children. Like small-pox or measles, it rarely attacks a person more than once. It usually comes on with shiverings and a feeling of lassitude, followed by more or less of fever, restlessness, loss of appetite, headache, nausea, and occasionally vomiting. Then, generally on the second day, the eruption begins to come out, though in some of the worst forms it may be deferred to the fourth. In the most regular and favorable cases, the eruption stands out for three or four days, and then begins to fade and decline, becoming, by degrees, indistinct, and disappearing altogether in the majority of instances before the end of the seventh day. The tongue is often covered at the outset with a thick white cream-colored fur, which gradually cleans away, and the surface becomes preternaturally red and raw-looking. There is a sensation of stiffness and pain on moving the neck, with pain on swallowing; the voice is thick, and the throat feels rough and straitened. Physicians distinguish three different varieties of *S. f.*; viz., *S. simplex*, in which there is a florid rash and little or no affection of the throat; *S. anginosa*, in which both the skin and the throat are decidedly implicated; and *S. maligna*, in which the stress of the disease falls upon the throat. In malignant cases the eruption, if it appear at all, is livid and partial, fades early, and is attended with a feeble pulse, a cold skin, and extreme prostration of strength. Sometimes the patient sinks at once, and irretrievably, under the virulence of the poison, and life is extinguished in a few hours. The chance of recovery is much greater in anginosa, when the eruption is florid and stands out well; but even here there are various ways in which it may prove fatal. The state of the throat is full of peril, becoming foul and sloughy, and many cases prove fatal in the second week of the disorder. *S. simplex* is a very mild form of the disease, and deviates only slightly from a state of health. *S.* is also dangerous from its tendency to give rise to other complaints, as boils or strumous ulcers, various forms of scrofula, dropsy, &c. In treating the simplest form of scarlet fever, little else is required than confinement to the house, regulation of the bowels, and the avoidance of all stimulating substances in the matter of diet. In anginosa, frequently, all that is necessary is to keep the bowels open by moderate laxatives, and watch the progress of the complaint. If the heat of the surface is great and distressing, cold or tepid sponging may be adopted, and if the pulse is hard and strong, some leeches may be applied behind the ear. If delirium come on, the scalp may require to be shaved, and cold water applied to it; and if the fever and delirium are violent, blood may have to be taken cautiously from the arm. In the worst form of this disease, all efforts to save the patient will often be unavailing. When the system seems to be overwhelmed with the strength of the poison, a liberal administration of wine and bark will be required to sustain the flagging powers until the deadly agency has in some measure passed away. As gargles for the throat, a weak solution of chloride of soda or of nitrate of silver is very useful. A solution of chlorate of potash in water (a drachm to a pint) is recommended as a drink in this disease. The bowels also require to be carefully watched; and great care is necessary to avoid cold during the period of convalescence.

Scar'let Maple, *n.* (*Bot.*) The red maple. See ACER.

Scar'let Lake, *n.* (*Paint.*) A pigment prepared in the form of cochineal; it is of a beautiful transparent red color, and excellent body, working well both in water and oil, though, like other lakes, it dries slowly. Strong light discolors and destroys it, both in water and oil; its tints with white-lead, and its combinations with other pigments, are not permanent, yet when well prepared and judiciously used in sufficient body, and kept from strong light, it has been known to last many years; but it ought never to be employed in glazing, nor at all in performances that aim at high reputation and durability.

Scar'let Oak, *n.* (*Bot.*) A species of *Quercus* (*Q. coccinea*). It is a large tree, 80 feet in height, with a diameter of 3 or 4. Leaves of a bright, shining green, with about 4 deep sinuses, remarkably rounded and broad at the base. By the frosts of autumn they are changed to *scarlet*, unlike those of the red oak, which become dull-red or brown. The wood is little valued for timber or fuel. It is most abundant in the Middle and Southern States, but is often met with in the more S. parts of New England.

Scarp, *n.* See ESCARP.

—*v. a.* (*imp.* and *pp.* SCARPED,) (*skărpt.*) To cut down, so as to make almost perpendicular; as, a *scarped* rock.

Scar'pa, ANTONIO, a distinguished Italian anatomist, physiologist, and physician, B. in the prov. of Friuli, 1748. He was professor of anatomy at Paris. Surgical anatomy owes its first development to the labors of this exact and patient observer. D. 1832.

Scar'ron, a French poet, B. at Paris, 1610, is famous for his humor and pleasantry of manners, deformity of body, and vigor of mind, and as the husband of Françoise d'Aubigné, who, after his death, became famous as Madame de Maintenon, *q. v.* D. 1660.

Scar'ry, *a.* Covered with scars.

Scars'dale, in *New York*, a post-village and township of Westchester county, 22 miles north north-east of New York.

Sca'rus, *n.*; *pl.* SCARI. [Lat.] (*Zoöl.*) A genus of acanthopterygious fishes, known also as Spar- and Parrot-fish.

They are chiefly found in tropical seas, and are remarkable for their brilliant colors.

Scat, *interj.* Begone; off; away;—an expression used in driving awny a cat.

Scat'ary, in British N. America, an island E. of Cape Breton Island, 6 m. long and 2 broad; Lat. 43° N., Lon. 59° 41′ W.

Scatch'es, *n. pl.* [O. Fr. *escaches.*] A kind of stilts to fit to the feet, used in walking across miry places.

Scath, Scathe, (*skāth,*) *v. a.* (*imp.* and *pp.* SCATHED,) (*skāthd.*) [A. S. *scethan;* Ger. *schaden;* Icel. *skédia;* allied to Gr. *askēthes,* scatheless.] To injure; to harm; to damage, to waste; to destroy.

Scath'ful, *a.* Harmful; wasteful; detrimental; destructive.

Scath'fulness, *n.* Harmfulness; destructiveness.

Scath'less, Scathe'less, *a.* Without injury, waste, or damage.

Scat'ter, *v. a.* [A. S. *scateran,* from *sceadan.*] To strew; to throw loosely about here and there; to sprinkle; to spread or set thinly.—To separate or remove, as things to a distnnce from each other; to disperse; to dissipate; to reduce from serried or compact to loose or broken order; as, to *scatter* an enemy's ranks.—Hence, to frustrate; to subvert; to overthrow; as, his hopes were *scattered* beyond redemption.

—*v. n.* To he dispersed or dissipated; as, sound *scatters* in the open air.

Scat'ter-brain, Scat'ter-brains, *n.* A giddy or volatile person; ono who is incapable of concentratiug the thoughts or attention; an addle-pate.

Scat'ter-brained, *a.* Giddy; thougbtless; volatile; addle-pated.

Scattered, (*skāt'terd,*) *p. a.* Dissipated; dispersed; sprinkled or thinly spread over; as *scattered* raisins in a pudding, troops *scattered* in a rout, *scattered* clouds, &c.

(*Bot.*) Without any appareut regular order or position; as, *scattered* branches.

Scat'teredly, *adv.* In a scattered manner; dispersedly; separately.

Scat'tering, *p. a.* Divided among many; not uniform.

—*n.* Something scattered.

Scat'teringly, *adv.* In a scattered or dispersed manner.

Scaup, *n.* Broken shell-fish.

(*Zoöl.*) The Scaup-duck. See FALIX.

Scaup'er, *n.* A tool having a semi-circular face, used by engravers to clear awny the spaces between the lines of nn engraving, in the manner of a chisel.

Scaur, *n.* A precipitous rock or cliff. See SCAR.

Scavenge, (*scăv'enj,*) *v. a.* To cleanse from filth, impurities, &c.

Scav'enger, *n.* [A. S. *scafan,* to shave, to make smooth; Ger. *schaben.*] A person whose employment is to scrapo or cleanse tho streets of a city, &c., and carry away the filth.

Scavenger's daughter. (A corruption of *Skeffington's daughter.*) An instrument of torture, invented by Sir W. *Skeffington,* which so compressed the body as to start the blood from the nostrils, and sometimes also from beneath the nails of tho hnnds and feet.

Sceleral, (*sĕl'er-al,*) *n.* [Fr.] A villain; a criminal; a ruffian. (n.)

Scelidothere, (*sĕl'i-do-thēr,*) *n.* [Gr. *skelidos,* leg, and *thērion,* beast.] (*Pal.*) A fossil quadruped of the genus *Scelidotherium,* related to the Sloth, of which several S. American species are known.

Scena, (*shā'nah,*) *n.* [It.] A scene, or tableau, of an opera.

Scene, (*seen,*) *n.* [Fr. *scéne;* Lat. *scena;* Gr. *skēnē,* a covered place; probably from Gr. *skia,* a shadow, a shade, the word being first applied to the shaded part of a theatre.] A stage; the theatre, or place where dramatic pieces and other shows are exhibited.

—The entire decorations, appointments, and fittings incidental to the representatiou of theatrical action; the curtain or hanging of a theatre adapted to the play in course of performance; as, to paint or shift the *scenes,* to go behind the *scenes.*—The whole series of actions and events connected and dramatically exhibited;—hence, a part of a play; a sub-division of an act; so much of an act of a play as represents the same persons in the same place; as, an act of three *scenes,* the balcony *scene* in "Romeo and Juliet," &c.—The imaginary place in which the action of a play is supposed to occur, or where the place, time, circumstances, &c., bearing on the plot and incidence of a play, story, poem, &c.; surroundings setting of a subject brought to the imagination.

"The *scene* is now transported to Southampton." — *Shaks.*

—General aspect or appearance of any object; the whole contexture of a series of objects; a sequence of actions or events presented in connection; display; show; spectacle; exhibition; tableau.

"A mute *scene* of sorrow mixt with fear." — *Dryden.*

—An exhibition of strong feeling between two or more persons, usually of a pathetic, passionate, or tempestuous kind; sometimes, a tableau performed for artificial effect; a theatrical display;—also, occasionally, a domestic broil or contretemps; as, meeting him in another lady's company his wife caused a *scene.*

Scene'ful, *a.* Presenting much of scenery or imagery.

Scene'-man, *n.*; *pl.* SCENE-MEN. One who manages the movable scenes in a theatre; a scene-shifter.

Scene'-painter, *n.* One whose avocation is to paint scenes for theatres.

Scene'-paint'ing, *n.* A department of the art of painting, governed by the laws of perspective, applied to the peculiar exigencies of a theatre. It is conducted chiefly in distemper or water colors, and admits of the most striking effects, which indeed, in scene-painting, is almost all that is required.

Scenery, (*seen'-,*) *n.* Scenes in general; the appearance of a place, or of the various objects presented to view; or, the various objects themselves, as seen together; the representation of a place in which an action, or series of actions, is performed.—Combination of natural views or scenes; general aspect as regards variety and beauty, or the reverse, in a landscape; as, go to Switzerland for fine *scenery.*

Scene'-shifter, *n.* A scene-man in a theatre.

Scen'ic, Scen'ical, *a.* [Fr. *scénique.*] Pertaining, or relating, to scenery; theatrical; as, *scenic* effect.

Scenograph'ic, Scenograph'ical, *a.* Pertaining, or having reference, to scenography; drawn in perspective.

Scenograph'ically, *adv.* Perspectively.

Scenography, (*sē-nog'ra-fy,*) *n.* [Gr. *skenographia*—*skēnē,* a scene, and *graphō,* to delineate.] In perspective, the representation of a body on a perspective plane, or a description thereof in all its dimensions, such as it appears to the eye.

Scent, (*sĕnt,*) *v. a.* [Fr. *sentir,* from Lat. *sentio.*] To discern or perceive by the sense of smell; to smell; as, a hound *scents* game.—To perfume; to imbue or fill with odor or aroma, good or bad; as, to *scent* a handkerchief.

—*v. a.* To hunt animals by their scent.

—*n.* [Fr. *senteur.*] That which affects the olfactory organs, and causes the sensation of smell; odor; aroma; perfume; fragrance; smell; as, the *scent* of heliotrope.—Sense of smell; power of smelling; as, a hound of fine *scent.*—Chase followed by the scent; track; course of pursuit; as, detectives are on the *scent* after him.

Scentful, (*sĕnt'-,*) *a.* Odorous; imparting scent or odor; as, *scentful* grasses.—Of quick or acute olfactory powers; as, a *scentful* coyote.

Scent'less, *a.* Inodorous; lacking scent or aroma; destitute of smell; as, a *scentless* flower.

Scepaceæ, (*ske-pā'se-e,*) *n.* (*Bot.*) Tho *Scepa* fam., a small order of plants, alliance *Euphorbiales,* only distinguished from *Euphorbiaceæ* by its flowers being amentaceous. There are but 3 genera and 6 species, all native of India. The wood of *Lepidostachys Roxburghii* is called *cocus,* or *kokra,* and being very hard, is employed for flutes and similar musical instruments.

Sceptic, (*skĕp'tik,*) *n.* [Fr. *sceptique;* Gr. *skeptikos,* from *skeptomai,* to look carefully into, to examine, to consider.] An inquirer after facts or reasons; one who has yet undecided as to what is true; one who searches and never finds.

(*Metaph.*) One who doubts the truth and reality of any principle; a Pyrrhonist;—hence, among the moderns, sometimes one who doubts whether any truth, fact, or ruling principle can be established on a philosophical basis; or, a critical inquirer or analyst, as distinguished from a *dogmatist.*

(*Theol.*) A person who doubts the existence of God, or the truth of revelation; one who holds unbelief of the divine original of Christianity.

Scep'tic, Scep'tical, *a.* Doubting; hesitating to admit the certainty of doctrines or principles; believing in nothing, or doubting of everything.—Doubting or denying the truth of revelation.

Scep'tically, *adv.* In a sceptical or doubting manner.

Scep'ticalness, *n.* State or quality of being sceptical.

Scepticism, (*skĕp'te-sizm,*) *n.* [Gr. *skepsis,* doubt.] (*Metaph.*) That negative system of philosophy which, by doubting of everything beyond the region of phenomena, doubts the possibility of all speculation; or, according to Sextus Empiricus, "the power of opposing in all their contradiction, the sensuous representations and the conceptions of the mind, and thus to induce perfect suspension of judgment." The sceptic, in general, accepts of the phenomena of nature as he finds them, and, convinced of the impossibility of diving beneath the appearances to the real causes of things, contents himself with a spirit of doubt and indifference. The ten topics of argument used in the schools of the sceptics were:—1. That on account of the variety that exists in the organism of different animal bodies, it is probable that the same external object presents different images to different animals, and man has no reason for asserting that his perceptions are more conformable to the real nature of things than those of inferior animals.—2. That even among men there is a great diversity both of mind and body, which necessarily occasions a great variety of opinions, every one judging according to his particular apprehension, while no one is able to determine the real nature of things.—3. That the different senses give different reports of the same thing; and hence bodies may have different properties from those which the senses lead us to suppose.—4. That the same thing appears differently according to the different disposition or circumstances of the person who perceives it; whence it is impossible for any one man to pronounce that his judgment concerning any object is agreeable to nature.—5. That things assume a different aspect according to their distance, position, or place, and no reason can be assigned why one of these aspects should agree with the real object rather than the rest.—6. That no object offers itself to the senses which is not so connected and mixed with others that it cannot be distinctly separated and examined.—7. That objects of sense appear exceedingly different when viewed in a compound and in a decomposed state, and that it is impossible to say which appearance most truly expresses their real nature.—8. That every object being always viewed in its relation to others, it is impossible to determine what is simply in its own nature.—9. That our judgment is liable to uncertainty from the circumstances of frequent or rare occurrence, that which happens every day appearing in a very different light from that in which the same thing would appear if new.—10. That mankind are continually led into different conceptions concerning the same thing through the influence of custom, law, fabulous tales, and established opinions. On all these grounds they held that every human judgment is liable to uncertainty, and that we can only say concerning anything that it *seems* to be, not that *it is* what it seems. They likewise maintained that every proposition requires some previous proposition to support it, *in infinitum,* or supposes some axiom which cannot be proved, and is therefore taken for granted without demonstration; that in argument, the point assumed and that which is to be proved may often be alternately used in each other's place, both being equally uncertain; and lastly, that nothing can be understood by itself, as appears from the endless disputes of philosophers concerning the nature of things, nor by means of something else while itself remains unknown. This perpetual uncertainty and indecision on every point, this entire abnegation of man's proudest faculty—reason—is contrary to tho manifest purposes which man has to serve upon earth, and but little accords with the prodigious activity and creative power of the mind. The most celebrated thinkers, if we may so call them, of this class in ancient times, were Pyrrho, Timon, Ænesidemus, and Sextus Empiricus; in modern times, David Hume. The *S.* of Hume was, beyond all doubt, the most thorough and wide-reaching that philosophy has yet witnessed. He starts with the popular theory of experience, and proceeds with surprising coolness to hew down every intellectual principle for which his theory was incapable of accounting. In open argument, in candid statement, and in solid attack, tho Scottish aceptic is greatly in advance of his Greek predecessors. The *S.* of Hume called forth a host of assailants, and has more or less influenced philosophical thought and opinion since that time, more particularly in the cases of Reid, Stewart, and Hamilton in Scotland; of Jonffroy and Cousin in France; and of Kant, Fichte, Hegel, and Schelling in Germany.

Sceptre, (*sĕp'tĕr.*) *n.* [Fr.; Lnt. *sceptrum;* Gr. *skēptron,* a staff, as the badge of command, borne by kings and chiefs, and transmitted from father to son.] A staff, baton, or mace borne by monarchs on solemn or state occasions as a badge of authority or emblem of sovereignty; the appropriate ensign of royalty, of higher antiquity than the crown.—Hence, sovereign or regal power or authority; as, to invest a monarch with the *sceptre.*

—*v. a.* To invest with regal authority, or with a sceptre, as the ensign of sovereign sway; as, a *sceptred* monarch.

Scep'treless, *a.* Without a sceptre;—hence, destitute of royal power.

Schæsburg, Schassburg, (*shass'boorg.*) a town of Austria, in Transylvania, near the Great Kockel, 120 m. from Temesvar; *pop.* 8,000.

Schaffhausen, (*shăf-how'zn.*) the most N. canton of Switzerland, between Lat. 47° 40′ and 47° 50′ N., Lon. 8° 25′ and 8° 55′ E., separated by the Rhine on the S., from the cantons of Zurich and Thurgan, and surrounded on the other sides by the Grand-Duchy of Baden; *area,* 116 sq. m. The surface is undulating, and the soil fertile. *Prod.* The usual cerealia, fruits, and wine. *Manuf.* Cotton and hardware. *Cap.* Schaffhausen. *Pop.* (1897) 38,940.

SCHAFFHAUSEN, cap. of the above canton, on the Rhine, 25 m. N.W. of Constance, and 23 miles from Zurich. It is a place of antiquity, and has a large parish church, an academy, town library, town-hall, and market-house.—*Manuf.* Cotton, silk, and leather, and it exports the wine raised in the neighborhood. A wooden bridge, of very ingenious construction, is here thrown across the Rhine, and forms a channel of communication between this town and the rest of Switzerland. *Pop.* 9,000.—The FALLS OF SCHAFFHAUSEN is a cataract of the Rhine, 8 miles from the town, and has a descent of about 100 feet. It is one of the most striking waterfalls in Europe.

Fig. 2316. — SCHAFFHAUSEN.

Schaghticoke, (*shat-e-kook',*) in *New York,* a post-village and township of Rensselaer co., 21 m. N.E. of Albany.

Schamyl, (*sha'mil,*) the prophet and supreme military chieftain of the Circassians, A. 1797, at the Aoul of Himri, in the north of the Caucasian district of Daghestan. From his earliest years he was ambitious and eager to compete in athletic sports and trials of skill, and his character seems to have been formed from the instructions he received from a teacher named Dschellal-Edin, who taught him the doctrine of Sufeyism, which, dissatisfied with the barren letter of the Koran, appeals to human consciousness, and seeks to inculcate nobler hopes than a gross Mohammedan paradise can offer. When *S.*, in 1824, first took part in his country's

Friedrich von Schiller

1759–1805

defence, the leader of the warlike Lesghians was Kasi Mollah. From that time till his capture, in 1859, *S.* became the most troublesome enemy whom the Russians had to encounter in their constant irruptions into Circassia, and the exploits attributed to him would fill a volume. In 1831, in a battle with the Russians, the Murids, under Kasi Mollah, were slain almost to a man, and *S.*, pierced by a ball, lay at his leader's feet; but he escaped in time to present himself at the first meeting of the discomfitted tribes held after the battle. In 1836, when his leader fell, the victim of a conspiracy, *S.* was chosen chief. Year after year he baffled the efforts of the Russians, who sent large forces against him, and it was not till after the Crimean War that they were able to break down the power of the Circassians. In 1857–58 they won several important victories over the mountaineers, and made themselves masters of the defile which cut off communications between Vedeni, the residence of *S.*, and the pasture grounds of the Tchetchenia. *S.*, with his son, was captured Sept. 7, 1859, by the Russians, who treated their prisoners with great respect. He resided in Moscow, and had an establishment befitting his former station and character. *S.* and his sons took the oath of fidelity to the Emperor of Russia in 1866. Died in 1871.

Schap'ziger, *n.* A kind of cheese made in Switzerland, to which the common flavor of *Melilotus cæruleus* is communicated.

Schatul'ga, in *Georgia*, a village of Muscogee co., 10 m. E. of Columbus.

Schaum'burg-Lippe, (PRINCIPALITY OF,) one of the minor states of N. Germany, between Lat. 52° 10′ and 52° 30′ N., Lon. 9° E., bounded by Hesse-Schaumburg, Hanover, and the Prussian Westphalia; *area*, 212 sq. m. *Cap.* Bückeburg.

Schediasm, (*skē'dī-ăzm,*) *n.* [Gr. *schediasma*, an extempore speech or action.] Desultory writing on a loose sheet of paper or vellum. (R.)

Schedule, (*skĕd'yūl, shĕd'yūl,* or *sĕd'yūl,*) *n.* [Lat. *schedula*, dimin. of *scheda*, a strip of papyrus bark, from *scindo*, to cut.] A small scroll, or piece of paper or parchment, containing some writing; a piece of paper or parchment annexed to a larger writing, as to a will, a deed, a lease, &c.; a piece of paper or parchment containing an inventory of goods; a debtor's list of liabilities.

Scheele, (*shēēl,*) KARL WILHELM, an illustrious Swedish chemist, B. at Stralsund, 1742, was educated at a private academy in his native town, and afterwards at a public school, and then served his apprenticeship as an apothecary at Gotheborg. He subsequently acted as assistant to apothecaries at Malmo, Stockholm, and Upsala. There his genius attracted the attention of the professors at this celebrated university, who encouraged him in his pursuits; but it is remarkable that the Swedish government, although aware of his talents, allowed perhaps the ablest man which that country has produced, ultimately to end his days as an humble apothecary in a village on the banks of Lake Moeler. To him we owe the discovery of fluorine, chlorine, and of molybdic, tungstic, arsenic, lactic, gallic, tartaric, oxalic, citric, malic, purpuric, and saclactic acids, glycerine, and oxygen. He ascertained the nature and the constituents of ammonia and prussic acid, the characters of barytes and manganese, and the elements of the atmosphere. Few men of his century, with the exception of Priestly, can be compared with him as a discoverer. D. 1786.

Scheele's-green, *n.* (*Paint.*) The delicate and beautiful green color known under this name is composed entirely of arsenite of copper. Its manufacture and use are so dangerous to health, that they are forbidden in France, and should be so in other countries.

Scheele'tine, *n.* [After the chemist *Scheele*, q. v.] (*Min.*) A native tungstate of lime composed (when pure) of 51·7 per cent. of tungstic acid, and 48·3 lead. It occurs in faintly translucent four-sided prisms, which are colorless, or of a yellowish-gray, brownish, or green color.

Scheel'ite, *n.* [After *Scheele*, q. v.] (*Min.*) A tungstate of lime.

Scheerer'ite, *n.* [From *Scheerer*, the discoverer.] (*Min.*) A mineral resin found in loosely aggregated, feebly shining, crystalline grains and folia, or in minute acicular crystals, with a yellowish or greenish tinge, in small cavities in brown coal at Utznach in Switzerland, and in Denmark in peat-mosses.

Scheffer, ARY, (*shef'fer.*) a French historical painter, B. in Dordrecht, Holland, 1794, who, after studying in Holland, went to Paris, where he finished his artistic education under Baron Guerin. In 1812 he exhibited his first picture at the Paris Exhibition, and from that time rose rapidly to the highest position, both as an historical and *genre* painter. His manner partook of the lofty and devotional character of the modern German school, combined with a certain Gallic style of color and effect. As a portrait-painter he was likewise eminently successful, his best works in this line of art being the portraits of Charles Dickens, Talleyrand, Lamartine, &c. Many of his finest productions have been made familiar in this country, through the medium of the engraver's art; as, for example, the reproductions of his *Faust; Mignon; Francesca da Rimini and her Lover Meeting Dante and Virgil in Hell;* and Byron's *Giaour*. Some critics have desired more color, movement, and vigor in his paintings; but, as a distinguished French writer observes, "the materialist brilliancy of color would add too much of the substantial to the charming effects of his brush, which he himself chose rather to give just so much of life as was necessary to the expression of the finest shade of sentiment." D. 1858.

Scheik, *n.* Another orthography of SHEIK, *q. v.*

Scheldt, (*shelt,*) a river of France and Belgium, rising in the dept. of Aisne, near St. Quentin, and, after a N.N.E. course to Antwerp, dividing into two branches, the E. and W. Scheldt, which flow into the German Ocean. *Length*, 200 m.

Schelestadt, (*shel'stat,*) a fortified town of France, dept. of Bas-Rhin, on the Ill, a tributary of the Rhine, 26 m. S.S.W. of Strasburg. *Manuf.* Cotton and linen fabrics, ironware, &c. *Pop.* 9,500.

Schel'ling, FRIEDRICH WILHELM JOSEPH VON, the last survivor of that famous band of German philosophers of which Kant, Jacobi, Herbart, Fichte, and Hegel are the other chiefs, B. 1775, at Leonberg, in Würtemberg. He studied first at Tübingen, where he and Hegel became intimate friends, thence he went to Leipzig and Jena. At Jena he studied under Fichte, whom he succeeded in the chair of philosophy at that university in 1798. In 1803, he was transferred to Wurzburg; and, in 1807, to Munich, where he remained till 1841, when he accepted a chair at Berlin. This chair he soon relinquished, and the last years of his life were spent in comparative seclusion. By the nature of his speculations, developed in a number of fragmentary publications, chiefly in the earlier part of his life, *S.*'s place in the great series of German philosophers is determined to be between Fichte and Hegel, the former of whom D. in 1814, and the latter in 1831. *S.*'s metaphysical theory is generally known by the name of the *System of Identity*. It rests on the principle that the two elements of thought, the objects respectively of *understanding* and *reason*, called by the various terms of *matter* and *spirit*, *objective* and *subjective*, *real* and *ideal*, &c., are only relatively opposed to one another as different forms of the *absolute* or *infinite*, hence sometimes called the two *poles* of the absolute. D. 1854.

Schells'burgh, in *Pennsylvania*, a post-borough of Bedford co., 9 m. W. of Bedford.

Schematism, (*skē'ma-tizm,*) *n.* [Lat. *schematismus*, from Gr. *skematismos*, a dressing up.] A configuration in outline of any systematic arrangements; disposition of the form or figure of a thing. (R.)

Sche'matist, *n.* A schemer; a projector; a contriver; a promoter of plans or designs.

Sche'matize, *v. n.* [Fr. *schématiser.*] To form or promote a scheme, or schemes.

Scheme, (*skēm,*) *n.* [Lat. and Gr., from *echō*, to have, to hold, to retain; second sorist infin. *schein.*] A system; a plan; a combination of things connected and adjusted by design; as, an outward *scheme* of things. (*Locke.*) —A purpose or design; a plan; a project; a contrivance; a device; a plot; as, he formed a *scheme* to overthrow the government. —Any lineal or mathematical diagram; a plan or representation of any geometrical or astronomical figure; as, to draw a *scheme* of nativity.

—*v. a.* To plan; to contrive; to devise; to plot.

—*v. n.* To form or devise a plan, or plans; to contrive.

Scheme'ful, *a.* Fertile in schemes or plans.

Schemer, (*skēm'er,*) *n.* One who schemes; a contriver; a projector; a planner; also, an intriguer; as, an astute *schemer.*

Schem'ing, *p. a.* Giving to, contriving, or forming schemes; intriguing; artful; astute; as, a *scheming* intellect.

Schem'ingly, *adv.* By scheming, or contriving.

Schem'ist, *n.* A schemer; a schematist. (R.)

Schemnitz, (*shem-nitz',*) a mining town of Hungary, co. of Honth, on the Schemnitz, a tributary of the Gran, 46 m. N.E. of Gran. It contains the most extensive mines in Hungary, consisting of gold, silver, lead, iron, copper, zinc, and arsenic. *Pop.* 15,000.

Schenk-beer, (*shĕnk-,*) *n.* [Ger. *schenk-bier*, from *schenken*, to pour out.] A German beer of mild quality.

Schenectady (*skĕn-ek'tā-de*), in *New York*, an E. co.; *area*, 200 sq. m. *Rivers.* The Mohawk, and its tributaries. *Surface*, diversified; *soil*, fertile, especially along the Mohawk. *Cap.* Schenectady. *Pop.* (1897) 33,190.

—A flourishing city, cap. of the above co., on the Mohawk river, 16 m. N.W. of Albany; Lat. 42° 48′ N., Lon. 73° 53′ W. It is the seat of Union College, and has several churches, banks, newspapers, large machinery and locomotive works, foundries, cotton-mills, manufactories of shawls and agricultural implements, and an immense plant of the Edison Manuf. Co. *S.* was settled by the Dutch in 1661. In 1690 occurred the massacre by the French and Indians. *Pop.* (1897) 22,350.

Scherif, (*shĕr'if,*) *n.* [Ar., a prince, a noble, from *sharafa*, to be eminent or noble.] A title given in the East, by prescriptive usage, to those males who descend from Mohammed through his son-in-law and daughter, Ali and Fatima. Such persons also bear the title of *emir* and *seïd*, and have the privilege of wearing the green turban. The chiefs of Mecca and Medina, who are always supposed to belong to this sacred family, are styled the *scherifs* of those cities.

Schero'ma, *n.* [Gr. *skeros*, another form of *xeros*, dry.] (*Med.*) A dryness of the eye, arising from a deficiency in the secretion of the lachrymal glands.

Scherzando, Scherzo, (*skért-san'do, skért-so,*) *adv.* [It.] (*Mus.*) In an airy or sportive manner.

Scherzo, (*skért-so,*) *n.* (*Mus.*) A composition in an airy or playful style.

Schesis, (*skē'sis,*) *n.* [Gr.] (*Rhet.*) A figure of speech wherehy a certain affection or inclination of an adversary or opponent is feigned for the purpose of answering it.

Scheveningen, (*ska'ven-ing-hen.*) a town of the Netherlands, prov. of E. Holland, on the N. Sea, 2 m. N.W. of the Hague; *pop.* 5,000.

Schiedam, (*shke'dam,*) a town of the Netherlands, prov. of S. Holland, on the Schie, a tributary of the Meuse, 3 m. W. of Rotterdam, and 1 m. N. of the Meuse. *Manuf.* Principally gin. *Pop.* 15,500.

Schiller, (*shil'lr.*) JOHANN CHRISTOPH FRIEDRICH VON, one of the most illustrious of German poets, B. at Marbach, in Würtemberg, 1759. After having studied medicine, and become surgeon in a regiment, he, in his 22d year, wrote his tragedy of *The Robbers*, which at once raised him to the foremost rank among the dramatists of his country. It was performed at Mannheim, in 1782. But some passages of a revolutionary tendency having incurred the displeasure of the Duke of Würtemberg, *S.* left Stuttgard by stealth, and made his way to Mannheim, where, after various wanderings and many hardships, he got his tragedy of *Fiesco* brought out on the stage. The tragedies of *Cabal and Love*, and *Don Carlos*, were his next productions. In 1785 he repaired to Leipzig and Dresden, where he found many admirers. Here he wrote his singular romance called *Geisterscher*, and his *Philosophical Letters*, and collected materials for a *History of the Revolt of the Netherlands under Philip II.* In 1787 he repaired to Weimar, where he was welcomed with great warmth by Weiland and Herder, undertook the management of a periodical

Fig. 2317. — SCHILLER.

called the *German Mercury*, and not long afterwards made the acquaintance of Gœthe, which soon ripened into a friendship only dissolved by death. In 1789 he was appointed to the chair of history in the University of Jena, and besides lecturing to crowded audiences, he published his *History of the Thirty Years' War*, and engaged in various literary enterprises, which had great influence on the literature of Germany. *Die Horen*, and *Der Musen-Almanach*, to which the most eminent men in Germany contributed, belong to this period. He also produced the *Xenien*, a collection of epigrams, and wrote his *Ballads*, which are reckoned among the finest compositions of their kind in any language. About 1790 he exhibited a strong tendency to consumption, which, by precluding him from lecturing, greatly reduced his income; but he was relieved from the pressure of misfortune by the kindness of the Prince of Denmark, who settled upon him a pension of a thousand dollars for three years, and thus enabled him to pursue his studies, free at once from narrow circumstances and public duties. He soon after settled at Weimar, in order to direct the theatre in conjunction with Gœthe, in accordance with their mutual tastes and opinions; and here he at intervals published the works which, together with those above mentioned, have immortalized his name. Among these are *Wallenstein*, *Mary Stuart*, *Joan of Arc*, and *William Tell.* The best English biographies of *S.* are Carlyle's and Bulwer's. D. at Weimar, May 9, 1805.

Schil'ler-spar, *n.* (*Min.*) A hydrated silicate of magnesia, in which a large proportion of iron and manganese is replaced by the protoxides of iron and manganese and by lime.

Schil'ling, Skil'ling, *n.* A small German coin, equal to about 1½ cents.

Schi'nus, *n.* [Gr. *schinos*, the mastic-tree.] (*Bot.*) A genus of plants, order *Anacardiaceæ*, consisting of trees and shrubs, natives of tropical America, &c., having unequally pinnate leaves, which in some of the species are so filled with a resinous fluid, that the least degree of unusual repletion of the tissue causes it to be discharged. Some of them fill the air with fragrance after rain; and *S. molle* and some others expel their resin with such violence, when immersed in water, as to have the appearance of spontaneous motion, in consequence of the recoil. *S. areira* is said to cause swellings in those who sleep under its shade. The root of *S. molle* is used medicinally in Peru, while the resin that exudes from the tree is employed to astringe the gums.

Schio, (*ske'o,*) a town of Lombardy, prov. of Vicenza, 15 m. N.W. of Vicenza: *pop.* 6,800.

Schi'raz Wine, *n.* A light, aromatic Persian wine, much esteemed in the East, particularly by the Chinese.

Schir'rus, *n.* (*Med.*) See SCIRRHUS.

Schism, (*sizm,*) *n.* [Fr. *schisme;* Lat. *schisma*, from Gr. *schizō*, to cleave.] A division or separation in a church or denomination of Christians; breach of unity or concord among people professing the same religious

faith;—also, the offence of seeking to produce disunion in a church without needful or justifiable cause.—Hence, division among tribes, classes, or families of people.

Schismatic, Schismatical, (*siz-măt'ik,*) *a.* Pertaining, or relating, to schism; implying schism; partaking of the nature of, or tending to, schism; as, *schismatical* opinions.

Schismat'ic, *n.* One guilty of schism; one who proposes, promotes, or practises schism; one who separates from an established church or religious faith.

"The *schismatics* united to alter the whole system of spiritual government."—*Swift.*

Schismat'ically, *adv.* In a schismatical manner; by schism.

Schismat'icalness, *n.* State of being schismatical.

Schis'matize, *v. a.* [Fr. *schismatiser.*] To be guilty of schism; to practice or promote schism; to make a breach of union in a church or religious body.

Schism'less, *a.* Free from schism; undivided by differences of opinion.

Schist, *n.* [Gr. *schistos,* cleaven.] (*Geol.*) The name given to fissile rocks greatly metamorphosed, and generally having imperfect cleavage. Their basis is more silicious than argillaceous, and if the salts of alumina are present, they exist, not as clay, but as new combinations. Thus we have micaceous schists, chloritic schists, garnet schists, &c. Schists occur geologically with metamorphic rocks, overlying or interstratified with gneiss, and even granite. They differ from slates in being imperfectly fisaile, and from shales in being perfectly metamorphosed. They are very abundant in mountainous countries, sometimes forming the entire mountain mass, but more frequently flanking a granite nucleus. They often contain metalliferous veins; but rarely have any other economic value, not being readily dressed to a smooth surface, and not answering the purpose of either stone or slate for building.

Schist'ic, Schistose', Schist'ous, *a.* [Fr. *schisteux.*] (*Geol.*) Susceptible of separation by natural cleavage into flags, slates, or slabs, as certain metamorphic rocks.

Schizandra'ceæ, *n.* (*Bot.*) The *Schizandra* family, an order of plants, alliance *Menispernales,* consisting of trailing shrubs, with alternate exstipulate, simple leaves, and unisexual flowers. Sepals and petals imbricated. Stamens numerous, hypogynous. Ovules pendulous; embryo very minute, with abundant homogeneous albumen. There are but five genera and one species, natives of India, Japan, and the southern parts of N. America. Some have edible fruits. The genera *Schizandra* and *Spharostema* are represented by two scrambling shrubs cultivated in conservatories.

Schizopods', *n. pl.* [From Gr. *schizo,* to divide, and *pous,* a foot.] (*Zoöl.*) A tribe of long-tailed Decapod Crustaceans, including those which have the legs slender and filamentous, accompanied by an external articulated branch as long as the limbs, which thus appear doubled in number.

Schlegel, (*sla'gl,*) August Wilhelm von, a celebrated critic, poet, and philologist, b. at Hanover, 1767. After finishing his studies at Göttingen, he became professor at Jena, where he lectured on the theory of art, and joined his brother Frederick in the editorship of the *Athenæum.* In 1802 he repaired to Berlin as a wider field for his literary pursuits; accompanied Madame de Staël, in 1805, on a tour through Italy, France, Germany, and Sweden; delivering lectures in Vienna, in 1808, on dramatic art; became secretary to Bernadotte, the Crown-Prince of Sweden, in 1813; and, after studying Sanscrit in Paris, obtained in 1818 the professorship of history at Bonn, which he held till his death. Besides publishing numerous profound philological works, and many dissertations on subjects connected with the fine arts and poetry, he was the founder of the so-called *romantic* school, in contradistinction to the *classical;* his poems and ballads rank among the highest in Germany; his lectures on dramatic art and literature have become a standard work; and his translation of Shakspeare is accounted one of the most wonderful achievements in that difficult, though too often ill-appreciated, art. *S.* often displayed a puerile passion for titles and small court distinctions, which formed a great drawback to his real merits, and drew down upon him merited ridicule. D. 1845.

Schlegel. Friedrich von, a celebrated German critic and philologist, was a younger brother of the preceding, b. 1772, and studied at Göttingen and Leipzig. His first production of any importance was the *Greeks and Romans.* He then joined his brother in conducting a periodical called the *Athenæum,* and after publishing the philosophical romance of *Lucinda,* he visited Paris, where he delivered lectures on philosophy, and occupied himself with the fine arts. In 1804 he published a *Collection of the Romantic Poetry of the Middle Ages.* In 1805 *S.,* with his wife, a daughter of Moses Mendelssohn, was received into the Church of Rome, at Cologne. After this, he repaired to Vienna, and, in 1809, received an appointment at the headquarters of the Archduke Charles, where he drew up several animating proclamations. When peace was concluded, he delivered in Vienna the lecture on *The History of Ancient and Modern Literature;* a work which has been translated into nearly every European language. In 1812, he edited the *German Museum,* and gained the confidence of Prince Metternich by the composition of various diplomatic papers; in consequence of which he was appointed Austrian counsellor of legation at the German diet, which he held from 1814 to 1818. He then returned to Vienna, and resumed his literary occupations with great zest, contributing to various journals and reviews, lecturing on many topics connected with philosophy and æsthetics, and above all, producing his *Philosophy of Life, Philosophy of History,* and *Philosophy of Language,* which rank among his best literary efforts. *S.*'s strong devotional tendencies are especially shown in his interesting *Letters on Christian Art.* D. 1829.

Schleiermacher, (*shli'er-ma-ker,*) Friedrich Daniel Ernst, a celebrated German theologian and philologist, b. at Breslau, 1768, studied at Halle in 1787, and after holding various ecclesiastical appointments in different parts of Germany, was called to Berlin in 1809 as preacher, and in the following year received the chair of theology in the University. The influence of his writings in Germany was, and still is, very great; but it was, perhaps, surpassed by that which his oral instructions and his personal character exercised over those who lived within his sphere. Of his numerous works we can only name the following: *Reden ueben die Religion; Der Christliche Glaube;* the *Translation of Plato,* unrivalled in excellence; the *Critical Commentary on Luke's Writings;* and the *Sermons.* As a theologian, Schleiermacher held a place in his own country very similar to that of Coleridge in England, midway between the extremes of orthodoxy and doubt. D. 1834.

Schleisingerville, (*shli'sing-er-vill,*) in *Wisconsin,* a post-village of Washington co., 33 m. N.W. of Milwaukee.

Schleitz, or Schleiz, (*shlits,*) a town of Saxony, co. of Reuss, on the Wiesenthal, 24 m. S.W. of Gera; *pop.* 5,000.

Schles'wig, or Sleswick. [Dan. *Slesvig.*] Formerly a duchy of Denmark, bounded N. by Jutland, from which it is nearly separated by the Konge Aa River and the Kolding Fiord. Prussia took possession of it in 1867 along with Holstein, and those two duchies formed the province of *Schleswig-Holstein. Area,* 6,818 sq. m. *Pop.* (1897) 1,320,480.

Schles'wig, or Sles'wick, a seaport-town of Prussia, prov. of Schleswig-Holstein, formerly the cap. of the Duchy of Schleswig, on an arm of the sea called the Sley, 21 m. from its mouth, and 70 m. N.N.W. of Hamburg; Lat. 54° 32′ N., Lon. 9° 35′ E. *Manuf.* Woollens, leather, earthenware, and sugar. *Pop.* 12,500.

Schleswig, (*sles'wig,*) in *Wisconsin,* a township of Manitowoc co.

Schley, (*shli,*) in *Georgia,* a W.S.W. co. *Surface,* level; *soil,* generally fertile. *Cap.* Ellaville.

Schlick, (*shlik,*) *n.* [Ger.] (*Metal.*) Same as Slick, *q. v.*

Schlie'mann, Heinrich, archæologist, was born at Neubuckow, Mecklenburg, Germany, Jan. 6, 1822, the son of a Lutheran pastor. His early years were spent in mercantile life; he became a banker in Sacramento, Cal., and was naturalized; amassed a fortune, and (1869) went to the Trojan plain to follow a long-cherished plan to search for the site of old Troy. The results of his 12 years' labor are given in his book, *Troy and Its Remains* (1874). He paid a large price to the Ottoman government for permission to remove the relics he had unearthed, and which he presented to the German nation. In 1876, Dr. Schliemann secured the permission of the Greek government to explore the site of Mycenæ. These excavations brought to light royal tombs, and buried treasures of gold and silver, now deposited at the Polytechnic in Athens. The account is published in *Mycenæ; a Narrative of Researches and Discoveries.* Dr. *S.*'s explorations extended to the island of Ithaca (1869–78); to Orchomenus (1881–82), and to Tiryns (1884–85). Died Dec. 27, 1890.

Schmalkalden, (*shmal'kal-den,*) a town of Germany, in Hesse-Cassel, on the Fulda, 12 m. N. of Meiningen; *pop.* 55,000.

Schmide'lia, *n.* [After the botanist *Schmidel.*] (*Bot.*) A genus of plants, order *Sapindaceæ,* distributed through the tropics of both hemispheres, consisting of trees or shrubs. The sweet pulpy part of the fruit of *S. edulis* is eaten in Brazil, where the fruits are called *Fruta de Paraõ;* but the seeds of most of the genus possess unwholesome properties, and those of *S. cobbe,* a Cingalese species, are reputed to be poisonous.

Schmol'in, a town of Germany, in Saxe-Altenburg, on the Sprotta, 7 m. S.W. of Altenburg; *pop.* 6,500.

Schmol'nitz, a mining-town of N. Hungary, co. of Zips, 21 m. S.S.E. of Leutschau. It has mines of gold, silver, copper, iron, and sulphur. *Pop.* 5,500.

Schnapps, (*shnăps,*) *n.* [Du. and Ger.] Holland gin; schiedam.

Schnecks'ville, in *Pennsylvania,* a post-village of Lehigh co., 63 m. N.N.W. of Philadelphia.

Schneeberg, (*shna'berg,*) a town of Saxony, circle of Zwickau, 20 m. S.S.W. of Chemnitz. *Manuf.* Gold and silver lace, cotton fabrics, and chemical apparatus. *Pop.* 7,600.

Schneidemuhl, (*shni'de-mül,*) a town of Prussian Poland, on the Kuddow, 54 m. W. of Bromberg; *pop.* 6,000.

Schodack, (*sko-dak',*) in *New York,* a post-township of Rensselaer co., 11 m. S.E. of Albany.

Schodack' Centre, in *New York,* a post-village of Rensselaer co.

Schodack' Landing, in *New York,* a post-village of Rensselaer co., 12 m. S. of Albany.

Schœffer, (*sheof'fer,*) Peter, one of the improvers of the art of printing, who appears to have been at first a copyist at Paris, but was afterwards employed in the establishment of Guttenberg and Faust at Mentz. By one account he is said to have discovered the more easy method of casting the types. When Faust and Guttenberg separated, in 1455, he became the partner of the former, after whose death he printed many works alone. His three sons also became eminent as printers. D. about 1502.

Scharie (*sko-har'ree*), in *New York,* an E. co.; *area,* 647 sq. m. *Surface,* mountainous in the W., and elsewhere diversified; *soil,* fertile. *Min.* Iron, limestone and sandstone. *Cap.* Scharie.

—A post-village and township, cap. of the above *co.,* 30 m. W. of Albany.

Schohar'ie Creek, in *New York,* rises in the Catskill Mountains, Greene co., and flowing N. enters the Mohawk River from Montgomery co.

Scholar, (*skŏl'ar,*) *n.* [Fr. *écolier,* from L. Lat. *scholaris — schola,* a school; Gr. *scholē,* spare time, that in which leisure is employed, learning.] One who learns of a teacher; one who is under the tuition of a preceptor; a pupil; a disciple; a student;—hence, any member of a college, academy, school, or seminary.—Emphatically used, a man eminent for learning or erudition; a person of high attainments in science or literature; one engaged in scholastic pursuits; a learned person; a classic; a savant; a man of letters.—Hence, a book-learned person; a pedant; a purist or precisian in letters or learning;—used in a sense of ridicule or reproach.—In the great English universities, an undergraduate who belongs to the foundation of a college, and receives partial maintenance from its revenues; as, a *scholar* of Brasenose, Oxford.

Schol'ar-like, Schol'arly, *a.* Like a scholar; befitting a scholar; as, a *scholarly* composition, *scholarly* taste.

Schol'arly, *adv.* In the manner of a scholar. (R.)

Schol'arship, *n.* The character, qualities, and acquirements of a scholar; literary or scientific attainments; erudition; learning; as, a man of sound *scholarship.*—Literary education; as, a house of *scholarship. Milton.* (R.)

—In the two great English universities, the common appellation given to foundations in colleges,—inferior to *fellowships,* but superior to *exhibitions,* for the maintenance of scholars under certain regulations.—Also, in the universities themselves as rewards for proficiency; as, to read for a *scholarship* at Cambridge.

Scholas'tic, Scholas'tical, *a.* [Fr. *scholastique;* Lat. *scholasticus;* Gr. *scholastikos.*] Pertaining, or relating, to a scholar, to a school, or to schools; suitable to a scholar or a school; scholar-like; as, *scholastic* studies, *scholastic* learning.—Pertaining, or having reference, to the schoolmen, or philosophers and divines of the Middle Ages called Scholastics, *q. v.*

—Hence, pedantic; formal; needlessly or excessively subtle or precise; as, a *scholastic* nicety.

Scholas'tically, *adv.* In a scholastic manner; after the method of schools; according to the niceties or system of the schoolmen.

Scholasticism, (*sko-lăs'ti-sĭzm,*) *n.* The method or doctrines of the scholastic philosophy. See Scholastics.

Scholas'tics, *n. pl.* [Gr. *scholastikos.*] (*Philos.*) The name given to a class of philosophers who flourished in the Middle Ages, and taught a peculiar kind of philosophy, which consisted in applying the ancient dialectics to theology. The *scholastic theology* was, in its general principle, an alliance between faith and reason; an endeavor to arrange the orthodox system of the Church, such as authority had made it, according to the rules and methods of the Aristotelian dialectics, and sometimes upon premises supplied by metaphysical reasoning; and *scholastic philosophy* seems chiefly to be distinguished from this theology by a larger infusion of metaphysical reasoning, or by its occasional inquiries into subjects not immediately related to revealed articles of faith. The name is derived from the circumstance that it originated in the schools instituted by and after Charlemagne for the education of the clergy. It probably arose from the necessity felt of combatting heretics with their own weapons, and establishing the doctrines of the Church upon a rational and scientific basis. The founder of the system is generally regarded to have been Scotus Erigen, a native of Ireland, who flourished in the 9th century. The first æra of its history is considered to come down to Roscellinus, in 1089, or the contest of the *Realists* and *Nominalists,* q. v.; the second, to Albertus Magnus, who died in 1280, when the metaphysical works of Aristotle were more generally known and commented on; and the third, to the revival of learning in the middle of the 15th century, and the consequent improvement in philosophy. Among the most distinguished *S.* besides those already mentioned, were Abelard, Thomas Aquinas, Duns Scotus, and William of Ockham.

Scholiast, (*skō'lĭ-ăst,*) *n.* [Fr. *scoliaste,* from Gr. *scholiastes — scholion,* interpretation, commonly from *scholē,* a learned discussion. See Scholium.] A writer of scholia; a commentator or annotator;—a name given to the old grammarians or critics who wrote on the margins of manuscripts annotations, called *scholia,* from being, as it were, the fruits of their leisure.

Scholias'tic, *a.* Pertaining, or relating, to a scholiast, or his studies.

Scholium, (*skō'le-ŭm,*) *n.*; Lat. pl. Scholia; Eng. pl Scholiums. [Fr. *scholie;* Lat. *scholium,* from Gr. *scholion —scholē,* incubation.] A note, annotation, or remark, occasionally made on some passage, proposition, or the like. (*Geom.*) An explanatory observation, or excursive remark, on the nature and application of a train of reasoning.

Scholl'ville, in *Kentucky,* a village of Clarke co.

Schoneck, (*shon-bek',*) a town of Prussian-Saxony, on the Elbe, 9 m. S.E. of Magdeburg. *Manuf.* Salt, chemicals, leather, and tobacco. *Pop.* 9,500.

Schonlinde, (*shon-lin-de(r),* a town of Austria, in Bohemia, 33 m. from Leitmeritz. *Manuf.* Cotton and linen fabrics. *Pop.* 4,500.

Schoo'dic Lakes, in *Maine,* a chain of lakes, chiefly in Washington co., the surplus waters of which form the Schoodic River, which falls into the St. Croix River abt. 50 m. from its mouth.

Arthur Schopenhauer

1788–1860

School, (*skōōl,*) *n.* [Fr. *école;* Du. *school;* Ger. *schule;* Lat. *schola,* from Gr. *scholē,* leisure, spare time; — hence, learning, as being that in which spare time is employed.] This word was formerly used in a larger acceptation than at present, and signified places of instruction not only for children, but for those of more advanced age. It was applied generally to what are now called *colleges* and *universities.* Thus, Shakspeare, in *Hamlet,* speaks of being at *school* at Wittenberg, that is, at the university. The school is one of the institutions of civilized life. In early times, and among rude races, education and instruction were matters of domestic concern. Among the ancient Jews, parents were strictly enjoined to instruct their children in the precepts of the law, the fear of God, and in the history of the people. That reading and writing constituted a part of their education may be inferred from their being instructed to write the precepts of the law upon their door-posts, so that they might be read by all. Schools were not established among them until after their return from the Babylenish captivity, when Ezra, their language and law being in great measure forgotten, gathered round him learned persons, and trained a number of public teachers, some of whom were established in Jerusalem, and others sent into the provincial towns of the country. Schools were first instituted for educating the higher classes of society; the great mass of the people were left to ignorance, or what of instruction their parents could impart. In particular, this seems to have been the case in ancient Egypt, Persia, &c. In Greece, private schools for instructing in reading, writing, and arithmetic, were established as early as 500 B. C.; and afterwards young persons eager for knowledge resorted to the instructions of the philosophers and sophists; but still the great mass of the people remained in ignorance. The same was the case with the Romans, who, from 300 B. C. had schools for boys in the cities; and from the age of Cæsar, who conferred the rights of citizenship on teachers, the higher institutions of the grammarians. The Emperor Vespasian was the first who established public professorships of grammar and rhetoric, with fixed salaries attached to them, for the education of young men for the public service; and in A. D. 150, Antonius Pius founded imperial schools in the larger cities of the Roman empire. There was still, however, no general system of education. With the diffusion of Christianity, the importance of education came to be seen in a new light. Schools were instituted in the cities and villages for catechumens, and, in some capitals, catechetical schools for the education of clergymen, of which that in Alexandria was the most flourishing from the 2d to the 4th century. From the 5th century, however, these higher establishments seem to have been discontinued, and the episcopal or cathedral schools to have taken their place, in which the young men intended for the clerical profession learned, besides theology, the seven liberal arts, viz., grammar, logic, rhetoric (the *trivium*), arithmetic, geometry, astronomy, and music (the *quadrivium*). The imperial schools declined, and finally became extinct, in the confusion which followed the irruptions of the barbarians, and cathedral and parochial schools for boys and young men of all classes were established in the cities, in which the learning of reading and writing was followed by the *trivium,* and which hence received the name of *trivial schools.* The conventual schools began to be established in the 6th century, and from being at first intended only to prepare persons for the monastic life, they came to be resorted to by laymen, and at length became very famous. It is one of the noblest traits in the character of Charlemagne, that in that age of gross ignorance, he labored with zeal for the instruction of the people under his sway. He decreed (789) that not only every bishop's see and every convent, but that every parish, was to have its school; the two former for the instruction of clergymen and public officers, the latter for the lower classes of the people. At his court he established an academy of distinguished scholars, to whom he himself resorted for instruction, and whom he employed to educate his children and capable boys belonging to the nobility. Charlemagne's decrees were forgotten during the disputes of his grandsons about the government, under whom, also, the court-school was abandoned. In the 12th and 13th centuries, the inactivity and luxury of the clergy led to the neglect of the cathedral and conventual schools, and they rapidly declined. But at length, with the increasing power of the cities, the citizens became more independent, and the magistrates began to take care of the instruction of youth, which was being so much neglected by the clergy. They established schools, in which reading, writing, and the *trivium* were taught, and itinerant monks and students were employed as teachers. It was the commencement of a new system. The teachers, though indeed still belonging to the clerical order, now formed a separate class. They were, however, generally ignorant, frequently immoral, and wandered about from place to place. From the 14th to the 16th century, Germany was overrun with bands of these vagrants, who, as Luther says, though they had hardly seen a university, received appointments as teachers, because they were generally the only persons who could be hired as school-masters, since the more learned youths were ambitious of clerical benefices and academical professorships. The Reformation in the 16th century exercised a most decided and beneficial effect upon the schools, more particularly in Germany. The property of the convents, which had been confiscated by the governments, was in most cases applied to the use of schools, the number of which was now very much increased, their character elevated, and a higher class of teachers established in them. The corporations of cities founded gymnasia and lyceums, with permanent teachers; schools for girls were also founded, and in the villages instructors were appointed to teach the Catechism. Soon after this, the rise of the Jesuits, and their devotion to education, effected a great improvement on the old Catholic system. At the present time, Germany, with most of the other European countries, England, and the U. States, present three different methods of administering the national elementary education. The Prussian educational system is purely governmental. The primary schools are all under laws and regulations proceeding from the communes. Every child in the kingdom is obliged, under pains and penalties, to attend school from the age of 7 to 14, and the result is that the Prussian people are efficiently educated throughout the entire community. The national education of all the German states closely resembles that of Prussia. The primary schools of France are, in like manner, established and directed by governmental authority. Permission is, however, given to any teacher, under certain conditions, to open a private school. But in England, no schools (except those connected with naval, military, pauper, and penal establishments), are initiated by the civil government. The education of the people is under the care of the Established Church, and of the other religious organizations, and the government comes to their aid by bestowing grants on certain conditions when its assistance is required. The system is entirely different in the U. States, where, though the State governments take the initiative, they go only so far as to ordain that schools of a certain character must exist among a given population. All the questions concerning the buildings, teachers, and methods of instruction, are determined by the people in their capacity of free citizens. There is, consequently, much diversity in the educational condition of different parts of the country; but on the whole, it may be said that there are few countries, if any, where more intelligent attention is given to the education of the people, and where the public schools are more liberally provided for than in this country. (See § *Education* under the names of the several states and principal cities of the U. States, and other countries generally.) — *Evening schools* are established in almost all the American cities of any importance, with the view of extending the benefits of education to persons engaged in business during the day.—*Sunday schools.* Their origin is popularly ascribed to Robert Raikes, an English philanthropist, B. 1735, D. 1811; he began in 1781. In 1739, Ludwig Hecker opened *Sabbath schools* for the poor around him, at Ephrata, Pennsylvania. The instruction in *S. S.* is primarily religious. The number of *S. S.* pupils in all countries in 1897 was estimated at 20,000,000, with about 2,250,000 teachers. *S.-S.* pupils in the U. S. number about 10,000,000.—See also EDUCATION.

School, *n.* [A. S. *sceol.*] A shoal; a swarm; a multitude; as, a *school* of fishes.

—*v. a.* To instruct; to train; to educate at a school.—To tutor; to chide; to admonish; to reprove; to teach by force of example; as, a man *schooled* by adversity.

School'craft, In *Michigan,* a N. co.; *area,* 1,216 sq. m. *Rivers.* Manistee and Whitefish. *Surface,* diversified, and mostly covered with forest. *Cap.* Manistique. *Pop.* (1894) 7,127.

—A post-village and township of Kalamazoo co

School'craft, HENRY ROWE, an American philologist and traveller, B. in Guilderland (then Watervliet), Albany co., N. Y., 1793. After devoting his youth to the study of natural history and the acquisition of languages, he commenced in 1817 that career in which he subsequently earned a high reputation, by making a journey of exploration through Missouri, whence he returned to Washington with a valuable mass of notes and mineralogical specimens. His *Mines and Mineral Resources of Missouri,* published in 1819, met with the most decided success, and obtained for its author the post of geologist to the exploring expedition dispatched to the sources of the Mississippi in the following year. The *Journal and Report* which he produced at the termination of this mission greatly enhanced his reputation. He was chosen to fulfil, in succession, posts of great responsibility and distinction. In 1821 he acted as secretary to an Indian conference at Chicago. In the following year he was acting as agent for Indian affairs in the N.W. territories, and while discharging these duties he became acquainted with Miss Johnston, a young lady who had received a high education in Europe, but was the child of an Irish gentleman married to the daughter of an Indian chief. From this lady, who became his wife, he received the most valuable assistance in prosecuting that course of research into the languages, traditions, and antiquities of the Indian tribes which, even from his earliest youth, it had been his ambition to pursue. In 1832 he was charged with the conduct of an expedition to the Upper Mississippi and beyond St. Anthony's Falls. Of that mission he produced an account, in his *Expedition to Itaska Lake,* a work in which he showed that he had succeeded in tracing the Mississippi up to its ultimate forks, and to its actual source in Itasca Lake. He was afterwards described as "the only man in America who had seen the Mississippi from its source to its mouth in the Gulf of Mexico." He subsequently acted as commissioner to the Indians for the purchase of territory upon the N.W. frontier, as superintendent of Indian affairs, and in capacities of a like nature. In 1841 he took up his residence at New York, afterwards making a philological and archæological tour in Europe and Canada. At a later period he devoted himself to the task of arranging and publishing his vast stores of information upon Indian language, antiquities, and ethnology, which he had spent thirty years in collecting. An enumeration of several of this learned gentleman's most important publications will afford a notion of the great services he performed relative to the aboriginal history of America. His greatest work was entitled *Historical and Statistical Information respecting the History, Condition, and Prospects of the Indian Tribes of the United States;* and of scarcely less value are—*American Indians, their History, Condition, and Prospects; Personal Memoirs of a Residence of Thirty Years with the Indian Tribes on the American Frontiers; The Myth of Hiawatha, and other Oral Legends of the North American Indians* (from this work Mr. Longfellow derived the legend of his poem of "Hiawatha"); *A Complete Lexicon of the Algonquin Language, the most primitive and widely-diffused aboriginal language;* and *Algic Researches.* S. was a member of the chief European and American literary and learned societies. D. 1864.

School'-dame, School'-mis'tress, *n.* The female teacher of a school.

School'-days, *n. pl.* That period of life passed by youth at school.

School'-district, *n.* In the U. States, a division of a town or city in which schools are established and conducted.

School'cy's Mountain, in *New Jersey,* a post-village of Morris co., 50 m. W. of New York. The mountain, 1,160 feet high, is a great resort for visitors, owing chiefly to the mineral springs at the summit.

School'-fellow, School'-mate, *n.* A school associate; one bred and educated at the same school.

School'-girl, *n.* A girl who attends school.

School'-hour, *n.* Time of instruction passed at school.

School'-house, *n.* A building appropriated for the use of schools.

School'ing, *n.* Instruction in school; education in a seminary or institution of learning; tuition; teaching. — Compensation paid for instruction; reward paid to a teacher or preceptor for his services; as, to pay a quarter's *schooling* in advance. — Reproof; reprimand; rebuke; as, he received a sharp *schooling* for his pertness.

School'-maid, *n.* A school-girl.

School'-man, *n.; pl.* SCHOOL-MEN. A person versed in the niceties or subtleties of academical disputation, or of school-divinity. See SCHOOL.

School'-master, *n.* One who presides over and teaches a school; a teacher, instructor, or preceptor of youth;—in a reproachful sense, a pedagogue; a dominie; as, "The *school-master* is abroad." (*Lord Brougham.*) — One who, or that which, leads, instructs, and disciplines. as, stern experience was his *school-master.*

School'-mate, *n.* Same as SCHOOL-FELLOW, *q. v.*

School'-mistress, *n.* Same as SCHOOL-DAME, *q. v.*

School'-teach'er, *n.* One who teaches or instructs a school.

School'-teach'ing, *n.* The vocation or employment of imparting instruction to a school.

Schoon'er, *n.* [Du. *schoner.*] (*Naut.*) A small vessel with two masts, whose main- and fore-sails are suspended by gaffs, reaching from the mast towards the stern, and stretched out below by booms, the foremost ends of which are hooked to an iron, which clasps the mast so as to turn the vein as upon an axis, when the after-ends are swung from one side of the vessel to the other. The *S.* is generally a fast sailer, and principally employed in trade by those who make speculations where dispatch is a particular object.

Fig. 2318. — SCHOONER.

Schopenhauer, ARTHUR, a German philosopher, B. at Dantzic, 1788, was the son of *Johanna Schopenhauer,* the popular novelist and littérateur. He studied at Göttingen, attended the lectures of Fichte at Berlin, spent some time at Weimar and Dresden, and led a very restless life till 1831, when he settled at Frankfort-on-the-Main. He was accompanied only by a female servant and a dog, and lived a quiet, reserved, selfishly comfortable life; seeming to some the model of a sage, and to others a surly fanatic. He despised his countrymen and their philosophies, read much of French and English literature, and latterly paid much attention to oriental studies. He became an enthusiast for Buddha and the Vedas, and enjoyed tracing all Western accomplishments to Eastern sources. The principal work of *S* is entitled *Die Welt als Wille und Vorstellung.* It appeared in 1819, and after being neglected for many years, attracted a good deal of attention, and received some sharp blows of criticism. The practical upshot of his system, which makes *will* the one sole reality, is intolerably melancholy, taking from man all that constitutes his greatness, his goodness, or his bliss. God—futurity—the soul—mere names, illusions; and the world of men is to him bad, hopelessly bad, and made so. Strange, melancholy, and deterrent, the speculations of *S.* are likely to remain a monument of dark genius rather than a light of philosophy. They form no centre of warmth and hope, but the funeral pyre on which faith and trust

and aspiration immolate themselves. *S.* published several other works of philosophy, of which the most important is, *Die beiden Grundprobleme der Ethik.* D. 1860.

Schorl, (*shorl,*) *n.* [Ger. *schörl.*] (*Min.*) Black tourmaline.

Schorl rock. (*Geol.*) A rock formed of an aggregation of schorl and quartz.

Schor'lite, *n.* (*Min.*) Same as PYCNITE, *q. v.*

Schottische, (*shŏt'teesh,*) *n.* [Ger.] (*Dancing.*) A quick kind of dance, performed by two persons, and danced in common time; — it may be described briefly as a combination of the *polka* and the *mazourka.*

(*Mus.*) A piece of music set in appropriate time to the steps of such a dance.

Schralenburg, (*shral'en-berg,*) in *New Jersey,* a post-village of Bergen co., 5 m. N.E. of Hackensack.

Schran'kia, *n.* (*Bot.*) A genus of plants, sub-order *Mimoseæ.* The Sensitive brier, *S. uncinata,* is a perennial herb found in the Southern States in dry soils; stem 2–4 feet long, and with the petioles and peduncles armed with short, sharp prickles, turned downwards; flowers in spherical heads, purplish.

Schreckhorn, (*shrek'horn,*) ("peak of terror,") one of the loftiest of the Swiss Alps; Lat. 46° 35′ 26″ N., Lon. 7° 21′ E. *Height,* 13,492 feet. It was ascended in 1842 by Agassiz and Desor.

Schrode', or **Scrod,** *n.* A codfish or haddock prepared for cooking.

Schrœppel, (*skroo'pel,*) in *N. Y.,* a twp. of Oswego co.

Schroon, (*skroon',*) in *New York,* a township of Essex co.

Schroon Lake, in *New York,* partly in Essex and Warren cos., abt. 10 m. long, and 1½ wide.

—A post-village of Essex co., abt. 98 m. N. of Albany.

Schroon River, in *New York,* rises in Essex co., and flows S., entering the Hudson in Warren co.

Schu'bert, FRANZ, a celebrated German musical composer, b. at Vienna, in 1797. He belonged to a family distinguished for their musical talents, and from his earliest years showed so strong a bent to musical studies and composition that the wishes of his friends, who would fain have made him a philosopher, gave way, and he was allowed to follow his true calling. At 7 years of age he was the pupil of Michael Holzer; became a chorister in the imperial chapel, and the pupil of the court-organist and of Salieri. He studied the works of Haydn, Mozart, and Beethoven, and gave lessons in music for a living. The number and variety of his compositions is extraordinary. The most admired is his *Lieder,* and among them *Der Erlkönig, Ave Maria, Der Wanderer,* and *Die Erwartung,* are perhaps the best known. But he wrote also operas, sonatas, symphonies, overtures, cantatas, 6 masses, &c. He left numerous works unpublished at the time of his death. Schubert spent almost his whole life at Vienna, and there D. 1828. His remains rest near those of Beethoven.

Schuja, or **Shuya,** (*shoo-ja',*) a town of European Russia, govt. of Vladimir, 60 m. N.E. of Vladimir. *Manuf.* Woollens, linens, and soap. *Pop.* 10,000.

Schultzville, (*shoolts'vill,*) in *New York,* a post-village of Dutchess co.

Schumla, (*shoom'la,*) a fortified town of European Turkey, in Bulgaria, 60 m. S. of Silistria. *Manuf.* Tin and copper wares, leather, and silk goods. *Pop.* 25,000.

Schutt, (*shoot',*) two islands in W. Hungary, formed by the arms of the Danube. The largest is 53 m. long and 16 broad; and the smaller 28 m. long and 7 broad. The soil is fertile and well cultivated.

Schuyler, (*skī'lẽr,*) in *Illinois,* a W. central co., bordering on the Illinois River; *area,* 420 sq. m. *Surface,* undulating, and consists of prairie and timbered land; *soil,* very fertile. *Cap.* Rushville.

Schuyler, in *Missouri,* a N.E. county, bordering on Iowa; *area,* 324 sq. m. *Rivers.* Chariton, the forks of Fabius River, and the N. Fork of Salt River. *Surface* diversified; *soil,* tertile. *Cap.* Lancaster.

Schuyler, in *New York,* a S. co., bordering on Seneca Lake. *Pop.* (1897) 17,170.

—A township of Herkimer co., 6 m. E. of Utica. *Pop.* (1897) 1,290.

Schuy'ler Island, in *New York,* in the W. of Lake Champlain, belonging to Essex co., and nearly opposite Burlington, Vermont.

Schuy'ler's Falls, in *New York,* a post-township of Clinton co., 7 m. W. of Plattsburg.

Schuy'lersville, in *New York,* a post-village of Saratoga co., 35 m. N.E. of Albany.

Schuylkill, (*skool'kil,*) in *Pennsylvania,* a river which rises near Pottsville, and falls into the Delaware River 5 m. S. of Philadelphia, after a S.E. course of 120 m. It is navigable for sloops to Philadelphia, and for boats to Port Carbon, 3 m. N.E. of Pottsville. It was called by the Indians *Manayunk.* — An E. co.; *area,* 750 sq. m. *Rivers.* Schuylkill, and Swatara Creek. *Surface,* mountainous, being traversed by the Broad, Sharp, and Mahanoy mountains; *soil,* thin and unfertile. *Min.* Almost all the area of the county is occupied by anthracite coal, varying from 3 to 30 feet in thickness, which forms the principal product of the county, immense quantities being annually mined and exported. Extensive beds of iron ore are also found near Pottsville, the cap. of the co.

—A post-township of Chester co., 13 m. N.N.E. of West Chester.

—A township of Schuylkill co.

Schuylkill Ha'ven, in *Pennsylvania,* a post-town of Schuylkill county, 4 miles south of Pottsville. It is the principal shipping-point of the Schuylkill coal region.

Schwabach, (*shwa'bak,*) a town of Bavaria, circle of Middle-Franconia, 9 m. S.S.W. of Nuremberg. *Manuf.* Cottons, woollens, hosiery, gold and silver lace, paper, printing type, tobacco, &c. *Pop.* 10,000.

Schwal'bea, *n.* (*Bot.*) A genus of plants, order *Scrophulariaceæ,* represented in N. America by *S. Americana,* the Chaff-seed.

Schwan'thaler, LUDWIG MICHAEL, an eminent German sculptor, b. in Munich, 1802, whose ancestors had been of the same profession during some generations. He received his artistic education at the Munich Academy of Fine Arts, and subsequently repaired to Rome, where he gained the friendship of Thorwaldsen, who aided him with some valuable advice. His first successes in his profession were due to the patronage of King Louis of Bavaria, who employed the young sculptor in carving a statue of Shakspeare for the theatre at Munich, and afterwards in executing the sculpturesque decorations for the fine architectural works with which that art-loving monarch was adorning his capital city. He continued to labor with unceasing zeal until he became the acknowledged head of the Munich school of sculpture. In 1835 he was appointed professor of sculpture; but although his health began to decline about this time, his energy was scarcely less ardent than formerly. His grandest work was the colossal statue of Bavaria, which occupies the centre of the Bavarian Hall of Fame, and is about 60 feet in height. His colossal statues of St. Peter, St. Paul, Count Tilly, and monumental statues of Gœthe, Jean Paul Richter, and Mozart, are noble productions. The new palace of King Louis of Bavaria, the "Walhalla" of Ratisbon, and, indeed, many of the finest art-collections throughout Germany, are enriched by his splendid works. At his death he bequeathed his studio, together with models of his most important works, to the "Fine Arts Academy" of Munich; and in the same city there is a street named in his honor. D. 1848.

Schwartz', BERTHOLD, a monk of the order of Cordeliers, at the end of the 13th century, was a native of Freiburg, in Germany, and an able chemist. It is said that as he was making some experiments with nitre, he was led to his invention of gunpowder, which was first applied to warlike purposes by the Venetians, in 1300. There is, however, much discrepancy in the accounts of this discovery; and it is certain that Roger Bacon, who D. in 1292, was acquainted with an inflammable composition similar to gunpowder, the knowledge of which Europeans appear to have derived from the Orientals.

Schwartz'burg, in *Michigan,* a village of Wayne co., 19 m. W. of Detroit.

Schwartz'burg-Rudol'stadt, a principality of the German Empire, bet. Lat. 50° and 51° N., Lon. 11° E., inclosed by Saxe-Weimar, Coburg, Meiningen, and Hildburghausen; *area,* 340 sq. m. The surface is mountainous and well wooded. *Rivers.* Schwartza, Ilm, and Saale rivers. *Min.* Iron and salt. *Manuf.* Woollen cloth, earthenware, glass, &c. *Chief towns.* Rudolstadt, the cap., and Frankenhausen.

Schwartz'burg-Son'dershausen, a principality of the German Empire, Lat. 51° 12′ and 51° 26′ N., Lon. 11° E., inclosed by Prussian territory, except on the W., where it joins a detached portion of Saxe-Gotha; *area,* 319 sq. m. The surface is undulating and fertile. *Rivers.* Helbe and Wipper rivers. *Prod.* The usual cerealia. *Min.* Iron. *Manuf.* Woollen and linen goods, and hardware. *Chief towns.* Sondershausen, the cap., and Arnstadt.

Schwatz, (*shwaz,*) a town of Anstria, in the Tyrol, on the Inn, 16 m. E.N.E. of Innspruck; *pop.* 5,000.

Schwedt, (*shwet,*) a town of Prussia, prov. of Brandenburg, on the Oder, 23 m. S.S.W. of Stettin. *Manuf.* Tobacco, leather, and starch. *Pop.* 7,600.

Schweid'nitz, a fortified town of Prussian Silesia, on the Weistritz, 42 m. S.E. of Leignitz. *Manuf.* Linen and woollen goods, leather, tobacco, and starch.

Schweinfurt, (*shwine'foort,*) a town of Bavaria, in Lower Franconia, on the Main, 29 m. N.E. of Wurzburg. *Manuf.* Woollens, chemicals, and leather. *Pop.* 7,800.

Schwein'furt's-green, *n.* (*Painting.*) A pigment of a brilliant sea-green color, prepared by boiling together solutions of arsenious acid and acetato of copper, adding its own weight and quantity of water, and allowing the whole to rest for a few days.

Schwerin, (*shvee'rin.*) a town of N. Germany, cap. of the Grand-duchy of Mecklenburg-Schwerin, on the Lake of Schwerin, 35 m. S.E. of Lubeck. *Manuf.* Woollen cloth, tobacco, and vinegar.

Schwe'rin, or **Schwierzyna,** a town of Prussian Poland, 55 m. W. of Posen. *Manuf.* Woollen goods, leather, and beer. *Pop.* 5,500.

Schwiebus, (*shwe-ai-boss,*) a town of Prussia, prov. of Brandenburg, 41 m. S.E. of Franktort. *Manuf.* Woollen cloths. *Pop.* 12,000.

Schwytz, or **Schweltz, (Canton of,)** (*shwitze.*) a cant. of Switzerland, between Lat. 46° 50′ and 47° 20 N., Lon. 8° 30′ and 9° E., having N. and N.E. the cants. of Zurich and St. Gall, E. Glarus, S. Uri and Unterwalden, and W. Zug and Lucerne; *area,* 339 sq. m. The surface is mountainous and well wooded, and the soil adapted to cattle raising. *Rivers.* Sihl, and Muotta. The principal exports are cattle, cheese, and timber. *Cap.* Schwytz. *Pop.* 45,039.

Sciacca, (*shak'ka,*) a seaport-town of S. Italy, in Sicily, prov. of Girgenti, 30 m. N.W. of Girgenti.

Sciag'raphy, Sciog'raphy, *n.* [Gr. *skiagraphia,* painting in chiaro-oscuro — *skia,* a shadow, and *graphein,* to describe.] The art or science of projecting or delineating shadows as they fall in nature.

(*Arch.*) The profile or section of a building, to show the inside thereof; a sciagraph.

(*Astron.*) The art of finding the hour of the day or night by the shadow of the sun, moon, or stars.

Sciat'ic, *a.* [Fr. *sciatique;* L. Lat. *sciatica.*] Belonging to, or having connection with, the hip; as, the *sciatic* nerve. — Affecting the hip; as, *sciatic* gout.

—*n. Sciatic artery.* (*Anat.*) One of the largest branches of the interior trunk of the internal iliac artery; it supplies the deep-seated muscles at the back of the hip. — *Sciatic nerve,* the largest nervous cord in the human body; it supplies nearly the whole of the integuments of the leg, the muscles of the back of the thigh, and those of the leg and foot.

Sciatic stay. (*Naut.*) A rope passing between the main and fore tops, and sustaining a pulley used in loading or lightening a ship's hold. The pulley can move upon this stay.

Sciat'ica, *n.* [Lat.; Gr. *ischias,* pain in the loins and hips.] (*Med.*) A name often applied to all rheumatic affections about the hip-joint and back of the thigh, but in strictness it is applied only to a disease of the sciatic nerve. This is sometimes an inflammatory complaint, requiring for its treatment cupping and blistering; sometimes it is clearly rheumatic, and then requires the mode of treatment adapted for such cases; sometimes it results from irritation within the pelvis, affecting the nerve before it emerges externally; and sometimes it is purely nervous and neuralgic.

Sciat'ical, *a.* Sciatic.

Sciat'ically, *adv.* With sciatica; after the manner, or by means of, sciatica.

Scicli, (*she-kle,*) a town of S. Italy, in Sicily, prov. of Syracuse, 8 m. S.W. of Noto. *Manuf.* Woollen goods. *Pop.* 9,700.

Science, (*sī'ens,*) *n.* [Fr.; Lat. *scientia,* from *scio,* to know.] In its strictly literal sense, the word *science* means simply *knowledge.* This was probably the only sense in which it was at first used; but we are told that by the middle of the 16th cent. the word *S.* had begun to appear as denoting connected and demonstrated knowledge, in opposition to *art,* which signified digested rules of operation, not connected with each other by deduction from common first principles; and by the middle of the 17th cent. the term *S.* was freely used in the sense which it has never since lost, namely, that in which it is opposed to *literature. S.,* as distinguished from art, is a body of organized knowledge, whose phenomena are arranged so as to exhibit the reasons or causes by which they are influenced in their legitimate connection and independence. A *S.* which deals with the succession of reason and consequence is entitled an *abstract S.;* while that which deals with causes and effects is called, for the most part, a *natural* or *physical S.* Those *S.* which are supposed to be complete are called *exact S.;* as, geometry. The great majority of what are commonly known as *S.* hardly deserve the name, being mere bundles of theories or facts, connected with more or less of exactness, but which a fresh discovery may any day untie. *S.,* as opposed to literature, has for its business the discovery and application of first principles.

—*v. a.* To ground, or cause to become skilled in science; to instruct. (R.)

Sci'enceville, in *New York,* a village of Green co., 44 m. S.W. of Albany.

Scienter, (*sī'en'ter,*) *adv.* [Lat., from *sciens.*] With knowledge.

Sciential, (*sī'ĕn'shal.*) *a.* Producing science. (R.)

Scientific, Scientifical, *a.* [Fr. *scientifique.*] According to the rules or principles of science; producing certain knowledge or demonstration; well versed in science; used in science; in accord with, or dependent on, the rules or principles of science; exhibiting profound and practical knowledge; as, a *scientific* treatise, a *scientific* man, *scientific* knowledge or evidence.

Scientific Societies. See SOCIETIES (LITERARY AND SCIENTIFIC).

Scientifically, *adv.* In such a manner as to produce knowledge; according to the rules or principles of science.

Scientist, (*sī'en-tĭst,*) *n.* One deeply versed in science; a savant; as, a zealous *scientist.*

Scilicet, (*sil'i-sĕt,*) *n.* [A contraction from Lat. *scire licet,* you may know.] Namely; videlicet; to wit; as follows; — sometimes abbreviated to *sc.* or *ss.*

Scil'la, *n.* (*Bot.*) A genus of plants, order *Liliaceæ.* They are ornamental bulbous plants, related to hyacinths, and known under the common names of Squill, Blue-bell, &c. They are chiefly interesting as flower-garden plants, some of them being among the most lovely of early spring flowers. The medical squill is now referred to the genus *Urginea.*

Scilla, (*sil'la,*) a seaport-town of S. Italy, prov. of Calabria-Ulteriore, at the entrance of the Strait of Messina, 5 m. N. of Reggio; *pop.* 5,000.

Scil'litine, *n.* (*Chem.*) The bitter principle of the squill (the bulb of the *Urgina scilla,* formerly *maritima*), to which its medical properties of an expectorant and diuretic are referable. It is a white substance, of a resinous appearance.

Scilly Islands, (The,) (*sil'le,*) a group, belonging to England, at the W. extremity of the English Channel, 30 m. S.W. of the Land's End. They consist of 150 islands and rocks, the principal of the former being St. Mary's, Tresco, St. Martin's, St. Agnes, Sampson, and Brechar. The soil is generally fertile, and the climate mild and healthy. *Prod.* Wheat, barley, oats, rye, and potatoes. *Cap.* Hugh-town, on the W. side of St. Mary's Island. *Pop.* 2,431.

—Also, a group in the S. Pacific Ocean; Lat. 16° 28′ S., Lon. 156° 10′ W.

Scimetar, Scimeter, Scymetar, (*sĭm'-,*) *n.* A short, curved sword, with a convex edge, much used by Oriental nations, and frequently found in Europe in the latter half of the 15th century.

Scinde, a country of Asia. See SINDE

Scintilla, (*sĭn-tĭl'lă,*) *n.* [Lat.] A spark; the smallest particle; a tlttle; an iota; as, there is not a *scintilla* of wit in his nature. (A.)

Scintillant, (*sĭn'-,*) *a.* [From Lat. *scintillare,* to sparkle.] Sparkling; emitting fine, igneous particles.

Scin'tillate, *v. n.* [Lat. *scintillo, scintillatum,* from *scintilla,* a spark.] To emit sparks, or fine, igneous particles. — To sparkle, as the fixed stars.

Scintillation, (*sĭn-tĭl-lā'shun,*) *n.* [Fr.; Lat. *scintillatio.*] Act of emitting sparks or igueous particles; act of sparklllg or coruscating. — Heuce, lutellectual radiance; as, *scintillations* of wit or fancy.

(*Astron.*) The *twinkling,* or tremulous motion, of the light of the larger fixed stars, by which they sppear as if the rays of light coming from theu were not continuous, bnt produced hy particles succeeding each other at intervals with a sort of vibratory movement. The planets, excepting when very near the horizon, have not this twiukling appearance; snd they sre thus readily distinguished from stars of the first msgnitude. It arises from the extreme smallness of the apparent diameters of the fixed stars, snd the unequal refracting power of our atmosphere at the different temperatures and pressures of the layers of sir through which a star is seen. This unequal refraction causes the apparent displacement of the star to a small extent. The twinkling of the stars is therefore greatest when they are near the horizon, and when the air is disturbed by currents of unequal temperature. Tbe stars near the zenith rarely twinkle, and when seen from the summit of a lofty mountain the phenomenon is also, for ohvious reasons, greatly diminished.

Scintil'lous, *a.* Scintillant; sparkling; coruscsnt. (R.)

Scio, Chio, or **Khio,** (*sī'o.*) [Anc. *Chios.*] An island of the Ægean Sea, belonging to the Turks, 5 m. W. of Cape Blanco, Asia Minor; Lat. of Scio, its cap., 38° 22′ 30″ N., Lon. 26° 9′ E. *Ext.* 32 m. long from N. to S., and 18 m. in its greatest breadth. The surface is diversified, and the soil generally fertile. The climate is mild and agreeable. *Prod.* Corn, wheat, cotton, wine, and fruits. *Min.* Marble and jasper. *Chief towns.* Chio, or Scio, the cap., and Mastico. *S.* was the scene of a terrific earthquake on April 3, 1881. The loss of lives officially reported amounted to 8000 killed, aud 10,000 wounded, with a vast destruction to property. *Pop.* abt. 70,000.

Sci'o, in *Mich.,* a p. v. and twp. of Washtenaw co., abt. 6 m. W.N.W. of Ann Arhor.—In *N. Y.,* a p. v. and twp. of Alleghany co.—In *Oregon,* a p. v. of Linn co.

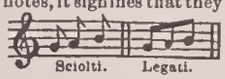
Sciola, or **Sciota,** (*si-o'la,*) in *Iowa,* a post-village of Montgomery co., 8 m. E. of Frankford.

Sciolism, (*sī'o-lĭzm,*) *n.* Superficisl science or kuowledge.

Sci'olist, *n.* [Lat. *sciolus,* a smatterer, dimin. of *scius,* from *scio,* to know.] One who knows little thoroughly, or who knows many things superficially; a pretentious savant; a smatterer; a superficial pedant.

Sciolist'ic, *a.* Pertaining, or relating, to sciolism; resembling, or partaking of, the characteristics of a sciolist.

Sciol'ti, *n.* [It.] (*Mus.*) A term which, applied to counterpoint, signifies that it is free, and not constralned by general rules. When applied to notes, it signifies that they are not tied together; thus,



Sciom'achy, Sciam'achy, *n.* [From Gr. *skia,* a shadow, and *machē,* battle.] An imaginary contest with one's shadow;—hence, any mock or incorporeal combat; as, "*sciomachy,* or imaginary combat of words."—*Cowley.*

Sci'omancy, *n.* [From Gr. *skia,* and *manteia,* prophecy.] Divination by means of shadows, as practised hy the ancients.

Sci'on, *n.* [Fr., from Lat. *scindo, scissum,* to cut off.] (*Hort.*) A cutting or slip prepared for the purpose of being grafted upon some other tree; a scion; a small twig or yonng shoot. — Hence, a descendant; an offshoot; a member as, a *scion* of a noble race.

Sci'optic-ball, *n.* [From Gr. *skia,* shadow, and *optikos,* relating to sight.] (*Optics.*) A name sometimes given to a mechanical contrivance used in the camera-obscura, for the purpose of giving motion to a lens in every direction.

Scio'ta, in *Illinois,* a prosperous township of McDonough co. *Pop.* (1897) 1,422.

Sciota, in *Minnesota,* a flourishing township of Dakota co. *Pop.* (1897) 310.

Sciota, or **Scioto,** in *New York,* a post-village of Clinton co., 15 m. N.N.W. of Plattsburg.

Scio'to, in *Michigan,* a township of Shiawassee co. *Pop.* (1897) 1,492.

Scioto, in *Ohio,* a river which rises in Hardin co., and after a S.S.E. conrse of 200 m., enters the Ohio Rlver at Portsmonth. — A S. co., bordering on the Ohio River; *area,* 630 sq. m. *Rivers.* Scioto and Little Scioto rivers, and Brush Creek. *Surface,* hilly; *soil,* fertile. *Min.* Iron and sandstone. *Cap.* Portsmouth. *Pop.* (1897) 39,950.
—A township of Pike co. *Pop.* about 1,100.
—A township of Delaware co. *Pop.* about 2,200.
—A township of Pickaway co. *Pop.* about 2,500.
—A township of Ross co. *Pop.* (1897) about 2,980.
—A post-village of Scioto county, 100 miles south of Columhus.

Scio'toville, In *Ohio,* a post-vllllage of Scioto co., N.E. of Portsmouth.

Scipio, (*sĭp'e-o,*) the name of an illustrious Roman family, the most celebrated members of which were:

Scipio, Apaicanus (*the Elder*), *Publius Cornelius,* one of the greatest of the Romans, born B. c. 234. He is said to have saved his father's life at the battle of the Ticinus, and by his courage and decision prevented the desertion of the young nobles after tho defeat at Cannæ. At the age of 24 he was chosen to command, as proconsul, in Spaiu, where, iustead of risking a bsttle with tho superior forces of the Cartbaginians, he laid siege to the city of Carthago Nova, aud took it the samo year. His humaue snd geuerous conduct on becoming master of the city, and especially his liberation of the Spanish hostages and prisoners found there, among them a very beautiful girl, excited the most enthusiastic admiration. Ile was even offered the sovereignty of Spain, bnt declined to be more than geueral of the Roman people. Durlng the uext three years *S.* made himself master of all Spain, except the town of Gades. In order to prepare tbe way for the invasion of the Carthaginian territory, he made a secret visit to the court of Sypbax, King of Numidia, and won his alliance. In 206 he returned to Rome, and was chosen consul for the next year. Sicily was given to him as his province, aud having attracted hy his character aud success an army of voluuteers, he crossed, in 204, into Africa, and hegan the siege of Utica, hut on the approach of Hsdrubal retired into wiuterquarters. In the spring he burnt, by stratagem, the double camp of the enemy, snd destroyed the fugitive forces. Syphax, who had joiued Hasdruhal, was captured, and Cirta surrendered to the conquerors. Hannibal was csIled to oppose *S.* in Africa, snd the second Punic War was terminated hy the total defeat of Hannihal at the hattle of Zoma, October 19th, 202. Peace was signed the next year, and *S.*, on his return home, had the most splendid trinmph which had yet been seen, and received the snrname Africanus. He declined other honors which were offered him; was subsequently censor, consul a second tiue, and in 193 ambassador to Antiochus, King of Syria, at whose court he is said to have met Hannibal. Having accompanied his brother Lucius to the Syrian war as lieutenant, in 190, they were accused of misspropriation of moneys received from Antiochus. Cato was the leader of the party opposed to *S.*, and the prosecution of Lucius was successful, but thst of Africanus was dropped by the advice of Tib Grscchus. The popularity of *S.* had wsned, and he left Rome never to return. D. at his villa, at Literuum, B. C. 183, the ssme year in which Hannibal died. *S.* married the daughter of Æmilins Paulus; and his youngest daughter becsme the wife of Tib Gracchus, snd the mother of the tribunes Tiherius and Caius. Throughout his career *S.* was distinguished hy extraordinary self-confidence and decisiveness in action, aud no less by a profound sense of religion. He professed, and it was believed hy the people, tbat he was favored with intercourse with tbe gods; snd on all occasions he devotedly awaited divine direction before acting. The stately pride with which, in his later years, he disregarded the laws of his country ohscured the lustre of the immense services he had earlier rendered.

Scipio, Lucius Cornelius, surnamed *Asiaticus,* was brother of the preceding, with whom he served in Spain and Africa. He obtained the consulate in 190.

Scipio, Æmilianus Africanus (*the Younger*), *Publius Cornelius,* conqueror of Carthage, B. about B. c. 185. He was the youngest son of Æmilius Paulus, and the adopted son of P. Scipio, son of Africauns the elder. In his youth he had the advantage of the instructions and friendship of Polyhius, who, exiled from Greece, was permitted to live ln the house of Æmilius Paulus. He was an industrious student of literature, and early proved himself singularly frce from the common vices of sensuality and covetousness. He began his military service in Spain in 151; gained great reputation soon after in Africa, in the tbird Punic War; and iu 148, although not of fit age, was chosen consul. The next year, accompanied by Polyhius and C. Lælius, he went to Africa, and at once commenced the siege of Carthage, which was heroically defended. It was entered by the Romans in the spring of 146; desperate fighting took place from street to street, and from house to house, with awful hloodshed; and at last a fire broke out, that raged nearly a week. *S.* mused mournfully over these horrors, and forehoded like ruin for Rome. By order of the Senate, tbe wall and houses were totally destroyed, and a curse pronounced against whoever should rehulld the city. *S.* had a magnificent triumph on his return. He led a simple and frugal life, and during his censorship, 142–1, tried to effect reforms in the manner of his countrymeu, but wlthout success. In 134 he was again consul, witb Spain for his province; and his great achievement there was the siege and capture of Numantia, for which he had the surname *Numantinus.* His marriage with Sempronia, sister of tho Gracchi, was not a happy one. By his hold resistance to the proposed reforms, he lost the favor of the popular party; and at last, in 129, he was found dead in his bed. Suspicion of murder fell on various persons, but chiefly on Carho, one of the most rash advocates of the Agrarian reforms. *S.* was the friend of Terence, Panætius, and especially of Lælius, whose name is affixed to Cicero's discourse, *De Amicitia.*

Scip'io, in *Indiana,* a township of Allen co.; *pop.* aht. 600. — A township of La Porte co.
A post-village of Jennings co., 31 m. N.W. of Madison.
— A village of Frankliu co., 11 m. E. of Brookville.

Scipio, in *Michigan,* a townsbip of Hillsdale co.; *pop.* abt. 1,600.

Scipio, in *New York,* a post-township of Cayuga co., 10 m. S. of Auburn.

Scipio, in *Ohio,* a township of Meigs co.
— A township of Seneca co.

Scip'io Centre, in *New York,* a village of Cayuga co., 12 m. S.S.W. of Auburn.

Scip'ioville, in *New York,* a post-village of Cayuga co., 12 m. S.S.W. of Auburn.

Scire-facias, (*sī're-fā-shi-as,*) *n.* [Lat., cause you to know.] (*Law.*) A judicial writ, which lies in various cases, as for iustance to call on a party to show cause to the court whence it issues, why letters-patent should not be repealed.

Scir'pus, *n.* [Lat., a bulrush.] (*Bot.*) A genus of plants, order *Cyperaceæ.* Varlous species, commonly knowu as Club-rushes, or Bulrushes, are much employed for mats, chair-bottoms, haskets, &c., and by coopers for filling up intervals in the seams of casks.

Scirrhoid, (*skĭr'roid,*) *a.* [Gr. *skirros,* sclrrhus, and *eidos,* shape.] Having resemhlance to scirrhus.

Scirrhos'ity, *n.* (*Med.*) A morhid induration, as of a gland.

Scir'rhous, Skir'rhous, *a.* Pertaining to, or proceeding from, a scirrhus; hard; indurate; as, *scirrhous* disease of the glands.

Scir'rhus, Skir'rhus, *n.*; Lat. *pl.* Sciarhi; Eng. *pl.* Scirrhuses. [Fr. *squirre;* Lat. *scirrus;* Gr. *skirros.*] (*Med.*) A hardened or lndurated tumor; the first stage of cancer, or carcinoma.

Scissel, Scissil, (*sĭs'sel,*) *n.* [See Scissile.] The clippings of various metals produced by several mechanical operations concerned in their msnufacture.
—The slips or plates of metsl ont of which circular blanks have been cut for tbe purpose of coinage.

Scissile, (*sĭs'sĭl,*) *a.* [From Lat. *scindere, scissum,* to cut.] That may be cut hy a sharp instrument.

Scission, (*sĭzh'un,*) *n.* [Fr., from Lat. *scissio — scindere, scissum,* to cnt, split.] Act of cutting or dividing by a sharp instrnment.

Scissor, (*sĭz'zur,*) *v. a.* To cut wlth scissors or shears.

Scis'sor-bill, or **Skim'mer,** *n.* (*Zoöl.*) The popular name of the genus *Rhynchops,* family *Laridæ,* including birds closely sllied to the Terus, hut easily distinguished hy their singular bill, which is compressed like a knife, and has the lower mandible longer than the upper, and broken off, as it were, st the tip. The American species, *R. nigra* (the Black-skimmer) (Fig. 2319), is 19 iuches long; wing 14. It skims its food from the surface of the water.

Fig. 2319.
SCISSOR-BILL, OR BLACK-SKIMMER.
(*Rhynchops nigra.*)

Scissors, (*sĭz'zurz,*) *n. pl.* [Fr. *ciseaux;* Lat. *scissor — scindo,* to cut, divide; Gr. *schizō.*] A two-bladed cutting instrument resembling shears, hut smaller.

Scissor'-tail, *n.* (*Zoöl.*) The name given hy the Spaniards to *Milvulus forficatus,* a bird of the family *Laridæ,* which has a forked tail, terminated hy two long feathers.

Scissure, (*sĭzh'yur,*) *n.* [Lat. *scissura.*] A longitudinal aperture made by cutting; a fissure; a cleft; as, the *scissures* made by an earthquake.

Scituate, (*sĭt'u-āt,*) in *Massachusetts,* a post-village, seaport, and township of Plymouth co., on Massachusetts Bay, 25 m. S.S.E. of Boston.

Scituate, In *Rhode Island,* a township of Providence co.

Sciu'rean, Sciu'rine, *n.* (*Zoöl.*) One of the Sciuridæ, *q. v.*

Sciu'ridæ, *n. pl.* (*Zoöl.*) A family of *Rodentia,* comprising the squirrels and their allies, which have the tibia and fibula distinct, and the molars $\frac{5-5}{4-4}$ or $\frac{4-4}{4-4}$.

The genus *Sciurus,* comprising the True Squlrrels, is characterized by compressed incisors, long ears, divided snout and upper lip, long tail, with tbe hairs arranged mainly on the sides, absence of cheek pouches, and inner lines of the upper molars parallel. Squirrels are lightly built, agile, live upon trees, and feed on fruit and nuts. There are about 50 American species, of whlch 12 or more belong to the U. States. — The Gray and the Black Squirrel, *S. Carolinensis,* of the U. States east of the Missouri, is 9 to 11 inches long to the tail, which is about an inch longer than the head and body; tbe color in the gray variety, grizzled light yellowish-gray above, pure whlte beneath. The Southern Gray Squirrel and the Northern Gray Squirrel are generally regarded as distinct species; hut Baird cousiders them as varieties of one species, for which he retalns the name given above. The Sonthern variety is smaller than the Northern, and, according to Audubon, has different hahlts. The Gray Squirrel occurs of every shade from gray to jet-hlack; and the black and dusky varieties have also been regarded by some as a species distinct from the gray. Gray squirrels are re-

Fig. 2320.
RED SQUIAREL, OR CHICKAREE.
(*Sciurus hudsonius.*)

markable for their occasional extensive migrations. Assembling in immense numbers, they make their way across the country, swimming streams, and turning aside for no obstacle. The Red Squirrel, or Chickaree, *S. hudsonius* (Fig. 2320), of the U. States, E. of the Missouri, and N. to Hudson's Bay, is 7 to 8 inches long to the tail, which is abt. 6 inches; the color above and on the sides mixed black and grayish-rusty, with a broad band of bright ferruginous along the back and upper surface of the tail; beneath, dingy-white. These squirrels are seen at all seasons of the year, and in all kinds of weather. In the Northern forests the deepest snows of winter are soon covered with their tracks, and penetrated by holes bored to find the cones of spruce, pine, and the nuts scattered beneath, or which they had hidden the previous autumn. They often sit for hours upon a stump, or limb of a tree close to the trunk, and, holding a cone or a nut in their fore paws, gnaw it briskly till they get all the food it contains. Disturbed while upon the ground, the Chickaree ascends the nearest tree, and making for the outer branches, leaps from these to another tree, and passing thus from tree to tree, is soon out of sight. Sometimes, however, when suddenly startled, it ascends a tree a short distance, and commences chattering with great fury, and leaping about as if in defiance of its intruder. (*Tenney.*) — See PEROMYS, STRIPED SQUIRREL, SPERMOPHILUS, PRAIRIE-DOG, &c.

Sclavo'nia. See SLAVONIA.

Sclerantha'ceæ, *n. pl.* [Gr. *skleros*, hard, *anthos*, a flower.] (*Bot.*) A small order of plants, alliance *Ficoidales*. DIAG. No petals, a tubular calyx becoming hardened and covering the fruit, consisting of a single solitary carpel. — The order is composed of 4 genera, including the species of inconspicuous plants found in barren places in temperate regions. *Scleranthus annuus*, the Knawel, is common in the Middle States.

Sclе'ria, *n.* [Gr. *skleros*, hard, alluding to the indurate shell of the fruit.] (*Bot.*) A genus of plants, order *Cyperaceæ*, comprising herbs having leafy stems, and spikelets in spikes, fascicles, or panicles. *S. triglomerata*, the Whip-grass, 3-4 feet high, is common in swamps in almost all the States.

Sclеr'ogen, *n.* [Gr. *skleros*, hard, and *gennō*, to produce.] Same as LIGNIN, *q. v.*

Sclero'tic, *a.* [Fr. *sclérotique*, from Lat. *sclerotica*.] Hard; rigid; firm; as, the *sclerotic* membrane of the eye.

—*n.* (*Anat.*) The outer tunic of the eye (Fig. 980). In man it is opaque, and forms the posterior five-sixths of the globe of the eye. It is white externally, brown internally, and is much thicker behind than in front. In many birds, and some fossil reptiles, it develops a circular series of bony plates around the eyeball.

(*Med.*) A medicine which indurates and solidifies the parts to which it is applied.

Scoat, *v. a.* To scotch. See SCOTCH.

Scobs, *n. sing.* and *pl.* [From Lat. *scabere*, to scrape.] The dross or rust of metals. — Raspings of ivory, horn, metals, or other hard substances. (*Chambers.*) — An alkali.

Scoff, *v. n.* [Icel. *skopaz*, to speak jestingly; M. H. Ger. *mit schophlîcen worten*, with scoffing words; allied to Gr. *skopto*, to mock.] To exhibit or express insolent ridicule, mockery, or contumelious language; to manifest contempt by expressions of derision; — followed by *at*.

—*v. a.* To treat with derision, contumely, or scorn; to flout; to mock at; to address with contemptuous language.

—*n.* Contemptuous ridicule; derision, ridicule, mockery, or reproach, couched in contumelious language; expression of scorn; as, to make a *scoff* of religion.

Scoffer, *n.* One who scoffs; a scorner; one who mocks, ridicules, derides, or reproaches in contumelious language; as, a profane *scoffer*.

Scoffery, *n.* Act of scoffing; derision; mockery.

Scoffing, *n.* The act of treating with contempt or scorn.

Scoffingly, *adv.* In a scoffing manner.

Scoke, *n.* (*Bot.*) The poke or pocan plant. See PHYTOLACCACEÆ.

Scola'zon, *n.* A peculiar kind of manure or compost.

Scold, (*skōld,*) *v. n.* [A. S. *scyldan*.] To find fault or reprove with rude clamor; to utter railing, or harsh, rude, boisterous rebuke; to brawl; to chide or admonish in a sharp, coarse, termagant manner; — generally preceding *at*.

—*v. a.* To give a chiding to with rudeness and boisterous clamor; to rate; to reprimand, rebuke, or reprove sharply or coarsely; as, she *scolded* her husband for coming home late.

—*n.* A rude, boisterous, clamorous, foul-mouthed woman; a shrew; a vixen; a termagant; a virago; a woman whose tongue gets the better of her temper.

"A shrew in domestic life is now become a *scold* in politics." *Addison.*

—A brawl; a scolding; a rating.

Scold'er, *n.* One who scolds, rates, rails, or clamors.

Scold'ing, *n.* The utteriug of rude, clamorous language by way of rebuke or reproof; rating or railing language; as, to give one a *scolding*.

Scold'ingly, *adv.* In a scolding, rating manner.

Scolecite, Skolecite, (*skōl'e-sīt,*) *n.* [From Gr. *skōlēk*, earth-worm.] (*Min.*) A hydrated silicate of alumina and lime, which occurs in prismatic and acicular crystals, and also massive with a fibrous and radiating structure. It is colorless, snow-white, grayish, yellowish, and reddish, and transparent to translucent at the edges.

Sco'lex, *n.* [Gr., a worm.] (*Zoöl.*) The first or primitive segment of a tapeworm (*tænin*), which originates itself from a cysticercus, and develops proglottides, who in their turn become free and independent from the parent organism.

Scol'lop, *n.* and *v. a.* Same as SCALLOP, *q. v.*

Scolopa'cidæ, *n. pl.* (*Zoöl.*) The Snipe family, order *Grallatores*, comprising birds which have the bill generally longer than the head, and the hind toe generally present.

Scolopen'dridæ, *n. pl.* (*Zoöl.*) The Centipede family. See CENTIPEDE.

Scolopen'drium, *n.* (*Bot.*) A genus of Ferns. *S. officinarum*, the Hart's-tongue (Fig. 2321), a species

Fig. 2321. — HART'S-TONGUE, (*Scolopendrium vulgare.*)

a, Sporangium, or Spore-capsule;
b, the same, opened, showing its elastic ring.

common in Europe, has been found at Chittenango, N. Y., and in Kentucky.

Sco'lymus, *n.* (*Bot.*) A genus of plants, order *Asteraceæ*, including the Golden-thistle.

Scolytidæ, *n.* (*Zoöl.*) The Bark-beetle family, comprising coleopterous insects, the type of which, *Scolyus destructor*, is very obnoxious in certain countries, as England, by destroying large numbers of elm trees.

Scom'bridæ, SCOM'BERIDÆ, *n. pl.* (*Zoöl.*) The Mackerel family, comprising acanthopterygious fishes with a smooth body and small scales, and whose tail and caudal fin are extremely powerful. Over 50 genera and more than 400 species are known, many of which are of the highest utility to man. The typical genus *Scomber* is the true MACKEREL, *q. v.*

Sconce, (*skŏns,*) *n.* [It. *scancia*, a shelf.] An English provincialism for a fixed shelf or plate-rack.

—[D. *schans;* Ger. *schanze;* Dan. *skandse;* Icel. *skans.*] A fort, bulwark, or defensive fortification. — A piece of protective armor for the head; a head-piece. — Hence, the head; the skull; the occiput; also, by implication, as being in the head, brains; gumption; ideas; sense; as, to knock one over the *sconce*, he has not much in his *sconce*, &c. (Colloq.) — A lantern, or cased support or protection for a light; hence, a candle-stick which usually takes the form of a projecting, bracketted support, in wood or metal; as, "Golden *sconces* hang upon the wall." (*Dryden.*) — Hence, the cylindrical tube with a circular rim, forming part of a candlestick, and serving to hold or support the candle; as, "put candles into *sconces*." (*Swift.*) — A mulct or fine; a poll-tax.

—*v. a.* To mulct; to fine.

Sconondo'a, or **Skanando'a,** in *New York*, a village of Oneida co., 22 m. W. of Utica.

Scoop', *n.* [Fr. *écope;* allied to Lat. *scopha*; Gr. *skaphē*, anything hollowed out, from *skapto*, to dig, delve.] A kind of hollow shovel or ladle, of various sizes, and generally of an elongated form, used for dipping liquors; also, a vessel for bailing boats. — A hollow, or hollowed, place; a basin-like cavity; as, a *scoop* in a rock.

(*Surg.*) A spoon-shaped vessel, used to extract balls impacted in the soft parts, or other foreign bodies.

—*v. a.* To take out with a scoop: to lade out; as, to *scoop* water from a well. — To empty by lading; as, to *scoop* a fountain dry. — To dig out; to excavate; to make hollow, or in basin-like form; as, to *scoop* one's eyes out.

Scoop'er, *n.* One who scoops or excavates.

(*Zoöl.*) Same as AVOSET, *q. v.*

Scoop'-net, *n.* A hand-net used in fishing.

Scoop'-wheel, *n.* A wheel having scoops or buckets attached to its periphery.

Scope, *n.* [Gr. *skopos*, from *skeptomai*, to view, to observe.] Limit of intellectual view; the end or thing to which the mind directs its view; that which is purposed to be reached or accomplished; — hence, ultimate design, aim, or intention; drift; object; as, the *scope* of ambition. — Space or extent viewed; room; amplitude of intellectual view; fulness of opportunity; freedom from restraint; room to move in; as, to allow free *scope* to the imagination. — Length; stretch; sweep; extent; as, *scope* of cable.

Sco'pia, a town of European Turkey. See USKUP.

Sco'piform, *a.* [Lat. *scopæ*, a broom, and *forma*, form.] Broom- or besom-shaped.

Sco'piped, *n.* [Fr. *scopipède*, from Lat. *scopæ*, a broom, and *pes, pedis*, a foot.] (*Zoöl.*) One of a tribe of melliferous insects, including those which have the tarsi of the posterior feet furnished with a brush of hairs.

Sco'pulipedes, *n. pl.* (*Zoöl.*) See APIDÆ.

Scorbu'tic, Scorbu'tical, *a.* [Fr. *scorbutique*, from L. Lat. *scorbutus*. See SCURVY.] Affected or diseased with scurvy; pertaining to scurvy, or partaking of its nature; subject to scurvy; as, a *scorbutic* skin, a *scorbutic* complaint.

Scorbu'tically, *adv.* In a scorbutic manner.

Scorch, *v. a.* [Fr. *écorcher*, from Lat. *excoriare*, to strip off the skin.] To cause to feel by heat, as the skin; to burn superficially; to subject to a degree of heat so as to change the color of a thing, or both the color and texture of the surface without combustion; as, to *scorch* one's hands or face. — To affect, as by heat; to dry up with heat; to cause to suffer, as by the effects of heat; as, "*scorch'd* with beauty's beam." — *Fairfax.*

—*v. n.* To be parched or dried up; to be burned on the surface; as, a *scorched* country.

Scorch'ingly, *adv.* In a scorching manner.

Scorch'ingness, *n.* Quality of scorching, or burning superficially.

Score, (*skōr.*) *n.* [A. S. *scor.*] A cut, notch, or incision; a line drawn; — especially, a tally-mark, or notch made for keeping account of something.

"Our forefathers had no other books but the *score* and the tally." — *Shaks.*

—An account or reckoning kept by lines, notches, or marks; — hence, indebtedness; as, to pay off an old *score*, to keep the *score* in cricket, &c. — Account; reason; motive; ground; sake; as, we shall not quarrel on that *score*, he did me a service on the *score* of old friendship. — The number *twenty*, because such number was formerly signified by a notch or special tally; as, *scores* of people visited the show. — In some parts of England, a weight of twenty pounds.

(*Mus.*) The original and entire draught of any composition in parts, in which all the parts are arranged upon staves one above the other, so as to present to the eye of a skilful musician the effect of the entire band during performance. The term *S.* originated from a bar or line, which was formerly drawn through all the parts.

To quit scores. To balance accounts; to make even reckoning; to give satisfaction or make liquidation.

"Does not the earth *quit scores* with all the elements?" — *South.*

—*v. a.* To mark by incisions; to cut; to notch; to cut furrows in; as, to *score* a man's back with the lash, to *score* a leg of pork before roasting. — To chip for the purpose of preparing for hewing; as, to *score* timber. — To mark with specific lines or notches, for keeping account of something; as, to *score* a tally. — To set down or charge, as a debt or an account; to keep record or note of; as, I *scored* it against him. — To note down in proper order and arrangement; as, to *score* music.

(*Geol.*) To mark with parallel lines or scratches; as, the rocks of New England were *scored* in the Drift epoch.

Scor'er, *n.* One who, or that which, scores or notches; one who keeps tally, as in cricket or other games. — An instrument used by woodmen in marking numbers on timber trees.

Sco'ria, *n.; pl.* SCORIÆ. [Lat.; Gr. *skōria*, from *skor*, the ordure.] Dross; the recrement of metals in fusion, or the slag rejected after the reduction of metallic ores. — Volcanic ash of a reddish-brown and black color, being the cinder and slag of a particular kind of lava. In appearance, volcanic scoriæ greatly resemble the slags of an iron furnace, and are in fact atony or imperfectly vitrified glassy products.

Sco'riac, *a.* Relating or belonging to scoria; scoriaceous.

Scoriaceous, (*skō-ri-ā'shus,*) *a.* Pertaining, or having reference, to dross, or the recrement of metallic ores; partaking of the nature or characteristics of scoria.

Scorifica'tion, *n.* [Fr.] (*Metal.*) Act, operation, or process of either wholly or partially reducing a body into scoria.

Sco'riform, *a.* Resembling scoria.

Sco'rify, *v. a.* (*imp.* and *pp.* SCORIFIED.) [Fr. *scorifier.*] To reduce to scoria or drossy debris.

Sco'rious, *a.* Drossy; slaggy; recrementitious. (R.)

Scorn, *n.* [A. S. *scearn*, dung; It. *scherno.*] Disdain; extreme or superlative contempt; that disdainful feeling or treatment which springs from a person's opinion or conviction of the meanness of another person or object, and a consciousness or belief of his own superiority or worth; as, his attentions were received with *scorn*. — That which is treated with sublime contempt; subject of superb contempt, disdain, or derision; as, his name was a *scorn* and a byword. — *To think scorn*, to disdain; to hold as unworthy of attention, notice, or esteem; as, "I know no reason why you should *think scorn* of him." — *Sidney.*

To laugh to scorn, to deride as contemptible; to ridicule; to make a mock of.

—*v. a.* To hold in the highest degree of contempt; to despise; to contemn; to disdain; to think altogether unworthy of one; to slight; to disregard; to neglect; as, his former friends *scorn* him.

Scorn'er, *n.* One who scorns; a contemner; a despiser as, a *scorner* of danger. — A derider; one who scoffs or mocks, as at religion or moral ordinances.

Scorn'ful, *a.* Filled with scorn; entertaining or expressing scorn; superbly contemptuous; disdainful; acting in defiance or disregard; insolent; neglectful; as, a *scornful* glance, a *scornful* air, a *scornful* reply, &c.

Scorn'fully, *adv.* With superlative contempt; in a scornful manner; disdainfully; insolently.

Scorn'fulness, *n.* Quality of being scornful.

Scor'odite, Skor'odite, *n.* [From Gr. *skorodon*, garlic.] (*Min.*) A hydrated arseniate of iron.

Scor'pio, *n.* [Lat., a scorpion.] (*Astron.*) The eighth sign and ninth constellation of the zodiac. It is situated southward and eastward of Libra, and is on the meridian the 10th of July. It contains 44 stars,

SCOTLAND

SCALE OF MILES
0 10 20 30 40

Railroads
Submarine Cables
Canals

Size of type indicates relative importance of places

Hammond's 8 x 11 Map of Scotland
Copyright, 1944 by C.S. Hammond & Co., N.Y.

SCALE OF MILES
0 10 20 30

Longitude West from Greenwich

SCOTLAND.

Area sq. m..29,796
Pop.....4,472,000

COUNTIES.

Aberdeen.....F 2
Area sq. m.1,972
Pop.....304,439

Argyll.....C 3
Area sq. m.3,110
Pop.....73,642

Ayr.....D 4
Area sq. m.1,132
Pop.....254,468

Banff.....E 2
Area sq. m ..630
Pop..... 61,488

Berwick.....F 4
Area sq. m...457
Pop..... .30,824

Bute .....C 4
Area sq. m...218
Pop.....18,787

Caithness... ..E 1
Area sq. m...686
Pop.....33,870

Claekmannan.E 3
Area sq. m....55
Pop.....32,029

Dumbarton...D 3
Area sq. m...246
Pop.....113,865

Dumfries.....E 4
Area sq. m..1,072
Pop.....72,571

Edinburgh....E 4
Area sq. m...336
Pop.....488,796

Elgin.....E 2
Area sq. m...477
Pop.....44,800

Fife.....E 3
Area sq. m...504
Pop.....218,840

Forfar.....E 3
Area sq. m...874
Pop.....284,082

Haddington...F 4
Area sq. m...267
Pop..... 38,665

Inverness.....D 2
Area sq. m.4,211
Pop.....90,104

Kincardine....F 3
Area sq. m ..381
Pop.....40,923

Kinross.....E 3
Area sq. m....82
Pop.....6,981

Kirkcudbright D4
Area sq. m...899
Pop 39,383

Lanark.....E 4
Area sq. m...879
Pop.....1,339,327

Linlitbgow....E 4
Area sq. m...120
Pop.....65,708

Nairn.....E 2
Area sq. m...162
Pop.....9,291

Orkney Is.....E 1
Area sq. m...376
Pop.....28,699

Peebles.....E 4
Area sq. m...348
Pop.....15,066

Perth.....E 3
Area sq. m.2,494
Pop.....123,282

Renfrew .....D 4
Area sq. m...240
Pop..... .268,980

Ross & Cromarty
D 2
Area sq. m 3,089
Pop.....76,450

Roxburgh.....F 4
Area sq. m...666
Pop.....48,804

Selkirk.....E 4
Area sq. m. .267
Pop.....23,356

Shetland Is....F 1
Area sq. m...551
Pop.....28,166

Stirling.....D 3
Area sq. m...451
Pop.....142,291

Sutherland....D 1
Area sq. m 2,028
Pop.....21,440

Wigtown.....D 5
Area sq. m...487
Pop.....32,685

CITIES-TOWNS

Pop. Thousands.

622 Glasgow ..D 4
298 Edinburgh E 4
159 Dundee....F 3
143 Aberdeen .F 2
79 Paisley.... D 4
76 Leith.....E 4
67 Greenock D 4
34 Kilmarnock D 4
32 Perth.....E 3
32 Hamilton ..D 4
22 Kirkcaldy. E 3
22 Dunfermline
E 3
21 Inverness.. D 2
20 Ayr .....D 4
20 Falkirk.... E 3
20 Motherwell E 4
18 Dumbarton D 4
18 Dumfries ..E 4
18 Stirling ....E 3
17 Hawick.....F 4
17 Rutherglen D 4
16 Port Glasgow
D 4
16 Arbroath...F 3
16 Airdrie.. ..E 4
15 Dysart.....E 3
12 Galashiels..F 4
12 Montrose ..F 3
11 Peterhead .G 2
11 Musselburgh
E 4
11 Forfar. ....F 3
Alloa . ....E 3

including one of the first magnitude (*Antares*), one of the second, and eleven of the third. When this constellation rises, Orion sets; hence the mythological fable of the death of Orion, who perished by the sting of a scorpion.

Scor'pioid, Scorpioid'al, *a.* (*Bot.*) Noting that form of inflorescence in which the main axis is curved in a cincinate manner like the tail of a scorpion, as in the Forget-me-not.

Scor'pion, *n.* [Fr.; Lat. *scorpio.*] (*Zoöl.*) The *Pedipalpi*, a family of *Arachnida*, comprising formidable insects, distinguished from other spiders by having the abdomen articulated with a curved spur at the extremity, under the point of which are two small orifices, which serve to give passage to a poisonous fluid. The anterior pair of feet or palpi are very large, resembling those of the lobster in form. The other feet do not differ essentially in form from those of spiders. On the under side of the thorax are two comb-like appendages, the use of which is not well understood. Scorpions inhabit the hot countries of both hemispheres, live on the ground, conceal themselves under stones and other bodies, and not unfrequently take up their abode in houses. When disturbed, they run rapidly, with the tail over the back, ready to turn it in any direction, either

Fig. 2322. — SCORPION.

for attack or defence. They feed on insects and their eggs. The species of the *S.* of Europe are little more than an inch in length, while some of the tropical species exceed five inches; and the sting of the latter produces serious symptoms, which are said frequently to result in death. The young scorpions are produced at various intervals, and are carried for several days upon the back of the parent, during which time she never leaves her retreat. The genus is divided by naturalists into sub-genera, depending upon the number of the creature's eyes, whether six or eight.

(*Astron.*) The SCORPIO, *q. v.*

(*Script.*) A kind of scourge, or whip, having points like a scorpion's tail.

"I will chastise you with *scorpions*." — 1 *Kings* xii. 11.

(*Archæol.*) An ancient military engine for hurling missiles.

Scor'pion-grass, *n.* (*Bot.*) See MYOSOTIS.

Scor'pion-senna, *n.* (*Bot.*) See CORONILLA.

Scor'tatory, *a.* [From Lat. *scortari*, to fornicate.] Pertaining or having reference to, or consisting in, fornication or libidinous enjoyment; as, *scortatory* practices.

Scorzone'ra, *n.* [Sp. *escorza*, a serpent.] (*Bot.* and *Hort.*) A genus of plants, order *Asteraceæ*. The species *S. Hispanica* of botanists, and the *S.* or Vipers' grass of gardeners, is a native of Spain, but is cultivated in all parts of Europe for its roots, which are sold in the markets. They are of very easy cultivation, growing vigorously in good ground, and bearing our hardest winters without injury. The root is nearly the shape of a carrot, but smaller and dark-colored, while internally it is pure white. The taste is sweet and agreeable, something like that of the roots of certain umbelliferous plants or the common hazel-nut. Its effects on the digestive organs are to increase the flow of gastric juice and bile, and as it acts as a deobstruent on the alimentary organs generally, it is slightly aperient. Its anti-bilious power is scarcely, if at all, inferior to that of dandelion. It is usually eaten in the same way as asparagus, which is the preferable mode for the invalid. As it is one of the most agreeable of vegetables as regards flavor, it undoubtedly deserves to be much more cultivated than it is in this country, being almost unknown in many of the States.

Scot, *n.* [A. S.; Fr. *écot.*] A tax or contribution; a mulct; a fine; a shot; a sum of money assessed or paid. (o.)

—[A. S. *Scotta.*] (*Geog.*) A native or inhabitant of Scotland; a Scotsman or Scotchman.

—*v. a.* Same as SCOTCH, *q. v.*

Scotch, (*skŏtch,*) *a.* (*Geog.*) Scottish; Scots; pertaining to Scotland or to its people.

Scotch fiddle, a cant Scotticism for the itch. — *Scotch mist*, a dense mist or mizzle, resembling fine rain. — *Scotch pine.* (*Bot.*) See PINUS. — *Scotch thistle*, a variety of thistle; — so termed from its being the national emblem of the Scottish people. — *Scotch broth.* (*Cookery.*) A broth made of sheep's head, boiled with pot-herbs and pearl barley.

—*v. a.* [W. *ysgwydd*, a shoulder.] To shoulder up; — hence, to support; to prop, as a wheel, by placing a wedge under it to prevent its rolling. — To pack, as hemp. — To shave or cut off a piece of the bark, cuticle, or surface of; to score; to make a superficial incision in; as, "he *scotched* and notched him like a carbonado." *Shaks.*

—*n.* A slight cut or shallow incision; a score. — A line drawn on the ground, as in the childish game of hop-scotch.

Scotch-collops, *n. pl.* (*Cookery.*) A familiar colloquialism for minced veal.

Scotch Grove, in *Iowa*, a post-township of Jones co., 34 m. S.W. of Dubuque.

Scotch'-hopper, or HOP-SCOTCH, *n.* A childish game, in which jumps are taken over certain scotches or lines marked on the ground.

Scotch'man, *n.*; *pl.* SCOTCHMEN. A Scot; a Scotsman; a native or inhabitant of Scotland.

Scotch Peb'bles, *n. pl.* (*Min.*) A name given to the agates found in Scotland, where they occur abundantly, as irregularly shaped nodules in the amygdaloid series.

Scotch Plains, in *New Jersey*, a post-village of Union co., 40 m. N.E. of Trenton.

Scotch'town, in *New York*, a post-village of Orange co., 107 m. S. of Albany.

Sco'ter, *n.* (*Zoöl.*) The Black Duck, or Black Dove, *Anas nigra* or *Anas obscura*, forming in some classifications a sub-genus, *Oidemia.*

Scotforth, (*skot'forth,*) a town of England, co. of Lancaster, 2 m. from Lancaster; *pop.* 7,000.

Scot'-free, *a.* [A. S., scot-fresh.] Free from payment, tax, or tribute; untaxed; exempt from scot or mulct. — Hence, clear; free; whole; unharmed; safe and sound; as, he came out of the affair *scot-free.*

Scotia, (*skō'shĭ-a',*) *n.* [Lat.; Gr. *skotia*, gloom.] (*Arch.*) A hollow moulding, chiefly used in the tori between the bases of columns; it takes its name from the shadow formed by it, which seems to envelop it in darkness. — Also, a groove or channel cut in the projecting angle of the Doric corona.

Sco'tia, in *New York*, a post-village of Schenectady co., 18 m. N.W. of Albany.

Sco'tist, *n.* (*Eccl. Hist.*) One of an old scholastic sect who followed the doctrines advanced by Duns Scotus, a Scottish cordelier, and one of the leading champions of Realism in the 13th century; — opposed to a *Thomist*, or follower of Thomas Aquinas.

Scot'land, the northern and smaller portion of the island of Great Britain, and one of the three great divisions of the United Kingdom of Great Britain and Ireland, between Lat. 54° 38′ and 58° 40′ 30″ N., and Lon. 1° 46′ 30″ and 6° 3′ 30″ W., or, including the Hebrides, 7° 44′ W. It is surrounded by the ocean on all sides, except on the S., where it is separated from England by the Solway Frith, the Cheviot Hills, and the Tweed. Its greatest length, N. to S. from Dunnet Head to the Mull of Galloway, is about 280 m.; its breadth is very unequal, varying from 32 m. between Alloa on the Frith of Forth and Dumbarton on the Clyde, to 146 m. between Buchau Ness in Aberdeenshire and Rowanmoan Point in Ross-shire; *area*, 30,328 square miles, having about 101 inhabitants to the sq. m. *Coast-line.* Few countries of equivalent magnitude display so great an extent of sea-coast, its aggregate length being about 2,506 m. *Inlets, Friths, Bays.* These are, on the E., the Friths of Forth, Tay, Murray, Dornoch, and Cromarty; on the W. is the Frith of Clyde and Loch Ryan; on the N., the Pentland Frith, and Lochs Broom, Eil, Fyne, and Linnhe; on the S., the Solway Frith, Luce Bay, and Wigtown Bay. Besides these, there are the Minch, the Little Minch, and the North Channel. *Capes.* Numerous: the principal are St. Abb's Head, Fife Ness, Buchan Ness, Kinnaird's Head, Tarbet Ness, Duncansby Head, Dunnet Head, and Cape Wrath; the Mull of Cantire, the Mull of Galloway, and Burrow Head. These are all on the mainland. *Islands.* The principal groups are the Orkneys, the Shetlands, and the Hebrides, besides Arran and Bute. *Divisions.* Scotland is divided into the following 33 counties:

NORTH:—	EAST MIDDLE:—	Lanark.
Orkney,	Forfar,	SOUTH-EAST:—
Shetland,	Perth,	Linlithgow,
Caithness,	Fife,	Edinburgh,
Sutherland.	Kinross,	Haddington,
NORTH-WEST:—	Clackmannan.	Berwick,
Inverness,	WEST MIDDLE:—	Peebles,
Ross and Cromarty.	Stirling,	Selkirk.
NORTH-EAST:—	Dumbarton,	SOUTH:—
Nairn,	Argyle,	Roxburgh,
Elgin or Moray,	Bute.	Dumfries,
Banff,	SOUTH-WEST:—	Kirkcudbright,
Aberdeen,	Renfrew,	Wigtown.
Kincardine.	Ayr,	

Chief towns. Edinburgh is the metropolis, but Glasgow is the largest city. There are besides, with pop. of upwards of 10,000, Dundee, Aberdeen, Paisley, Greenock, Leith, Perth, Kilmarnock, Ayr, Arbroath, Montrose, Airdrie, Dunfermline, Dumfries, Stirling, and Kirkcaldy. *S.* is extremely irregular in its surface and outline, and, compared with England, may be said to be sterile, rugged, and mountainous. With the exception of a few rich alluvial tracts, there are no extensive vales in *S.*; its surface, even when least mountainous, being generally varied with hill and dale. It has been separated into the two great divisions of the *Highlands* and the *Lowlands*, and also into the Northern, the Middle, and the Southern. The first, or Northern division, is cut off from the Middle by the chain of lakes which stretch from the Moray Frith to Loch Linnhe. The second, or Middle division, is separated from the Southern by the friths of Forth and Clyde, and the Great Canal. The Northern division consists generally of an assemblage of vast mountains, here and there intersected by fertile valleys, chiefly towards the south and east coasts. A portion of them are clothed with green herbage, more especially where sheep-farming prevails; but, in general, they are covered with heath, growing upon peat, rock, or gravel; and they frequently terminate in mountain-caps of solid rock, or in vast heaps or cairns of bare and weather-beaten stones. The Middle division is also mountainous, the Grampian range intersecting this district, and extending from the eastern to the western sea, and occupying a breadth of from 40 to 60 miles. The western parts of Argyleshire, which are also included in this district, are rugged, mountainous, and deeply indented by inlets of the ocean. In these two divisions, which comprehend more than two-thirds of Scotland, the arable ground consists of but a small proportion to the mountainous regions. On the eastern coasts, however, the proportion of the cultivated to the uncultivated land is much greater. In the Southern division every variety of aspect is found; verdant plains, watered by copious streams, and covered with innumerable cattle; gently-rising hills and bending vales, fertile in corn, waving with wood, and interspersed with meadows; lofty mountains, craggy rocks, deep narrow dells, and tumbling torrents; nor are there wanting, as a contrast, barren moors and wild uncultivated heaths. In this district are the different ranges of the Cheviot Hills; the Sidlaw Hills, terminating at Perth; the Ochil Hills, forming the middle division; and the hills of Kilsyth and Campsie. Between the Sidlaw ridge and the Grampian Mountains lies the extensive and fruitful valley of *Strathmore*, stretching from Stirling to Stonehaven. Another strath or valley, called *Glenmore*, runs across the country from Loch Eil to the Murray Frith. This strath, in different parts, has particular names. *Rivers.* Numerous. In the Northern division, the principal are the Beauly, Naver, Thurso, &c.; in the Middle division, the Spey, the Deo, the Don, and the North and South Esk; about 30 m. farther south is the Tay, one of the largest rivers in Britain. In the Southern district are the Forth, the Clyde, and the Tweed, and the numerous rivers which empty themselves into the Irish Sea and the Solway Frith; the Ayr, the Girvan, the Southern Dee, the Nith, the Annan, and the Liddel. *Lakes or Lochs.* Numerous and extensive. The principal are Lochs Lomond, Awe, Ness, Shin, Maree, Tay, Erich, Shiel, Lochy, and Katrine. *Climate.* Extremely variable. From its insular situation, however, the cold in winter is not so intense, nor the heat in summer so great, as in similar latitudes on the continent; and although the range of the thermometer is considerable, it seldom maintains an extreme for any length of time. The annual average temperature may be estimated at from 45° to 47°. *Zoölogy.* The wild animals are the fox, the badger, the otter, the wild cat, the hedgehog (these are now becoming scarce), the stag, the wild roe, the hare, the rabbit, the weasel, the mole, and other small quadrupeds. The domestic animals are the same as those of England; but the native breed of black cattle and sheep is smaller in size, but reputed to afford more delicious food. Of the feathered tribes, pheasants are to be found in the woods, though scarce, also ptarmigan, black game, and grouse; and in the low grounds, partridges, snipes, and plovers. Scotland has also most of the English singing-birds, except the nightingale. *The* aquatic fowls are numerous in the islands. *Prod.* Wheat, rye, barley, oats, peas, beans, hay, potatoes, turnips, flax, and hemp, and, in general, all the kinds of crops which are raised in the southern part of the island. Horticulture has made rapid progress in every part. Apples and other fruits are produced in abundance. Many extensive tracts of waste land have been planted with wood, and the *Alga marina*, or sea-weed, which grows in great luxuriance on the rocky coasts, constitute a valuable article of commerce, from the burning of it into kelp. *Minerals.* Iron-stone, iron-ore, lead, and septaria iron-stone, are abundant. Copper has been discovered in many places. The other metallic substances are cobalt, bismuth, manganese, wolfram, plumbago, and mercury; the latter in very small quantities. Coal is abundant in the Southern and Middle districts. Limestone, free-stone, or sandstone, and slate, are found in every district. Marbles are also found. Most of the gems and precious stones have been found among the mountains of Scotland, the diamond excepted. Jasper is found in great variety, and rock-crystal, commonly denominated *cairngorm*, from the mountain of that name in Banffshire. Chalcedony is also found. *Manuf.* Flax and hemp are made into a variety of fabrics; such as sheetings, osnaburgs, bagging, and canvas. The cotton manufacture has been carried, by means of machinery, to an astonishing degree of extent and perfection. Muslins and other fabrics are executed in great perfection To these may be added brocades, lappets of all sorts, imitation shawls, gauzes, cambrics, shirtings, sheetings, twills, stripes, checks, pullicates, ginghams, shawls, and thread; calico-printing is pursued in all its branches. Iron goods of every description, such as anchors, bolts, wagon-axles, sugar-mill gudgeons, wedges, and various articles of mill and steam-engine work, with domestic utensils of every kind, as well as hoes, axes, adzes, hammers, and similar tools. Almost all kinds of articles into which timber is manufactured are produced in great plenty and perfection. Coach-making, musical-instrument making, &c., are carried on in all the principal towns; ship-building also forms a most important branch of national industry, and dock-yards for building and repairing vessels are established in the different seaports. There are, besides, manufactories of glass for all the different sorts of bottle-, window-, and flint-glass; also of soap, candles, and starch; salt, tanning, brewing, distilling, and almost all articles of ordinary use, are manufactured in Scotland. The different fisheries have been prosecuted with great industry and success. The whale-fishery to Davis' Straits and Greenland employs a great number of ships, and the white fishery is also prosecuted with great industry along the Moray Frith, Shetland, and the Western Islands, which bring profitable returns. The herring-fishery is carried on along the whole coast of the kingdom, as also the salmon-fishery in all the different rivers. *Imp.* These principally consist of woollen cloth, cotton, flax, hemp, yarn, linen, iron, corn, wood, tallow, timber, tea, sugar, and other colonial produce.

Exp. Cotton and linen goods, sail-cloth, sheep, black-cattle, coal, iron, and fish. The chief shipping ports are Glasgow, Greenock, Leith, Dundee, Arbroath, Montrose, Aberdeen, Peterhead, Banff, and Invarness. *Inhabitants.* These may be divided into two great classes, viz., *Highlanders* and *Lowlanders*. The language, dress, and customs of these two classes are very different. The language of the Highlanders is that species of the Celtic called in Scotland Gaelic, or *Erse*. The ancient dress of the Highlanders (*Fig.* 2123) is fast giving way to a more modern costume, although it is still retained in many places, and often worn by gentlemen on particular occasions. The language of the low country is English, with a mixture of the Scottish, which, however, in the ordinary dialect of the better classes, is fast giving places to the English. *Education.* An act, passed in the reign of William and Mary, ordains that there shall be a school and a school-master in every parish. These establishments, in which are taught reading, writing, arithmetic, and also Latin and Greek, have been attended with the happiest results. There are four universities; namely, at Edinburgh, St. Andrew's, Glasgow, and Aberdeen. *Religion.* Presbyterianism, established by act of Parliament in 1696, and afterwards secured in the treaty of Union. The system is founded on a parity of ecclesiastical authority among all its presbyters, excluding all preëminence of order, all its ministers being held equal in rank and power. Besides the Established Church, there are numerous dissenters; such as Free Churchmen, United Presbyterians, Independents, Quakers, Bereans, and Baptists. There are Catholic churches in the principal towns, and in the northern parts this religion has not been entirely superseded by that of the Reformation. *Govt.* The ancient constitution of *S.* was superseded at the time of the union with England. In the Parliament of England, the Scots nobility are represented by 16 peers. *History. S.* was first visited by the Roman troops under Agricola, who penetrated to the foot of the Grampian Mountains. It was afterwards exposed to the ravages of the Norwegians and Danes, with whom many bloody battles were fought. Various contests were also maintained with the kings of England. Robert Bruce, however, secured the independence of the country and his title to the throne, by the decisive battle of Bannockburn, in 1314. He was succeeded by his nephew, Robert Stewart, and he by his eldest son, Robert. He being a weak prince, the reins of government were seized by the Duke of Albany, who stoned to death the eldest son of the king. James, his second son, to escape a similar fate, fled to France; in the year 1424 he returned to *S.*, and having excited the jealousy of the nobility, he was assassinated in a monastery near Perth. James II., his son, an infant prince, succeeded him in 1437. He was killed by the bursting of a cannon at the siege of the castle of Roxburgh. James III. ascended the throne at the age of seven years. His reign was weak and inglorious, and he was murdered in the house of a miller, whither he had fled for protection. James IV., a generous and brave prince, began his reign in 1488. He was slain at the battle of Flodden. James V., an infant of less than two years of age, succeeded to the crown. He died in 1542, and was succeeded by his daughter, the celebrated Queen Mary, whose history and tragical end are well known. She was succeeded by her son James, who, in 1603, ascended the throne of England, vacant by the death of Queen Elizabeth, when the two kingdoms were united into one great monarchy, which was legislatively united in 1707. In 1715 and 1745, unsuccessful attempts were made for the restoration of the exiled Stuarts. In 1877 the Roman Catholic hierarchy was re-established in Scotland. *Pop.* (1897) est. 4,210,500.

Scot'land, in Canada, a village of Oxford co.

Scotland, in *Connecticut*, a post-twp. of Windham co.

Scotland, in *Illinois*, a township of McDonough co.

Scotland, in *Indiana*, a post-village of Greene co., 10 m. S. of Bloomfield.

Scotland, in *Massachusetts*, a post-village of Plymouth co., 31 m. S. of Boston.

Scotland, in *Missouri*, a N.N.E. co., bordering on Iowa; *area*, 450 sq. m. *Rivers.* Wyaconda, N. Fabius, and Middle Fabius. *Surface*, undulating; *soil*, fertile. *Cap.* Memphis.

Scotodin'ia, Scot'omy, *n.* [Gr. *skotos*, darkness, and *dinos*, dizziness.] (*Med.*) Giddiness with imperfect vision; scotomy; — a symptom occasionally observed in dyspepsia, especially in that of gouty persons.

Scotograph, (*-gräf.*) *n.* [Gr. *skotos*, darkness, and *graphein*, to write.] An instrument for writing in the dark.

Scot'oscope, *n.* [Gr. *skotos*, darkness, and *skopein*, to observe.] (*Optics.*) An instrument by means of which objects may be observed in the dark.

Scots, *a.* Scottish; Scotch; pertaining, or relating, to the people of Scotland; as, a pound *Scots*, *Scots* law.

Scots'man, *n.* A Scotchman; a native of Scotland; a Scot.

Scott, Sir Walter, a celebrated novelist and poet, b. at Edinburgh, 1771. He passed his youth in the pleasures of hunting, in the study of law, and in reading old plays, romances, travels, and marvellous adventures. The antiquities and ancient poetry of Scotland early inflamed his imagination; he read the old chronicles, and made himself acquainted with the customs, obsolete laws, traditions of families, and the superstitious beliefs of his countrymen. He made his début as an author in *Minstrelsy of the Scottish Border*, which had great success. His next work, the *Lay of the Last Minstrel*, was received with still greater favor. *Marmion*, *The Lady of the Lake*, and *Rokeby*, followed; but his poetical reputation was soon afterwards eclipsed by that of Lord Byron. Subsequently appeared *Paul's Letters to his Kinsfolk*, and the *Battle of Waterloo*, the first successful, the latter a failure. His novels, however, are his great passport to fame. Those masterly productions, on which critisism would be out of place, need only be enumerated; *Waverley*; *Tales of my Landlord*; *Ivanhoe*; *The Monastery*; *The Abbot*; *Quentin Durward*; *Peveril of the Peak*; *Woodstock*; *Rob Roy*; *The Heart of Mid-Lothian*; *Chronicles of the Canongate*, &c. *S.* was made a baronet by George IV., in 1821. Our limits prevent us from detailing the numerous engagements of this highly-gifted and industrious man; suffice it, therefore, to say, that from the commencement of his literary career in 1796, when he published his translations of Burger's *Lenore* and *Wild Huntsman*, to the year of his decease, he was constantly producing some literary work, and that he reaped an abundant harvest. His patrimonial estate was considerable; and, in 1800, he obtained the preferment of sheriff of Selkirkshire, with abt. £300 ($1,500) a year, which sum was considerably increased in 1806, by his being appointed one of the principal clerks of the session in Scotland. He accordingly, in 1811, removed 6 or 7 miles below his former residence on the Tweed, where he purchased a farm of about 100 acres, and built a mansion, to which he gave the name of *Abbotsford* (Fig. 6). Here he continued to reside, exercising the most open hospitality, and receiving the homage of admiration from all parts of the world, while he pursued his literary labors with unremitting activity. At length, in 1825, the firm of Constable & Co., at Edinburgh, having projected a cheap series of original and selected works, engaged *S.* to compose a *Life of Bonaparte*. It was in progress when these publishers became bankrupts, and by that unhappy failure *S.* found himself involved, on their behalf, for accommodation bills to the enormous amount of $600,000. The estate of Abbotsford had been settled on *S.*'s eldest son on his marriage, and it was therefore beyond the reach of the creditors; but though he had very little property to answer the immense amount of his debts, there was still a vast source of profit remaining — his literary talents. "Gentlemen," said he to his creditors, "time and I against any two. Let me take this good ally into company, and I believe I shall be able to pay you every farthing." He further proposed, in their behalf, to insure the sum of $110,000 upon his life, which proposal was accepted; and he then sat down, at the age of 55, to the task of redeeming, by the exertion of his talents as a public writer, a debt exceeding $500,000! In the autumn of 1826 he visited Paris, in order to prosecute researches into several local and other details relating to the subject of his work, which appeared during the summer of 1827, in 9 vols. 8vo; and realized the sum of $60,000, being at the rate of $165 a day for the time he had devoted to it. Though from the time of the publication of *Waverley*, *S.* had been generally considered the author of the *Scotch Novels*, yet he had managed to preserve his incognito by various modes of evasion and half-denials whenever the subject was publicly mooted; and the author, whoever he might prove to be, was fancifully styled the "Great Unknown." At length the mystery was solved. At the annual dinner of the Theatrical Fund Association in 1827, *S.*, in returning thanks for the honor which the company had done him by drinking his health, unreservedly declared that they

Fig. 2323. — SIR WALTER SCOTT.

were wholly and solely his own compositions. By the republication of the former novels, in a cheap form, with new notes and prefaces, and by new works, viz.: *Tales of a Grandfather*; a *History of Scotland*, in Dr. Lardner's Encyclopædia; *Letters on Demonology and Witchcraft*, in the Family Library, &c., he had paid, in part of his liabilities, $270,000; and his creditors presented to him, personally, the library, and manuscripts, curiosities, and plate, which had once been his own, as a token of their gratified feelings. Early in 1831, symptoms of paralysis began to appear, and in the autumn his physicians recommended an excursion to Italy as the means of delaying that illness which too obviously approached. A passage to Malta, in the frigate "Barham," was obtained for him, and he reached Naples by that route, Dec. 27. In April, 1832, he went to Rome, inspected the classical antiquities of that city with great interest, and visited Tivoli, Albani, and Frescati. Feeling, however, that his strength was rapidly decreasing, he determined upon returning, with all possible speed, wishing to die in his native country. On his arrival in London, it was found that medical assistance was now useless; all hope of his recovery had fled; and at his own anxious desire he was conveyed by sea to Newhaven, where he landed on the 9th of July, reached Abbotsford on the 11th, and, after lingering for two months in a state of almost total insensibility, he d. on the 21st of September, 1832, and was buried in Dryburgh Abbey, which had belonged to one of his ancestors. The *Life of Sir Walter Scott* was written by his son-in-law, J. G. Lockhart.

Scott, Winfield, an American general, b. in Petersburg, Va., 1786. His was left an orphan in his boyhood, was educated at William and Mary College, and studied the profession of law; but in 1808, having a genius for military pursuits, he was appointed captain of light artillery in General Wilkinson's division, stationed at Baton Rouge, Louisiana, but was suspended for having accused his general of complicity with the conspiracy of Aaron Burr. At the commencement of the war of 1812, he was appointed lieutenant-colonel, and sent to the Canadian frontier. He crossed with his regiment at Queenston Heights, where the American troops were at first successful; but on the British receiving reinforcements, they were repulsed with heavy loss, and *S.* was

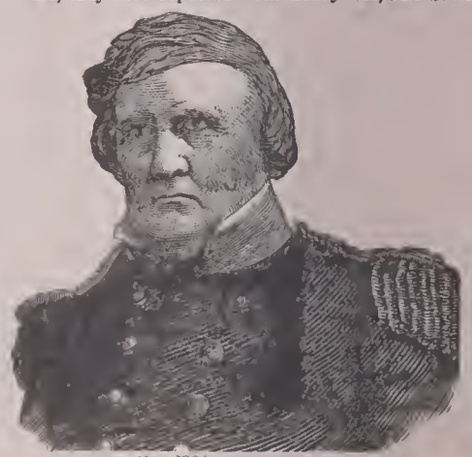


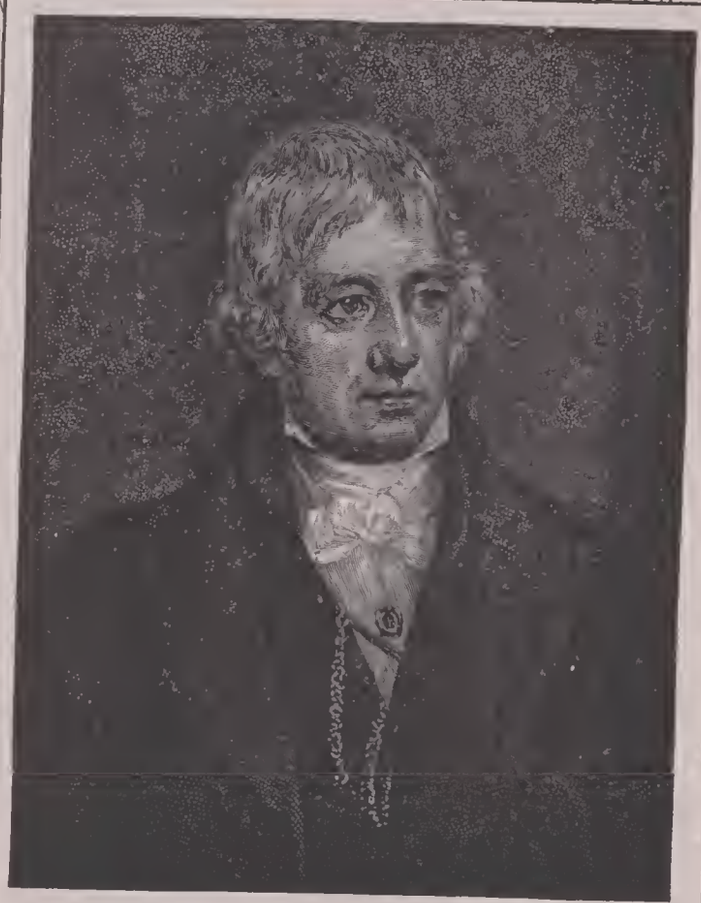
Fig. 2324. — GEN. SCOTT.

taken prisoner. The following year, having been exchanged, he was appointed adjutant-general, and was wounded by the explosion which followed the assault on Fort George. In 1814, as brigadier-general, he established a camp of instruction, and from April to July drilled his raw levies in the French tactics with such effect, that on the 3d of July he took Fort Erie, opposite Buffalo, by assault; and on the 5th fought the battle of Chippewa, resulting in the defeat and repulse of the enemy beyond the river of that name. Twenty days after the battle of Chippewa was fought that of Lundy's Lane, or Bridgewater, in which he had two horses killed under him, and was twice wounded, the last time severely. He was raised to the rank of major-general, and compiled the *General Regulations of the Army*, and translated and adapted from the French the system of *Infantry Tactics*, which was until lately the text-book of the American army. In the Indian hostilities of the American frontier, in the excitement attending the threat of Nullification in South Carolina, and in the Seminole War, General *S.* manifested those qualities of wisdom and moderation which made him rather a pacificator than a warrior. During the Canadian revolt of 1837–1838, he displayed great tact in allaying the excited passions of the frontier. In 1841 he was appointed commander-in-chief of the U. S. army, and in 1846 directed the military operations in the war against Mexico. Taking the field in person, he, March 9, 1847, landed 12,000 men at Vera Cruz, and invested and bombarded the city, which capitulated on the 26th. April 18th he carried the heights of Cerro Gordo, on the 19th he took Jalapa, on the 22d Perote, and on May 15th Puebla, where, owing to his heavy losses, chiefly by diseases incident to the climate, he was obliged to wait for reinforcements. On the 10th of August he advanced, with 10,780 men, to encounter the larger forces and strong positions of Gen. Santa Anna. He turned El Penon, and won the brilliant victories of Contreras and Churubusco. Santa Anna entered upon negotiations only to gain time and strengthen his defences. These were followed by the sharp and sanguinary battles of Molino del Rey and Churubusco, September 8th, strong positions skilfully and bravely defended by superior numbers; and on the 14th *S.* entered the city of Mexico at the head of less than 8,000 soldiers. Peace was negotiated with the cession of New Mexico and California to the United States, and the victorious general was welcomed home with the liveliest demonstrations. In 1852 Gen. *S.* was the candidate of the Whig party for the presidency, but was defeated by one of his subordinate officers, Gen. Franklin Pierce. In 1855, was created for him the office of lieutenant-general. During the early part of the Civil War Gen. *S.* did his best to perform his official duties as general-in-chief; but he had become too infirm for such a charge, and on Oct. 31, 1861, he retired from office, retaining, by special act of Congress, his pay and allowance. He then sailed for Europe, in a tour for his health. In 1864 he published his *Autobiography*, 2 vols. 8vo, New York, and d. at West Point, May 29, 1866.

Scott, in *Arkansas*, a W. co.; *area*, 870 sq. m. *Rivers.* Fourche La Fave, and Petit Jean. *Surface*, diversified;

Winfield Scott

1786–1866



Sir Walter Scott

1771–1832

soil, generally fertile. *Cap.* Waldron. *Pop.* (1897) 13,500.

Scott, in *Illinois*, a W. co., bordering on the Illinois river; *area*, 250 sq. m. *Rivers.* Illinois, also Plume, Sandy, and Movestar creeks. *Surface*, level; *soil*, very fertile. *Min.* Coal and limestone. *Cap.* Winchester. *Pop.* (1897) 11,280.
—A township of Ogle co.

Scott, in *Indiana*, a S.S.E. co.; *area*, 190 sq. m. Drained by Graham's Fork of White river. *Surface*, hilly in the W., elsewhere level; *soil*, generally fertile. *Cap.* Scottsburg. *Pop.* (1897) 8,360.—A township of Kosciusko co. —A township of Montgomery co.—A township of Vanderburg co.—A township of Harrison co.

Scott, in *Iowa*, an E. co., bordering on the Mississippi; *area*, 445 sq. m. *Surface*, undulating; *soil*, fertile. *Min.* Coal and limestone. *Cap.* Davenport. *Pop.* (1895) 45,869. —A township of Fayette co.—A township of Fremont co.—A township of Henry co.—A township of Johnson co.—A township of Mahaska co., 7 m. W. of Oskaloosa.

Scott, in *Kansas*, a W. co.; *area*, about 720 sq. m. *Surface*, chiefly undulating. *Cap.* Scott. *Pop.* (1895) 1,088. —A township of Linn co.

Scott, in *Kentucky*, a N. co.; *area*, 272 sq. m. *Rivers.* North Elkhorn, South Elkhorn, and Eagle creek. *Surface*, diversified; *soil*, very fertile. *Cap.* Georgetown. *Pop.* (1897) 17,170.

Scott, in *Minnesota*, a S.E. co.; *area*, 355 sq. m. *Rivers.* Vermilion and Cannon. *Surface*, undulating; *soil*, fertile. *Cap.* Shakopee. *Pop.* (1895) 15,035.

Scott, in *Mississippi*, a S. central co.; *area*, 600 sq. m. Drained by Tuscalamento creek. *Surface*, diversified; *soil*, sandy. Drained by the Young Warrior and Strong rivers. *Cap.* Forest. *Pop.* (1897) 12,450.

Scott, in *Missouri*, an E.S.E. co., bordering on the Mississippi; *area*, 434 sq. m. *Surface*, flat; *soil*, fertile. The co. is intersected by the St. Louis, Iron Mountain, and S. R. R. *Cap.* Benton. *Pop.* (1897) 12,220.

Scott, in *New York*, a post-township of Cortland co., 145 m. W. of Albany.

Scott, in *Ohio*, a township of Adams co.
—A township of Brown co.
—A township of Marion co.
—A township of Sandusky co.

Scott, in *Pennsylvania*, a post-township of Lackawanna county.
—A township of Wayne co.
—A township of Columbia co.
—A township of Lawrence co.

Scott, in *Tennessee*, a N.N.E. co., bordering on Kentucky; *area*, 620 sq. m. *Rivers.* Powell's river, and Clear Fork of Cumberland river. *Surface*, mountainous in the S. E., and partly covered with forests; *soil*, generally fertile. *Cap.* Huntsville. *Pop.* (1897) 10,385.

Scott, in *Virginia*, a S.S.W. co., bordering on Tennessee; *area*, 528 sq. m. *Rivers.* Clinch, and the N. Forks of Holston river. *Surface*, traversed by several mountain ridges; *soil*, generally fertile. *Min.* Iron and coal. Among the remarkable natural objects, is the "Natural Tunnel," 3 m. from Clinch river, 300 ft. high, the arch of which is about 80 ft. high. *Cap.* Gate City. *Pop.* (1897) 22,540.

Scott, in *Wisconsin*, a post-village and township of Sheboygan county, 44 miles north-west of Milwaukee. —A township of Columbia county.—A township of Brown county.—A township of Crawford county.

Scott Bar, or SCOTT RIVER, in *California*, a post-village of Siskiyou co., 30 m. W. of Yreka.

Scot'ticism, (*-sizm,*) *n.* An idiom or lingual expression peculiar to the Scottish people.

Scot'ticize, *v. a.* To make Scottish; to cause to resemble the Scottish character or idioms.

Scot'tish, *a.* [A.S. *scyttisc.*] (*Geog.*) Pertaining, or having reference, to the inhabitants of Scotland, or to their country or language; Scots; Scotch; as, the *Scottish* dialect, the *Scottish* Highlanders.

Scott River, or SCOTT'S RIVER, in *California*, rises in Siskiyou co., and flows N.W. into Klamath River.

Scotts'borough, in *Georgia*, a village of Baldwin co., 4 m. S. of Milledgeville.

Scotts'burg, in *California*, a village of Fresno co., 25 m. S E. of Millerton.

Scottsburg, in *Oregon*, a post-village of Douglas co., 50 m. N.W. of Roseburg.

Scottsburg, in *Virginia*, a post-village of Halifax co., 40 m. E.N.E. of Danville.

Scott's Mills, in *Iowa*, a village of Linn co., 25 m. N. of Iowa City.

Scott's Moun'tain, in *New Jersey*, in Warren co., forms a part of South Mountain, and is 700 to 800 feet high. It abounds in iron-ore.

Scotts'ville, in *Alabama*, a post-village of Bibb co., 30 m. E.S E. of Tuscaloosa.

Scottsville, in *Illinois*, a post-village of Macoupin co., 78 m. S.E. of Galena. — A village of Lee co., 140 m. N.E. of Springfield.

Scottsville, in *Kentucky*, a post-village, cap. of Allen co., 148 m. S.W. of Frankfort.

Scottsville, in *Louisiana*, a village of Claiborne parish, 25 m. N.E. of Homer.

Scottsville, in *Missouri*, a post-village of Sullivan co., 130 m. N.N.W. of Jefferson city.—A village of Nodaway co., 30 m. N. of St. Joseph.

Scottsville, in *N. Carolina*, a post-village of Ashe co., 80 m. N.W. of Salisbury.

Scottsville, in *New York*, a post-village of Monroe co., 13 m. S.W. of Rochester.

Scottsville, in *Pennsylvania*, a post-village of Wyoming co., 32 m. W.N.W. of Scranton.—A village of Huntingdon co., 87 m. W. of Harrisburg.

Scotts'ville, in *Virginia*, a post-village of Albemarle co., 79 m. W. of Richmond. *Pop.* 1,400.—A village, former cap. of Powhatan co., 32 m. W. of Richmond.

Scoun'drel, *n.* [Perhaps from Lat. *abscondo*, to conceal carefully.] A base villain; a man destitute of honor and virtue; a rascal fit for the gallows.

"A *scoundrel* may be defined as one who would sharpen a knife on his father's tombstone to cut his mother's throat." —*Jerrold.*

—*a.* Low; base; mean; unprincipled; as, a *scoundrel* maxim.

Scoun'drelism, *n.* Quality of a scoundrel; base villainy; extreme rascality; turpitude.

Scour, *v. a.* [Ger. *scheuern.*] To make clear and bright by rubbing; to rub hard with something rough for the purpose of cleaning; to clean by friction; to cleanse from grease, stains, &c., as articles of personal attire; to make clean or bright; to restore; as, to *scour* a floor, to *scour* a dress. — To purge violently. — To remove by rubbing or cleansing; to sweep off; to carry away. — To range or search for the purpose of seizing; to brush along; to pass swiftly over; as, to *scour* the seas, to *scour* the streets.

Scouring-barrel, a machine in which scrap-iron, small metallic articles, &c., are divested of rust by means of friction. —*Scouring-power*, force of a stream of water to carry away mud, as from the mouth of a river. —*Scouring-rush*, or *Dutch-rush.* (*Bot.*) See EQUISETACEÆ.

—*v. n.* To perform the operation of cleaning by friction. —To make clean; to cleanse.—To be purged violently; as, *scouring* of the bowels. — To rove or rauge for sweeping or taking something; to scamper; to run with rapidity; as, thieves *scour* off with their booty.

Scour'er, *n.* One who, or that which, scours or cleans by rubbing; a cleanser. — A violent purgative. — One who, or that which, runs swiftly. — A footpad; a robber; one who roves by night in search of plunder.

Scourge, (*skûrj,*) *n.* [Fr. *escourgée*; Lat. *coriggia*, a shoe-tie — *con*, and *rego*, to set right.] A whip made of strips of leather, cords, &c.; a lash; a thong; an instrument of punishment or discipline. — Hence, a punishment; a vindictive infliction; ho, or that which, greatly afflicts, harasses, or destroys; — particularly, any continued evil or calamity; as, the *scourges* of disease and famine.

—*v. a.* To flog with a scourge or whip; to lash; to whip severely; to flagellate; to punish with severity. — To afflict for sins or faults, and with the purpose of correction; to harass, torment, or injure.

Scourger, (*skûrj'er,*) *n.* One who scourges or flagellates; one who afflicts or torments cruelly; a chastiser.

Scout, *n.* [Lat. *ausculto*, to listen to.] One sent out to watch or to listen clandestinely;—specifically, a person sent to gain and bring in news; one who reconnoitres; a spy; in military parlance, a person, commonly a horseman, sent before an army, or to a distance, for the purpose of observing the motions of an enemy, or discovering any danger, and giving notice thereof to the commanding officer. — At Oxford University, England, a colloquialism for a college servant; — corresponding with the term *gyp*, as employed at Cambridge, the sister university.

—*v. a.* To watch for; to espy; to reconnoitre; to pass over or through for the purpose of discovering danger or watching the motions of an enemy; as, to *scout* a country. — To sneer at; to flout; to treat with derision, disdain, or contempt; as, to *scout* a base proposition.

—*v. n.* To act as a scout; to play the spy; to go on the business of watching the motions of an enemy.

Scovel, (*skŭv'l,*) *n.* [From W. *ysgwl*, a broom.] Same as MALPIN, *q. v.*

Scow, (*skou.*) *n.* [Du. *schouw.*] (*Naut.*) A large flat-bottomed boat.

—*v. a.* To convey or carry in a scow; as, to *scow* lumber.

Scowl, *v. n.* [Icel. *skiálgr*, squint-eyed, from *skœla*, to twist.] To wrinkle the brows, as in frowning or displeasure; to put on a frowning, corrugated look; to look angry, sour, or sullen; as, a *scowling* face. — Hence, to look gloomy, threatening, frowning, dark, or tempestuous; as, a *scowling* sky.

—*v. a.* To glance at or repel with a scowl or frown.

—*n.* The corrugation or wrinkling of the brows, as in frowning; an expression of displeasure, sullenness, discontent, or animosity in the countenance. — Hence, gloom; dismal or threatening aspect; as, the *scowl* of an approaching storm.

Scowl'ingly, *adv.* In a scowling manner.

Scrab'bed Eggs, *n. pl.* (*Cookery.*) A lenten dish, composed of eggs boiled hard, chopped, and mixed with a seasoning of butter, salt, and pepper.

Scrabble, (*skrăb'bl,*) *v. a.* [Dim. of *scrape.*] To scrape, scratch, or paw with the hands; to scramble; to clamber by the hands and knees; as, to *scrabble* up a tree.

—To scribble; to scrawl; as, *scrabbled* chirography.

—*n.* Act of scrabbling; a scramble.

Scrab'bletown, in *New Jersey*, a village of Burlington co., 12 m. E. of Mount Holly.

Scrag, *n.* [Gael. *sgreag*, to parch, to dry.] Something dry, thin, or lean, with roughness or raggedness; a rawboned piece; — particularly, a neck-joint of meat; as, a *scrag* of mutton; — hence, facetiously or contemptuously, the neck. — A raw-boned person. (Low.)

Scrag'ged, *a.* Rough with irregular points or broken surface; scraggy; as, a *scragged* bone. — Lean with raggedness.

Scrag'gedness, Scrag'giness, *n.* State of being scraggy; leanness, or leanness with roughness; roughness; asperity occasioned by broken, irregular, jagged points.

Scrag'gily, *adv.* In a scraggy manner; with leanness or roughness.

Scrag'giness, *n.* See SCRAGGEDNESS.

Scrag'gy, *n.* (*comp.* SCRAGGIER; *superl.* SCRAGGIEST.) Scragged; rough with irregular or jagged points; as, a *scraggy* rock.—Lean and corrugated; as, a *scraggy* neck.

Scrag'-necked, (*-nĕkt,*) *a.* Having a long, sinewy neck.

Scram'ble, *v. n.* [Armor. *skrampa*, to crawl, to move in the manner of serpents.] To scrabble; to crawl on all-fours; to clamber with hands and knees; as, to *scramble* up a precipice. — To seize or catch eagerly at anything that is desired; to catch with haste preventive of another; to catch at without ceremony; as, to *scramble* for pennies.

—*v. a.* To mix and cook in a conglomerate manner; as, to *scramble* eggs.

—*n.* Act of scrambling; act of climbing or clambering by the help of the hands and feet, or on all-fours. — Act of jostling or pushing for the acquisition of something; an eager contest for some object of desire, in which one endeavors to get beforehand with another; as, the *scramble* of politicians for place.

Scram'bler, *n.* One who scrambles; one who crawls on all-fours; one who clambers by the help of hands and feet. — A greedy, unceremonious seeker or contestant.

Scram'bling, *n.* Act of climbing by the aid of the hands. — Act of seizing or catching at with eager haste and without ceremony.

—*p. a.* Awkward; confused; irregular; as, a *scrambling* course of procedure.

Scram'blingly, *adv.* In a scrambling way; awkwardly

Scranch, *v. a.* [Ger. *schraugen.*] To grind or crunch with the teeth so as to cause a crackling sound. (Local Eng.)

Scrank'y, *a.* A Scotticism for long, thin lanky, scraggy.

Scranton, in *Penna.*, a city, and cap. of Lackawanna co., pleasantly situated in a valley on the Lackawanna river, 149 m. W. N. W. from N. Y. and 167 m. N. of Philadelphia, and the terminus of several R.R.'s. It has extensive manuf. interests, large rolling mills, steel and iron works, car and machine shops of various kinds, &c. Its streets are wide and its buildings, many of them, handsome and costly. *S.* is the centro of an immense coal trade. Settled in 1840, it has steadily grown. *Pop.* (1890) 75,215; (1897) 105,500.

Scrap, *n.* [From *scrape.*] Something scraped or rubbed off; — hence, a morsel; a small piece; a fragment; a mite; a crumb; also, a detached, incomplete portion; as, a *scrap* of meat, a *scrap* of paper, a *scrap* of intelligence. — Specifically, a fragment of something written or printed; a brief or unconnected excerpt or extract.

"They have been at a great feast of languages, and stolen the *scraps.*"—*Shaks.*

—*pl.* The stringy or skinny substance that is left after the rendering of animal fat.

Scrap'-book, *n.* A book consisting of blank pages (sometimes of various tints), in which printed extracts, engravings, &c., may be pasted and kept for reference or amusement.

Scrape, (*skrāp.*) *v. a.* [A. S. *screopan.*] To draw something, usually edged, over the surface of; to rub the surface of with a sharp or rough instrument, or with something hard; to clean by scraping; to grate harshly over; to abrade; as, to *scrape* the tongue. — To remove or take off by rubbing or grating; as, to *scrape* off the charred parts of a loaf. — To act upon the surface of, with a harsh, grating noise; as, to *scrape* one's feet on the floor. — To gather or accumulate by hard, coarse, and continuous labor or effort; — hence, to hoard; to acquire or save in a penurious or avaricious manner; as, to *scrape* money together.

To scrape acquaintance, to curry favor, or insinuate one's self into acquaintance with another; — an expression derived from the custom of scraping in bowing.

—*v. n.* To make the sound of the foot drawn over the floor; to make a grating, rasping noise; to rub harshly or noisily over the surface of anything. — Hence, to play awkwardly on a violin or other stringed instrument of music; as, he *scrapes* the fiddle occasionally.—To make an inelegant obeisance with a recession of the foot; as, he bows and *scrapes* like a dancing-master.

—*n.* A drawing of something edged or rough over the surface of another thing; a rubbing;—hence, the effect occasioned by rubbing; as, the sound of the feet drawn along the floor, or of any scraping instrument; as, a *scrape* of a pen. — An obeisance; an inelegant, obsequious bow. — A disagreeable and awkward predicament; an unfortunate or embarrassing dilemma; perplexity; distress; difficulty; as, to get one's self into a *scrape.*

Scrap'er, *n.* An instrument with which anything is scraped; as, (1.) Among engravers, a tool with a triune blade, each edge of which is sharpened, to remove the burr or ridge which rises on a copper-plate by the use of the graver or dry point. (2.) In mining, quarrying, &c., a piece of iron used to take out the pulverized matter which remains in a hole when bored previous to blasting. (3.) An iron instrument, affixed to a door-stop, by which the soles of shoes, &c., are freed from mud and the like, by drawing them across it. (4.) An instrument used in making and repairing roads, digging canals, trenches, &c. (4.) On shipboard, a triangular iron tool, with sharp edges, used for scraping the masts, spars, decks, &c.; also, an instrument used by calkers.

—A person who scrapes, as an awkward performer, or tyro, on the violin; also, one who hoards money little by little, or penuriously; a miser; as, "Never was *scraper* a brave man."— *Herbert.*

Scrap-forging, (*-fōr'jing,*) *n.* See SCRAP-IRON.

Scrap'ing, *n.* Act of one who scrapes. — (*pl.*) Matter scraped off, or that which is collected by scraping, rasping, raking, or rubbing; as, the *scrapings* of the dining-table.

Scrap'ingly, *adv.* In a scraping manner; by scraping.

Scrap-iron, (*-ī'urn,*) *n.* Waste cuttings and pieces of

wrought-iron:—generally used in the abbreviated form, *scrap*. After being piled, heated, and drawn into bars, they are called *scrap-forgings*.

Scratch, (*skrăch,*) *v. a.* To tear, mark, or score with slight incisions, ragged and uneven; to rub and tear the surface of with something sharp or ragged; to wound or lacerate slightly; to cut with the nails; as, to *scratch* one's head, to *scratch* glass with a diamond, to *scratch* garden-mould with a rake, she *scratched* his face with her nails, &c.

—To dig or excavate with the claws; as, a mole *scratches* a hurrow. — To write or draw hurriedly or awkwardly; as, to *scratch* out a pamphlet. *Swift.* (R.) — To mark with erasures; as, to *scratch* a ticket. (American.)

(*Sports.*) In horse-racing, to withdraw a horse from a race after its being entered for running; as, the Oaks favorite was *scratched* at four o'clock to-day.

—*a.* Drawn together hastily or without selection, to accomplish a certain purpose, in place of the regular performers; as, a *scratch* crew of oarsmen, a *scratch* eleven at cricket, a *scratch* team of horses, &c.

—*n.* A rent; a break in the surface of anything made by scratching, or by rubbing with anything edged, pointed, or ragged; a laceration with the nails or claws.

(*Sports.*) In boxing, a line drawn across the ring, up to which pugilists are brought by their seconds, when they commence to exchange blows; — hence, test, trial, or proof of pluck or courage; as, he came up to the *scratch* like a man. (Colloq.) — A kind of wig which only partially covers the head;—also, called *scratch-wig.*

—*pl.* (*Far.*) A disease in horses consisting of dry chaps, rifts, or scabs, which appear between the heel and pastern joint.

Scratch-cradle. Same as CAT'S-CRADLE, *q. v.* —*Old Scratch,* a cant term for the Devil.

Scratch'-back, *n.* A kind of plaything used at certain English fairs, which, when drawn quickly along the back of a person, makes a noise like that of tearing cloth, as if his coat were torn.

Scratch'-brush, *n.* A cylindrical bundle of fine steel or brass wires, bound tightly in the centre, with the ends projecting on each side, so as to form a stiff brush for scratching and cleaning metals preparatory to gilding or silvering.

Scratch'er, *n.* One who, or that which, scratches.

(*Zoöl.*) An order of birds, comprising those which scratch when seeking food, as the common hen, &c. It is identical with the order RASORES, *q. v.*

Scratch'ingly, *adv.* After the manner, or with the action of, scratching.

Scratch'-weed, *n.* (*Bot.*) The cleavers. See GALIUM.

Scrawl, *v. a.* (Another form of SCROLL, *q. v.*) To write or draw carelessly, awkwardly, or irregularly; to write inelegantly or unevenly; to scribble; to scratch; as, to *scrawl* a letter.

—*v. n.* To write unskilfully, unevenly, or inelegantly he *scrawls* his writing so that it is barely legible.

—*n.* Awkward, unskilful, or inelegant penmanship or chirography; also, a piece of writing hastily and badly penned; as, excuse this hurried *scrawl.* — An American localism for a broken branch or piece of brushwood.

Scrawl'er, *n.* One who scrawls; a hasty, off-hand, or inelegant writer.

Scraw'ny, *a.* See SCRANNY.

Scray, *n.* (*Zoöl.*) The common Tern, *Sterna hirundo.*

Screak, (*skrēk,*) *v. n.* [Swed. *skrika;* Dan. *skrige.*] To utter a sharp, shrill, sudden outcry or scream; to screech; to creak, as a door, wheel, &c.

—*n.* A screech; a screaking.

Scream, (*skrēēm.*) *v. n.* [A. S. *hryman, hreman;* Ger. *rühmen.*] To shriek; to utter a sudden, sharp outcry, as in terror or acute pain; to utter a shrill, harsh cry, often long continued, with momentary intermissions; as, a *screaming* child.

—*n.* A shriek, or sharp, shrill cry, uttered in acute pain, or in a sudden fright; a screech; a harsh, strident cry; as, the *scream* of a woman in agony, the *scream* of certain sea-birds, &c.

Scream'er, *n.* (*Zoöl.*) The common name of the genus *Palamedea,* order *Insessores,* closely allied to the Jacanas, and so called from their loud and harsh cry. *P. cornuta,* the Horned Screamer, or Kamichi, inhabits swamps in Brazil and Guiana, and feeds on the leaves and seeds of aquatic plants.

Scree, *n.* An English provincialism for a small stone or pebble.

Screech, *v. a.* [Ir. *sgreach.*] To cry out with a sharp, shrill voice; to utter a sudden, shrill cry, as in affright, or severe pain or distress; to scream; to shriek; to utter a sharp cry, as an owl.

—*n.* A sharp, shrill cry, uttered in acute pain or in terror; a harsh, shrill cry, as of an owl or other bird; a screak.

Screech'-owl, *n.* An owl that sends forth a harsh, discordant cry at night; as, "the *screech-owl's* dismal note." — *Drayton.*

Screech'y, *a.* Like a screech.

Screed, *n.* [A. S. *screade,* a shred.] (*Arch.*) A wooden rule for running mouldings; also, one of the extreme guides on the margins of walls and ceilings for floating to, by the aid of the rules. They are always necessary as aids in running a cornice when the ceiling is not floated.

—[Gael. *sread,* an outcry.] A breaking forth into a sharp, shrill sound; as, the *screed* of a bagpipe.—A long harangue, homily, or tirade on any subject; as, a *screed* of doctrine.

Screen, *n.* [Fr. *écran;* L. Lat. *screo, screona, screuna,* an edifice of some sort, with or without a key, from Ger. *schrein.*] Anything that separates or cuts off inconvenience or injury;—hence, that which shelters or protects from danger, or prevents inconvenience, hides from view, &c.; as, the leafy *screen* of a forest, her beauty served as a *screen* to her errors.

(*Arch.*) An open partition (Fig. 2325) between the nave and choir of a church or cathedral, to divide the officiating priests from the congregation. Such screens are generally highly enriched by carving and gilding,

Fig. 2325. — PARCLOSE SCREEN,
(Fyfield, Berks, England, A. D. 1480.)

and the lower panels decorated with painting. Above their summit the rood was formerly placed. They also, in many cases, rail off altars, chapels, and tombs from the rest of the building. — Also, in modern architecture, a single open colonnade, admitting a view through it, is called a *screen of columns.*

(*Building.*) An oblong, coarse sieve or riddle, set in a wooden framework, and used to separate the coarser from the finer parts, as of coal, sand, lime, and the like.

Screen bulk-head. (*Ship-building.*) The bulk-head under a ship's round-house.

—*v. a.* To separate or cut off from inconvenience, injury, or danger; to afford protection to by hiding; to shield; to hide; to conceal; as, a hill *screens* the house from the north winds, his mother *screens* his faults. — To pass through a screen; to separate the coarse part of from the fine, or the worthless from the valuable; as, to *screen* coal or lime.

Screen'ing, *n.* Act of sheltering or protecting from inconvenience, injury, or danger. — Act of sifting earth, seeds, sand, coals, &c., through a large oblong sieve or screen.

Screen'ings, *n. pl.* The drossy matter left after sifting coal, lime, ashes, &c.

Screw (*skru*), *n.* [Lapp. *skruve,* a snail; Icel. *skrufa,* to twist.] A cylinder, as of metal, having a groove cut in an advancing spiral on its surface—specifically, a *male screw;* also, a hollow cylinder with a similar interior thread—specifically, a *female screw.* When used without qualification, the male or externally threaded screw is the form understood. Regarded as a mechanical movement, the male and female screw used together, as in a screw and nut, are a form of the inclined plane. When so used with a fine pitch, a great deal of power may be developed at the expense of motion, as in the screw-jack. The spiral groove cut in the surface of a screw is technically called the *thread,* and the distance apart of the threads determines the *pitch,* being *coarse pitch* if they are widely separated, or *fine pitch* if the screw-threads are closely placed. The body part of a screw is termed the stem or barrel. Screws for use in wood have a thread of coarse pitch, a tapering and pointed end, and a slit in the head for affording a grip to the screw-driver. Machine-screws are usually made without taper, and with threads of certain standard pitch, named according to the number of threads to the inch. If the head is squared, so that it may be turned by a wrench, it is more properly termed a bolt, or a screw-bolt, or tap-bolt. The *differential screw* is one having threads of different pitch on its body. For instance, if a screw have a screw-thread of ten threads to the inch for half its length, and five threads to the inch for the other half of its length, then a female screw placed on one half would travel twice as fast as a female screw on the other half, when the male screw was turned or driven. A *double screw* is one having two parallel threads spiralled around it, and a *triple screw* one with three such parallel threads. An *endless* or *perpetual screw* is properly called a worm, being a male screw, rotating in fixed bearings, and turning a worm-gear or toothed wheel, that meshes with it and receives a slow motion, that is continuous. A *right-hand screw* is one that is turned in with a clockwise motion, and a *left-hand screw* one that is inserted with a motion the reverse of this. A *winged screw,* or *thumb-screw,* is one having a broad flat head, which may be turned easily with the thumb and forefinger.

—Anything shaped or acting after the manner of a screw; particularly, a screw-propeller. See PROPELLER.

—In English cant, salary; pay; wages; hire; as, he gets a good *screw.*—An extortioner; a miser; a skinflint; a mean, parsimonious, close-fisted, good-for-nothing wretch; a sharp or close bargainer;—also, an interviewer; a persistent questioner; a clamorous mendicant; a harsh, inexorable instructor.—A corkscrew. (*Colloq.*) —A twist or turn of something; as, the *screw* of a billiard ball.—A weedy or unsound horse.

(*Naut.*) A screw steamer; a propeller; a steamer propelled by a screw instead of paddle-wheels.

—In American university cant, a searching or strict examination of a student by an instructor.

Archimedean screw. See ARCHIMEDES' SCREW.

To put under the screw, to subject to a severe test, ordeal, or experience; to tyrannize over.

Screw, *v.* To turn, or apply a screw to; to press, fasten, or make firm by a screw; as, to *screw* a hinge to a door-jamb.—To squeeze; to subject to strong pressure or force, as by the action of a screw; as, to *screw* one's courage up.—To oppress by exaction; to use stringent measures toward; as, to *screw* a tenant.—To deform by contortions; to distort; as, to *screw* one's face into a hypocritical smile.

—In American university cant, to examine rigidly or minutely, as a student.

To screw out, to squeeze or force out; to extort; as, the admission was *screwed out* of him with reluctance.

—*To screw up,* to force; to bring to bear by severe pressure.—*To screw in,* to force in by turning or twisting.

—To be oppressive or exacting; to enforce exorbitant demands; as, a *screwing* landlord.—To become intoxicated by liquor; as, he came home *screwed.*

Screw'-al'ley, *n.* The passageway in a screw-steamer for containing the shaft that drives the screw-propeller.

Screw'-bean, *n.* The spirally twisted bean; the screw-pod mesquit (*Prosopis pubescens*), by Mexicans called the tornilla, much esteemed as fodder.

Screw'-coup'ling, *n.* A pipe-coupling made in the form of a collar, with internal or female screw-threads.

Screw'-cut'ting, *n.* The formation of screw-threads, whether on a screw or bolt, or in a nut. The lathe is the original tool used in screw-cutting, but has been largely replaced by special machines devised for the purpose. The lathe is still used for odd or very large screws. By mounting a cylindrical piece of metal in the lathe and turning it between the centers, and at the same time bringing a cutting tool against it with an advancing motion, a thread may be cut, whose pitch is determined by the relative speed with which the screw-stem is turned and the cutter advanced.

Screw'-die, *n.* A die, resembling a nut, but having the internal threads partially cut away, so as to form cutting surfaces, which, being hardened, may be used to cut a thread on a stem or rod which is forced into it with rotary motion.

Screw'-dock, *n.* A form of graving-dock in which large screws form an important part of the machinery for raising and lowering vessels.

Screw'er, *n.* The person who, or thing which, screws.

Screw'-eye, *n.* A screw having a head formed in an eye or loop; much used in the back of picture frames.

Screw'-hook, *n.* A screw with a hooked head.—A form of instrument used by surgeons in removing foreign bodies from the ears or nostrils.

Screw'-jack, *n.* See JACK.

Screw'-key, *n.* A form of socket-wrench.

Screw'-machine', *n.* A machine for cutting screws; a screwing-machine. The latest forms of these machines are made with self-opening dies, which cut only in one direction, and open for the return motion. They are usually made for cutting both bolts and nuts.

Screw'-pile, *n.* A pile having a screw-like flange at its base. See LIGHTHOUSE.

Screw'-pine, *n.* (*Bot.*) See PANDANACEÆ.

Screw'-plate, *n.* A thin plate of steel perforated with a number of holes with internal screw-dies, to be employed in forming external screws.

Screw'-press, *n.* See PRESSES.

Screw'-propel'ler, *n.* See PROPELLER.

Screw'-rod, *n.* A rod having a screw-thread cut at one or both ends, for use as a tie-rod.

Screw'-rud'der, *n.* A screw-propeller, so hinged on the stern-post of a vessel that it may be used as a rudder.

Screw'-shell, *n.* The shell of the *Wreathshell* (*q. v.*).

Screw'-steam'er, *n.* A steamer propelled by a screw.

Screw'-stem, *n.* (*Bot.*) See CENTAURELLA.

Screw'-tool, *n.* A cutting-tool for forming screw-threads, as in a lathe.

Screw'-ven'tilator, *n.* A rotary ventilating fan, built in the form of a screw-propeller.

Screw'-well, *n.* The propeller-well of a steamship.

Screw'-worm, *n.* The larva of *Lucilia macellaria,* an American blow-fly, that infests the sores and open passages of animals.

Scri'ba, in *New York,* a post-village of Oswego co.

Scrib'bet, *n.* A painter's pencil.

Scribble, (*skrib'bl,*) *v. a.* [Formerly *scrabble,* dimin. of *scrape;* Du. *schrabben,* to scratch, *krabbelen,* to scribble.] To write carelessly; to write with haste or without care or regard to correctness or elegance; as, to *scribble* a note. — To fill with artless or valueless writing. — In the woollen manufacture, to run through the scribbling-machine.

—*v. n.* To scrawl; to write without care or elegance.

—*n.* Hasty, careless, or inelegant penmanship or handwriting; a writing of little importance or value; as, a hasty *scribble.*

Scrib'bler, *n.* One who scribbles, or writes carelessly or inelegantly.—A petty author; a writer of no reputation;

a publisher's hack; a penny-a-liner; as, "The most copious writers are the arrantest *scribblers*."—*L'Estrange.*

(*Manuf.*) A scribbling-machine.

Scrib'bling, *n.* Act of scribbling, or writing hastily or carelessly.—In the woollen manufacture, the first coarse carding of wool preparatory to the final carding.

Scrib'blingly, *adv.* In a scribbling way.

Scrib'bling-machine, *n.* (*Mach.*) The machine used for the first carding of wool.

Scribe, *n.* [Fr.; Lat. *scriba*—*scribo*; W. *ysgrifaw*, to notch, to write.] A writer;—particularly, a public writer; a notary; a secretary; an amanuensis; a clerk.

(*Script.*) A word frequently used, and in various significations. In its original signification it denotes a *writer*, and was first applied to an officer of the king answering to our Secretary of State. It came afterwards to be applied to such as were skilled in the use of the pen, and then simply a learned man, or one learned in the Jewish Scriptures. In the New Testament times the *S.* were a numerous class, and were generally of the tribe of Levi. They were the "doctors of the law," whose office was to explain the law; and a number of them had seats in the Sanhedrim.

—*v. a.* (*Joinery.*) To fit, as one edge of a board or plank to another edge, or to a surface; to fit, as one piece to another, in such a manner as to bring the fibres of the two pieces into perpendicularity with each other.

Scribe, (*skreeb,*) Augustin Eugène, a French dramatic writer, b. at Paris, 1791. He was educated for the law, but soon abandoned it for the stage. His first play, *Le Dervis*, was produced in 1811, and at once made him a name. From that time till his death he was a most prolific writer, frequently employing assistants; and his influence remained unshaken through all the political changes of France. He has been called the greatest wholesale manufacturer of *bon-mots*, the Rothschild of epigrams, and the autocrat of vaudevilles. A sly political satire pervades some of his plays, and had considerable influence at one time on the course of public opinion. The first of his five-act prose plays was *Bertrand and Raton*, which appeared soon after the accession of Louis Philippe, and set forth some great persons in a very contemptible light. Scribe sought only to amuse, and very clearly adapted his productions to the spirit of the times and the tastes of various audiences. He wrote about 400 pieces of various kinds. Among the numerous *libretti* composed by him are *Robert le Diable*, *Fra Diavolo*, *Les Diamans de la Couronne*, *Les Huguenots*, and *La Juive*. Among his other most celebrated pieces are *La Camaraderie*, *Le Comte Ory*, *Une Chaine*, and *Le Verre d'Eau*. He was a member of the French Academy. D. 1861.

Scrib'er, *n.* A sharp-pointed tool, or marking awl, used by joiners for drawing lines on boards, &c.

Scrib'ing, *n.* (*Joinery.*) Act of fitting one piece of wood upon another, so that the fibres of both may be perpendicular to each other, and the end cut away across the fibres, so as to fit upon the slide of the other; also, the edge of a board when fitted upon any surface.

Scrib'ing-iron, (*-ī'urn,*) *n.* An iron-pointed implement for scoring casks and logs.

Scrid, *n.* Same as Screed, *q. v.*

Scriggle, (*skrĭg'gl,*) *v. a.* To wriggle;—an English provincialism.

Scrimmage, (*skrĭm'maj,*) *n.* [From *skirmish.*] A melée; a free fight; a general row; as, fists and firearms were alike used in the *scrimmage*.

Scrimp, *v. a.* [Du. *krimpen*, to shrivel, to shrink.] To limit; to confine; to cut down; to shorten; to contract; as, to *scrimp* a garment;—an English provincialism.

—*a.* Short; contracted; straitened; scanty;—used as an American localism.

—*n.* A niggard; a screw; a close-fisted, parsimonious person. (Local American.)

Scrimp'ingly, *adv.* In a scrimping or scanty manner.

Scrimp'ness, *n.* State or condition of being scrimp.

Scrimption, (*skrĭm'shun,*) *n.* A trifling quantity; a little bit; a narrow pittance;—an English provincialism.

Scringe, (*skrĭnj,*) *v. a.* To cringe;—an American localism.

Scrip, *n.* [Icel. *skreppa*, a purse; L. Lat. *scrippum.*] A wallet; a satchel; a reticule; a small bag; as, a leathern *scrip*.

—*n.* [Lat. *scriptum.*] A small writing, certificate, register, or schedule; any piece of paper written on; as, "Call them man by man, according to the *scrip*."—*Shaks.*

(*Finance.*) An interim-writing entitling a party to a share, or shares, in any company, or to an allocation of stock in general, which interim-writing or scrip is exchanged after registration in a formal certificate; as, bank *scrip*, railroad *scrip*, &c.

Script, *n.* (*Law.*) An original instrument or document.

(*Print.*) A kind of type cast in imitation of writing;—called by the French *Anglaise*.

This line is printed in Script.

Scrip'tory, *a.* [From Lat. *scribere*, *scriptum*, to write.] Expressed or conveyed in writing.

Scriptural, (*skrĭpt'yur-al,*) *a.* [From *scripture.*] Contained in the Scriptures, that is, in the Bible; according to the Scriptures or sacred oracles; biblical; as, a *Scriptural* passage.

Script'uralism, *n.* State or quality of being scriptural; literal.

Script'uralist, *n.* One who adheres to the literal interpretation of the Scriptures as the basis of all knowledge.

Script'urally, *adv.* In a scriptural manner.

Script'uralness, *n.* State or quality of being scriptural.

Scripture, (*skript'yur,*) *n.* [Lat. *scriptura*, a writing.] In the literal sense, anything written; appropriately, and by way of eminence, the Books of the Old and New Testaments, as being the most important of all writings. They are frequently called the *Sacred* or *Holy Scriptures*, from the character of the doctrines which they teach. See Bible.

Script'urist, *n.* One well versed in the Scriptures.

Scritch, *n.* Same as Screech, *q. v.* (a.)

Scriv'en, or **Screv'en,** in *Georgia*, an E. co., bordering on South Carolina; *area*, 786 sq. m. *Rivers.* Savannah and Ogeechee rivers. *Surface*, level; *soil*, sandy. *Cap.* Sylvania. *Pop.* (1897) 15,150.

Scriv'ener, *n.* [Fr. *écrivain*; W. *ysgrifenwr*, a writer.] A scribe; a writer; formerly, one whose occupation was to draw contracts or other writings.—One whose business is to place money at interest; a money-lender; a usurer; as, a griping *scrivener*.—A writing-master. (a.)

Scrobic'ulate, Scrobic'ulated, *a.* [From Lat. *scrobiculus*, dimin. of *scrobis*, a ditch.] (*Bot.*) Pitted, as certain leaves.

Scrofula, (*skrŏf'yu-la,*) *n.* (*Med.*) A tedious and multiform disease, hereditary in its nature, and one of the most characteristic marks of which is a tendency to swelling of the glandular parts, which sometimes suppurate, and discharge a curdy, mixed matter, and are very difficult to heal. The name is said to be derived from Lat. *scrofa*, or *scropha*, a sow; but why it is so called must be left to fancy or conjecture. The persons in whom scrofulous disease is most apt to manifest itself are marked during childhood by pale and pasty complexions, large heads, narrow chests, protuberant bellies, soft and flabby muscles, and a languid and feeble circulation. It, however, often accompanies a variety of the sanguineous temperament also, and is indicated by light or red hair, gray or blue eyes, with large and sluggish pupils, and long, silky lashes, a fair, transparent brilliancy of skin, and rosy cheeks. This red color is, however, easily changed by cold to purple or livid, and the extremities are subject to chilblains. Such children are often extremely clever, and ready of apprehension, of eager tempers and warm affections, lively, ardent, imaginative, and susceptible. It is frequent, also, though less common, in what is called the melancholic or bilious temperament, *i. e.*, in persons of dark, muddy complexion and harsh skin, in whom the mental and bodily energies are more sluggish and dull. The disease, however, frequently occurs in persons who do not exhibit any of these symptoms. It is one of those diseases that are in a very marked degree hereditary. Like other hereditary tendencies, it may sometimes skip over a generation or two, and reappear, just as family likenesses do. The tendency may be so strong that no care will prevent its manifestation, or so faint as never to break out into actual mischief, if the exciting causes be warded off. Among the exciting causes are insufficient nutriment, exposure to wet and cold, impurity of the atmosphere, the want of natural exercise, and mental disquietude. Climate exercises a very marked influence upon it, and there is none more favorable for its development than our own. A moist, cold, and variable climate is particularly favorable to its development, while on the other hand, a hot or a very cold climate protects against it. *S.* usually manifests itself in indolent glandular tumors, frequently in the neck, at first free from pain and inflammation, but proceeding slowly to an inflammatory state, and gradually and generally, after a long time, forming an ulcer, which is extremely difficult to heal. In some cases the eyes and eyelids are the principal seat of the disease, having constantly a very inflamed aspect. The bones of scrofulous persons are also liable to disease, especially those of the spine; and generally, the diseases and accidents that happen with comparatively little inconvenience to others, are productive of very troublesome and alarming consequences in scrofulous constitutions. The lungs are particularly liable to attack in such cases, giving rise to the formation of tubercles in that organ, which are so marked a feature in Phthisis, *q. v.* The treatment consists chiefly in raising the tone of the system by moderate exercise in the open air, with suitable nourishment, sufficient clothing, and attention to the state of the bowels. Sea-bathing, if it can be borne, or sponging the skin with tepid salt and water, followed by diligent rubbing with coarse towels and the flesh-brush, are very beneficial. Much good is frequently derived from the use of cod-liver oil; and iodine is often found to be of benefit. See King's evil.

Scrofulous, *a.* [Fr. *scrofuleux.*] Pertaining or relating to scrofula, or partaking of its nature; as, a *scrofulous* habit of body.

—Diseased or affected with scrofula; as, a *scrofulous* person.

Scrofulously, *adv.* In a scrofulous manner.

Scroll, (*skrōl,*) *n.* [Corrupted from *roll.*] A roll of paper or parchment, or a writing formed into a roll; a first copy or rough draught of anything; a schedule; as, an epistolary *scroll*.—A mark or flourish appended to a person's signature to a writing, and intended to take the place of a seal.

(*Arch.*) A name given to a kind of ornamentation which resembles a band arranged in undulations or convolutions; also, the volute of the Ionic and Corinthian capitals.

(*Her.*) That part of the outward ornamentation of a shield or achievement on which the motto is inscribed.

(*Ship-building.*) A curved piece of timber bolted to the knee of the head by way of ornament.

Scrolled, (*skrōld.*) *a.* Inclosed in a scroll or roll; formed into a scroll.

Scrophula'ria, *n.* (*Bot.*) The Fig-wort, the typical genus of the order *Scrophulariaceæ*, q. v.

Scrophularia'ceæ, *n. pl.* (*Bot.*) The Fig-wort family, an order of plants, alliance *Bignoniales.* Diag. Axile placentæ, albuminous seeds, and cotyledons scarcely larger, or not so large, as the radicle.—They are herbs, or rarely shrubbery plants, with opposite leaves (generally). Inflorescence axillary. Flowers anisomerous, irregular. Calyx persistent, 4–5-partite; æstivation imbricate. Stamens 2, or 4 didynamous, rarely 5, with introrse anthers. Ovary usually 2-celled, its component carpels being placed anterior and posterior; style 1. Fruit usually capsular, rarely baccate, generally 2-celled; embryo straight or slightly curved. The plants of this order are found in all parts of the globe, and a great number are cultivated in our gardens on account of the beauty of their flowers. (See Antirrhinum, Calceolaria, Gerardia, Mimulus, Veronica.) Some are powerful poisons, and all must be regarded with suspicion. The most important medicinal plant of the order is the Foxglove. See Digitalis.

Fig. 2328.—Gerardia purpurea. (1, Calyx and style.)

Scro'tal, *a.* (*Med.*) Pertaining, or relating, to the scrotum; as, *scrotal* hernia.

Scro'tiform, *a.* Pouch-shaped.

Scrotocele, (*skrō'to-sēl,*) *n.* [Fr., from Lat. *scrotum*, and Gr. *kēlē*, a tumor.] (*Med.*) Hernia in the scrotum.

Scro'tum, *n.* [Lat.] (*Anat.*) The membraneous bag in which the testicles, or chief male organs of generation, are suspended in the higher vertebrate animals; the cod.

Scrouge, (*skrooj,*) *v. a.* To crowd; to squeeze;—an American colloquialism.

Scrow', *n.* A clipping from a leathern skin.

Scrub, *v. a.* (*imp.* and *pp.* scrubbed,) (*skrŭbd.*) [Ger. *schrubben*; Du *schrobben.*] To rub hard, either with the hand, or with a cloth or an instrument; usually, to rub hard with a brush, or with something coarse or rough, for the purpose of cleaning, scouring, or marking; as, to *scrub* a floor or deck, to *scrub* kitchen utensils, to *scrub* one's face with a towel.

—*v. n.* To labor hard or steadily; to be diligent and penurious; as, to *scrub* for a living.

—*n.* One who works hard, and lives sparingly or meanly; a drudge; as, a publisher's *scrub*.—Anything small, mean, or despicable.

—A worn-out brush or broom.—Low underwood; brush; undergrowth; stunted boscage; as, the Papuan *scrub*.

—*a.* Mean; scrubby; paltry; despicable; contemptible; as, a *scrub* joint of meat.

Scrub'bed, Scrub'by, *a.* Small, mean, and contemptible; stunted in growth; niggardly; shabby; paltry; as, a *scrubbed* boy, a *scrubby* cur, a *scrubby* dinner.

Scrub'grass, in *Pennsylvania*, a township of Venango co.

Scrub Island, in the W. Indies, 3½ m. N.E. of Tortola.

Scrub'-race, *n.* A running-match between mean animals, got up for diversion.

Scrub'-stone, *n.* An English provincialism for a species of calciferous sandstone.

Scruff, *n.* The nape of the neck; as, I took him by the *scruff* of the neck and kicked him out of doors.

Scrum'mage, *n.* An infrequent orthography of Scrimmage, *q. v.*

Scrumptious, (*skrŭm'shus,*) *a.* Choice; fine; select; fastidious; luxurious; as, a *scrumptious* fellow. (U. S.)

Scrunch', *v. a.* To crunch; to scranch.

Scruple, (*skrū'pl,*) *n.* [Fr. *scrupule*; Lat. *scrupulus*, *scrupulum*, from *scrupus*, solicitude.] In apothecaries' weight, the third part of a drachm, or twenty grains.—Hence, a minute or infinitesimal quantity; as, "the smallest *scruple* of her excellence."—*Shaks.*

—Anxiety; solicitude; uneasiness; difficulty; trouble; doubt; hesitation from the difficulty of determining what action is right or expedient; backwardness; reluctance to decide or to act; perplexity; as, a *scruple* of conscience.

To make scruple, to hesitate from conscientious motives.

—*v. n.* To have hesitation about doing anything; to doubt; to be restrained by motives or considerations of conscience or expedience; to be reluctant to take decision or action; as, he does not *scruple* to help himself to other people's money.

—*v. a.* To question; to hesitate, or be reluctant, to believe; as, to *scruple* the correctness of an assertion.

Scrup'ler, *n.* One who scruples, hesitates, or doubts.

Scrupulos'ity, *n.* [L. Lat. *scrupulositas.*] Quality or state of being scrupulous; doubtfulness; the cautious or tenderness springing from the fear of doing wrong or offending; nicety of doubt, or punctilious regard to exactness, propriety, or etiquette; overnicety; fastidiousness; preciseness; squeamish or overstrained delicacy; as, he is careful to a degree of *scrupulosity*.

Scru'pulous, *a.* [Fr. *scrupuleux.*] Having scruples or doubts; inclined to scruple; nicely dubious; exercising caution in decision or action, from a fear of offending or wrong-doing; as, a man of *scrupulous* honesty, a woman of *scrupulous* delicacy.—Exact in regarding facts; nice; careful; cautious; vigilant; as, *scrupulous* observance of the Sabbath.

Scru'pulously, *adv.* In a scrupulous manner.

Scru'pulousness, *n.* State or quality of being scrupulous; niceness, exactness, or carefulness in determining or in acting, from a regard to truth, propriety, or expedience.

Scrut'able, *a.* That may be discovered by inquiry, scrutiny, or close examination.

Scrutineer', *n.* One who scrutinizes;—especially, a person who examines electoral votes to determine their legality.

Scrutinize', *v. a.* (*imp.* and *pp.* SCRUTINIZED,) (*skrū'ti-nīzd.*) [From *scrutiny.*] To search closely or minutely; to examine or inquire into critically; to investigate narrowly; to pry into; as, his affairs were strictly *scrutinized.*

Scru'tinizer, *n.* One who scrutinizes or examines with critical care.

Scru'tinizingly, *adv.* In a scrutinizing manner; by employing close research; scrutinously.

Scru'tinously, *adv.* With close observation or critical regard.

Scru'tiny, *n.* [Fr. *scrutin;* L. Lat. *scrutinium.*] Close or careful search, as into things cast aside, for something useful or desirable; minute inquiry; careful investigation; close research; critical examination; as, his character will bear *scrutiny.*

(*Pol.*) In parliamentary language, an examination of the votes given at an election by an election committee, at which the had given on both sides are rejected, and the poll corrected accordingly.

(*Canon Law.*) A ticket, or little paper billet, on which a vote is written.

Scrutoire, (*skru-twŏr',*) *n.* Same as ESCRITOIRE, *q. v.*

Scry', *n.* [From *descry.*] A covey of wild fowl.

Scud', *v. n.* [Icel. *skūdts,* quick, rapid.] To flee or be driven with haste or celerity; as, he *scudded* off before I could accost him.

(*Naut.*) To run before the wind in a gale; as, the ship *scudded* under bare poles.

—*v. a.* To pass over rapidly.

—*n.* Act of scudding; a driving along; a rushing or fleeing with precipitation.—Detached, vapory clouds hurried along rapidly by the wind; as, flying *scud.*—An English provincialism for a sudden, slight, quick shower; as, a *scud* of rain; also, a covey of larks.

Scud'dle, *v. n.* [Dim. of *scud.*] Same as SCUTTLE, *q. v.*

Scude'ri, MADELEINE DE, a French romancist, B. 1607, was the sister of Georges de Scuderi, a poet once celebrated, now forgotten. She wrote a large number of works, which were once highly popular, notwithstanding their great length. The chief of these were *Clelia,* in 10 vols., and *Artamenes,* or *The Grand Cyrus,* also in 10 vols. She had pensions from Cardinal Mazarin and Louis XIV. D. 1701.

Scudo, (*skōō'do,*) *n.*; *pl.* SCUDI, (*skōō'dee.*) [It., a shield; Fr. *écu.*] Formerly a Roman gold coin, in value about $15.70.—A silver money of account in Italy, equivalent (at par of exchange) to about $1.02.

Scufe, *n.* A Scotticism for the racket used in the game of tennis.

Scuff, *n.* Same as SCRUFF, *q. v.*

Scuffle, (*skŭf'fl,*) *n.* [A. S. *scufan,* to push, shove, thrust; Dan. *skuffe,* to cheat.] A confused contest or quarrel, in which the parties push or shove violently against each other; a tumultuous struggle for victory or superiority; a fight; as, in the *scuffle* he lost his hat.—A garden hoe.—A child's pinafore;—(an English prov.)

—*v. n.* To enter into a close grapple, as two persons;—hence, to strive or contend confusedly and tumultuously, as small parties.

Scuffler, *n.* One who scuffles.—(*Agric.*) A field or garden implement for cutting up weeds and stirring the surface of the ground; a scuffle.

Scug, *v. a.* [Swed. *skugga,* to shade.] To hide; to be in ambush. (Prov. Eng.)

—*n.* A place of shelter. (Prov. Eng.)

Sculk', *v. n.* See SKULK.

Sculk'er, *n.* Same as SKULKER, *q. v.*

Scull', *n.* Same as SKULL, *q. v.*

—[Swed., Goth. *skal,* a drinking-vessel. See SKULL.] (*Naut.*) A cock-boat; a sculler; also, an oar so short that one man can work a pair;—particularly, an oar placed over the taffrail of a boat and plied from side to side; as, a pair of *sculls.*

—*v. a.* To impel, as a boat by moving and turning an oar over the stern from side to side.

Scull'er, *n.* One who sculls or rows with sculls; one who impels a boat by an oar over the stern.—A boat impelled by one man with two sculls or short oars.

Scul'lery, *n.* [Fr. *écuelle,* a porringer.] A place where dishes, pots, pans, and other culinary utensils are kept;—also, a back-kitchen, or place in which the dirtier kinds of kitchen work are done.

Scul'lery-maid, *n.* A domestic who has charge of a scullery; a scullion.

Scullion, (*skŭl'yun,*) *n.* [O. Fr. *sculiér.*] A servant who cleans pots, kettles, and other utensils, and performs other menial services about the kitchen and scullery.

Scull's Creek, in *Georgia,* enters the Ogeechee from Emanuel co.

Scull'town, formerly LOCKERTON, in *New Jersey,* a village of Salem co., abt. 15 m. E. of Salem.

Scul'pin, *n.* (*Zoöl.*) An American fish of the genus COTTUS, *q. v.*

Sculp'tor, *n.* [Lat.] One whose occupation is to carve wood or stone into images or figures; a carver; a statuary; as, the *sculptor's* art.

Sculp'tress, *n.* A female sculptor.

Sculp'tural, *a.* Pertaining, or relating, to sculpture;—hence, finely wrought or chiselled; as, *sculptural* finish.

Sculpture, (*scŭlpt'yŭr,*) *n.* [Fr.; Lat. *sculptura,* from *sculpo, sculptum,* to carve, cut, grave.] The art of carving wood, stone, or other material, into images or statues.—Carved work; as, living *sculpture.* (*Dryden.*)—Strictly speaking, *S.* is the art of cutting or carving any material, so as to represent form. If taken in a broad acceptation, the term might be applied to gem-engraving, casting in metal or otherwise, modelling, and carving generally. Sculpture may be broadly divided into *Relievo* and *Round.* In the former, single figures or groups are represented as more or less raised, but without being entirely detached from a back-ground. According to the latter method, insulated figures, such as statues, or collections, or groups, are made, so as to be entirely independent of a back-ground. There are various opinions as to which is the most ancient of the arts of painting and *S.* If we place credence in Pliny's story, as recorded in his *Natural History,* relating how the daughter of Dibutades formed the outline of her lover's profile from its shadow thrown upon a wall, an outline which was subsequently filled in with clay by the lady's father, we must allow that drawing is the elder art. Indeed, it is more reasonable to suppose that the drawn design, from which *S.* is worked, must have been the prior process. It is clear, however, that attempts at forming the representation of natural forms, by means of clay or other plastic substance, must have been among the earliest efforts of man's ingenuity. Pliny and Pausanias both tell us that clay, stucco, wax, and plaster, were employed by the ancients to form works in *S.* Clay was used for architectural ornaments, figures, tiles, lamps, which, when baked, were called *terra-cotta,* or baked earth. For carved work, granite, porphyry, basalt, ivory, bone, alabaster, and wood of many kinds were used. In short, nearly every material, hard or soft, was employed to perpetuate the memory of great events, or to do honor to the actions of heroes. Scattered through even the most ancient records, we may glean that men from the earliest times venerated blocks and carved stones. In the 23d century B. C., Saban possessed images of his domestic gods (in Hebrew *Seraphim*). Sculptured works have been found in the most ancient Hindoo caverns and grotto-temples. It has been declared that the history of sculpture is almost the history of religion. In the inspired writings, the Israelites are repeatedly exhorted to turn away from the worship of images, the sculptured works of their own hands. The idols of Egypt, the monstrosities of Hindooism and of Buddhism, owe their origin to the superstition of the people of India, China, and of Egypt, striving as they did to give to sculptured forms the symbolical attributes of divinity. This superstitious feeling was the force that actuated those ancient sculptors to exhibit in the human form, combined with the brute, the symbols of intelligence and strength. As to the Hindoos, although their fancy was exuberant, they never reached a standard of pure art. In the ruins of Persepolis there are many examples attesting to the fact that the Persians possessed many works of sculpture. Yet, as this ancient people never carved the semblance of the human form, they never gained a just conception of the majesty of nude humanity. *S.* flourished in Assyria. The researches of Messrs. Layard and Botta have stocked the museums of London and Paris with a number of colossal slabs, the dates of which range from the time of Sardanapalus, B. C. 930, to the destruction of Nineveh, B. C. 625. In these colossal emblems of the sculptured arts of a great and ancient people, we find human-headed, winged bulls and lions, and representations of battles, sieges, and the chase. Probably because their creators were bound by rigid conventional rules, these slabs show a total ignorance of perspective, together with exaggerated and inaccurate drawing. The Egyptians were the first who elevated sculpture almost to pure art. This ingenious, wealthy, and wise people, nevertheless, were never able to shake off a heavy uniformity and stiff ugliness which characterized all their works, and rendered them vastly inferior to the Greeks. This inferiority is held by some writers to arise from the want of beauty in the natives of Egypt; others declare that it was owing to the absence, among this nation, of any public games, where the human form in its proper development might be studied. The true cause would appear to be, that the Egyptian sculptors always wrought under the direction of the priests, who, according to Plato, never suffered them to innovate anything in their art, or to invent any new subjects or any new habits. Hence, the art remained at a stand-still—the rules of it at a stand-still. Stiff, limited action, drapery without folds, flat eyebrows, thick lips, and projecting eyeballs, are the prevailing characteristics in all Egyptian sculpture, albeit there is a peculiar sweetness of expression in many of their heads. Some authorities hold that the Etrurians taught the Greeks, while others declare that the Greeks were the instructors of the Etrurians. Certain it is that the sculptured remains of the Etrurians were closely connected in style with the Greek, pointing to the fact that there must have been some connection between the two nations. The distinguishing signs of Etruscan sculptural art are—exaggeration of attitude, meagreness in dealing with details, and an unnatural position of the hands. They were mostly skilled in the making of vases. Their sculptured works were chiefly in bronze, stone, and terra-cotta. To turn to Greece, a land where the art of sculpture soon rose superior to all those impediments which trammelled and restricted its advancement in other countries. It was here that the conceptions of sublime and glowing fancies were embodied in the productions of what may be truly termed a race of poet-artists. Writers have endeavored to account, in various ways, for this universally admitted superiority of the Greeks over every other nation by whom the fine arts had been practised, and usually have attributed their success to such physical causes as a fine climate, or the prevalence of beautiful forms, or to the public exercises so general in that country. Nevertheless, these accidents alone will not account for their excellence as sculptors. Rather may we attribute the perfection of Greek art to her sculptors having made nature, in her best and most happy forms, their model. Still, it must never be forgotten that the Greeks had an intuitive sympathy with beauty, either in poetry, painting, or sculpture. Did the Greek sculptor desire to typify brawny strength, he sought in the gymnasia for the deep, spacious chest, the well-knit joints, the broad shoulders, the massy muscles of the wrestler, for the elements that should be combined together to form his mighty Hercules. Did he wish to carve the semblance of the messenger of the gods, he selected from the victor in the foot-race the clean limbs and the elegant proportions, and from many well selected athletes, made up a form of ideal beauty combining the strength and agility we see personified in the statue of Mercury. Sculpture in Greece, as elsewhere, had its beginning in very rude forms. At first, the symbols of divinity were little more than rude quadrangular blocks of stone. Between the 9th and 7th centuries B. C., the Greeks had frequent intercourse with the commercial Phœnicians. From this nation the Greeks borrowed their Hermæ, or god of roads and travellers; at first mere stone pillars. Upon these pillars a head was afterwards placed, thus forming the origin of busts. Progressing still further, *S.* was called upon to assist in the decoration of temples. Hands and feet were next added, a shield and spear were placed in the hands of the statues; and thus the first semblance of Pallas originated. Until the time of Dædalus of Athens, the bodies or trunks of large statues were a mere cylindrical pillar, as in the Colossus of the Amyclean Apollo. Dædalus inaugurated a new æra; and of his divine genius the Greek said—that he made statues walk, see, and speak. After this great master it was that all artists were symbolically termed *Dædalides,* the sons of Dædalus. Henceforth, ancient Greek art may be divided into three styles: the *Old Attic,* the *Æginetic,* and the *Etrurian.* Statues, thrones embellished with figures, shields, vases, and coffers, were the productions of the art. Smilis, the father of statuary, lived at Ægina about 1400 B. C.; and in 700 B. C., Rhœcus of Samos invented the art of moulding and casting in brass. The famous Brazen Bull was made by Perillus, for Phalaris, who reigned in Sicily 564 B. C. But the true ideal style of Greek art was not inaugurated until the time of Phidias of Athens. This great genius lived in the time of Pericles, the age of classic models. For the Parthenon at Athens, Phidias wrought the statue of Minerva, and at Elis he set up his other great masterpiece, the famous Olympian Jupiter (Fig. 1910). Both were executed in ivory and gold. The god Jupiter was forty feet high; his face bore the expression of power, wisdom, and benevolence; and an epigrammatist, speaking of his majestic proportions, said: "The statue of Jupiter would have thrust off the roof of the temple like a thin shell, if it had ever risen from its golden throne." This statue of the Olympic Jupiter existed till the year 475 of our æra, when it was destroyed by fire at Constantinople. Besides these great works, he made a statue of Pallas, in brass, for Athens, the Venus Urania, the Nemesis in the temple at Marathon, and an Amazon, famed throughout Greece for the beauty of her limbs. Alcamenes of Attica, and Agoracritus of Paros, were his favorite disciples. The most famous works of Alcamenes were his Mars, Cupid, Venus, and Vulcan. It was said that Agoracritus was even superior to Alcamenes, and when he contended with the latter in the execution of a statue of Venus, the Athenians only adjudged the prize to Alcamenes out of partiality for their fellow-citizen. According to Varro, the Venus of Agoracritus was the finest ever wrought. Polycletus of Argos was the author of the work deemed worthy of being ranked as the companion to the Jupiter of Phidias. This was the celebrated statue of Juno. Tenderness and softness were the characteristics of this master. He excelled in portraying the beautiful positions of the boys of the gymnasia, and of the sports of youth. His works were chiefly in metal, and he was the author of the celebrated ideals of youthful beauty—the Diadymenus, a placid youth, who winds the wreath of victory round his brow; and the warlike Doryphorus, holding the lance. Myron of Eleutheræ, in Bœotia, was the great rival of Polycletus. Despising the soft and graceful forms which his contemporary sculptor loved to represent, Myron sought his models in the brawny athlete. He sculptured the ideal Herculee, the Discobolus throwing the Discus. He was no less famous for his animal forms, the most celebrated of which were the Heifer and the Sea Monster. In one quality, however, he was surpassed by Pythagoras of Rhegium, who executed the ideal of Apollo, who, as an archer, has just shot the serpent Python. The finest statue possessed by the moderns is an imitation of this great work—the Apollo Belvidere (Fig. 157). With all its beauty and simplicity, Greek sculpture made use of devices which, perhaps, from insufficient knowledge of the subjects, the best of modern fine art critics have condemned as being derogatory to the essential qualities of art. From an early period, and even during the best æra of Greek art—the age of Phidias—the Greeks were

accustomed to combine different marbles in the same work. This was called *polylithic S.* Frequently, head, hands, and feet, were formed of different stones, while wood and metal were employed for the draperies and accessories. The Greeks also painted their statues. The hair was often gilt, and even colored sometimes; the backgrounds of alti-relievi were painted, in order to heighten the effect, and occasionally eyes of glass or silver were introduced. With Socrates, the sculptor of the Draped Graces, and Athenodorus and Nancydes, commenced the third epoch of Greek sculpture. It is generally known as the *beautiful style*, and Scopas, Lysippus, and Praxiteles, because they united beauty and grace, brought the art to its highest perfection. The finest works of Scopas were the Furious Bacchante, his Venus (the original, perhaps, from which the Venus de Medici was copied), and the Triumph of Achilles, together with a number of charming combinations of Nereids and sea monsters. Forsaking the severe, grand, and sublime, for the tender, flowing, and graceful, Praxiteles wrought in bronze and marble. Until this sculptor ventured to carve a Venus nude, all statues of female divinities had been draped. It is supposed that the Sleeping Faun at Munich, the Cupid contained in the Vatican at Rome, the Apollo Sauroctonus, and the celebrated Venus of Cnidus, together with the group of Niobe, are imitations of some of the great works of this master. The rival and contemporary of Praxiteles was Lysippus of Sicyon, who was the great master of portrait-sculpture. He is said to have executed in bronze exclusively. Alexander the Great would permit no other artist to carve his likeness. He represented Alexander from his childhood to his manhood. Pliny declares that Lysippus executed as many as six hundred and ten works. His horses were very beautiful. The other great sculptors of this period were Euthycrates and Bedas, sons of Lysippus; Xenocrates, who wrote a treatise on sculpture; Chares of Lindus, who cast the famous Colossus of Rhodes; Agesander of Rhodes, and his three sons, who executed the celebrated group of Laocoon (Fig. 225); Glycon of Athens, who formed the Farnese Hercules at Naples; and Appollonius and Tauriscus, who made the Farnese Bull, also at Naples. The beautiful fragment known as the Torso of the Belvidere, at Rome, and the Hermaphrodite at Paris, also belong to this æra of Greek art. The victorious Romans destroyed the existence of the arts in Greece; but, as if in revenge, all the sculptors of Rome were Greeks; all the great works in painting and sculpture were taken to Rome, and with these masterpieces the artists emigrated to the capital of their conquerors. The celebrated reclining statue of the Dying Cleopatra was executed in the reign of Augustus, and a son of Cleomenes the Athenian made a statue which is held by some to be a figure of Germanicus. This work is now in the Louvre at Paris. Visconti is of opinion that it is intended to represent some distinguished Roman orator. Julius Cæsar was devoted to the fine arts, and even the most remote provinces of the Roman empire reaped the fruits of his refined taste. He embellished the cities of Gaul, Spain, and Greece, as well as Rome. Augustus embellished all the public places of Rome with statuary, and Agrippa employed an Athenian sculptor to decorate the Pantheon, as well as causing an aqueduct to be embellished with three hundred pieces of statuary in bronze and marble. Nero invited from Cisalpine Gaul, Zenodorus, who executed a colossal bronze statue of his patron, 110 feet high. It was during the reign of the last-mentioned emperor that the Romans began to introduce the practice of making statues in different-colored marbles. They went so far as to imitate, by means of white and black stones, the colors of the eyes in a statue of an Ethiopian. The times now became too disturbed for sculpture to flourish; but it revived under Trajan, in whom, as well as in his successors, Adrian and the Antonines, the art found a munificent patron. Adrian was especially conspicuous for his fine taste. He caused to be restored all the old public edifices that had fallen into decay, besides erecting many new and magnificent buildings. The remains of one fine work remain to this day to attest to his munificence—the grand villa near Tivoli, about 18 m. from Rome. After this prince, sculpture began to decline, and when the seat of imperial government was established at Constantinople, Constantine could find no artists worthy to decorate his new imperial residence. After Rome had been destroyed by the several inroads of the Northern nations, the finest productions of ancient art were demolished, and this work of destruction was consummated by the religious zeal of the primitive Christians, who swept away what remains there were of the statues of the Greek and Roman divinities. *S.* awoke to renewed life about the 10th or 11th century, in Italy. In the 11th century mention is made of a sculptor named Buono; Bonanno, of Pisa, lived during the 12th; while Niccolo Pisano, who died 1270, is esteemed the "father of modern sculpture." Two of his finest compositions are the "Taking down from the Cross," in front of the Duomo of Lucca, and the "Last Judgment and Punishment of the Wicked," in the cathedral of Sienna. Both these masterly works are bassi-relievi. Andrea Orcagna, poet, painter, and sculptor, died in 1389. Lucca della Robbia covered his beautiful *terracotta* models with a varnish which gave them the hardness of stone. He never disclosed the secret of his process; but there is a tradition which declares that he inclosed an account of the mystery in some of his models before they were baked; so that it could never be known until many of his beautiful works were destroyed. Lorenzo Ghiberti and Donato di Betto Bardi were distinguished masters of *S.* Michael Angelo declared that the brazen gates made by the former were worthy of being placed at the entrance to Paradise. Donatello, who died in 1466, enriched Florence, Genoa, and Venice with his works. During the 15th century, Andrea Verocchio, Andrea Ferracci, the two Pollajoli, and Mina di Fiesole, were great masters. Michael Angelo Buonarotti, born in 1474, exhibited at an early age the forecast of his wonderful genius. He became the protégé of Lorenzo de Medici, who assigned him apartments in his own palace. His colossal statue of "Moses" is a great effort of genius, as are also the allegorical figures of "Day and Night," and of "Dawn," "Morning," and "Evening," in the chapel of the Medici at Florence. Others of the masterpieces of this great and powerful master are, the statue of "Christ" at Rome, the statue of "David" at Florence, and "the half-drunken Bacchus" in the same city. A profound knowledge of anatomy, mastery of execution, originality, combined with a vast store of energy, are the principal characteristics of Michael Angelo. Jacopo Catti, or Sansovino, as he is more commonly termed, was more distinguished as an architect than as a sculptor. Baccio Bandinelli, born at Florence in 1487, attempted to become the rival of Michael Angelo. A great anatomist, his style was rude and energetic. He restored the right arm of the Laocoon. Benvenuto Cellini was a painter, goldsmith, and sculptor. He was born at Florence in 1500. Most of his finest large works, which were cast in bronze, are preserved in his native city. The one celebrated female sculptor is Dropozia di Rossi, of Bologna, who died at an early age, in 1530. An accomplished painter, a musician as well as sculptor, she is said to have become inspired with an affection for a young artist who did not return her love. Her last work was a basso-relievo, representing the story of "Potiphar and Joseph," in which she depicted herself as the wife of Potiphar, with the object of her affection flying from her. Guglielmo della Porta, Bernini, Alessandro Algardi, of Bologna, Il Fiammingo, a native of Brussels, who excelled in portraying the forms of childhood, Francesco Mocchi Faggini, and other names, mark the different æras of Italian *S.* down to the present century. To Flaxman, in this century, the English are indebted for founding upon true principles the British school of *S.* This great sculptor has had worthy followers in Sir R. Westmacott, Sir F. Chantrey, Baily, Carew, Lough, and Foley. In France, Jean Goujon, of Paris, is the first distinguished sculptor. The brothers Marsy, who cast the statues of Bacchus and of Latona, and the famous group of horses at the Bath of Apollo, at Versailles, were distinguished in the 17th century. Baptist Pigallo executed a Mercury and a Venus for the King of Prussia. In this cent. David (d'Angers) and Pradier were the most distinguished of the French school; and, among contemporary sculptors, Guillaume, Carpeaux, and Bartholdi. Albert Durer, whose genius embraced various departments of the fine arts, was among the first great German sculptors, his genius having been transmitted through many worthy followers to the greatest among modern German sculptors, Christian Rauch and Dannecker. As Canova emancipated modern Italy from those false perceptions which had so long divested the current of pure taste, so Thorwaldsen, the Danish sculptor, was superior to all his contemporaries in the grandeur of his forms and in strength of expression, besides placing his native land among the list of those countries that have given rise to artistic genius. John Gibson (*q. v.*) was the most distinguished pupil of both Canova and Thorwaldsen. Few American sculptures worthy of note were executed previous to Greenough's time, but within the last 30 years the works of Hiram Powers, Crawford, Brown, Cleveuger, Rogers, Palmer, Miss Hosmer, Vinnie Ream, and others, have brought American talent in this department of art to a pinnacle of reputation not inferior to that of contemporary European sculptors.—To describe the mechanical process of *S.*, the artist having conceived and well-ordered his subject, he either makes a preliminary sketch of it upon paper, or else proceeds at once to model it on a small scale, in clay or wax. By this means he is enabled to improve the general arrangement of his figure, or group of figures. The genius of the artist is altogether displayed in the perfected original model, for the subsequent process of copying it in stone is chiefly mechanical. When a large clay model is made, a skeleton or frame of wood or iron is constructed whereon to place a proper quantity of wet clay. This clay is moulded by the hand, and by tools of wood and ivory. The figure is thus built up in clay, and whether it is subsequently to be draped or otherwise, it should always be modelled naked, so that the true proportions of the form may be attained, also that the drapery may have a natural curve and fall. If the design be in relievo, a plano is prepared upon which the design is drawn. Upon this sketch, bounded by the outlines, the wet clay is laid; afterwards the clay is modelled by the sculptor. In either case, whether in the "round" or in "relievo," the clay must be kept damp by wet cloths, in order to prevent the shrinkling or cracking of the model. To obtain a "cast" of this model is the next process. The model is covered with a mixture of plaster of Paris and water, and when this has become hardened, the clay model within is carefully picked out. The plaster of Paris matrix is then washed; the interior is brushed over with a composition of oil and soap, and a fresh supply of plaster of Paris poured in. When this sets, the matrix is struck off, piece by piece, with chisels, and a cast of the model, which has not adhered to the mould by reason of the oily compound with which the latter had been smeared, is obtained. This cast is the exact fac-simile of the original model, and if it is intended to execute the work in bronze, another mould is taken from it by the founder. (See FOUNDING.) If it is intended to copy the work in marble, a block of marble is marked with a number of pencil-points, to correspond to the chief elevations and cavities in the figure to be imitated; these forming a series of guides to the workmen engaged in carving a rough outline of the original work. A superior workman next copies the nicer details of the work by means of chisels, rasps, and files, the pencil-points acting as his guide. Finally, the sculptor himself gives the finishing touches, and goes entirely over his work, improving each detail, until the realization of his idea is obtained. When required, the surface is polished with pumice-stone and putty-powder.

Sculpt'ure, *v. a.* To carve; to grave: to form, as images or figures, with a chisel, on wood, stone, or metal; as, a *sculptured* vase.

Sculpturesque, (*-esk',*) *a.* After the manner of, or resembling, sculpture.

—*n.* High relief, possessing the character of sculpture.

Scum, *n.* [Icel. *skum;* Ger. *schaum;* Fr. *écume.*] That which rises to the surface of any liquor; extraneous matter or impurities which rise to the top of liquors in process of boiling or fermentation, or which form on the surface by other means; also, the scoria of metals in a molten state.—Hence, that which is vile or worthless; the recrement; the refuse; as, the *scum* of the people.

—*v. n.* (*imp.* and *pp.* SCUMMED.) To form a scum; to be mantled or covered with scum; as, the soup *scums* over.

—*v. a.* To remove the scum from; to clean off the impurities from the surface of; to skim; as, to *scum* molten lead.

Scum'ble, *v. a.* [Dim. of *scum.*] To spread thinly, as a painting, &c., with opaque or semi-opaque tints, to produce a softened effect.

Scum'bling, *n.* (*Paint.*) A mode of obtaining a softened effect in painting, by blending tints with a neutral color of a semi-transparent character, forming a sort of glazing when lightly rubbed with a nearly dry brush over that portion of a picture which is too bright in color, or which requires harmonizing; but, unlike regular glaziug, it does not entirely, but only partially, cover the ground-tint, the brush never being used charged with color, and thus by its partial dryness depositing minute granular portions of color over the surface. In chalk- and pencil-drawing, it is produced by lightly rubbing the blunt point of the chalk over the surface, or spreading the harder lines by the aid of the stump, which produces a peculiarly soft effect. *S.* is, however, used sometimes to an objectionable extent, and may frequently have the ill effect of destroying clearness of tint and decision of drawing.

Scum'mer, *n.* Excrement; dung.

—*v. n.* To dung; to void excrement.

Scum'mer, *n.* An instrument used for scumming liquor; a skimmer.

Scum'mings, *n. pl.* The matter skimmed from boiling liquors; scum.

Scum'my, *a.* Covered with scum.

Scup, *n.* [Du. *schop.*] A swing;—a term still retained among the Dutch settlers of New York.

Scup, Scup'paug, *n.* (*Zoöl.*) See SPARIDÆ.

Scuppernong' Creek, in *Wisconsin,* enters Bark River from Jefferson co.

Scup'per, Scup'per-hole, *n.* [From *scoop;* Sp. *escupir.*] (*Naut.*) One of the holes or channels cut in the waterways of a ship for discharging or carrying off the water from the deck; as, the lee *scuppers.*

Scup'per-hose, *n.* (*Naut.*) A pipe of canvas or leather, attached to the mouth of the scuppers, on the outside of a ship, to prevent the water from getting entrance.

Scup'per-nail, *n.* (*Naut.*) A broad-headed nail, used for securing the edge of the hose to the scupper.

Scup'pernong, *n.* (*Bot.*) See VITIS.

Scup'per-plug, *n.* (*Naut.*) A plug or stopple for a scupper-hole.

Scurf, *n.* [A.S., from *sceorian,* to scrape, shave; Icel. *skurfur.*] A dry sort of scab or mealy crust formed on the skin of an animal; an exfoliation from the surface of the body.—Hence, the soil or stain of anything adherent; as, the *scurf* of crime. (*Dryden.*)—Anything adhering to the surface; as, flakes of *scurf* on water.

(*Bot.*) A minute membranous scale on the surface of some leaves.

Scurfiness, *n.* State or quality of being scurfy.

Scurf'y, *a.* (*comp.* SCURFIER; *superl.* SCURFIEST.) Having scurf; covered with scurf; resembling scurf; as, a *scurfy* skin.

Scurrile, (*skŭr'ril,*) *a.* [Fr.; Lat. *scurra.* a buffoon.] Such as beseems a buffoon or coarse jester; low; mean; grossly indelicate or opprobrious in language; scurrilous; as, a *scurrile* taunt, a *scurrile* witticism.

Scurril'ity, *n.* [Fr. *scurrilité;* Lat. *scurrilitas.*] State of being scurrile or scurrilous; mean, vulgar, or obscene jocularity.—Such low, vulgar, indecent, or abusive language as is used by buffoons and the like; grossness of inuendo, reproach, or invective; coarse abuse; as, the *scurrility* of a lampoon.

Scur'rilous, *a.* Employing the low and obscene language of buffoons, or of the meaner sort of people; opprobrious; abusive; coarse; vulgar; vile; foul-mouthed; as, a *scurrilous* jester.—Containing low obscenity or mean abuse; indecently jocular; foul; as, a *scurrilous* remark, a *scurrilous* pamphlet, &c.

Scur'rilously, *adv.* In a scurrilous manner.

Scur'rilousness, *n.* Quality of being scurrilous.

Scur'ry, *v. n.* To hurry; to scour or scud along. (Eng. prov.)

Scur'vily, *adv.* In a scurvy manner; basely; meanly; shabbily; with coarse and vulgar discourtesy or injustice; as, to be *scurvily* treated.

Scur'viness, *n.* Quality or state of being scurvy; baseness; vileness; meanness; shabbiness.

Scur'vy, *n.* [From *scurf;* L. Lat. *scorbutus.*] (*Med.*) A disease once common on shipboard, but now of very rare occurrence. It is still a disputed point whether this disease was known at all to the ancients; but of its prevalence in the Middle Ages there is abundant testimony. It appears to have existed in the north of Europe from the most remote antiquity, resulting from the imperfect state of agriculture and the frequent famines that prevailed. It was, however, more particularly at sea that the fearful ravages of this scourge prevailed. The first indication of *S.* is usually a change in the complexion, from its naturally healthy hue to a pale, slightly sallow, and dusky appearance, and aversion to every kind of exercise. The patient is readily fatigued, and complains of pain in the muscles, especially of the legs and loins, similar to those produced by over-exertion. The gums soon become sore, and apt to bleed on the slightest touch, and on examination are found to be swelled and spongy, and of livid redness. As the disease advances, all these symptoms become more marked; the complexion acquires a more dingy and somewhat brownish hue; the debility increases, so that the least exertion causes breathlessness and palpitation, and not unfrequently an alarming syncope; the gums become more swelled and more livid, forming, in some cases, a black spongy mass, completely concealing the teeth, which frequently become loose, and drop out without undergoing decay; and the breath is remarkably offensive. The patient is also subject to hemorrhages, more particularly from the gums and nose, but often from the intestines, lungs, or stomach. Ecchymoses also appear on the skin, in the form of petechial spots, particularly on the lower extremities, but frequently occurring on the arms and trunk. In many cases, effusions of blood take place under the skin in various parts, especially in the lower extrémities, and around the seat of an old injury. These parts are painful when pressed or moved, and are much swollen. Their most common seat is the ham, where the swelling is often considerable, and always attended with stiffness and contraction of the knee-joint. Sometimes old wounds break out afresh, and a broken bone will become disunited, though it has been consolidated for some time. The natural secretions are scanty, the skin is dry and rough, and there is a suppression of perspiration. The appetite, however, continues good, and the powers of digestion are nuimpaired; the intollect is unaffected, and in early stages the patients generally sleep well. The tendency to swoon, however, is very great, and sometimes even the slightest motion produces fainting, which sometimes proves fatal. *S.* is most common in winter or the beginning of spring; is not contagious, neither is it caused by cold weather, by impurity of air, nor by the continued use of salt provisions, all of which have frequently been alleged. It is owing solely to the privation, for a considerable length of time, of fresh, succulent vegetables, and is infallibly and rapidly cured by the administration of these, or of lemon-juice. The latter is really a specific against *S.*, whether it be employed as a preventative or as a remedy. It supplies something to the blood which is essential to its healthy properties. As for the rest, fresh animal food, with wine, porter, or ale, is of advantage; but bleeding, blistering, or mercury in any form, should be religiously avoided.

—*a.* (*comp.* SCURVIER; *superl.* SCURVIEST.) Scurfy; diseased with scurvy; covered or affected by scurf or scabs; scabby.

—Hence, by analogy, low; mean; vulgar; vile; worthless; contemptible; as, he played me a *scurvy* trick.

Scur'vy-grass, *n.* (*Bot.*) See COCHLEARIA.

Scut, *n.* The tail of an animal whose caudal extremity is short; as, the *scut* of a hare.

Scutari, (*skoo-ta're.*) [Turk. *Uskudar;* anc. *Chrysopolis.*] A town of Asiatic Turkey, situate opposite Constantinople, on the banks of the Bosphorus, in Asia Minor. Its site is one of the most beautiful imaginable, and the most brilliant views of Constantinople and the surrounding scenery are obtained from the hills above it. It has a palace and gardens belonging to the Sultan, a college of dervishes, barracks, public baths, and an extensive cemetery. It carries on a considerable trade, being a rendezvous for the caravans which come from the interior of Asia.

Scuta'ri, in European Turkey, a lake in the N.W. of Albania, 25 m. E. of the Adriatic Sea. *Ext.* 20 m. long, with an average breadth of 6 m.

—A fortified town at the S. of the above lake, on the Bojana, 45 m. S.E. of Cattaro. *Manuf.* Cotton fabrics, arms, and ship-building.

Scu'tate, *a.* [From Lat. *scutum,* a shield.] (*Bot.*) Buckle-shaped.

(*Zoöl.*) Protected by large scales, as a surface.

Scutch, (*skŭch,*) *v. a.* To switch or whip gently. — To swingle; as, to *scutch* flax.

(*Manuf.*) In cotton-spinning, to beat and loosen the filaments of the fibre; to free from dust by blowing.

Scutching-machine, a machine for scutching cotton.

—*n.* An instrument employed in the dressing of flax and hemp; a scutcher.

Scutcheon, (*skŭtch'un,*) *n.* Same as ESCUTCHEON, *q. v.*

Scutch'er, *n.* Same as SCUTCH, *q. v.*

Scute, *n.* (*Zoöl.*) A scale, as of a reptile.

Scutella'ria, *n.* (*Bot.*) The Skull-cap, a genus of plants, order *Lamiaceæ.* It contains about 10 unimportant American species.

Scu'tellate, Scu'tellated, Scutel'liform, *a.* [From Lat. *scutella* — *scutra,* a salver.] Salver-shaped; as, the *scutellated* bone of a sturgeon.

Scutel'lum, *n.* [Dim. of Lat. *scutum,* a shield.] (*Bot.*) A shield-like disc, containing the fructification found in some lichens.

Scutibranch'ians, *n. pl.* [Lat. *scutum,* and *branchiæ,* gills.] (*Zoöl.*) A name given by Cuvier to an order of hermaphrodite, gastropodous Molluscs, including those which have the gills covered with a shell in the form of a shield.

Scuttle, (*skŭt'tl,*) *n.* [A. S. *scyttel,* a lock, bar, bolt; Fr. *écoutille.*] A small opening in a flooring or covering; — specifically, a square hole in the roof of a house, with a movable lid.

(*Naut.*) A small hatchway, or man-hole, in the deck of a ship, with a lid for covering it;—also, a like hole in the side or bottom of a ship, and through the coverings of her hatchways, &c.;—used to admit light or air, or for communication. — The hatch, lid, or door which covers or closes an opening in the roof or wall of a building, &c.

Scut'tle, Scud'dle, *n.* [From *scud.*] A short run; a quick pace; a running with affected haste.

—*v. n.* To hurry; to scurry; to hurry or run with assumed precipitation; to bustle along; as, the old fellow *scuttl'd* off about his business.

Scut'tle, *v. a.* To cut, as large holes through the bottom, decks, or sides of a ship, for any purpose. — To sink by cutting holes through the bottom; as, to *scuttle* a ship. — *To scuttle the decks,* to cut holes in them, in order to pour water down into the hold in case of fire.

—*n.* [A. S. *scuttel;* Dn. *schotel;* Fr. *ecuelle,* from Lat. *scutella,* a platter.] A broad, shallow basket, so called from its resemblance to a dish or platter; — specifically, a metal pan or pail for holding coals.

Scut'tle-butt, *n.* (*Naut.*) A cask of water with a large hole in it, placed for daily use on shipboard.

Scut'tle-fish, *n.* (*Zoöl.*) A cuttle-fish. See SEPIADÆ.

Scu'tum, *n.* [Lat., the name of the oval or door-shaped shield worn by the heavy-armed infantry.] (*Zoöl.*) The second section of the upper surface of each segment in insects.

Scylla, (*sil'la.*) (*Myth.*) A daughter of Nisus, King of Megara. When Minos came from Crete to take vengeance for the death of his son Androgeos, his efforts to take the city were fruitless as long as the purple lock on the head of Nisus remained unshorn. Urged by her love for Minos, *S.* cut off the fatal lock, and with it destroyed the life of her father and the safety of the city. According to one version, Minos tied *S.* to the stern of his ship and drowned her; but another tale says that she was changed into a fish, which Nisus transformed into an eagle, constantly pursued. The myth was localized in the names of the port of Nisæa and the promontory Scyllæum. — The *Odyssey* (xii. 73, &c.) speaks of another *S.*, a daughter of Cratæis, as a monster with twelve feet, six necks, and six mouths, each containing three rows of teeth. This being haunted a rock on the Italian coast; a neighboring rock being tenanted by Charybdis, who thrice every day swallowed the waters of the sea, and thrice threw them up again. Like Medusa, *S.* is represented in some legends as having been beautiful, and as having been changed into a monster through the jealousy of Circe or Amphitrite.

Scylla, and **Charybdis,** the former a famous promontory and town of S. Italy, at the entrance to the narrow straight separating Italy from Sicily; Lat. 38° 14′ 15″ N., Lon. 15° 44′ E. The promontory is 200 ft. high, projecting into the sea, and at its base is the town, with a *pop.* of 5,000. The navigation at this place was looked upon by the ancients as attended with immense danger, which, however, seems to have been much exaggerated, for at the present day the risk is not more than attends the doubling of an ordinary cape. — *Charybdis* (modern name *Galofaro*), is a celebrated whirlpool in the Straits of Messina, nearly opposite the entrance to the harbor of Messina in Sicily, and in ancient writings always mentioned in conjunction with Scylla. The navigation of this whirlpool is, even at the present day, considered to be very dangerous, and must have been exceedingly so to the open ships of the ancients. A modern writer describes it as being "an agitated water of from 70 to 90 fathoms in depth, circling in quick eddies." Homer places it immediately opposite to Scylla, probably taking advantage of poetic license to exaggerate the danger of the navigation.

Scym'etar, *n.* An infrequent spelling of SCIMETAR, *q. v.*

Scyphus, (*sī'fus,*) *n.* [Gr. *skyphos,* cup.] (*Bot.*) The cup or coronet, as in the Narcissus and allied plants; — also, a cup-like dilatation of the podetium in lichens, bearing shields upon its margin.

(*Archæol.*) A capacious drinking-cup, used by the lower orders of the ancient Etrurians and Greeks.

Scythe, or **Sythe,** (*sīth.*) *n.* [A. S. *sithe.*] (*Agricul.*) An implement which has been known from the earliest ages. It consists of a curved steel blade fixed at right angles to a long, crooked handle, to which are fastened two other smaller handles. *S.* are used for cutting grass and corn; when for the latter purpose, a piece of wicker-work, called a *cradle,* is generally attached. — See MOWING AND REAPING.

(*Antiq.*) The curved, cutting blade (Fig. 567) which was affixed to the wheels of war-chariots.

Scythe'-stone, *n.* A whetstone, or rifle, for sharpening scythes.

Scythia, (*sith'ĭ-a.*) (*Anc. Geog.*) A territory in the eastern half of northern Europe, and in western and central Asia, but of very uncertain extent, was inhabited by the Scythæ, or Scoloti, who invaded Media, and defeated Cyaxares B. C. 632, and were driven out soon after Darius I. invaded the country, B. C. 507. Xenophon and the 10,000 Greeks, in their retreat, had to march four days through it, B. C. 400. Alexander III. gained a success over the people dwelling between the Oxus and the Jaxartes, B. C. 329. They merged into tribes of various names soon after their attack upon the King of Bosphorus, about B. C. 63.

Scythop'olis. See BETHSHEAN.

Sea, (*see,*) *n.* [A. S. *sæ;* Dn. *zee;* Ger. *see;* Icel. *sær.*] (*Geog.*) One of the more considerable expanses of salt water, less than an ocean, found on the surface of the globe; a body of salt water of the second rank, commonly forming a component of, or connecting with, a larger sea or an ocean; as, the Mediterranean *Sea,* the Baltic *Sea,* the Black *Sea.* — A large inland lake or body of water; as, the Caspian *Sea.* — The ocean; the main; that portion of the earth's surface which is covered with water. See OCEAN.

(*Naut.*) The expression employed by sailors to describe the condition of the waters they are traversing. A *long sea* is one in which the crests of successive waves are distant from each other, and in which the effect upon the ship is a heavy rolling motion. A *short sea,* on the other hand, is when the waves are frequent, irregular, and crowned by foam. They produce a pitching motion. A *cross sea,* the most irregular, is when a change of wind or a current drives one succession of waves in a direction different from that of another series resulting from the swell caused by a former storm. — The term is also applied to a wave; a surge; a billow; as, the vessel shipped a *sea* over her quarter. — The swell of the ocean in a tempest, or the motion, agitation, or direction of the water.

—Hence, a rough or ruffled place or element; as, a *sea* of troubles. — Proverbially, a large quantity of liquid; as, a *sea* of blood, *seas* of wine.

(NOTE. *Sea* forms the prefix of many words of sufficiently self-explaining signification; as, *sea*-bathing, *sea*-beat, *sea*-bird, *sea*-current, *sea*-life, *sea*-service, *sea*-tossed, *sea*-voyage, *sea*-water, &c.)

At sea, upon the main, or ocean; out of sight of land; as, friends *at sea;* — hence, absent from home or regular location; as, his wits are *at sea.* — *At full sea,* at the height of flood-tide; — hence, at the full. — *Beyond the sea* or *seas,* out of the state, territory, realm, or country; as, a convict sent *beyond the seas.* — *Half seas over,* in a state of semi-intoxication; half drunk. (Colloq.) — *Heavy sea,* a sea with high, rolling billows. — *Long sea,* a sea presenting a succession of long and extensive waves. — *On the high seas,* on the open sea, the common highway of nations; as, murder committed *on the high seas.* — *To go to sea,* to follow the occupation of a mariner; to adopt a sea life.

Sea'-anemone, *n.* (*Zoöl.*) See ACTINIÆ.

Sea'-ape, *n.* (*Zoöl.*) See SQUALINÆ.

Sea'-bank, *n.* The strand; the sea-shore. — A mole, causeway, or embankment against encroachments of the sea.

Sea'-bar, *n.* The sea-swallow.

Sea'-barrow, Sea'-pincushion, (*-kŭsh'un,*) *n.* The egg of the Skate, a fish of the the genus *Raia.*

Sea'-bear, *n.* (*Zoöl.*) A name vulgarly applied to several large species of seals.

Sea'beck, in *Washington,* a post-village of Kitsap co., 50 m. N. of Olympia.

Sea'-blubber, *n.* A certain marine insect.

Sea'-board, *a.* [*Sea,* and Fr. *bord,* side.] Impinging or bordering on the sea; as, a *sea-board* city.

—*n.* The coast; the sea-shore.

—*adv.* Toward, or in the direction of, the sea.

Sea'-boat, *n.* A term applied by seamen to a vessel with respect to her qualities in bad weather; as, a good, or bad, *sea-boat.*

Sea'-boy, *n.* A cabin-boy.

Sea'-breach, *n.* Irruption of the sea by breaking the banks.

Sea'brook, in *New Hampshire,* a post-village and township of Rockingham co., 45 m. S.E. of Concord; *pop.* 1,609.

Sea'-breeze, *n.* A wind, or current of air, blowing from the sea upon land.

Sea'-buck-thorn, *n.* (*Bot.*) See SALLOW-THORN.

Sea'-built, (*-bilt,*) *a.* Built for the sea; as, *sea-built* forts (ships).

Sea'-calf, (*-kâv,*) *n.; pl.* SEA-CALVES. (*Zoöl.*) The common seal. See SEAL.

Sea'-card, *n.* The mariner's compass. See COMPASS.

Sea'-change, *n.* A change brought about by the sea.

Sea'-chart, *n.* See CHART.

Sea'-coast, *n.* The shore or verge of the land contiguous to the sea or ocean.

Sea'-coot, or **Surf-duck,** *n.* (*Zoöl.*) An American species of Coot, *Fulica perspicillata.* It is 19 inches long, and the wing nearly 10 inches; color black, a triangular white patch on the top of the head, and one on the nape; bill red. The female is brown, sides and under parts whitish.

Sea'-cow, *n.* (*Zoöl.*) The Sea-horse. See HIPPOCAMPUS. — Also, the MANATUS, *q. v.*

Sea'-cray'fish, *n.* (*Zool.*) The SPINY-LOBSTER, *q. v.*

Sea'-daffodil, *n.* (*Bot.*) A bulbous plant, *Pancratium maritimum.*

Sea'-devil, *n.* (*Zoöl.*) A name of the Angler. See LOPHIIDÆ.

Sea'-dog, *n.* (*Zoöl.*) The SEAL, *q. v.*

—An old seaman; a weather-beaten tar; a salt; as, a jolly *sea-dog.*

Sea'-eagle, *n.* (*Zoöl.*) The Osprey.

Sea'-egg, *n.* (*Zoöl.*) The SEA-URCHIN, *q. v.*

Sea'-elephant, *n.* (*Zoöl.*) The Elephant-seal. See SEAL.

Sea'farer, *n.* One who travels by sea; — especially, a seaman; a mariner.

Sea'faring, *a.* Following the vocation of a seaman; customarily employed in navigation or seamanship; as, a *seafaring* man, a *seafaring* life.

Sea'-fern, *n.* (*Zoöl.*) A kind of coral resembling a fern.

Sea'field, in *Indiana*, a post-village of White co., 32 m. W. of Logansport.

Sea'-fight, (*-fit,*) *n.* An engagement between ships at sea; a naval action.

Sea'-fish, *n.* Any fish that has its habitat in salt water.

Sea'-fish'eries, *n. pl.* The great sea-fisheries of the U. S. are mostly carried on from New England. They date from the earliest settlement of the country, it being probable that, among the motives that led to the colonization of Massachusetts, was the hope of profit from the fisheries on the coast, which Smith, Archer, Brereton, and other writers of that day represented as surpassing even those of Newfoundland. Edward Winslow, in his *Narrative of the True Grounds and Causes of the First Planting of New England*, relates an interview between James I. and the agent of the Puritans who went over to England from Leyden in 1618 to solicit his consent to their going to America. The King asked them: "What profit might arise?" They answered: "Fishing." Upon which James replied: "So God have my soul, 'tis an honest trade; 'twas the Apostle's own calling." Very soon after their arrival at Plymouth the pilgrims engaged in the fisheries. In 1624 they sent to England a ship laden with fish, and in the next year two others with fish and furs. In 1628 they were selling fish to the Dutch at New Amsterdam. About 1670 the profits of the mackerel, bass, and herring fisheries at Cape Cod were granted to found a free school, which was opened in 1671. From Boston fish began to be exported as early as 1633. In 1639 the general court of Massachusetts passed an act to encourage the fisheries by exempting fishing vessels, and all property connected with them from taxes and duties for 7 years. At the close of the 17th century, the merchants of Massachusetts exported annually about 100,000 qnintals of cod-fish, worth $400,000, to Portugal, Spain, and Italy. In 1731 the fisheries of the colony employed 5,000 or 6,000 men. Ten years later the number of fishing vessels belonging to Massachusetts was 400, besides as many shallops and undecked boats. The annual produce of the cod-fishery was about 230,000 quintals, of which $700,000 worth was exported. At the outbreak of the revolutionary contest the fishing towns were rich and populous. Marblehead was second only to Boston in population and property. In 1755, in the hope of starving New England into submission, the British Parliament passed an act to deprive the colonies of the right of fishing on the banks of Newfoundland; and the breaking out of hostilities, which soon followed, nearly destroyed the fisheries for a time. In the negotiation of the treaty of peace at the end of the war, the right of the Americans to a share in the fisheries was secured by the firmness of John Adams, who made the concession of that right an ultimatum in the discussions with the British Commissioners. By the treaty it was agreed "that the people of the U. S. shall continue to enjoy unmolested the right to take fish of every kind on the Grand Bank, and on all the other banks of Newfoundland; also in the Gulf of St. Lawrence, and at all other places in the sea where the inhabitants of both countries used at any time heretofore to fish; and also, that the inhabitants of the U. S. shall have liberty to take fish of every kind on such part of the coast of Newfoundland as British fishermen shall use, and also on the coasts, bays, and creeks of all other of his Britannic majesty's dominion in America." The Federal Government early recognized the importance of the fisheries, and the necessity of encouraging them by legislative action. In 1789 Congress passed an act granting a bounty of 5 cents per quintal of dried and pickled fish exported from the U. S., and imposing a duty of 50 cents per quintal on foreign fish. After the War of 1812–15 with England, discussions on the use of the fishing-grounds arose between the two governments, which resulted, in 1818, in a convention, by which it was agreed that the Americans should have the liberty of taking fish on the southern coast of Newfoundland between Cape Race and the Ramean Islands, from Cape Race to the Guirpon Islands; on the shores of the Magdalene Islands; and also on the southern coast of Labrador from Mount Joly to and through the Straits of Belleisle, and thence northwardly indefinitely along the coast. The U. S., on their part, renounced formally the right of fishing on or within 3 marine miles of the British dominions in America not included in the above specified limits. In 1852 serious troubles broke out in the fishing-grounds of British America between the American fishermen and the British authorities, who claimed the right to exclude the former from the bays and inlets of the British possessions. This claim, which was supported by an armed naval force, was regarded by the U. S. as illegal, and the war steamers *Princeton* and *Fulton* were sent to the coast of Nova Scotia to protect the rights of the fishermen. The dispute was temporarily settled by mutual concessions, and in 1854 a reciprocity treaty was agreed upon by the two countries, containing the following stipulations concerning the fisheries: "The inhabitants of the U. S. shall have, in common with the subjects of her Britannic majesty, the liberty to take fish of every kind, except shell-fish, on the sea-coasts and shores, and in the bays, harbors, and creeks of Canada, New Brunswick, Nova Scotia, Prince Edward Island, and of the several islands thereunto adjacent, without being restricted to any distance from the shore, with permission to land upon the coast and shores of those colonies, and the islands thereof, and also upon the Magdalene Islands, for the purpose of drying their nets and curing their fish." It was specified that the liberty thus granted should apply solely to sea-fisheries, and not to salmon, shad, or other river fisheries; and that the fishermen should not interfere with the rights of private property, or trespass on parts of the shore occupied by British fishermen. Similar rights, with similar reservations, were granted to British fishermen on the coast of the U. S. north of Lat. 36°. In 1871, the stipulations of the treaty of 1854 were revived by the treaty of Washington, which also provided that "fish oil, and fish of all kinds, except fish of the inland lakes and fish preserved in oil, shall be admitted into each country, respectively, free of duty." Extended to Newfoundland in 1874. But Great Britain claimed that the concession was of little importance to her, on account of the inferior value of the United States' fisheries, and that she ought to be compensated for the difference in value. She claimed $14,280,000 as a just equivalent for the period of the treaty. The question was submitted to arbitration, and the sum of $5,500,000 awarded in 1878. In 1888, the treaty having expired, a new one was signed. This fixed a three-mile limit from the Canadian coast, within which American fishermen were forbidden to enter, and also reserved all bays of ten miles or less in width. It also provided that American vessels could land, sell, or otherwise dispose of their cargoes in Canadian ports only in case of distress. See WHALE, SEAL, COD, HERRING, MACKEREL.

Sea'ford, in *Delaware*, a post-village of Sussex co., 40 m. S.W. of Dover. *Pop.* 1,462.

Sea'-fox, *n.* (*Zoöl.*) See SQUALIDÆ.

Sea'-gage, Sea'-gnage, *n.* [*sea* and *gage.*] The depth that a ship sinks in the water.

Sea'-girt, *a.* Surrounded by the sea or ocean; as, "Britain's *sea-girt* isle." — *Thomson.*

Sea'-god, *n.* A marine deity, as Neptune.

Sea'-goddess, *n.* A female deity of the ocean, as Amphitrite.

Sea'-going, *a.* Travelling by sea;—especially, sailing on the high sea; as, a *sea-going* vessel, in distinction from a *coaster* or *river craft.*

Sea'-grape, *n.* (*Bot.*) The Gulf-weed. See SARGASSUM.

Sea'grave's Mills, in *Rhode Island*, a village of Providence co., 25 m. N.W. of Providence; *pop.* abt. 150.

Sea'-green, *a.* [*sea* and *green.*] Having the color of sea-water; being of a faint, bluish-green tint.

—*n.* The color of sea-water.

Se'ah, *n.* A Jewish dry measure containing nearly 14 pints.

Seaham Harbor, a seaport-town of England, co. of Durham, 6 m. S. of Sunderland; *pop.* 7,827.

Sea'-hedgehog, (*-hĕj-,*) *n.* (*Zoöl.*) Same as SEA-URCHIN, *q. v.*

Sea'-hen, *n.* (*Zöol.*) The guillemot. See URINÆ.

Sea'-hog, *n.* (*Zoöl.*) The porpoise.

Sea'-holly, Sea'-holm, *n.* (*Bot.*) See ERINGO.

Sea'home, or **Se'home,** in *Washington*, a village of Whatcom co., 5 m. S. of Whatcom.

Sea'-horse, *n.* (*Zoöl.*) A popular name of the morse or walrus. See MORSE. — Also, the common name of the HIPPOCAMPUS, *q. v.*

(*Anat.*) See HIPPOCAMPI.

Sea'-horse Island, a group in the Arctic Ocean, off the coast of Alaska; Lat. 71° N., Lon. 159° W.

Sea'-horse Point, in British America, a promontory in the E. of Southampton Island, in Hudson Bay; Lat. 63° 40′ N., Lon. 80° 10′ W.

Sea'-kale, *n.* (*Bot.*) See CRAMBE.

Sea'-kings, *n. pl.* A name given to the Scandinavian sea-rovers, or Norse pirate-chiefs, who infested the European coasts in the 8th and 9th centuries; the VIKINGS, *q. v.*

Seal, *n.* [A. S. *sigel, sigl,* from Lat. *sigilla,* dimin. of *signum,* token.] An impression made on paper, clay, wax, or other substance, by means of a die of metal, stone, or other hard material. The stamp which yields the impression is frequently itself called the *seal.* The use of seals may be traced to the remotest antiquity. The Bible contains frequent allusions to them, and their use has been common in all the European states from the earliest historical periods. In modern times the seal has lost the power of acting as a substitute for signatures, and is now only affixed to legal instruments so as to furnish evidence of their authenticity.

—[A. S. *seol, seolh.*] (*Zoöl.*) The family *Phocidæ,* or Seal tribe, are, of all four-limbed mammiferous animals, those which display the most complete adaptation to residence in the water. The seal has considerable resemblance to a quadruped in some respects, and to a fish in others. The head is round, and the nose, which is broad, resembles that of a dog, with the same look of intelligence and mild and expressive physiognomy. It has large whiskers, oblong nostrils, and great black sparkling eyes. It has no external ears, but a valve exists in the orifices, which can be closed at will, so as to keep out the water; the nostrils have a similar valve; and the clothing of the body consists of stiff glossy hairs, very closely set against the skin. The body is elongated and conical, gradually tapering from the shoulders to the tail. The spine is provided with strong muscles, which lend it with considerable force; and this movement is of great assistance to the propulsion of the body. Although in most of the foregoing particulars the seal resembles the quadruped kind, it greatly differs from all of them with respect to its feet; for, though furnished with the same number of bones as in quadrupeds, they are united to the body in such a singular manner, and so covered with a membrane, that they would rather resemble fins than feet, did not the sharp strong claws with which they are pointed show their proper analogy. The limbs, in fact, are converted into oars and paddles. The anterior pair have the arm and fore-arm so short, that little more than the paw advances from the body. The hinder limbs are directed backwards, so as almost to seem like a continuation of the body; the thigh and leg are very short, and the foot is formed on the same plan as the fore-paw, — the toes being in contact, however, and the web folded, when it is not in use as a paddle, but being spread out when the animal is swimming. When on land, or on masses of ice, the movements of the seal are particularly awkward, its body being forced onward by the action of the fore-limbs only, and the wriggling motion of the abdominal muscles; they accordingly seldom venture from the shore, but usually bask on the rocks; and when disturbed, plunge immediately to the

Fig. 2329. — COMMON SEAL, (*Phoca vitulina.*)

bottom of the water. The seals live in herds, more or less numerous, along the shores of the sea; and upon uninhabited coasts they bring forth and suckle their young, and exhibit the most tender solicitude for their welfare. They are easily tamed, become strongly attached to their keepers, recognize them at a distance, and seem to be endowed with a very considerable share of intelligence. The form of their teeth and jaws shows them to be carnivorous; and their food consists of fish, crabs, and sea-birds, which they are enabled to surprise while swimming. Seals swim with great rapidity and ease; and by a peculiar arrangement of their blood-vessels, nearly similar to that which exists in the whale tribe, they can remain under water for a considerable time. There are many species of these animals; some are found in almost every quarter of the globe, but chiefly in the frigid or temperate regions. These animals produce two or three young at a time; and they suckle them for six or seven weeks, generally in the cavernous recesses of rocks, after which they take to the sea. The young are remarkably docile; they recognize and are obedient to the voice of their dams amidst the numerous clamors of the flock, and mutually assist each other when in danger or distress. Thus early accustomed to subjection, they continue to live in society, hunt and herd together, and have a variety of cries by which they encourage or pursue, express apprehension or success. When incited by natural desire, however, their social spirit seems to forsake them; they then fight most desperately; and the victorious male always keeps a watchful eye over those females whom his prowess has secured. In some of the species there is a remarkable disproportion in the sexes; and some also are far more pugnacious than others. The common seal, *Phoca vitulina* (Fig. 2329), abundant in the cool and frigid regions, is 3 to 5 feet long, and is much hunted for its skins, and for its oil and flesh. The skins, though their covering is hair, not fur, are much valued. The harp-seal (*P. grœnlandica*) is abundant on the Arctic coasts of Europe and America, and is killed in great numbers for its oil and skins. It is a very gregarious species, breeding on ice floes in the spring. There are several other species in the North Atlantic, while some species extend to the tropics. The sea-elephant, or elephant-seal (*Macrorhinus leonina*), occurs in the Antarctic seas. It is of great size, from 20 to 25 feet long, and yields a large quantity of oil. There is another species of sea-elephant, formerly abundant on the coasts of California and Mexico, while two species of Antarctic seals are known as sea-leopards. There is a second family of the *Pinnipedia* known as the *Otariidæ,* or sea-lions and sea-bears, the former having only long coarse hair, while the latter have in addition a short, soft and delicate fur, which, under the name of seal-skin, is highly valued in commerce. The sea-lions are found on both coasts of the Pacific from California and Japan northward, and there is an Antarctic species. The southern fur seals have been nearly exterminated. The celebrated northern species (*Callorhinus ursinus*), which yields the valuable sealskin of commerce, is confined to the North Pacific, breeding only on two of the Pribylov Islands, in Bering Sea, and two of the Commander Islands, further west. See FURRIERY.

—*v. a.* (*imp.* and *pp.* SEALED,) (*sēld.*) To fasten with a seal; to attach together with a wafer or with wax; as, to *seal* a letter. — To set or affix a seal to, as a mark of authenticity; to ratify; to confirm; to establish; as, to *seal* a deed or proclamation.

"This hand, by thee to Romeo *seal'd.*" — *Shaks.*

— To mark with a stamp, as an evidence of standard exactness, legal size, or merchantable quality; as, to *seal* weights or measures. — To shut or keep close; to secure; to make fast; as, to *seal* one's tongue to silence.

(*Arch.*) To fix, as a piece of wood or iron in a wall, with cement, plaster, or other binding, for staples, hinges, or the like.

Seal, in *Ohio,* a township of Pike co.

Sea'-language, Sea'-lingo, *n.* The peculiar language or phraseology current among seamen.

Sealed, (*sēēld,*) *p. a.* Confirmed; ratified; closed; as, among the Mormons, a woman *sealed* as wife to an elder.

Sea'-legs *n. pl.* Legs able to maintain the equilibrium of the body they support, during the rolling or pitching of a ship in a heavy sea; as, to bring one's *sea-legs* into service.

Seal'-engrav'ing, *n.* (*Fine Arts.*) The art of engraving gems for seals.

Sea'-leopard, (*-lĕp'ard.*) *n.* (*Zoöl.*) A spotted seal found in the South Orkneys, and other very southern islands.

Seal'er, *n.* One who seals.

Sea'-letter, Sea'-brief, *n.* The customary certificate of national character which neutral merchant-vessels are bound to carry in time of war; a passport.

Sea'-level, *n.* The level of the surface of the sea.

Sea'-life, *n.* A nautical or naval life or career.

Sea'-light, *n.* The light proceeding from the lantern of a light-house, which enables the mariner to judge of his position during the night, when sailing near a coast.

Seal'ing, *n.* Act of affixing a seal, as to a deed or document.

—[From *seal*, the animal.] Operation of taking seals, and curing their skins.

Seal'ing-wax, *n.* The wax used for sealing letters, legal instruments, &c.— The best receipt for the manufacture of this substance is that given by Lowig, and consists in melting, at a gentle heat, 48 parts of shellac, 12 of Venice turpentine, and 1 part of balsam of Peru, and incorporating with them 36 parts of the best vermilion. The introduction of gummed envelopes has to a great extent superseded the use of sealing-wax.

Sea'-lion, *n.* (*Zoöl.*) A name given to several species of seals, especially to those which have a mane on the neck of the male, as the *Phoca jubata* of the Pacific.

Seal Island, in British America, 18 m. W. of Cape Sable in Nova Scotia.

Seal Islands, or Lobos Islands, a group in the Pacific, 12 m. W. of Peru; Lat. 6° 29′ S, Lon. 80° 53′ W.

Seal Islands, a group in the Atlantic, off the coast of Maine, S.W. of Grand Menan Island; Lat. 44° 29′ N., Lon. 67° 5′ 30″ W. One of the W. islands has 2 fixed lights, 140 feet apart, and 59 feet above high-water.

Seal River, in British America, flows into the Hudson from the W., abt. 40 m. N.W. of Churchill River, after a N.E. course of 200 m.

Seam, (*seem.*) *n.* [A. S., from *siwian*, to sew, to patch; Icel. *saumr*; Ger. *saum.*] The suture or uniting of two edges of cloth by the needle; as, to rip a *seam.* — Hence, the suture, joint, or line of juncture of planks in a ship's sides or deck; — also, the interstices between the edges of boards or planks in a floor; as, to caulk the *seams* of a ship.

(*Geol.* and *Mining.*) A thin layer which separates thicker strata; as, *seam* of coal. — A cicatrix or scar; as, a *seam* across one's cheek.

—*v. a.* To unite by a seam; to sew together or otherwise unite; as, to *seam* a shirt. — To sear; to mark with a cicatrix.

"Say, has the small-pox *seam'd* her face?" — *Swift.*

—To make to resemble a seam, as in knitting a stocking; — hence, to knit with a certain stitch, like that in such knitting.

—*n.* [A. S.; Fr. *somme*, from Gr. *sagma.*] A denomination of weight or measurement; as, a horse-load of timber, usually about 3 cwts.; the quantity of 8 bushels of grain; the quantity of 120 lbs. of glass.

Sea'-maid, *n.* A sea-nymph. See Mermaid.

Sea'man, *n.*; *pl.* Seamen. [A.S. *sæmann.*] A sailor; a mariner; one who follows the sea as a profession or for a livelihood; one skilled in navigation or seamanship; as, an able *seaman*, an ordinary *seaman.*

—A Merman, *q. v.*

Sea'manship, *n.* Art, or skill in the art, of working, managing, or sailing a ship; art or skill practised by a good seaman; as, to pass an examination in *seamanship* before being rated as an officer.

Sea'-mark, *n.* An elevated object on land which serves as a direction to mariners in entering a harbor, or in sailing along or approaching a coast; a beacon; a landmark visible from the sea.

Seam'-blast, *n.* A blast caused by putting gunpowder into seams of rocks or strata.

Seamed, (*seemd,*) *a.* (*Falconry.*) Not in good condition; as, a *seamed* hawk.

Sea'-mew, (*-mū.*) *n.* (*Zoöl.*) A name for the gull, derived from the French *Monetta.* See Lavidæ.

Sea'-mile, *n.* A nautical or geographical mile. See Mile.

Seam'-lace, Seam'ing-lace, *n.* A lace used by carriage-makers to cover seams or edges.

Seam'less, *a.* Destitute of a seam; as, a *seamless* garment.

Sea'-mouse, *n.* (*Zoöl.*) See Aphrodita.

Seam'-presser, *n.* (*Agric.*) A heavy roller to press down newly-ploughed furrows.

Seam'-rent, *n.* The rent or separation of a seam or suture.

Seam'stress, Semp'stress, *n.* (For *semstress.*) [A. S. *seamestre.*] A woman who follows the occupation of sewing; a needle-woman; as, a hard-worked and miserably-paid *seamstress.*

Seam'stressy, Semp'stressy, *n.* The business or occupation of a *seamstress.*

Sea'-mussel, *n.* (*Zoöl.*) The *Mytilidæ*, a family of molluscs, order *Lamellibranchiata*, comprising acalepha which have the shell equivalved, oval or elongated, and the epidermis thick and dark. They seek concealment, and spin a nest of sand, or burrow in mud-banks. There are more than 100 living, and 250 fossil, species.

Seam'y, *a.* Having a seam, or containing or exhibiting seams; as, the *seamy* side of a coat.

Sean, (*sēn,*) *n.* A Seine, *q. v.*

Séance, (*sā'ŏngs,*) *n.* [Fr., from *seoir*; Lat. *sedere*, to sit.] Session; a sitting, as of some public or legislative body.— Operation of undergoing clairvoyance.

Sea'-needle, *n.* (*Zoöl.*) Same as Gar-fish, *q. v.*

Sea'-nettle, *n.* (*Zoöt.*) Any medusa which has the property of stinging when touched.

Sean'nachie, Sen'nachie, Sen'nachy, *n.* [Gael.] A bard belonging to a clan among the Scots Highlanders, who preserved and recited on grand occasions the traditions of the former prowess of the sept.

Sea'-nymph, (*-nĭmf,*) *n.* A nymph or goddess of the sea.

Sea'-ooze, *n.* The soft mud on, or adjacent to, the sea-shore.

Sea'-otter, *n.* (*Zoöl.*) See Otter.

Sea'-owl, *n.* (*Zoöl.*) Same as Lump-fish, *q. v.*

Sea'-pad, *n.* (*Zoöl.*) The star-fish.

Sea'-pass, *n.* Same as Sea-letter, *q. v.*

Sea'-pie, *n.* (*Cookery.*) A dish made on ship-board, consisting of dough and meat boiled together.

Sea'-piece, (*-pēs.*) *n.* (*Paint.*) A marine picture; a painting representing a scene at sea; as, a *sea-piece* by Stanfield.

Sea'-pike, *n.* (*Zoöl.*) See Centropomus.

Sea'-pincushion, *n.* See Sea-barrow.

Sea'-pink, *n.* (*Bot.*) A popular name of the species *Plumbago* growing on the sea-shore.

Sea'-plant, *n.* A plant that flourishes in salt water.

Sea'-pool, *n.* A pool or small expanse of salt water.

Sea'-por'cupine, *n.* (*Zoöl.*) See Diodon.

Sea'port, *n.* A port or harbor near the sea, formed by an arm of the sea, or by a bay or river; a city or town situated on a harbor or haven, by or near the sea.

Sea'poy, *n.* An infrequent orthography of Sepoy, *q. v.*

Sea'-pye, *n.* Same as Oyster-catcher, *q. v.*

Sea'-quake, (*-kwāk,*) *n.* A concussion or upheaval of the sea.

Sear, (*sēr,*) *v. a.* [A. S. *searian*; Ger. *versehren.*] To burn to dryness and hardness, as the surface of anything; to expose to a degree of heat that changes the color of the surface, or makes it hard; to cauterize; to make callous or insensible; as, to *sear* flesh with a hot iron. — To dry; to wither.

To sear up. To close by cauterizing; to stop by searing; as, "*sear up* those veins of ill humor." — *Temple.*

Sear, Scre, *a.* Dry; withered; as, "meadows dry and *sear.*" — *Bryant.*

Sear, *n.* The catch in the lock of a gun, by which the piece is held at cock, or half-cock.

Sear-spring. The spring by which the sear catches the cock.

Sea'ra, in Brazil. See Ceara.

Searce, (*sērs,*) *v. a.* To sift or bolt, as meal. (R.)

Search, (*sĕrch,*) *v. a.* [Fr. *chercher.*] To look over, or through, for the purpose of finding something; to explore; to examine by inspection; as, to *search* a house. — To seek; to inquire after, or look for; as, we *searched* for her everywhere. — To probe; to seek the knowledge of by feeling with an instrument; as, to *search* a wound. — To try or put to the test; to examine critically. — *To search out.* To find by seeking; to seek till discovered; as, to *search out* a citation.

—*v. n.* To make search; to seek diligently; to inquire; to look for; to make inquiry; as, we have *searched* everywhere for it.

—*n.* Act of searching; a seeking or looking for something that is lost, or the place of which is unknown; pursuit for finding; examination; investigation; scrutiny; research; quest; inquiry.

Right of search. (*International Law.*) The right of belligerents, during war, to visit and search the vessels of neutrals for contraband of war. Some powerful nations have, at different times, refused to submit to this search; but all the highest authorities upon the law of nations acknowledge the right in time of war as resting upon sound principles of public jurisprudence, and upon the institutes and practices of all great maritime powers. The duty of self-preservation gives belligerent nations this right; and as the law now stands, a neutral vessel refusing to be searched would from that proceeding alone be condemned as a lawful prize. The right of search, however, is confined to private merchant vessels, and does not apply to public ships of war. The exercise of this right must also be conducted with due care and regard to the rights and safety of the vessels. A neutral is bound not only to submit to search, but to have his vessel duly furnished with the necessary documents to support her neutral character, the want of which is a strong presumptive evidence against the ship's neutrality, and the spoliation of them a still stronger presumption. There may be cases in which the master of a neutral ship may be warranted in defending himself against extreme violence threatened by a cruiser grossly abusing his commission; but, except in extreme cases, no merchant vessel has a right to say for itself, nor any armed vessel for it, that it will not submit to visitation or search, or be carried into a proximate court for judicial inquiry. If, upon making the search, the vessel be found employed in contraband trade, or in carrying enemies' property, or troops or despatches, she is liable to be taken and brought in for adjudication before a prize-court. — The above doctrine has been fully admitted in this country; but the government of the U. States has energetically refused to submit to the right assumed by the English of searching neutral vessels on the high seas for deserters, and other persons liable to military and naval service. This question, yet not specifically settled, was one of the chief causes of the War of 1812. See Prize.

Search'able, *a.* That may be searched, looked for, or explored.

Search'ableness, *n.* State of being searchable.

Searcher, (*sĕrch'er,*) *n.* One who, or that which, searches, explores, investigates, or examines; a seeker; an inquirer; a trier. — In the U. States, an instrument employed in the inspection of the quality of butter packed in firkins. — An instrument for probing ordnance in order to discover cavities (if any) in the bore of a gun.

Search'ing, *a.* Penetrating: crucial; trying; close; as, a *searching* cross-examination.

Search'ingly, *adv.* In a searching manner; by close examination.

Search'ingness, *n.* Quality of being searching, close, or inquisitorial.

Search'less, *a.* Inscrutable; eluding search, inquiry, or investigation.

Search'-warrant, *n.* (*Law.*) A warrant granted by a justice of the peace to search for goods stolen, or respecting which other offences have been committed. The warrant is granted on the oath of a credible witness, that he has reasonable cause to suspect the goods to be in the possession and on the premises of a certain individual.

Sear'-cloth, *n.* [A. S. *sár-clάth.*] A cloth or plaster to cover a wound.

Searey (*ser'see*), in *Arkansas*, a N. co.; *area*, 768 sq. m. It is traversed by the Buffalo Fork of White river. *Surface*, undulating; *soil*, fertile. *Cap.* Marshall. *Pop.* (1897) 10,500.—A township of Phillips co.—A post-village, cap. of White co., 50 m. N.E. of Little Rock. *Pop.* (1897) 1,295.

Searedness. (*sērd'nes,*) *n.* State of being seared, cauterized, or hardened; hardness; callousness; insensibility.

Sea'-reed, *n.* (*Bot.*) The *Calamagrostis arenaria*, a grass found on sandy sea-shores.

Sea'-risk, *n.* Hazard or risk incurred at sea; chance of danger or destruction by sea, or on the sea. See Insurance.

Sea'-robber, Sea'-rover, *n.* One who robs or plunders on the high seas; a pirate; a sea-rover; a buccaneer; a corsair.

Sea'-robin, *n.* (*Zoöl.*) The Gurnard. See Triglidæ.

Sea'-rocket, *n.* (*Bot.*) Same as Cakile, *q. v.*

Sea'-room, *n.* Ample space or distance from land, shoals, or reefs, for a vessel at sea to encounter and ride out a gale with safety.

Sea'-roving, *n.* Wandering here and there upon the ocean.

Sea'-salt, *n.* Common salt evaporated from sea-water.

Sears'burg, in *New York*, a post-village of Schuyler co.

Searsburg, in *Vermont*, a post-township of Bennington co., 112 m. S.W. of Montpelier.

Sears'mont, in *Maine*, a post-village and township of Waldo co., 30 m. S.E. of Augusta.

Sears'port, in *Maine*, a post-village and township of Waldo co., 50 m. S.E. of Augusta.

Sears'ville, in *California*, a post-village of San Mateo co., 20 m. W. of San Jose.

Searsville, in *Georgia*, a village of Stewart co., 110 m. S.W. of Milledgeville.

Sea'-serpent, *n.* (*Zoöl.*) A kind of eel found in the Mediterranean; the snake-eel. — An enormous marine animal, resembling a serpent, said to have been repeatedly seen off the coasts of America and Africa, but generally esteemed to be fabulous.

Sea'-service, *n.* Service in the navy, or in ships of war, in distinction from the *land-service*, or military duty on shore or in the field.

Sea'-shell, *n.* Any marine shell.

Sea'-shore, *n.* The shore or coast of the sea; the strand; the sea-beach; the land that lies immediately adjacent to the sea or ocean.

(*Law.*) All the ground lying between the ordinary limits of high-water and low-water marks.

Sea'-sick, *a.* Affected with sickness or nausea caused by the pitching or rolling of a vessel at sea.

Sea'-sick'ness, *n.* (*Med.*) A nausea, or tendency to vomit, which varies, in respect of duration, in different persons upon their first going to sea. With some it continues only for a day or two; while with others it remains throughout the voyage. In some persons its violence is prevented by small doses of opium, or by soda-water, or saline draughts in the effervescent state. Liniments and plasters containing opium applied to the pit of the stomach have also been recommended, as mitigating, or even preventing, this most annoying malady. The violence of the attacks not only varies in different individuals at different times, but the same person who escapes in one voyage may suffer severely in another. It almost always ceases on landing, although more or less giddiness may prevail for some hours, the patient when walking feeling as if the earth were rising up under his feet. Infants and aged persons are supposed to possess a comparative immunity from sea-sickness, while as a general rule, women suffer more than men. The immediate or exciting cause of *S.-S.* is variably attributed to the motion of the vessel, or to the effect produced on the eye by moving objects, and by that sense conveyed to the brain. The use of the bromides, especially bromide of sodium, and hydro-chlorate of cocaine, solution 1 to 1000, are recommended by some.

Sea'side, *n.* The land bordering on the sea; the country adjacent to the sea, or near it.

Sea'side Grape, *n.* (*Bot.*) See Coccoloba.

Sea'-sling, *n.* (*Zoöl.*) The Trepang.

Sea'-snake, *n.* (*Zoöl.*) See Hydrophidæ.

Sea'-snipe, *n.* (*Zoöl.*) See Centriscus.

Season, (*sē'zn,*) *n.* [Fr. *saison*; It. *stagione*, from Lat. *statio*, a standing.] One of the four quarters of the year, viz: Spring, summer, autumn, winter. The seasons are considered as beginning respectively when the sun enters the signs Aries, Cancer, Libra, and Capricorn; so that the *spring* season commences about the 21st of March, *summer* about the 22d of June, *autumn* about the 23d of Sept., and *winter* about the 23d of Dec.

—Hence, a period of the year, as marked by its characteristics of temperature, moisture, natural condition, &c.— Hence, also, a fit, suitable, or proper time; the conve-

nient time; any time, as distinguished from others; as, it was at the height of the London *season*, oysters are in *season*, &c.

—A time of some continuance, but not long; a while; as, I shall not see you for a *season*.

In season, in vogue; in good time, or early enough for the purpose.

"The best is but *in season* best."—*Dryden.*

Out of season, beyond or not in the proper time, or the usual or appointed time; as, pork is *out of season*; "her grief is *out of season*." — *Phillips.*

—*v. a.* [Fr. *assaisonner.*] To fit for any use by time or habit; to accustom; to mature; to inure; as, to *season* one's self to a change of climate. — To fit; to prepare; to make suitable or appropriate.

"How many things by season *season'd* are." — *Shaks.*

—To prepare for use by drying or hardening; as, to *season* timber. — To render palatable, or to give a higher flavor or relish to, by the addition or mixture of another substance more pungent or pleasant; to spice; as, to *season* meat with herbs and condiments. — Hence, to adapt for enjoyment; to render more agreeable, pleasant, piquant, or delightful. — To give a relish or zest to by something that excites, exhilarates, or animates; to make less dull, rigorous, or severe.

"The proper use of wit is to *season* conversation."—*Tillotson.*

—To temper; to moderate; to qualify by admixture; as, "When mercy *seasons* justice." (*Shaks.*) — To imbue; to tinge; to tincture; to taint; — hence, to impart rudimentary instruction to.

—*v. n.* To become seasoned or mature; to grow fit for use; to become acclimatized, as the human body. — To become dry or hard by the evaporation of the natural juices, or by being penetrated with other substances; as, well-*seasoned* timber.

Seasonable, (*sē'zn-a-bl,*) *a.* That comes, happens, or is done in due season, in good time, or in proper time for the purpose; opportune; timely; fit; convenient; as, *seasonable* weather, *seasonable* relief, a *seasonable* compliment.

Sea'sonableness, *n.* State or quality of being seasonable; opportuneness of occurrence; the state of being in good time, or in time convenient or appropriate for the purpose, or sufficiently early; as, *seasonableness* of advice.

Sea'sonably, *adv.* In a seasonable manner; with due time; in time appropriate or convenient; sufficiently early; as, to tender assistance *seasonably.*

Sea'sonal, *a.* Pertaining, or having reference, to the seasons. (R.)

Seasoned, (*sē'znd,*) *a.* Matured; fitted by habit or experience. — Mixed or impregnated with something that gives it relish, zest, or savor; as, *seasoned* meats. — Dried and hardened; as, "*seasoned* timber never gives." (*Herbert.*) — Qualified; tempered; moderated; as, *seasoned* expectations.

Sea'soner, *n.* One who, or that which, seasons, matures, moderates, or imparts a zest or relish; as, content is the best *seasoner* of the mind.

Sea'soning, *n.* That which is added to any kind of food to give it a higher flavor or relish; any piquant or pungent concomitant, as salt, spices, acids, aromatic herbs, &c., served or intermixed with food; stuffing; as, roast goose without *seasoning* loses half of its savor; — hence, something added or mixed to enhance appreciation or enjoyment; as, humor gives a *seasoning* to eloquence.

Sea'sonless, *a.* Lacking succession of the seasons.

Sea'-star, *n.* (*Zoöl.*) Same as STAR-FISH, *q. v.*

Sea'-surgeon, (*-sûr'jn,*) *n.* A surgeon engaged on board ship.

Sea'-swallow, *n.* (*Zoöl.*) The common Tern (*Sterna hirundo*).

Seat, (*sēt,*) *n.* [Lat. *sedes*, from *sedeo*, to sit.] That on which one sits; place of sitting; as, a *seat* on the ground. — The place filled by anything, or where anything is situated, resides, or abides; site; situation; station; post of authority; any place where a thing is settled or established; as, "this castle hath a pleasant *seat*." (*Shaks.*) — Something constructed to be sat in or upon, as a chair, bench, stool, sofa, step, &c.; as, a garden *seat*. — That part of a thing giving sitting room for a person or persons; as, the *seat* of a saddle, the *seat* of a sofa, the *seat* of a pair of pantaloons. — A sitting; customary or appropriate place of sitting; as, a *seat* in Congress, a *seat* in a church, a *seat* in a railroad car, &c. — Manner or mode of sitting of a person mounted on horseback; as, he has a loose *seat* in the saddle.

(*Mach.*) A part on which another part rests; as, a valve-*seat.*

—*v. a.* To place on or in a seat; to cause to sit down; as, to *seat* one's visitors. — To place in office, in a post of authority, or a place of distinction; to fix in a particular place, station, or country; to locate; to establish; as, my ancestors were *seated* in Cheshire before the Norman Conquest. — To give a sitting to; to assign a seat to; as, to *seat* the members of a church congregation. — To fix; to set firm; to consolidate: as, a *seated* heart. (*Shaks.*) — To repair by giving a new seat or bottom to; as, to *seat* a pair of breeches.

Sea'-term, *n.* A nautical phrase; a word or term peculiar to seamen, or smacking of sea-life.

Seat'ing, *n.* Act of furnishing with a seat, or seats; fixing or settling; also materials for seats, as, hair-*seating.*

Seat'tle, in *Washington*, a city on Elliott Bay, on eastern shore of Puget Sound, 150 m. N. of Portland. It has a most excellent harbor, and occupies a position of great beauty. *S.* was almost destroyed by fire, June 6, 1889, with loss of many millions, and over 60 acres in ruins. It was promptly rebuilt, and has enjoyed great prosperity. *Pop.* (1897) about 60,000.

Sea'-unicorn, *n.* (*Zoöl.*) Same as NARWHAL, *q. v.*

Sea'-urchin, *n.* (*Zoöl.*) One of the *Echinoids*, or *Echinidæ*, an order of *Echinodermata.* They have the body covered with a calcareous crust or shell, of an extremely porous structure, in polygonal plates nicely adapted to each other, and increasing by additions to the edges of each plate, so that the shell may enlarge with the enlargement of the animal, while new plates are also added around the superior orifice. The shell is pierced with rows of holes for the ambulacra, and is externally covered in a living state with a membrane — sometimes very delicate, sometimes thick and spongy — which communicates by many delicate processes with the interior, and unites the bases of all the spines. The spines differ very much in the different genera and species, in their length, strength, number, and arrangement; they are attached to tubercles on the surface of the shell by cup-like bases, capable of working upon the

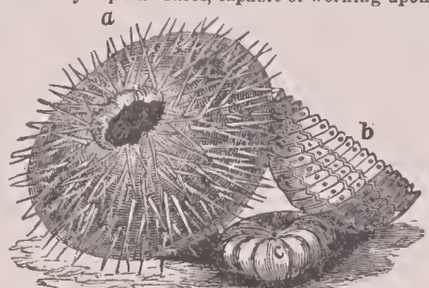


Fig. 2330.

a, Edible sea-urchin (*Echinus esculentus*); *b*, portion with spines removed; *c*, mouth.

tubercles, in the manner of a ball-and-socket joint; and they are moved by means of the connecting membrane so as to be employed in locomotion. In some species, they seem to be the principal organs of locomotion; in others, the ambulacra are so. By means of the spines, some, in which they are few and strong, can walk over on dry ground; others, in which they are minute and very numerous, employ them in burying themselves in the sand. The mouth of the *E.* is situated at the lower orifice of the shell, and is generally furnished with five flat calcareous teeth, moved by a very complex apparatus of bony sockets and muscles. Their food is supposed to consist of small crustaceans and molluscs. They abound in all seas, and seem to have abounded still more in former geological periods.

Sea'ville, in *Maine*, a former township of Hancock co., 77 m. S.E. of Augusta.

Sea'-wall, *n.* A wall erected to resist encroachments of the sea.

Sea'ward, *a.* Directed toward the sea.

—*adv.* Toward, or in the direction of, the sea.

Sea'-ware, *n.* That which is washed ashore by the action of the sea, as sea-weed, &c.

Sea'-weed, *n.* (*Bot.*) The common name of the species comprising the order *Fucaceæ*, q. v.

Sea'-worth'iness, *n.* State or quality of being seaworthy, or able to resist the ordinary violence of wind and weather.

Sea-worthy, (*-wur'thĭ.*) *a.* Fit for a sea-voyage; worthy of being trusted to transport a cargo with safety; as, a *sea-worthy* ship.

Sea'-wrack, *n.* (*Bot.*) See ZOSTERACEÆ.

Sebaceous, (*-bā'shŭs,*) *a.* [Lat. *sebaceus*, from *sebum*, tallow.] Made, or consisting, of tallow or fat; pertaining or relating to fat.

(*Bot.*) Having the appearance of waxy, tallowy, or greasy substance; as, the *sebacious* secretions of certain plants.

S. glands or *follicles.* (*Med.*) A system of minute glands situated under the skin, the object of which is to secrete an oily fluid to lubricate that organ; these glands, though diffused over the whole body, are most abundant about the face and neck. In young people, and particularly among those who pay little or no attention to the state of their digestive organs, the ducts of these sebaceous glands situated on the face frequently become obstructed, from the thick nature of the secretion blocking up their channels, when small red pimples with hard bases and black points form over the face, giving a dissipated and unpleasant appearance to the youthful visage. When one of these pimples is pressed, a little hardened pus is forced out, which being of a spiral shape, with a black or discolored point, has been popularly called a *worm*: the first part exuded, having become dark from exposure, has been supposed to be the head of the animal. As this disfigurement of the countenance proceeds from the secretion of the cuticular follicles becoming too thick and waxy to be exuded, thereby resulting in a crop of hard red pimples, the best, the quickest, and the most effectual remedy is the use of the hot bath, and friction with a rough towel, or what is still better, the employment of the Turkish bath, and shampooing afterwards.

Seba'cic Acid, *n.* [Lat. *sebum.*] (*Chem.*) One of the acids produced during the destructive distillation of fat.

Seba'go, in *Maine*, a lake of Cumberland co., 12 m. long, and 8 m. in its greatest breadth.

—A post-township of Cumberland co., 55 m. W.S.W. of Augusta.

Sebas'tian, DOM, King of Portugal, was B. in 1554, and ascended the throne at three years of age, on the death of his grandfather, John III. Possessed of a romantic disposition and an extravagant admiration of the glories of chivalry, he rashly determined to carry on war against the Moors in Africa, hoping thereby to effect something for Christianity and the fame of Portugal. He accordingly equipped a fleet and an army, which comprised the flower of the Portugese nobility, and sailed for Africa in 1578, at the age of 23 years. A general engagement soon took place, at Alcacer-el-Xebir, and the ardor of the young king bore him into the midst of the enemy, who were already pouring on the rear of his troops. *S.* fought with the most determined bravery, while most of his attendants were slain by his side. He at length disappeared; and so complete was the slaughter, that not more than 50 Portuguese are said to have survived this wild and ill-fated expedition. The mystery which involved the fate of this royal warrior led several adventurers to assume his person and his claims, but there seems to be no doubt that he died on the field of battle.

Sebastian (*se-bast'yan*), in *Arkansas*, a W. co., bordering on the Indian Territory; *area*, 600 sq. m.. *Rivers.* Arkansas and Poteau. *Surface*, mountainous in the N.W., elsewhere diversified; *soil*, generally fertile. *Min.* Coal. *Caps.* Greenwood and Fort Smith. *Pop.* (1897) 41,650.

Sebastian, (St.,) a celebrated Roman martyr, B. at Narbonne abt. 255. According to the anonymous "Acts" by which his history is preserved (supposed to have been written in the 4th cent., and by some attributed to St. Ambrose), he was a captain in the prætorian guard under Diocletian, and used the facilities afforded by his station to propagate the Christian faith and to succor its persecuted professors. Having refused to abjure his religion, he was tied to a tree, shot with arrows, and left for dead. A Christian woman, seeking his body by night, found him still alive, and cared for him till he was restored; but, having ventured to appear before Diocletian to remonstrate against his cruelty, he was beaten to death with clubs, and his body thrown into a sewer, but afterwards recovered and interred. In the 9th cent. his relics were distributed throughout Christendom as a remedy against the plague. His martyrdom was the subject of many poems and paintings in the Middle Ages; in the latter he is generally represented tied to a tree and pierced with arrows. D. in Rome Jan. 20, 288.

Sebastian, (St.,) a fortified frontier city and seaport of Spain, cap. of the prov. of Guipuscoa in Biscay, at the extremity of a low sandy tongue of land, projecting into the Bay of Biscay, 10 m. W. by S. of Fontarabia, and 40 m.

Fig. 2331. — SAINT SEBASTIAN.

E.N.E. of Bilbao. It is defended on the N. by the Castle of Môta, or Monte Urgullo, a rugged cone nearly 400 ft. in height. From its being one of the keys of Spain, its possession has ever been an object of great importance in the contests between the French and Spaniards. *Pop.* 9,947.

Sebas'ticook River, in *Maine*, rises in Penobscot co., and falls into the Kennebec River, in Kennebec co., after a S.W. course of 50 m.

Sebas'topol, or SEVASTOPOL, a fortified town and seaport of European Russia, on the W. coast of the Crimea; Lat. 44° 36′ N., Lon. 33° 30′ E. It stands on a creek, on the S. side of one of the finest bays in the world, the *Etenus* of Strabo, which is defended by strong forts on both sides. *Pop.* (1897) about 35,400. In 1853 Russia demanded from the Turkish govt. guarantees for the rights of the Greek Christians of Turkey, which the Porte believed to involve an actual abdication of its sovereign rights, and which it therefore refused to concede. This led, in the same year, to the beginning of the *Eastern* or *Crimean War*, in which France, England, and Sardinia took sides with Turkey, on the ground that the existence of the latter empire, and the equilibrium of political power in Europe, were endangered by Russia. The armies of the Allies effected a landing at the Bay of Enpatoria, Sept. 14, 1854. On their southward march toward *S.* they encountered the Russian forces, commanded by Prince Menzikoff, on the banks of the Alma. A bloody battle was fought (Sept. 20), in which the Russians were compelled to retreat. On Sept 25 the British forces seized Balaklava, and on Oct. 9 the regular siege of the southern portion of *S.* commenced, the Russians having sunk vessels in the entrance to the harbor, and thus rendered the city unassailable by maritime force. On Oct. 25 and Nov. 5, the Russians vainly attempted to annihilate the be-

ssieging forces in the battles of Balaklava and Inkermann, but afterward confined themselves mainly to the defensive, their frequent sorties being intended more to harass and retard the siege than to relieve the place definitively. Among these conflicts some assumed almost the character of regular field battles; for instance, an unsuccessful attack of the French upon a new redoubt (Feb. 23, 1855), their first assault upon the Malakoff and Redan (June 18), and the battle of the Tchernaya (Aug. 16), in which the Russians, numbering 50,000 infantry and 6,000 cavalry, made a last effort to break the aggressive force of the enemy. The trenches having been driven so near the Russian defensive works that another assault could be ventured, the final bombardment was opened Sept. 5, and lasted for three days. On Sept. 8 the Malakoff and Redan were stormed and taken by the Allies, after a desperate struggle. The Russians, after having blown up their extensive fortifications on the southern shore of the harbor, retreated to the north side, which the Allies never seriously attempted to conquer. The latter, having destroyed the costly docks, arsenals, and ship-yards of *S*, remained inactive in their camps, and, with the exception of the capture and sack of Kertch, on the Strait of Yenikale, no further feats of arms were accomplished. The forces of the Allies were withdrawn in the summer and autumn of 1856. Though the Allies did not obtain any decided success, Russia suffered immense loss of military prestige, and any further aggression on her part in southern Europe was for a time prevented. By the Peace of Paris (1856) Russia lost the right of navigation on the Danube, besides a strip of territory to the N. of that river, and, also, the unrestricted navigation of the Black Sea. In Nov., 1870, Russia, availing herself of the Franco-Prussian imbroglio, demanded of the Western Powers a revision of the Treaty of Paris, in so far as affects the restrictions placed upon her in the Black Sea.

Sebas'topol, in *California*, a village of Sierra co., 55 m. N.E. of Marysville. — A village of Sonoma co., 9 m. N.W. of Napa City.

Sebastopol, in *Texas*, a post-village of Trinity co., 22 m. N.E. of Huntsville.

Se'bat, *n.* The first month of the Jewish civil year, and the eleventh of the ecclesiastical year — from the new moon of February to that of March.

Sebec', in *Maine*, a post-township of Piscataquis co., 70 m. N.N.E of Augusta.

Seben'ico, a fortified seaport-town of Austrian Dalmatia, 42 m. S E. of Zara.

Seb'ewa, in *Michigan*, a post-township of Ionia co.

Sebewa Creek, in *Michigan*, enters Grand River from Ionia co.

Sebewa'ing, SIBSEWAING, or SEBAWANING, in *Michigan*, a post-village and township of Huron co., 28 m. E.N.E. of Bay City.

Se'besten, *n.* (*Bot.*) See CORDIACEÆ.

Sebif'erous, *a.* [Lat. *sebum*, tallow, wax, and *ferre*, to produce.] (*Bot.*) Yielding vegetable wax.

Seb'nitz, a town of Germany, in Saxony, 22 m. E.S.E. of Dresden. *Manuf.* Linen and paper. *Pop.* 4,000.

Seboo', a river of Morocco, rising in the Atlas Mountains, in Fez, and after a W.N.W. course of 160 m., flows into the Atlantic Ocean at Mehadiah.

Sebus'tieh, a village of Palestine, which occupies the place of the ancient SAMARIA, *q. v.*

Secale, (*se-kai'le,*) *n.* [Lat.] (*Bot.*) A gen. of plants, ord. *Graminaceæ*, allied to Wheat and Barley, and having spikes which generally consist of 2-flowered, rarely of 3-flowered, spikelets. One species, *S. cereale*, is a well-known grain. It has, when in fruit, a roundish-quadrangular spike, with a tough rachis. Its native country, as in the case of the other most important cereals, is doubtful. It has long been cultivated as a cereal plant; and may be considered as naturalized in this country. Its cultivation does not extend so far north as that of barley; but it grows in regions too cold for wheat, and on soils too poor and sandy for any other grain. Its ripening can also be more confidently reckoned upon in cold regions than that of any other grain. But rye succeeds best, and is most productive, in a climate where wheat will ripen. It delights in sandy soils. The varieties of rye are numerous, although much less so than those of other important cereals. Some are best fitted for sowing in autumn, others for sowing in spring. The former kinds (*Winter Rye*) are most extensively cultivated, being generally the most productive. In some places, rye is sown at midsummer, mowed for green fodder in autumn, and left to shoot in spring, which it does at the same time with autumn-sown rye, producing a good crop of small but very mealy grain. Bread made of rye is of a dark color, more laxative than that made of wheat-flour, and, perhaps, rather less nutritious. Rye is much used for fermentation and distillation. Rye affected with Ergot (*q. v.*) is a very dangerous article of food. The straw of rye is tougher than that of any other corn-plant, and is much valued for straw-plait.

Secancy, (*sē'can-sy,*) *n.* A cutting; an intersection, as by a secant.

Se'cant, *a.* [Lat. *secans*, from *seco*, to cut.] Cutting; dividing into two parts; as, a *secant* line.—*Secant plane*, a plane cutting a surface or solid.

—*n.* [Fr. *sécante*, from Lat. *secans, seco*, to cut.] (*Geom.*) A line that cuts another line, whether right or curved, or divides it into parts. In Fig. 2332 the line A B is a secant cutting the curved line C D, and meeting the tangent D B.

(*Trigon.*) The line drawn from the centre of a circle through one of the extremities of an arc to meet the tangent at the other extremity; also, the reciprocal of a cosine; as, the *secant* of an angle.

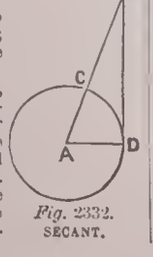


Fig. 2332.
SECANT.

Secede, (*se-seed',*) *v. n.* [Lat. *secedo — se*, apart, and *cedo*, to go.] To go apart: to separate one's self from; to withdraw from fellowship, communion, or association; as, to *secede* from a religious body;—also, in the U. States, to withdraw, as a State, from the Federal Union.

Seced'er, *n.* One who, or that which, secedes.

(*Eccl. Hist.*) Same as BURGHER, *q. v.*

Secern, (*se-sérn,*) *v. a.* To distinguish; to separate, as fine from grosser matter.

(*Physiol.*) To secrete; as, to *secern* mucus.

Secern'ent, *a.* [From Lat. *secernere.*] (*Med.*) Serving to separate; secreting.

—*n.* (*Med.*) That which tends to secretion. —(*Anat.*) A secreting vessel.

Secern'ment, *n.* Act or process of secreting.

Secesh, (*se-sésh',*) *n.* A cant colloquialism often used collectively in the U. States for those States, or inhabitants of States, who sought to secede from the Federal Union.

Secession, (*se-sĕsh'un,*) *n.* [Lat. *secessio*, from *secedo.*] Act of seceding or withdrawing, particularly from fellowship or communion with; act of departing; departure.

(*Pol.*) The act of a portion of a community (or, in common parlance, of a party in deliberative assemblies,) who separated from connection with the remainder, and endeavored to form a body apart; — especially, in American politics, the act of the so-called *Confederate States* in seceding from the Federal Union. The main argument used in favor of this proceeding was, that the Constitution of 1787, while declaring that "each state retains its sovereignty, freedom, and independence," contains no provision directly qualifying this doctrine by maintaining the inviolability of the Union; and that, consequently, the right of secession is implied in the term *sovereignty*; while the previous articles of Confederation, superseded by the Constitution, had contained the words, "the union shall be perpetual," which it was reasonable to infer had been purposely abandoned. The answer ordinarily made was that the Union was in the nature of a league, implying mutual abandonment of rights in their very nature inconsistent with the nature of such union; and that there was no more occasion to prohibit, expressly, the repudiation by a State of the compact, than to prohibit the secession of a county, a township, or an individual. Threats of secession from the Union had been several times made by the people of States who were dissatisfied with the course of the general government, though the only decided early step in that direction was that taken by South Carolina in 1832, through opposition to the tariff of that year. John C. Calhoun had maintained the right of any State to decide for itself whether an act of Congress was unconstitutional or not, and in 1830 Senator Hayne, of South Carolina, made a powerful speech in favor of the right of a State to nullify an act of Congress. He was replied to by Daniel Webster in the greatest of his speeches. In December, 1832, a State convention in South Carolina declared the tariff recently enacted to be null and void, forbade the collection of duties within the State, and threatened, if interfered with, to secede from the Union. President Jackson's proclamation and vigorous actions put an end to all danger of secession at that time, but the subsequent irritation in the South, in consequence of the anti-slavery agitation, gave rise to renewed threats of secession, particularly after the formation of the Republican party, in 1856, and the evident rapid growth of the abolition sentiment. By 1860 the irritation had enormously increased, and a climax was reached in the election of Abraham Lincoln in that year. South Carolina, determined not to submit to the result of a vote of the people at large which had not been supported by the vote or the sentiment of the people of that State, called a convention at Charleston, and on Dec. 20, 1860, it was declared that "the union before existing between South Carolina and other States, under the name of the United States of America, is dissolved." This act of secession was soon followed by similar acts in other States, Mississippi passing an ordinance of secession Jan. 9, Florida Jan. 10, Alabama Jan. 11, Georgia Jan. 19, Louisiana Jan. 26, and Texas Feb. 1, 1861. Thus, all the southern belt of States had voted to withdraw from the Union. The more northerly belt of slave States were less prompt to act, public opinion concerning the desirability of secession being much less unanimous within their borders. The actual outbreak of war, however, incited them to similar action, Virginia seceding on April 17, Arkansas on May 6, North Carolina on May 21, and Tennessee on June 8. Popular votes were taken on the question of secession in Virginia and Tennessee, the result in the former State being 128,884 for, 32,134 against; in the latter State, 104,019 for, 47,238 against. The border slave-holding States, Missouri, Kentucky, Maryland, and Delaware, failed to join the seceding States, though active efforts were made to carry out Missouri and Kentucky. The first seven of the seceding States called a convention at Montgomery, Ala., and formed a new union under the title of the Confederate States of America, electing as their president Jefferson Davis, of Mississippi, and forming a constitution, based largely on that of the United States. The results of this somewhat precipitate action on the part of the Southern States were hardly what the advocates of secession anticipated. They took the initiative in measures of violence by firing on Fort Sumter, a government work under the protection of the U. S. flag. This insult to the flag, as it was considered in the North, aroused a wave of indignation that could have but one result. Men sprang to arms in all directions, armies were quickly in the field, and a war began which has scarcely had its equal in the century. It is not our purpose to describe what may, in this connection, be designated the War of Secession. It will suffice to say that the great majority in the North looked upon the action of the South as one of rebellion, the right of secession not being admitted, and a determination to restore the Union in its integrity being the dominant feeling. The superior strength of the North in men and money, its command of the sea, and its almost unlimited resources, could scarcely fail to have but one result — the subjugation of the seceded States. The war was bitter and protracted, both sides fighting with the greatest bravery, but the superior weight of the North gradually told, and step by step its armies made their way into the heart of the seceded States, the South yielding, through utter exhaustion, after four years of war. A new question now arose in the field of American politics. The question of the right to secede had been fought for and decided in the negative. How, and under what regulations, should the subdued States be restored to their places in the Union? This question took as many years for its decision as the war had taken, largely through the opposition that existed between the President and Congress — a condition of affairs which led to more stringent measures than might otherwise have been taken. The final outcome was the adoption of three amendments to the Constitution. The slaves of the States in secession had been emancipated by proclamation of President Lincoln on the 1st of January, 1863. This action was sustained in the thirteenth amendment, which forbade slavery within the limits of the U. S. The fourteenth amendment raised the manumitted slaves to the rank of citizens, and the fifteenth conferred upon them the privilege of the suffrage. Readmission was made dependent upon the acceptance by the seceded States of these several amendments, and they were taken again into the Union on the following dates: Tennessee, July 24, 1866; Arkansas, June 22, 1868; Alabama, Florida, Louisiana, North and South Carolina, June 25, 1868; Virginia, Jan. 26, 1870; Mississippi, Feb. 23, 1870; Texas, March 30, 1870; and Georgia, July 15, 1870.

Secess'ionist, *n.* An advocate of secession.

(*Amer. Hist.*) One who advocates, upholds, or defends the doctrine of State Rights, in respect to withdrawing at will from the Federal Union of States.

Sech'ium, *n.* [From Gr. *sekizo*, to fatten in a fold.] (*Bot.*) A genus of plants, order *Cucurbitaceæ*, represented by *S. edule*, the Chocho or Chayote, commonly cultivated in the West Indian Islands for the sake of its fruit, which is reckoned extremely wholesome, and is commonly used as an article of food by all classes. It has also the reputation of being a very fattening food for hogs and other animals. It is a climbing plant, with smooth stems rising from a very large fleshy root, which sometimes weighs as much as twenty pounds, and resembles a yam both in appearance and its eatable qualities when cooked. The fruit is about four inches in length, oblong, between fleshy and succulent, sometimes furnished with small innocuous prickles, and either green or cream-colored.

Seckel, (*sĕk'l,*) *n.* A small, delicious variety of pear, first noticed near Philadelphia, about 1770.

Seclude', *v. a.* [Lat. *secludo — se*, and *claudo*, to shut.] To shut off or out; to shut up apart; to separate, as from company or society, and usually, to keep apart for some length of time, or to confine in a separate state; as, to *seclude* one's self from the world. — To exclude; to prevent from entering; as, to *seclude* the entrance of cold.

Secluded'ly, *adv.* In a secluded or retired manner; as, he lives *secludedly*.

Seclusedness, *n.* State of being secluded from society.

Seclusion, (*se-klū'zhun,*) *n.* Act of secluding or of separating from society or connection; state of being secluded, or of being separate or apart; a shutting out; separation; retirement; privacy; as, to dwell in *seclusion*.

Seclus'ive, *a.* Tending to, or promoting, seclusion; secluding; retiring; sequestering.

Second, (*sĕk'ond,*) *a.* [Fr., from Lat. *secundus — sequor, secutus*, to follow.] That immediately follows the first; the next following the first in order of place or time; the ordinal of *two*; as, he shall not insult me a *second* time. — Next in value, distinction, power, excellence, dignity, or rank; as, a nation *second* to none. — *Second cousin*, the offspring of a cousin.—*Second Estate*, in England, a denomination given to the House of Peers. — *Second story*, in the U. States, the second tier of rooms from the level of the street; — called in England the *first floor*. — *Second distance*. (*Painting.*) That part of a picture between the fore-ground and back-ground.

—*n.* One who follows or comes immediately after; one next and subordinate in place, time, dignity, &c. — One who supports or maintains another; an assistant; a backer; — especially, one who attends another in a duel to aid him, and see that all proceedings between the parties are fair. — The sixtieth part of a minute of time, or of a degree; as, I will be with you in a *second*.

Second coat. (*Building.*) The finishing coat of plaster, as inlaid or set, or in rendered or set; or the floating, when the plaster is roughed-in, floated, and set for paper.

(*Mus.*) A musical interval; or, in other words, the distance between any note and the next nearest, whether above or below it. A second may be either *major* or *minor*; — also, the second part, or alto, of a concerted piece; as, to sing a *second*.

Sec'ond, *v. a.* [Fr. *seconder;* Lat. *secundo,* from *secundus.*] To follow in the next place; to succeed; as, "sin is *seconded* with sin." *South.* (a.) — To support; to lend aid to the attempt of; to assist; to forward; to promote; to encourage; to act as the maintainer of; as, he was ably *seconded* in his efforts. — To express approval; to unite with, or act as a second to, in proposing some measure; as, I beg to *second* the motion.

Sec'ondarily, *a.* [From *secondary.*] In the second degree or order; not primarily or originally; not in the first intention.

Sec'ondary, *a.* [Fr. *secondaire;* Lat. *secundarius.*] Following or succeeding next in order to the first; coming after the first; subordinate; inferior; not primary; not of the first order or rate; as, a *secondary* thought, a *secondary* difference. — Acting by deputation or delegated authority; acting in subordination, or as second to another; as, *secondary* power, the work of *secondary* hands, &c.

(*Astron.*) Denoting the satellites with regard to planets, and the planets with regard to the sun, to distinguish them from their respective primaries.

(*Geol.*) A term synonymous with *mesozoic,* and used to designate that large section of the fossiliferous strata which includes the triassic, oölitic, and cretaceous rocks. The appearance of the great types of all subsequent organisms in the secondary rocks, has suggested the grouping of the fossiliferous strata in respect of their fossils into only two great divisions — viz., the Palæozoic and the Neozoic — this last term including the secondary and tertiary periods.

S. circle. (*Astron.*) A great circle of the sphere perpendicular to another great circle, which is regarded as the *primary,* and they consequently pass through the poles of the sphere. — *S. of the ecliptic,* a circle on which the latitude of a celestial object is measured. — *S. colors,* a color consisting of two primary colors united in equal proportions: thus, blue and yellow produce *green;* blue and red, *violet;* and yellow and red, *orange;* if, however, either primary is in excess, a *gray* tone is produced partaking of the quality of that primary. Thus, blue added in excess to orange, yields *blue-gray* or *olive;* red added to green produces *red-gray* or *russet;* yellow added to violet gives *yellow-gray* or *citrine.* The opposite of the secondary colors are the primaries absent from their composition; thus *blue* is the opposite of *orange* (red and yellow); *red* of *green* (blue and yellow), and *yellow* of *violet* (red and blue). — *S. crystal.* (*Min.*) A crystal obtained from one of the primary forms. — *S. evidence,* that which is admitted in default of *prima facie* evidence. — *S. plane.* (*Crystallog.*) Any plane on a crystal other than a primary plane. — *S. planet.* (*Astron.*) A planet revolving about a primary planet. — *S. qualities,* those qualities of substances which are not inseparable from them as such, but rely for their development and intensity on the organism of the percipient, such as color, odor, &c. — *S. quill,* a quill on a bird's wing arising from the bones of the ulna.

—*n.* One who acts in subordination to another; an auxiliary; a delegate or deputy.

(*Astron.*) A secondary circle; also, a satellite.

(*Zoöl.*) A quill or large feather on the second bone of the wing of birds.

Sec'ond-class, *a.* Of second, or inferior, rank or quality; intermediate; as, a *second-class* passenger.

Sec'onder, *n.* One who seconds or supports what another attempts, affirms, moves, or proposes; as, in the English Parliament, a *seconder* of an address to the Crown.

Second Fork, in *Pennsylvania,* a post-village of Cameron co., 157 m. N.W. of Harrisburg.

Sec'ond-hand, *a.* Received from another, or from the first possessor; not new, original, or primary; that has been used by another; as, a *second-hand* article.

—*n.* Possession obtained by transfer from a previous owner. — *At second-hand,* after having been owned, used, or worn; not primarily or originally; as, a story told *at second-hand.*

Secondigliano, (*sa-kon-deel-ya'no,*) a town of S. Italy, prov. of Naples, 3 m. N. of Naples; *pop.* 5,000.

Sec'ondly, *adv.* In the second place.

Secon'do, *n.* [It.] (*Mus.*) The second part in a concerted piece.

Sec'ond-rate, *a.* Of the second order or class; second in size, rank, quality, or value; as, a *second-rate* ship, a *second-rate* scholar.

—*n.* The second order in size, dignity, or value; as, "they call it thunder of the *second-rate.*" — *Addison.*

Sec'onds, *n. pl.* A coarse kind of flour.

Sec'ond-sight, *n.* The power of intellectual vision; the faculty of seeing things future or distant.

Sec'ond-sight'ed, *a.* Possessing the faculty of second-sight. (R.)

Se'cor, in *Illinois,* a post-village of Woodford co., 27 m. E. of Peoria.

Se'crecy, (sometimes written SECRESY,) *n.* State of being secret or hidden; a state of separation; concealment from the observation of others, or from the notice of any persons not concerned; privacy; a state of being hid from view; solitude; seclusion; as, to act with *secrecy.* — Quality of being secret or secretive; act or habit of keeping secrets; forbearance of disclosure or discovery; fidelity to a secret; as, he was pledged to *secrecy.*

Se'cret, *a.* [Fr.; Lat. *secretus,* from *secerno* — *se,* and *cerno,* to discern, perceive.] Separate; put apart; removed or kept apart from the notice or knowledge of all persons except the individual or individuals concerned; secluded; retired; private; not apparent; unseen; as, he was sent on a *secret* embassy. — Hidden; concealed; kept, or such as ought to be kept, from general knowledge or solicitation; occult; not revealed; as, a *secret* understanding. — Not disposed to divulge or betray confidence; reticent; secretive. (R.)

—*n.* [Fr.; Lat. *secretum.*] Something studiously hidden or concealed; something kept from general knowledge; as, to tell a *secret* to a woman is to publish it abroad. — Something not discovered, and therefore unknown; as, the *secrets* of the deep.

—*pl.* The parts which modesty and propriety require to be concealed; the genital organs.

(*Eccl.*) In the Roman Catholic Church, one of the prayers of the Mass (*q. v.*), of the same general form with the "Collect," but recited by the priest in so low a voice as not to be heard by the people, whence the name *secreta* is derived. It follows immediately after the oblation of the Eucharistic bread and wine.

In secret, in privacy, or secrecy; in a state or place not seen or noticed; privately; as, she had long loved him *in secret.*

Secreta'rial, *a.* Pertaining, or relating, to a secretary, or to his duties; as, *secretarial* training.
Carlyle.

Secreta'riat, Secreta'riate, *n.* The office or place wherein a secretary pursues business.

Sec'retary, *n.* [Fr. *secrétaire;* It. *secretario;* L. Lat. *secretarius* — *secretus.*] One who keeps, or is intrusted with, secrets. (R.) — A person employed by a public body, a company, or an individual, to write orders, letters, despatches, records, public or private papers, or the like; an official writer; an amanuensis; as, a private *secretary.* — A public official whose business it is to superintend and manage the affairs of a particular department of government; as, a *secretary* of state, the *secretary* of the treasury, &c. — An escritoire.

Sec'retary-bird, or SERPENT-EATER, *n.* (*Zoöl.*) A bird of prey, genus *Gypogeranus,* variously placed by naturalists among the *Falconidæ* and the *Vulturidæ.* The best-known species is an inhabitant of the arid plains of South Africa. It is about three feet in length; the plumage bluish-gray. It has an occipital crest of feathers without barbs at the base, which can be raised or depressed at pleasure, and the name *Secretary* was given to it by the colonists at the Cape of Good Hope from their fancied resemblance to pens stuck behind the ear. It feeds chiefly on reptiles of all kinds, which it devours in great numbers, and is so highly valued on account of the constant war which it wages against serpents, that a fine is inflicted in the Cape Colony for shooting it.

Sec'retaryship, *n.* Office or employment of a secretary.

Secrete', *v. a.* [Lat. *secerno, secretus.*] To put aside or apart; to hide; to conceal; to remove from observation, or the knowledge of others; as, to *secrete* stolen goods.

(*Physiol.*) To separate, as substances from the blood in animals, or from the sap in vegetables; to secern.

Secretion, (*se-kre'shun,*) *n.* [Lat. *secretio.*] The act or process of secreting. — The matter secreted.

(*Physiol.*) The process by which materials are separated from the blood, and from the organs in which they are formed, for the purpose either of serving some ulterior office in the animal economy, or of being discharged from the body as excrement. *S.* is one of the natural functions of the living body, and is as necessary to health as nutrition. Where the secreted materials have some ulterior purpose to serve, they are known as *secretions;* where they are discharged from the body, *excretions.* Most of the *S.* seem to consist of substances not preëxisting in the same form in the blood, but requiring special organs and process of elaboration for their formation. Excretions, on the other hand, commonly or chiefly consist of substances existing ready formed in the blood, and are merely extracted therefrom. In general, however, the structure of the parts engaged in eliminating excretions is as complex as that of the parts concerned in the formation of *S.* The *S.* may be arranged into three sorts: — 1, exhalations; 2, follicular *S.;* and 3, glandular *S.* The exhalations take place as well within the body as at the skin, or in the mucous membranes, and are thus divided into *external* and *internal.* The follicles are divided into mucous and cutaneous, and into simple and compound. In almost all the points of the skin little openings exist which are the orifices of small hollow organs with membranous sides, generally filled with an albuminous and fatty matter. The consistence, color, odor, &c., are variable, according to the different parts of the body, and which is continually spread upon the surface of the skin, rendering it less impervious to moisture, &c. The small organs are called the *follicles of the skin.* The glands, however, are the principal organs to which the office of secreting is more especially ascribed, and the number of them is considerable. The glandular *S.* are of seven different sorts, namely, *tears, saliva, bile, pancreatic fluid, urine, semen,* and *milk.*

(*Bot.*) In consequence of the action of air and light upon the watery contents of the green leaves of plants, the materials within them are subjected to a very active chemical condition, by which various substances are formed, — as protein matters, gum, sugar, starch, &c., all of which are essentially necessary to the growth of the plant. Besides these are other matters, such as coloring substances, numerous acids, various alkaloids, &c., which, after their production, perform no further active part in the plant, and are hence removed from the young and vitally active parts to be stored up in the older tissues of the plants as *secretions,* or removed altogether from them as *excretions.*

Secretitious, (*-tish'us,*) *a.* Separated by animal or vegetable secretion.

Secret'ive, *a.* Having a tendency to secrete, or to keep hidden or private; as, a person of *secretive* disposition.

Secret'iveness, *n.* Quality of being secretive; disposition to keep secret or conceal.

Se'cretly, *adv.* In a secret manner; privately; privily; not openly or overtly; without the knowledge of others; inwardly; innately; latently; not apparently or visibly; as, give him this letter *secretly,* I have a grudge *secretly* against him.

Se'cretness, *n.* State of being secret, or of being hid or concealed. — Quality of keeping a secret; secretiveness.

Se'cretory, *a.* Secreting; performing the functions of secretion; as, the *secretory* vessels.

Sect, *n.* [Fr. *secte;* Lat. *secta,* from *seco, sectus,* to cut.] A cutting; a section. (R.) — Hence, a body of persons separated or cut off from the established religion of a country; or a body or number of persons united in tenets, chiefly in philosophy or religion, but constituting a distinct party by holding sentiments different from those of other men.

Secta'rian, *a.* Pertaining, or relating, to a sect, or to sects: peculiar to, or characteristic of, a sect or sects; as, *sectarian* theology.

—*n.* A member of a sect; one of a party in religion which has separated itself from an established church, or which holds tenets different from those of the prevailing denomination in a kingdom or state; also, a member or adherent of a special school of philosophy.

Secta'rianism, *n.* State or quality of being sectarian; disposition to dissent from an established church or predominant school of philosophy, and to form new sects; excess of partisan or denominational enthusiasm.

Secta'rianize, *v. a.* To imbue with sectarian zeal.

Sec'tarist, *n.* A secretary. (A.)

Sec'tary, *n.* [Fr. *sectaire.*] A sectarian; a follower, adherent, or disciple of some particular teacher in religion or philosophy; — hence, one who dissents from an established religion; as, "anabaptists, separatists, and *sectarists.*" — *Bacon.*

Sec'tile, *a.* [Lat. *sectilis.*] That may be cut or divided.

(*Min.*) Capable of being cut in slices with a knife, as certain mineral bodies.

Sect'imole, *a.* A small or petty sect. (R.)

Section, (*sĕk'shun,*) *n.* [Fr.; Lat. *sectio* — *seco, sectus,* to cut off.] Act of cutting or dividing, or separating by cutting; as, the *section* of bodies. — A part kept aside from the rest; a division; a separate portion; as, specifically, a distinct part or portion of a book or writing; an article; a sub-division of a chapter; a paragraph; — hence, the character §, frequently employed to point out such division. — A distinct part of a city, town, country, or people; a part of territory separated by geographical lines or physical peculiarities, or of a people considered as distinct. — One of the portions, of one square mile each, into which the U. S. public lands are divided; the one thirty-sixth part of a township. — The representation of an object, as a building, ship, machine, stratum, &c., cut asunder vertically, so as to show the interior or profile; the projection or geometrical representation of a building or other object, supposed to be cut through, so as to exhibit its internal configuration.

(*Geom.*) In applied geometry, the surface formed when a solid is cut by a plane. In the theory of surfaces, the curve in which one surface is cut by another.

(*Mil.*) Half a platoon of infantry.

(*Mus.*) A division of a musical period, composed of one or more phrases.

—*pl.* (*Ship-building.*) Vertical planes at right angles to the keel, taken at any part of a vessel's length to assist the builder. The *body-plan* represents a collection of these sections developed on the largest of them all, the *midship section.*

Sec'tional, *a.* Pertaining, or relating, to a section, or distinct part of a larger body or territory.

Sec'tionalism, *n.* An American term, denoting a feeling of peculiar interest in some one section of a country, &c.

Sectional'ity, *n.* State or quality of being sectional.

Sec'tionally, *adv.* In a sectional manner.

Sec'tionize, *v. a.* To divide or form into sections. (R.)

Section Ten, in *Ohio,* a township of Van Wert co.

Sect'ism, *n.* The spirit or ruling principle of sectarianism. (R.)

Sec'tor, *n.* [Fr. *secteur;* Lat. *sector,* from *seco, sectus.*] (*Math.*) An instrument so marked with lines of sines, tangents, secants, chords, &c., as to adapt itself to all radii and scales. Its principal advantage consists in the facility with which it gives a graphical determination of proportional quantities; — hence, it is called by the French *the compass of proportion.*

(*Astron.*) An instrument constructed for the purpose of determining with great accuracy the zenith distances of stars passing within a few degrees of the zenith, where the effect of refraction is small.

(*Geom.*) The figure bounded by two radii and the intercepted arc; — otherwise called the *sector of a circle.* Sectors of different circles are said to be *similar* when the sides or radii include equal angles. The area of a sector is equal to that of a triangle whose base is equal to the length of the contained arc, and whose altitude is equal to the radius of the circle. In Fig. 606 the radii O D and O E, with the arc C E, form a sector.

Dip sector, an instrument which serves to measure the dip of the horizon. — *Spherical sector,* the solid generated by the revolution of the sector of a circle about one of its radii, or about a straight line drawn in the plane of the sector through its vertex.

Sec'toral, *a.* Pertaining, or relating, to a sector; as, a *sectoral* circle.

Secto'rial, *a.* Incisory; adapted for cutting; — said of a certain form of teeth.

Sec'ular, *a.* [Fr. *séculaire;* Lat. *secularis—seculum,* an age or generation.] Occurring or observed once in an age, century, or cycle; as, a *secular* year.—Pertaining, or relating, to an age, generation, or period of time; as, *secular* inequality.—Pertaining, or having reference, to this present world, or to things not spiritual or holy; relating to things not primarily or immediately affecting the soul; worldly; temporal; as, *secular* power, *secular* affairs.

(*Eccl.*) In the Roman Catholic Church, not regular; not bound by monastic vows or rules; not confined to a religious house, or subject to the rules of a clerical community; as, a *secular* priest.

—*n.* An ecclesiastic not bound by monastic rules;—hence, a layman.

Sec'ularism, Sec'ularity, *n.* [Fr. *secularité.*] State of being secular; worldliness; supreme attention to the things of the present life; a secular spirit.

Secularizā'tion, *n.* [Fr. *secularisation.*] Act of secularizing, or the state of being secularized; conversion from spiritual appropriation to common or secular use, as of a church or church property; converting a religious person, place, or bonefice, into a secular one.

Sec'ularize, *v. a.* [Fr. *séculariser.*] To convert from regular or monastic into secular or laic; as, to *secularize* a priest.—To convert from spiritual appropriation to secular or common uses; as, to *secularize* church property.—To make worldly or unspiritual.

Sec'ularly, *adv.* In a secular or worldly manner.

Sec'ularness, *n.* Quality of being secular; worldliness.

Se'cund, *a.* [From Lat. *secundus.*] (*Bot.*) Arranged on one side of a stalk only, as leaves.

Secun'date, *v. a.* To give prosperity or success to. (R.)

Secunderabad', a town of India, an important British military station in the Deccan, 3 m. N. of Hyderabad, and 358 N.N.W. of Madras; Lat. 17° 30′ N., Lon. 78° 33′ E. *Pop.* 35,000.

Sec'undine, *n.* [Fr. *secondine.*] (*Bot.*) The outermost but one of the enclosing sacs of the ovulum, immediately reposing on the primine.

(*Obstet.*) The after-birth;—generally used in the plural.

Secur'able, *a.* That may be secured.

Secure', *a.* [Lat. *securus—se,* or *sine,* and *cura,* cure; Fr. *sûr.*] Free from care or solicitude; free from fear or apprehension; having confidence of safety; not alarmed or disturbed; easy in mind; without feeling suspicion or distrust; as, *secure* of soul.—Careless; heedless; without caution or vigilance; over-confident;—used in a bad sense.—Confident in opinion; sure; certain; not doubtful or doubting;—frequently with *of;* as, *secure of* a discharge.—Free from danger; safe;—expressed in relation to persons or things, and preceding *from* or *against;* as, *secure from* poverty.

—*v. a.* To free from solicitude, fear, or danger; to guard or protect effectually from jeopardy; to make safe; as, to *secure* from conquest.—To make certain; to put beyond hazard of loss or non-appropriation; to guarantee, assure, or insure; as, he is *secured against* accidents.

—To inclose or confine effectually; to guard effectually from escape; to make fast; to fasten;—sometimes, to seize and confine; as, to *secure* a prisoner, to *secure* one's door by bolts or bars.

—To make one's self master of; to acquire or get possession of; as, to *secure* a property.

To secure arms. (*Mil.*) To hold a musket or rifle muzzle down, the lock being well up under the arm, and the barrel toward the ground, the object being to guard the piece from getting wet.

Secure'ly, *adv.* In a secure manner; without hazard or danger; safely; without fear or apprehension; carelessly; in an unguarded manner; in confidence of safety.

Secure'ness, *n.* State of being secure; security;—also, want of vigilance or caution; over-confidence.

Secur'er, *n.* One who, or that which, secures, defends, or protects.

Securida'ca, *n.* [Lat. *securis,* a hatchet.] (*Bot.*) A genus of plants, order *Polygalaceæ,* chiefly inhabiting tropical America, where many species rauble to a great height over other trees, and are beautiful objects when in flower. The Buaze fibre-plant, spoken of by Dr. Livingstone, is the *S. pallida.*

Secur'iform, *a.* [Fr. *sécuriforme.*] Hatchet-shaped.

Secur'ity, *n.* [Fr. *sécurité;* Lat. *securitas;* Span. *seguridad.*] State or condition of being secure; as, (1.) Freedom from solicitude, apprehension, danger, or care; a being confident of safety.—(2.) Hence, occasionally, carelessness; negligence; over-confidence; want of vigilance.—(3.) Freedom from risk; safety; as, the *security* of a country from invasion.—That which secures, guards, protects, or defends;—hence, specifically, anything given or deposited to secure the payment of a debt, the performance of a contract, or the fulfilment of an obligation; surety; guarantee; a pledge; something given or done to secure peace or good behavior.—Also, one who becomes bond or surety for another's debt or obligation; as, they fell back on his *security.*—An evidence of debt or proof of property, as a bond, coupon, debenture, certificate of stock, &c.;—generally in the plural; as, government *securities.*

Sedā'lia, in *Missouri,* an important city, cap. of Pettis co., 64 m. W. of Jefferson City. *Pop.* (1897) 22,500.

Sedan, (*se-da',*) a fortified town of France, dept. of Ardennes, on the Meuse, 10 m. E.S.E. of Mezières. *S.* has been long celebrated for its woollen manufactures, consisting principally of fine black cloths and cassimeres. *Pop.* 15,500.—Here, Sept. 1–2, 1870, a battle was fought between the French, under Napoleon III., and the Prussians, under King William and the Crown-Prince, in which the former being defeated, the Emperor, while still at the head of an army of more than 100,000 men, surrendered himself and his troops, along with the strong and well-appointed fortress of *S.*, to the Prussians. On the occasion of this act, happily unparalleled in modern history, the French people stigmatized Napoleon III. by this parody of the famous and noble words of Francis I.: *Nothing lost, but honor!*

Sedan', *n.* [From *Sedan,* in France, whence it first originated.] A kind of litter, or palanquin, for carrying a single person, borne on poles, and carried by two men;—also called *Sedan-chair.*

Sedate', *a.* [Lat. *sedatus,* from *sedo, sedeo.*] Composed; calm; quiet; tranquil; still; serene; unruffled; undisturbed; free from agitation, disturbance, or passion; sober; serious; grave; contemplative; as, a *sedate* mind, *sedate* manners.

Sedate'ly, *adv.* Calmly; in a sedate manner; without mental agitation.

Sedate'ness, *n.* State or quality of being sedate; calmness of mind, manner, or countenance; freedom from agitation, disturbance, or passion; a settled state; composure; serenity; tranquillity; as, *sedateness* of temper, *sedateness* of conversation.

Sed'ative, *a.* [Fr. *sédatif,* from Lat. *sedo.*] Tending to settle, allay, or assuage; moderating; mollifying irritability; deadening pain; as, a *sedative* draught.

(*Med.*) An agent which produces a direct depression of the action of the vascular system with little sensible evacuation. Inasmuch as their depressing effects are not preceded by any obvious excitement or increased movement of the heart or arteries they differ from narcotics. It is not clearly ascertained whether they act primarily on the heart itself, or by a previous influence on the nervous system. The medical employment of sedatives should be had resource to under competent medical authority and superintendence.

Sedbergh, (*sed'burg,*) a town of England, co. of York, 65 m. W. of York. *Manuf.* Cotton goods. *Pop.* 5,000.

Se'dent, *a.* [Lat. *sedens,* from *sedere,* to sit.] Sitting; inactive; in repose; quiet. (R.)

Sed'entarily, *adv.* In a sedentary manner.

Sed'entariness, *n.* State or quality of being sedentary.

Sed'entary, *a.* [Fr. *sédentaire,* from Lat. *sedeo,* to sit.] Accustomed to sit much, or to pass most of the time in a sitting posture; as, a *sedentary* individual.—Necessitating much sitting; as, a *sedentary* occupation.—Passed for the most part in sitting; as, a *sedentary* life.—Inactive; motionless; torpid; sluggish; as, *sedentary* passions.

Sede'runt, *n.* [Lat., they sat.] A sitting, as of a court or legislative assembly.

Sedge, (*sĕj,*) *n.* [A. S. *secg.*] (*Bot.*) See CAREX.

Sed'ger, or SAN JUAN, a river of Patagonia, which flows into Port Famine in the Strait of Magellan.

Sedg'wick, in *Maine,* a post-township of Hancock co., 60 m. S.E. of Augusta.

Sedil'ium, *n.*; *pl.* SEDILIA. [Lat., a seat.] (*Antiq.*) One of a tier of seats in a Roman amphitheatre.

—Hence, one of the stone seats on the S. side of the altar in Catholic churches, and which are used by the priest, deacon, and sub-deacon in the interval of church service. The sedilia of the Middle Ages, if designed for important uses, were generally highly enriched with painting and gilding, particularly such as were designed for high clerical dignitaries. Fig. 2334 represents a beautiful example of the 15th century, which was made for the use of the burgomaster in the old town hall at Erfurt.

Fig. 2334.—SEDILIUM, (15th century.)

Sed'iment, *n.* [Fr.; Lat. *sedimentum,* from *sedeo,* to settle down.] That which subsides and settles at the bottom of liquor; settlings; lees; dregs.

Sediment'ary, *a.* Pertaining to sediment; formed by lees; consisting of matter that has subsided.

Sedimentary rocks. (*Geol.*) Rocks formed of materials thrown down from a state of suspension or solution in water.

Sedition, (*se-dĭsh'un,*) *n.* [Fr.; Lat. *seditio—se,* and *itio,* from *eo, itum.*] A factious commotion of the people, or a tumultuous assembly of men rising in opposition to law, or the administration of justice; a local or limited insurrection in opposition to civil authority; treason without overt action.

Sedi'tionary, *n.* One who incites or promotes sedition.

Seditious, (*-dĭsh'us.*) *a.* [Fr. *seditieux.*] Pertaining or relating to, or partaking of the nature of, sedition; as, *seditious* proceedings.—Having tendency to incite or arouse sedition; as, *seditious* language, *seditious* writings.—Factious; turbulent; rebellious; tumultuous; riotous; disposed to excite violent or irregular opposition to law or lawful authority; guilty of sedition; as, a *seditious* demagogue.

Sedi'tiously, *adv.* In a seditious manner.

Sedi'tiousness, *n.* Quality of being seditious; disposition to excite popular commotion in opposition to law or lawful authority; factious turbulence.

Sedlitz, *n.* See SEIDLITZ.

Seduce', *v. a.* [Lat. *seduco—se,* and *duco,* to lead; Fr. *séduire.*] To lead or draw aside from the path of duty or rectitude in any manner, by flattery, promises, bribes, or otherwise; to present temptations to, and lead to iniquity; to entice; to allure; to attract; to inveigle; to mislead; to decoy; to corrupt.—To present temptations to, and lead to a surrender of chastity; as, to *seduce* a woman.

Seduce'ment, *n.* Act of seducing; seduction; the means employed to seduce; the arts of flattery, falsehood, and deception.

Seducer, (*-ser,*) *n.* One who seduces; one who entices another to depart from the path of rectitude and duty; a corrupter:—specifically, one who leads a woman astray, or who triumphs over female chastity by artifice, blandishments, or temptation.—That which leads astray, or entices to evil.

Sedu'cible, *a.* That may be seduced, corrupted, or led astray.

Sedu'cingly, *adv.* In a seducing manner.

Seduction, (*-dŭk'shun,*) *n.* [Fr.; Lat. *seductio.*] Act of seducing, or of enticing from the path of duty;—appropriately, the act or crime of inducing a female, by temptation or deception, to surrender her chastity.—That which seduces or serves to lead astray; means of corruption; instrumentality to evil; as, the *seductions* afforded by wealth or power.

Seduc'tive, *a.* [Sp. *seductivo.*] Tending to seduce or lead astray; apt to mislead by flattering appearances; as, a *seductive* woman.

Seduc'tively, *adv.* In a seductive manner; by seduction.

Seduc'tress, *n.* A woman who seduces, misleads, or corrupts.

Sedu'lity, *n.* [Lat. *sedulitas.*] State or quality of being sedulous; diligent and assiduous application to business; constant attention; unremitting industry in any pursuit.

Sed'ulous, *a.* [Lat. *sedulus,* from *sedeo,* to sit.] Assiduous; industrious; diligent; characterized by close and unremitting attention in application or pursuit; constant, steady, and persevering in business or in endeavors to effect an object; as, *sedulous* efforts.

Sed'ulously, *adv.* In a sedulous manner; assiduously.

Sed'ulousness, *n.* State or quality of being sedulous; sedulity.

Se'dum, *n.* (*Bot.*) A genus of plants, order *Crossulaceæ,* remarkable for its succulent leaves and terminal cymes of yellow, white, or purple flowers. The structure of *Sedums* is such as to enable them to vegetate for a long time without absorbing moisture from the earth. *S. acre,* the Stone-crop, is a native of England. *S. telephium,* the Orpine, Live-long, or Live-forever, also native of Europe, is cultivated and now naturalized in this country. *S. telephioides* is an American species, found on rocks, lake and river shores, from N. Y. to Va.

See, *n.* [Fr. *siége;* Lat. *sedes,* from *sedeo,* to sit.] (*Eccl.*) A diocese; the seat of episcopal authority; the jurisdiction; as, an episcopal *see;* the province or jurisdiction of an archbishop; as, an archiepiscopal *see;* the seat, place, or office of the Pope or Roman pontiff; as, the Papal *See;* the authority of the Pope or court of Rome; as, he was delegated by the *See* of Rome.

See, *v. a.* (*imp.* SAW; *pp.* SEEN.) [A. S. *seon;* Ger. *sehen.*] To perceive by the eye; to have knowledge of the existence and apparent qualities of by ocular observation; to behold; to view; to descry; as, I *saw* it with my own eyes.—To perceive by the mental eye; to understand; to observe; to note or notice: to discern; to distinguish; to comprehend; as, I *saw* his meaning at once.—To attend, regard, or look to; to attend to, as the performance of something; to beware; as, I will *see* to its being done.—To visit; to make a call upon; to interview; as, I called to *see* her yesterday.—To fall in with; to meet or associate with; to have converse or intercourse with; as, when did you *see* him last?—To experience; to understand experimentally; to feel; to make acquaintance with; as, he has *seen* many troubles.

—*v. n.* To have the power of sight; to have ocular perception of things; to possess or employ the faculty of vision; as, cats *see* in the dark.—To discern; to have intellectual sight or apprehension; to penetrate; to understand;—frequently used before a preposition, as *into* or *through;* as, I *saw through* him at a glance.—To be heedful or attentive; to take care or precaution;—generally with *to;* as, *see to* it that you do not fail.—*Let me see, let us see,* are employed to denote consideration, or to bring forward the particular deliberation of any subject or object.—*See* is occasionally used imperatively for *look! lo! observe! behold!*—*To see about a thing,* to pay attention or consideration to it; as, I will *see about* your business shortly.

Seed, *n.* [A. S. *sæd,* from *sawan,* to sow.] That from which anything springs; original; germ; first principle; as, the *seeds* of vice were early implanted in his nature.—The principle of production.—Progeny; offspring; children; descendants; as, the *seed* of Abraham.—Race; birth; generation; lineage; as, "Of mortal *seed* they were not held."—*Waller.*

(*Physiol.*) That which nature prepares for the reproduction and conservation of the animal species; semen; sperm; the generative fluid emitted by the male.

(*Bot.*) The nature of a fecundated ovule. It consists essentially of the young plant or embryo, inclosed in integuments, of which there are usually two. It varies much in form; thus it may be *rounded,* as in the watercress; *reniform,* as in the poppy; *obovate,* as in the larkspur, &c.; similar terms being employed in describing these forms to those applied to like modifications of other organs. The outer integument, or seed-coat, is termed the *testa* or *episperm.* It is usually of a brown

or somewhat similar hue, as in the almond; but it frequently assumes other colors. It varies in texture, being soft, fleshy, membranous, coriaceous, &c. It is sometimes curiously marked with furrows, ridges, &c., and often furnished with hairs, spines, wings, and other appendages. The inner integument is called the *tegmen*, or *endsperm*; it is generally of a soft and delicate nature. A third integument, more or less complete, is occasionally found on the surface of the others. (See ARILLUS.) The inner portion of the *S.*, called the *nucleus*, or *kernel*, may either consist of the embryo alone, as in the Wall-flower and the Bean, or of the embryo inclosed in *albumen* or *perisperm*, as in the Pancy. When the nourishing matter, called the *albumen*, is present, the *S.* is said to be *albuminous*; when it is absent, to be *exalbuminous*. See ALBUMEN, EMBRYO, OVARY, OVULE, PLACENTA.

Seed, *v. n.* To grow to maturity, so as to produce seed; also, to shed the seed.

—*v. a.* To sow; to sprinkle with seed, which germinates and takes root; to supply with seed; to decorate with seed-like adornments; as, Prince Esterhazy's boots were *seeded* with pearls.

To seed down, to sow with grass-seed.

Seed'-box, *n.* (*Bot.*) See LUDWIGIA.

Seed'-bud, *n.* (*Bot.*) The germ or rudiment of the fruit in embryo; the ovule.

Seed'-cake, *n.* A sweet cake spiced with aromatic seeds.

Seed'-coat, *n.* (*Bot.*) The integument or covering of a seed.

Seed'-cod, Seed'-lip, *n.* [A. S. *sædléap.*] A basket or vessel in which a sower carries seed to be scattered.

Seed'-corn, *n.* Corn or grain for sowing.

Seed'-down, *n.* The down or floculence on vegetable seede.

Seed'er, *n.* One who plants seeds; a sower.

Seed'-field, Seed'-garden, *n.* A field or garden for raising seed.

Seed'-grain, *n.* Grain used for seed.

Seed'-lac, *n.* A kind of lac. See LAC.

Seed'-leaf, Seed'-lobe, *n.* (*Bot.*) A cotyledon.

Seed'ling, *n.* A plant reared from the seed, as distinguished from one propagated by layers, buds, &c.

Seed'-lip, *n.* See SEED-COD.

Seed'-lobe, *n.* Same as SEED-LEAF, *q. v.*

Seed'-oil, *n.* Oil expressed from the seeds of plants.

Seed'-pearl, *n.* Small pearls, resembling seeds in size and form.

Seed'-plat, Seed'-plot, *n.* The ground on which seeds are sown to produce shrubs for transplanting. — Hence, a nursery, or place where anything is sown for cultivation.

Seeds'man, *n*; *pl.* SEEDSMEN. A vender of, or dealer in, seeds; also a sower.

Seed'-time, *n.* The proper season for sowing.

Seed'-vessel, *n.* (*Bot.*) The pod, or pericarp, containing the seeds.

Seed'-wool, *n.* Cotton-wool uncleansed of its seeds.

Seed'y, *a.* (*comp.* SEEDIER; *superl.* SEEDIEST.) Abounding with seeds; having run to seeds; bearing seeds. — Hence, possessing a peculiar flavor, supposed to be derived from the weede growing among the vines; — applied to Cognac or French brandy. — Run to seed; — hence, exhausted; worn out; shabby; poor and miserable-looking; as, a *seedy* hat, a *seedy* bummer; also, jaded; suffering from the effects of a debauch; as, I feel *seedy* this morning.

See'ing, *conj.* Since; inasmuch; it being so; because that; — often with *that*; as, no good can be done, *seeing that* the man is a fool.

—*n.* Vision: perception; act of perceiving objects by the organs of sight, or the sense which we have of external objects by means of the eye.

Seek, *v. a.* (*imp.* and *pp.* SOUGHT,) (*savt.*) [A. S. *seean*; allied to Lat. *saquor*, to follow.] To run after with a view to find; to go in search or quest of; to search for by going from place to place; as, to *seek* a situation. — To inquire or ask for; to solicit; to endeavor to find or gain by any means; to look for or after; — often with *out*; as, he *sought* me *out*, to *seek* a favor, &c.

—*v. n.* To make search or inquiry; to strive to make discovery; as, to *seek* after a better reason. — To try; to strive; to endeavor; as, why should he *seek* to harm me?

To seek after, to attempt to find or take; as, the lady was much *sought after*. — *To seek for*, to endeavor to find or discover; as to *seek for* a needle in a hay-stack. — *To seek* (used adverbially), at a loss; requiring to seek or search; without knowledge or experience; as, "Unpractised, unprepared, and still *to seek*." (*Milton.*) — To be desiderated; as, a person of his mental powers is yet *to seek*.

Seek'er, *n.* One who seeks; an inquirer; as, a *seeker* of facts, a *seeker* of gold. — An adherent of a sect who profess no determinate religion.

Seek'ing, *n.* Act of attempting to find or procure.

Seek'onk, in *Massachusetts*, a village and township of Bristol county, 6 miles north-east of Providence, Rhode Island.

Seel, *v. a.* To close the eyes of by sewing the eyelids together; — said of a hawk or other bird. — Hence, to blind; to shut the eyes of.

—*n.* [A. S. *sæl*, prosperity.] Opportunity; fitting period of time; season; — applied particularly to crops; as, clover-*seel*. (An English provincialism.)

See'land, an island of Denmark. See ZEALAND.

See'lysburg, in *New York*, a village of Cattaraugus co., 50 m. S. of Buffalo.

See'lyville, in *Pennsylvania*, a village of Wayne co., 1 m. from Honesdale.

Seem *v. n.* [Ger. *ziemen.*] To be in unison or harmony; to be fit to see or be seen; to look or appear fit, proper, or becoming; to be agreeable to see or look at; to make a show; to be plausible in appearance at first sight; to make or have a semblance; to have the aspect of truth or fact; to be understood as true; — often used impersonally; as, he *seems* worthy of his good fortune.

It seems, it has the semblance of truth or fact; it is said; it is given as true; as, *it seems* to me that you are wrong.

Seem'er, *n.* One who carries an appearance or semblance.

Seem'ing, *p. a.* Presenting the appearance or semblance of; apparent; specious; plausible; as, *seeming* delicacy.

—*n.* Appearance; show; semblance; fair or specious aspect.

Seem'ingly, *adv.* In appearance, show, or semblance.

Seem'ingness, *n.* Fair appearance or semblance; plausibility.

Seem'liness, *n.* Quality of being seemly; comeliness; grace; fitness; appropriateness; propriety; decorum; as, *seemliness* of appearance or manners.

Seem'ly, *a.* (*comp.* SEEMLIER; *superl.* SEEMLIEST.) [Dan. *sömmelig.*] Becoming; suited to the object, occasion, purpose, or character; becoming; fit; suitable; proper; appropriate; meet; decent; decorous; as, a *seemly* answer.

—*adv.* In a becoming, decent, or suitable manner; as, ranged in *seemlier* order.

Seen, *pp.* of SEE, *q. v.*

Seep, *v. a.* To ooze; to sipe; to filter through fine pores. (U. S.)

Seep'y, *a.* Oozing; filtering; flowing gently or slowly; — applied to land under cultivation that is not well drained; — a local Americanism.

Se'er, *n.* One who sees; — specifically, a *seer* of visions. — [From *see.*] One who sees into futurity; a prophet; a person who foresees future events.

Seer'ess, *n.* A female seer or diviner; a prophetess.

Seer'hand, *n.* A kind of East Indian muslin, particularly adapted for dresses, as retaining its clearness after being washed.

Seer'ship, *n.* Quality or office of a seer.

Seer'sucker, *n.* A thin linen fabric, made in the E. Indies, having white stripes alternating with blue ones.

Seer'wood, Sear'wood, *n.* Dry wood.

See'saw, *n.* [Perhaps from *saw-saw*, and intended to express the motions made in the act of sawing.] A vibratory or reciprocatory motion. — A play among children. — In whist-playing, a mutual support given by partners.

—*v. n.* To move with a reciprocating motion; to move backward and forward, or upward and downward.

—*a.* Undulating with reciprocal motion.

Seethe, *v. a.* [A. S. *seothan*; Ger. *sieden.*] (Written also *seeth.*) To decoct or prepare for food in hot liquor; to boil; as, "to *seethe* the flesh."—*Spenser.*

—*v. n.* To be in a state of ebullition; to be hot.

Seeth'er, *n.* A boiler; a pot.

Seez, (*sai'ez,*) a town of France, dept. of Orne, 13 m. N. E. of Alençon; *pop.* 5,000.

Segar', *n.* See CIGAR.

Seg'ment, *n.* [Lat. *segmentum.*] (*Geom.*) A term applied to a part of a figure cut off by a line or plane. The term is, however, more particularly applied to that part of a circle which is comprised between a chord and an arc of that circle, or so much of that circle as is cut off by the chord. A *segment of a sphere* is that portion of it which is cut off by a plane.

Segment'al, *a.* Relating to, or resembling, a segment.

Segmenta'tion, *n.* The act of dividing or separating into segments.

Segno, (*san'yo,*) *n.* [It., a mask.] (*Mus.*) See AL SEGNO.

Se'go, a town of Central Africa, in Soudan, cap. of the state of Bambarra, on the Joliba; Lat. 13° 5′ N., Lon. 5° W.; *pop.* 30,000.

Segorbe, (*sa-gor'ba,*) a town of Spain, prov. of Castellon-de-la-Plaña, on the Palencia, 18 m. N.W. of Murviedro; Lat. 39° 51′ N., Lon. 0° 30′ W.; *pop.* 6,000.

Segovia, (*sai-go've-a,*) a city of Spain, cap. of the prov. of Segovia, 45 m. N.W. of Madrid; Lat. 41° N., Lon. 4° 17′ W. It is built on two hills and an intervening valley, and is surrounded by a wall in the Moorish style. Its most remarkable monument is the Roman aqueduct, supposed to be of the time of Trajan. The cathedral, begun in 1525, is one of the finest in Spain. *Manuf.* Woollen goods, paper, glass, and earthenware. *Pop.* 12,000.

Seg'regate, *v. a.* [Lat. *segregare*, from *se*, and *grego*, to gather into a flock or herd.] To set apart; to separate from others.

Seg'regated, *p. a.* Set or placed apart; separated from others.

Segrega'tion, *n.* [Fr., from Lat. *segregatio.*] Separation from others; a parting.

(*Geol.*) That process in nature by which, when a mixed mineral mass has been deposited or accumulated, and left to the influence of the chemical forces always operating, certain minerals tend to separate themselves from the mass, and collect into natural cracks or blisters, either previously existing or formed during the operation.

Se'gue. [It., it follows.] (*Mus.*) A word which, prefixed to a part, denotes that it is immediately to follow the last note of the preceding movement. When minims, crotchets, &c., are sub-divided by a stroke drawn through their tails, so as to bring them into abbreviated groups, the term indicates that the following notes are divided similarly to those first marked.

Seguiera, (*seg'e-ai-ra,*) *n.* (*Bot.*) A genus of plants, order *Petiveriaceæ*, comprising a few South American shrubs, smelling more or less strongly of garlic or assafœtida — the whole plant, root, wood, and herbaceous parts, having this powerful odor. On this account, baths impregnated with *S. alliacea* are in repute in Brazil in cases of rheumatism, dropsy, and hæmorrhoidal affections. The wood abounds in potash; and the ashes are employed in clarifying sugar, and in soap-making in Brazil.

Se'guin, an island in *Maine*, off the mouth of the Kennebec River, with a light-house and fixed light, 200 feet above the sea; Lat. 43° 41′ 40″ N., Lon. 69° 44′ W.

Seguin, in *Texas*, a post-town, cap. of Guadalupe co., 70 m. S. of Austin City.

Segun'do, a river of the Argentine Republic, rises 27 m. W.S.W. of Cordova, and flows into a marshy lake 90 m. W. of Santa Fé, after an E. course of 130 m.

Ségur, (*sai'goor,*) a noble French family of Guienne, of which the most distinguished members were: — HENRI FRANÇOIS, Count de Ségur, and lieutenant-general, 1689–1751. — PHILIPPE HENRI, his son, Marquis, a marshal of France, minister of war in 1780, before Brienne; 1724–1801. — LOUIS PHILIPPE, son of the latter, companion-in-arms of Lafayette in America, known also as a diplomatist and historian, 1753–1832. — JOSEPH ALEXANDRE, second son of Philippe Henri, a dramatic and miscellaneous writer, 1756–1805.

Segura, (*zai-goo'ra,*) a river of Spain, in Murcia, which, after an E. course of 180 m., flows into the Mediterranean at Guardamar.

Seg'win, or **Seg'wun,** in *Michigan*, a village of Kent co., 18 m. E. of Grand Rapids.

Sehin'no, a town of European Turkey, at the S. base of the Balkan Mountains, 65 m. N. of Adrianople. *Manuf.* Woollen goods, gun-locks, and attar of roses. *Pop.* 15,000.

Sehwan, (*sai-wan',*) a town of British India, in Sinde, on the Arul, near the Indus, 75 m. N.N.W. of Hyderabad; Lat. 26° 21′ N., Lon. 67° 55′ E.; *pop.* 10,000.

Seid, *n.* A descendant of Mohammed.

Seidlitz, or **Sedlitz,** (MINERAL WATERS OF.) Springs in Bohemia, near Prague, which are simple salines. They contain sulphate and carbonate of magnesia, chloride of magnesium, sulphates of potassa, soda, and lime, carbonic acid, and carbonate of lime. They are employed as purgatives in a multitude of diseases. — *Artificial Seidlitz Powders*, or *Rochelle Powders*, differ essentially from the natural water. They are composed of 120 grains of tartrate of soda and potash, and 40 grains of bicarbonate of soda reduced to powder, mixed and enclosed in a blue paper, and 35 grains of powdered tartaric acid in a white paper. The contents of the blue paper are dissolved in from half a tumbler to a tumbler of water, and those of the white paper are then stirred in. The mixture should be taken while the effervescence from the liberation of the carbonic acid is still going on. These powders act as an agreeable and mild cooling aperient. If a stronger dose is required, either an increased quantity of the powder may be used, or a little sulphate of magnesia (about a drachm) may be added.

Seigneurial, Seigniorial, (*seen-yu're-al,*) *a.* [Fr., from *seigneur.*] Relating to the lord of a manor; manorial. — Invested with large powers; independent.

Seignior, (*seen'yur,*) *n.* [Fr. *seigneur*; It. *signore*; Sp. *senor*, from Lat. *senior*, an elder.] A lord; the lord of the manor; — used, also, as a title of honor. — The Sultan of Turkey is sometimes styled the *Grand Seignior.*

Seign'iorial, *a.* Relating to a seignior or lord; as, *seigniorial* rights.

Seign'iorialty, *n.* The jurisdiction of a seignior or lord.

—*a.* Same as SEIGNEURIAL, *q. v.*

Seigniory, (*seen'yur-y.*) *n.* [Fr. *seigneurie.*] A lordship; a manor. — The power or authority of a lord; jurisdiction; dominion.

Seille, (*suil,*) a river of France, rising in the dept. of Jura, and, after a S.W. course of 60 m., joining the Saone, 15 m. N. of Macon. It is navigable 24 m.

Seille, (Grande,) (*grond'-sail,*) a river of France, rising in the dept. of Meurthe, and, after a N. course of 60 m., joining the Moselle at Metz.

Seille, (Petite,) (*peh-teet',*) an affluent of the above, which it joins at Chateau-Salins.

Seine, (*sen,*) *n.* [Fr.; A. S. *segne.*] A net used in fishing.

Seine, (*sain,*) a river of France, rising in the dept. of Côte d'Or; Lat. 47° 30′ N., Lon. 5° E., 20 m. N.W. of Dijon, running northwards through Champagne to Troyes, where it receives the Aube, and, turning to the west, is joined by the Yonne, and before reaching Paris, by the Marne, a larger stream, flowing from the west. At Paris the Seine varies from 300 to 500 feet in width, and it soon after receives an addition by the influx of the Oise, when, pursuing a winding course to the N.W., it passes Rouen, and discharges itself into the sea at Havre-de-Grace. *Length*, 414 m., for 350 of which it is navigable.

Seine, the smallest, but most important dept. of France, between Lat. 48° 43′ and 48° 58′ N., Lon. 2° 10′ and 2° 35′ E., being entirely surrounded by the dept. Seine-et-Oise; *area*, 181 sq. m. The surface is generally level, with few hills — Mount Valerien, 450 feet (strongly fortified), and Montmartre, 344 feet, being the highest. The soil is calcareous, but rendered productive by manure supplied from the capital. It is traversed by the river Seine. *Prod.* Principally vegetables and fruits for the Paris markets. *Cap.* Paris.

Seine-et-Marne, a dept. in the N.E. of France, comprising a part of the old prov. of Ile-de-France, between Lat. 48° and 49° N., Lon. 2° 30′ and 3° 30′ E., having N. the depts. Oise and Aisne, E. Aube and Marne, S. Yonne and Loiret, and W. Loiret and Seine-et-Oise; *area*, 2,335 sq. m. The surface is undulating, and the soil fertile. *Rivers.* Seine, Marne, Yonne, and Ourcq. *Prod.* Wheat, oats, rye, barley, potatoes, &c. Numerous cattle and

sheep are raised. *Manuf.* Cotton and linen fabrics, hardware and cutlery, earthenware, leather, and paper. *Chief towns.* Melun, the cap., Coulommiers, Fontainebleau, Meaux, and Provins. *Pop.* 354,400.

Seine-et-Oise, a dept. of the N. of France, between Lat. 48° and 49° N., Lon. 1° 30′ and 2° 30′ E., having N. the dept. of Oise, E. Seine-et-Marne, S. Loiret, and W. Eure and Eure-et-Loire; *area*, 2,253 sq. m. The surface is undulating, and the soil generally fertile. *Rivers.* Seine, Marne, and Oise. *Prod.* Wheat, oats, fruit, vegetables, and cattle. *Manuf.* Woollens and printed fabrics, Sèvres porcelain, leather, chemicals, and hardware. *Chief towns.* Versailles, the cap., Mantes, Poutoise, Rambouillet, Etampes, and Corbeil. *Pop.* 533,727.

Seine-Inférieure, a marit. dept. of the N. of France, formerly comprising the most of the prov. of Normandy, having N. and W. the British Channel, E. the depts. of Somme and Oise, S. Eure and Calvados; *area*, 2,530 sq. m. The surface is hilly and well wooded. The soil is generally fertile. *Rivers.* The Seine and its affluents. *Prod.* Wheat, oats, barley, rye, flax, hemp, hops, and fruits. *Manuf.* Woollens and cottons. *Chief towns.* Rouen (the cap.), Dieppe, Havre, Neufchâtel, Yvetot. *Pop.* (1897) 848,480.

Seisin, Seizin, (*se'zin,*) *n.* [Fr. *seisine*; Lat. *seisina.*] (*Law.*) A right to lands and tenements. In common law, *S.* signifies possession, as to seize is to take possession of a thing. *S.* is properly applied to estates of freehold only, so that a man is said to be seized of an estate of inheritance, but to be possessed of a chattel interest. There is a *S. in deed*, or *in fact*, when an actual possession is taken, and a *S. in law* where the lands have descended to a person but he has not yet actually taken possession of them. *S. in deed* is obtained by actually entering into the lands. In some of the States, as Pennsylvania, Massachusetts, Ohio, and Connecticut, *S.* means merely *ownership*; and the distinction between *S.* in deed or in law is not known in practice.

Seis'mal, Seis'mic, *a.* [Gr. *seismos*, earthquake.] Relating to an earthquake.

Seismology, (*size-mol'o-je,*) *n.* [Gr. *seismos*, and *logos*, a discourse.] A branch of knowledge which has for its object to discover the laws which regulate the occurrence of earthquakes.

Seismom'eter, *n.* [Gr. *seismos*, and *metron*, measure.] An instrument for measuring the shock of earthquakes and other concussions.

Seistan', or **Segestan,** (*seg-es-tan',*) a prov. of Afghanistan, E. of Persia, between Lat. 30° 30′ and 32° N., Lon. 61° and 62° 30′ E. It is a mountain basin, surrounded by deserts, and only fertile on the banks of the rivers, the principal of which is the Helmund. *Pop.* 50,000.

Se'ity, *n.* [Lat. *se*, one's self.] Something peculiar to one's self. (R.)

Seiwah, or **Seewah,** (*se-wa',*) an oasis in the Libyan desert, on the route from Egypt to Fezzan; Lat. of its cap. 29° N., Lon. 26° E. It is 50 m. in circumference, and produces figs, dates, grapes, and pomegranates. *Cap.* Seewah-el-Kebeer, near which are the ruins of the temple of Jupiter Ammon.

Seizable, (*sēz'a-bl,*) *a.* Capable of being seized; liable to be taken.

Seize, *v. a.* [Fr. *saisir*; O. Ger. *zeisan*, to pluck.] To fall or rush upon suddenly and lay hold on; to gripe or lay hold on suddenly. — To take possession of by force. — To invade suddenly; to lay hold on.

"Hope and doubt alternate *seize* her soul." — *Pope.*

— To take possession of by virtue of a warrant or legal authority; to apprehend; to arrest. — To fix; to fasten. — To attain to.

(*Naut.*) To bind or fasten together, as any two ropes, or the different parts of a single rope, with a small line or cord.

To be seized of, to obtain possession of, as an estate.

To seize on or *upon*, to grasp, or take possession of.

Seiz'er, *n.* One who seizes.

Sei'zin, *n.* (*Law.*) See SEISIN.

Seiz'ing, *n.* Act of taking or grasping suddenly.

Seiz'or, *n.* (*Law.*) A person who seizes, or takes possession.

Seizure, (*seez'yur,*) *n.* Act of taking possession of suddenly; state of being seized, as with disease. — The thing taken or seized. — Possession; gripe; grasp.

Se'jant, Se'jeant, *a.* [Fr. *séant*, from O. Fr. *seoir*; Lat. *sedere*, to sit.] (*Her.*) Applied to a beast when represented in a sitting posture. — *Sejant-rampant*, sitting with the two fore-feet lifted up, &c.

Sejanus, Lucius Ælius, (*se-jai'nus,*) a prætorian general of Rome, a favorite of the Emperor Tiberius, put to death for aiming at the supreme authority, B. C. 31.

Sejugous, *a.* [Lat. *sejugis.*] (*Bot.*) Having leaflets in six pairs, as some pinnate leaves.

Se'la. (*Anc. Geog.*) See PETRA.

Sela'chians, *n. pl.* [Gr. *selachos.*] (*Zoöl.*) An order of fishes, also called *Plagiostomi*, comprising cartilaginous fishes of the group called *Fixed-gilled chondropterygians*. Their gills adhere by the external edge in such a manner that the water escapes through as many holes in the skin as there are intervals between the gills; or else the holes terminate in a common duct, through which the water passes out. The order is divided into two families, Squalidæ and Raiinæ, *q. v.*

Selaginaceæ, *n. pl.* (*Bot.*) The *Selago* family, an order of plants, alliance *Echiales*, consisting of herbs or shrubs, with alternate extipulate leaves, and irregular, sessile, bracteated flowers. They are chiefly natives of the Cape of Good Hope; the most interesting genus, however, is the European. See Globularia.

Se'lah, *n.* [Heb., from *salah*, to repose.] (*Script.*) In the Psalms, a word supposed to signify silence, or a pause in the musical performance of a song.

Selboe, (*sel-be(r,*) an island off the W. coast of Norway, 28 m. S. of Bergen. — Also, a lake, 25 m. S. of Trondhjem, which receives the river Nea, and communicates with Trondhjem-fiord. *Extent*, 20 m. long and 3 broad.

Sel'by, a town of England, co. of York, on the Ouse, 11 m. S.E. of York; *pop.* 5,400.

Sel'by, or **Shel'by,** in *Illinois*, a township of Bureau co.

Sel'bysport, in *Maryland*, a post-village of Garrett co., 40 m. N.W. of Cumberland.

Sel'dom, *a.* Unfrequent. (R.)

—*adv.* [A. S. *seldan*; Ger. *selten.*] Rarely; not often; not frequently.

Sel'domness, *n.* Uncommonness; infrequency; rareness. (R.)

Sel d'Or, *n.* [Fr., salt of gold.] (*Chem.* and *Photog.*) A double hyposulphite of gold and sodium, used in photography for toning positive paper-proofs. It is formed when 1 part of chloride of gold in solution is added to 3 parts of hyposulphite of soda, also in solution. The hyposulphite of soda should always be in excess during the mixture, a condition which is secured by adding the chloride of gold to the hyposulphite of soda, and not *vice versâ*. The salt so formed is precipitated in fine, white, crystalline needles, on the addition of alcohol to the above mixed solutions; these are collected on bibulous paper, and gently dried for use. Adulterations in the commercial article — which are, unfortunately, only too common — may be ascertained by precipitating, igniting, and weighing the gold contained in the sample it is desired to test. This may be done by the aid of nitric acid free from chlorine, which will decompose this salt, and precipitate its contained gold in the metallic form.

Sele, (*sai'lai,*) a river of S. Italy, rising 12 m. N.E. of Policastro, and, after a W. course of 60 m., flowing into the Gulf of Salerno.

Select', *v. a.* [Lat. *seligere*, from *se*, and *legere*, to gather, from Gr. *lego*, to gather.] To choose and take from a number; to take by preference from among others; to pick out; to cull; as, to *select* a book.

—*a.* Chosen or taken from a number by preference; selected; nicely chosen; preferable; more valuable or excellent than others.

Select'edly, *adv.* With careful selection. (R.)

Selec'tion, *n.* [Lat. *selectio.*] Act of selecting, or of choosing and taking from among a number; a taking from a number by preference. — A number of things selected or taken from others by preference.

Selec'tive, *a.* Inclined to select; tending to select. (R.)

Select'man, *n.*; *pl.* Selectmen. One of a certain number of magistrates, commonly from three to seven in all, annually elected by the freemen of a town or township in some of the states of New England, to superintend and manage the affairs and government of the town.

Select'ness, *n.* State of being select or well chosen.

Selector, *n.* [Lat.] One who selects.

Se'lené, (*Myth.*) The Greek name of the goddess of the moon; called also *Mene*, and in Latin *Luna*. Her myth is differently told, but the most common account makes her a daughter of Hyperion and Theia, and sister of Helios (the Sun) and Eos (the Dawn); as sister of Helios, also called *Phoibos* (the Shining One), she had the name of *Phœbe*, and latterly was identified with Artemis (see Diana), though the identification was never quite exact, as Artemis always retained her reputation for chastity, while *S.* had 50 daughters by her lover Endymion, and several by Zeus, one of whom was called *Erse* ("the Dew"), indicating the original physical character of the myth. In art, the two are always distinct. *S.* is represented by the poets with long wings and a golden diadem, riding across the heavens in a chariot drawn by two white horses, cows, or mules.

Selen'ga, a river of Siberia, rising in the Tang-nou Mountains in Mongolia, and, after a N.E. course of 500 m., falling by three mouths into Lake Baikal, 30 m. W. of Ilinsk.

Sele'niate, *n.* (*Chem.*) A compound of selenic acid and a salifiable base.

Selen'ic Acid, *n.* (*Chem.*) See Selenium.

Selenietted Hydrogen, Hydroselenio Acin, *n.* (*Chem.*) A substance which is the exact parallel of sulphuretted hydrogen, and is produced by a similar process. It is even more offensive and poisonous than that gas, and acts in a similar way upon metallic solutions, precipitating the *selenides*.

Sele'nious acid, *n.* (*Chem.*) See Selenium.

Sel'enite, *n.* [Gr.] (*Min.*) Crystallized sulphate of lime, occurring in numerous localities in transparent rhomboidal crystals, is known to mineralogists under this name.

Sele'nium, *n.* [Gr. *selene*, the moon.] (*Chem.*) This rare elementary body was first discovered by Berzelius in the refuse of a sulphuric-acid factory at Fahlen, in Sweden. Since then it has been found in various other localities. It is chiefly interesting from its great resemblance to sulphur in many of its physical and chemical characteristics. It is a dark metallic-looking brittle solid, with a glassy fracture. It has neither taste nor smell, is insoluble in water, and is a nonconductor of heat and electricity. It may be obtained like sulphur both in an amorphous and a crystalline form. Heated in the air it takes fire with difficulty. It burns with a blue flame, but part of it volatilizes. It forms with oxygen two compounds: SeO_2, selenious anhydride, and $H_2SeO_4 + xAq.$, seleuic acid. Selenious anhydride forms selenites with the bases, which are all insoluble in water, with the exception of those formed with the alkalies. Selenic acid is very similar in character to sulphuric acid, its salts being isomorphous with the sulphates of the same base. Selenietted hydrogen resembles its sulphur analogue, but is more offensive. Berzelius found that the inhalation of a bubble the size of a pea deprived him of the sense of smell for several hours. Selenium, like sulphur, forms a compound with cyanogen. *Equiv.* 79; *sp. gr.* 4·28; *symbol*, Se.

Selenog'raphy, *n.* [Gr. *selene*, the moon, and *graphein*, to describe.] A description of the moon.

Seleucia. (*Anc. Geog.*) The name of several cities of Asia, situated in Assyria, Margiana, Syria, Mesopotamia, Cilicia, Pamphylia, Pisidia, Caria, and other countries, of which the following are the most important. I. Seleucia on the Tigris, was founded by Seleucus I. of Syria, on the left bank of that river, near its junction with the royal canal of Babylonia, and opposite to the mouth of the Delas (now Diala) River, a little S. of the modern city of Bagdad. Commanding the plains of the Tigris and Euphrates, and the principal caravan roads of Assyria and Babylonia, on the confines of which it was situated, and peopled by settlers from various countries of western Asia, it rapidly rose in wealth and splendor, and eclipsing Babylon, became the capital of that part of Asia, until it was in its turn eclipsed by Ctesiphon, built by the Parthians on the opposite bank of the Tigris. The later wars of the Romans against that people proved destructive to Seleucia. A city of upwards of half a million inhabitants in the 1st century, in the following it was burned by Trajan and Lucius Aurelius Verus, and captured by Septimius Severus, and in the expedition of Julian against the Persians, in the 4th century, was found deserted. — II. Seleucia Pieria, a strong fortress of northern Syria, also founded by Seleucus I., whose remains were preserved there in a mausoleum, was built at the foot of Mt. Pieria, on a rock overhanging the Mediterranean, a few miles N. of the mouth of the Orontes, and W. of Antioch, with which it was simultaneously founded, and of which it formed the seaport. It surrendered to Ptolemy III. of Egypt, was recovered by Antiochus the Great, and in the latter period of the Syrian kingdom became independent. Under the Romans it rapidly decayed. Considerable ruins of its harbor, fortifications, and necropolis are still to be seen.

Seleucidæ, (*se-lu'si-de.*) (*Anc. Hist.*) The name of a Greek dynasty in Asia, founded, after the death of Alexander the Great, by Seleucus, one of the most distinguished generals of the Macedonian king. The æra of the Seleucidæ begins with the taking of Babylon by Seleucus, B. C. 312, and ends with the conquest of Syria by Pompey, B. C. 65.

Seleu'cus Nicator, founder of the dynasty of the Seleucidæ, was the son of a Macedonian general, and was born abt. B. C. 358. He greatly distinguished himself as a general in the campaigns of Alexander the Great in Persia and India. The satrapy of Babylonia was assigned to him after the death of Perdiccas, in 322; but five years later, in consequence of the growing power of Antigonus, he fled to Egypt, joined the league formed against him, and after the victory of Gaza, in 312, recovered Babylonia. *S.* extended his dominions by conquest, and in 306 took the title of *king*. He took part in a second war with Antigonus, who was defeated and killed at the battle of Ipsus, in 301. By the acquisitions of territory made after this battle, *S.* made his empire the greatest of those ruled by the successors of Alexander. He founded the cities of Antioch in Syria, and Seleucia near Babylon, besides a great number of other cities, thus continuing the work which Alexander had begun. He married Stratonice, daughter of Demetrius Poliorcetes, but resigned her to his son, Antiochus, to whom also he gave up a large part of his empire. *S.* was afterwards engaged in war with Demetrius, made him prisoner in 286, and kept him so till his death, three years later. A war with Lysimachus ended in his defeat and death in 281, and *S.* advancing to the conquest of Macedonia, was murdered by Ptolemy Ceraunus, 280. Seleucus II., surnamed *Callinicus*, succeeded Antiochus II. 247 B. C., and after losing many of his provinces by the invasion of Ptolemy III., 242, was taken prisoner by the Parthians. He died in captivity B. C. 225. — Seleucus III., surnamed *Ceraunus*, son and successor of the preceding, was assassinated B. C. 222. · Seleucus IV., surnamed *Philopator*, was son of Antiochus the Great, to whom he succeeded B. C. 186, poisoned by his minister Heliodorus, 174. — Seleucus V. was son of Demetrius II., and was proclaimed king with Antiochus Grypus B. C. 125. He was killed by order of his mother, Cleopatra, 122. — Seleucus VI., son of Antiochus Grypus, became king over a part of Syria in 97 B. C., and took the remainder from his uncle, Antiochus Cyric 94. He was killed in 95 in the contest which ensued with the son of the latter. See Antiochus.

Self, *n.*; *pl.* Selves. [A. S. *self, sylf*; Du. *zelf*; *selbst.*] The individual, as subject to his own contemplation or action; one's individual person; personality; personal identity; individuality. — Selfishness; personal interest; love of private interest.

Self is united to certain personal pronouns and pronominal adjectives, to express emphasis or distinction; also when the pronoun is used reciprocally; as, I *myself*. (*Self* is much used as a prefix in composition.)

Self-abased, (*-a-bāst',*) *a.* Humbled, or abased, from consciousness of guilt.

Self-abasement, *n.* Humiliation or abasement proceeding from consciousness of one's inferiority or guilt.

Self-abasing, *a.* Humbling or abasing by the consciousness of guilt.

Self-abhorrence, *n.* Abhorrence of self

Self-abuse', *n.* Abuse of one's self.

(*Med.*) Masturbation; onanism.

Self-acting, *a.* Acting by itself: said of a machine or press.

Self-ac'tion, *n.* Action by one's self.
Self-act'ive, *a.* Acting without any external assistance or agents.
Self-activ'ity, *n.* The quality or power of moving or acting without foreign or external aid.
Self-admira'tion. *n.* Act of admiring one's self.
Self-affairs', *n. pl.* One's own private affairs.
Self-affright'ed, *a.* Seized with fear at one's self.
Self-aggran'dizement, *n.* The aggraudizement of one's self.
Self-annihilated, *a.* Annihilated by one's own acts.
Self-annihila'tion, *n.* The act of being annihilated by one's own act.
Self-applause', *n.* Approbation of one's self.
Self-apply'ing, *a.* Applying to one's self.
Self-approv'ing, *a.* Approving one's self, or action.
Self-assert'ing, *a.* Advancing, or asserting, one's rights or claims.
Self-asser'tion, *n.* The asserting of one's rights or claims.
Self-assumed', *a.* Assumed without authority, or by one's self.
Self-assured', *a.* Assured by one's self.
Self-attract'ive, *a.* Attractive by one's self or powers
Self-ban'ished, *a.* Banished by one's own will.
Self-begot'ten, *a.* Begotten by one's own power.
Self-born', *a.* Born by one's self.
Self-centra'tion, *n.* The state of being centred in self.
Self-cen'tred, Self-cen'tered, *a.* Centred in one's self.
Self-cen'tring, Self-cen'tering, *a.* Centring in one's self.
Self-char'ity, *n.* Love of self.
Self-command', *n.* Control over one's self.
Self-commune', *n.* Communion with one's self.
Self-commu'nicative, *a.* Communicating by one's own powers.
Self-commu'nion, *n.* Thoughts with or about one's self.
Self-compla'cency, *n.* Satisfaction in one's abilities.
Self-conceit', *n.* A high opinion of one's self; vanity; self-sufficiency.
Self-conceit'ed, *a.* Having a high or overweening opinion of one's own person or merits; vain.
Self-conceit'edness, *n.* A high opinion of one's merits or person.
Self-concern', *n.* Care for one's self.
Self-condemna'tion, *n.* Condemnation by one's own self.
Self-con'fidence, *n.* Reliance upon one's own powers or opinion.
Self-con fident, *a.* Confident of one's own ability.
Self-con fidently, *adv.* With self-reliance.
Self-con sclous, *a.* Conscious of one's own acts. — Conscious of the notice or observation of others. — Esteem of one's own powers or abilities.
Self-con'sciousness, *n.* Act of being self-conscious. — Consciousness of observation by others.
Self-consid'ering, *a.* Deliberating with one's self.
Self-consist'ency, *n.* The state or quality of being consistent with one's self.
Self-consist'ent, *a.* Consistent with one's self.
Self-consum'ing, *a.* Consuming one's self.
Self-contradic'tion, *n.* Act of contradicting itself; repugnancy in terms.
Self-contradict'ory, *a.* Contradicting itself.
Self-control', *n.* Self-command.
Self-convict'ed, *a.* Convicted by one's own actions or acknowledgments.
Self-convic'tion, *n.* Conviction by one's self.
Self-creat'ed, *a.* Formed or constituted by one's self.
Self-cul'ture, *n.* Education of one's self.
Self-deceit', *n.* Deception respecting one's self, or that originates from one's own mistake; self-deception.
Self-deceived', *a.* Deceived by one's own mistake or error.
Self-decep'tion, *n.* Deception concerning one's self.
Self-defense', Self-defence', *n.* Act of defending or protecting one's own person, property, or reputation.
Self-denial, *n.* The act of denying one's self; the forbearing to gratify one's own appetites or desires.
Self-deny'ing, *a.* Denying one's self; forbearing to indulge one's own appetites or desires.
Self-depend'ent, Self-depend'ing, *a.* Depending on one's self.
Self-destroy'er, *n.* One who destroys or ruins himself; a suicide.
Self-destruc'tion, *n.* Destruction of one's self; suicide.
Self-determina'tion, *n.* Determinating by one's own mind.
Self-devot'ing, *n.* Voluntary devotion of one's self to something hazardous.
Self-ed'ucated, *a.* Educated without the help of teachers or schools.
Self-elect'ive, *a.* That has the right to elect one's self or one's own members.
Self-esteem', *n.* The esteem or good opinion of one's self; vanity.
Self-ev'ident, *a.* Evident in its own nature; evident without proof or reasoning; that produces certainty or clear conviction upon a bare presentation to the mind.
Self-exalta'tion, *n.* Exaltation or ennobling of one's self.
Self-examina'tion, *n.* Examination of one's self; an examination or scrutiny into one's own state, conduct, and motives, particularly in regard to religious affections and duties.
Self-exist'ence, *n.* Existence of one's self, independent of any other being or cause; inherent and underived existence; an attribute peculiar to God.
Self-exist'ent, *a.* Existing by one's self, own nature, or essence, independent of any other cause.
Self-explain'ing, *a.* That may be understood without explanation.
Self-gov'ernment, *n.* Self-control; government of one's self. — Government by the people; democracy.
Self-hom'icide, *n.* The act of killing one's self; suicide.
Self-impor'tance, *n.* High importance of one's self; pride; vanity.
Self-impos'ture, *n.* Imposition practised on one's self; self-deception; self-delusion.
Self-in'terest, *n.* One's own interest; private interest; the interest or advantage of one's self.
Self'ish, *a.* Devoted wholly or unduly to self; regarding one's own interest chiefly or solely; influenced in actions by a view to private advantage.
Self'ishly, *adv.* In a selfish manner; with regard to private interest only, or chiefly.
Self'ishness, *n.* Quality or state of being selfish; undue love of self; subserviency to self; the exclusive regard of a person to his own interest or happiness.
Self'ist, *n.* One devoted to self; a selfish person. (R.)
Self'less, *a.* Devoid of selfishness.
Self-illu'ited, *a.* (*Med.*) Applied to diseases which appear to run a definite course, but little modified by treatment, as small-pox.
Self-love, *n.* [*Self* and *love.*] The love of self; the love of one's own person or happiness.
Self-lum'inous, *a.* Luminous by itself; emitting light, as a star, the flame, or a substance shining when heated or rubbed.
Self-made', *a.* Made or constituted by one's self.
Self-mas'tery, *n.* Mastery of one's self; self-command.
Self-met'tle, *n.* Natural mettle.
Self-mur'der, *n.* The murder of one's self; suicide.
Self-opin'ion, *n.* A high opinion of one's self.
Self-pollu'tion, *n.* Masturbation; onanism.
Self-posses'sion, *n.* The possession of one's powers or faculties; calmness; self-command.
Self-preserva'tion, *n.* The preservation of one's self from destruction or injury.
Self-reli'ance, *n.* Reliance on one's own powers.
Self-rely'ing, *a.* Depending on one's self.
Self-reproof', *n.* Reproof of conscience.
Self-restraint', *n.* A restraint over one's self.
Self-right'eous, *a.* Righteous in one's own esteem.
Self-right'eousness, *n.* Righteousness which one arrogates to one's self; reliance on one's own righteousness.
Self-sac'rifice, *n.* Sacrifice of one's self, or of self-interest.
Self-same, *a.* [*Self* and *same.*] Exactly the same; the very same; identical.
Self-seek'er, *n.* One who seeks only his own interest; a selfish person.
Self-slaughter, (*-slaw'ter,*) *n.* The slaughter of one's self; suicide.
Self-suffi'ciency, *n.* Quality of being self-sufficient; an overweening opinion of one's own strength or worth; excessive confidence in one's own competence or sufficiency.
Self-suffi'cient, *a.* Having too much confidence in one's own strength, abilities, or endowments; haughty; assuming; overbearing.
Self-will, *n.* One's own will; obstinacy.
Self-willed, *a.* Governed by one's own will; not yielding to the will or wishes of others; not accomodating or compliant; obstinate.
Self-wor'ship, *n.* Worship or idolizing of one's self.
Seligher, (*sel'i-ger.*) a lake of Russia, govts. of Tver and Novgorod. *Ext.* 30 m. long, and 10 broad.
Se'lim, the name of three emperors of the Turks: — SELIM I., son of Bajazet II., B. 1467; dethroned his father and killed his two brothers 1512; defeated the shah of Persia 1514; conquered Syria and Egypt 1516–1517; D. 1520. — SELIM II., succeeded his father, Seliman II., in 1566; took Cyprus from the Venetians 1570, and Tunis from the Spaniards in 1571. In the same year he lost the great naval battle of Lepanto; D. 1574. — SELIM III., son of Mustapha III., B. 1761, succeeded his uncle, Abdul-hamed, 1789. The studies which he had diligently pursued, and the intercourse which he had held with eminent statesmen, made him ambitious of being a reformer; but the ill-fortune of the Turks in the wars with Russia and Austria, and the numerous rebellions and insurrections in the various provinces of the empire, long prevented his attempting the task. War with France followed, and Egypt was conquered, but it was recovered by the English and restored to *S.* In 1800 he became protector to the Ionian Islands, and peace being established, he applied himself to the difficult work of internal reform. The organization and discipline of the army, the constitution of the divan, and the system of taxation were the matters which he sought to regulate. War with Russia again broke out in 1806, the new army organization, *Nizam Jedid*, excited immense dissatisfaction, and in May, 1807, the janissaries revolted, and Selim was deposed, imprisoned, and in the following year strangled, July 28, 1808.
Se'linsgrove, in *Pennsylvania*, a post-borough of Snyder co., 50 m. N. of Harrisburg.
Sel'kirk, ALEXANDER, a Scottish adventurer, B. at Largo, Fife, 1676. He was a skilful seaman, and made several voyages to the South Sea, in one of which, having quarrelled with his commander, he was put ashore on the Island of Juan Fernandez, with a few necessaries, a fowling-piece, gunpowder, and shot. Here he lived alone during four years and four months, and was then rescued by Captain Woods Rogers. During the time of his remaining on the island he had nearly forgotten his native language. He returned to England in 1711, and is said to have given his papers to Defoe, who took from them his story of *Robinson Crusoe;* but there is little doubt that the latter was indebted to Selkirk for little more than the main idea of the work.
Sel'kirk, a town of Scotland, cap. of a small co. of same name, situated on a commanding eminence below the confluence of Yarrow and the Ettrick, near the borders of Roxburghshire, 38 m. from Edinburgh. *Manuf.* Woollen goods. *Pop.* 4,000.
Selkirk, in *S. Carolina*, a post-village of Marion, dist., 48 m. S.E. of Cheraw.
Sell, *n.; pl.* SELLS. Self. (A Scotticism.)
Sell, *n.* [Fr. *selle;* Lat. *sella*, for *sedula*, from *sedes*, a seat.] An elevated seat or throne.
—*v. a.* [A. S. *syllan*, to give, to deliver up.] To give or deliver in exchange for money, or security for money; to exchange for money; to yield or give for a consideration; the word correlative to *buy.* — To betray for money; as, he *sold* his country. — To impose upon; to trick. (Colloq.)
To sell one's life dearly, to cause as much loss as possible before the taking of one's life.
—*v. n.* To practice selling; to have commerce. — To be sold.
—*n.* A trick; the act of making a fool of one. (Colloq.)
Sel'lenders, Sel'landers. *n. pl.* [Fr. *solandres.*] (*Fur.*) A disease in a horse's hock, similar to MALANDERS.
Sell'er. *n.* The person who sells; a vender.
Sel'lersburg, in *Indiana*, a post-village of Clarke co., 9 m. N. of Jeffersouville.
Sel'lersville, in *Pennsylvania*, a post-borough of Bucks co.
Sel'ma, in *Alabama*, a flourishing city, cap. of Dallas co., 70 m. W. of Montgomery. *Pop.* (1897) 10,200.
Selma, in *Missouri*, a village of Jefferson co., 35 m. S.W. of St. Louis.
Selma, in *Ohio*, a post-village of Clark co., 14 m. E.N.E. of Xenia.
Sel'ters, and **Lower Selters,** two villages in Germany, abt. 10 m. from Frankfort-on-the-Main, noted for their most celebrated mineral springs.
Selvage, Selvedge, (*sel'vij.*) *n.* [Ger. *sahl, sal*, signifying extension, especially in length, and *edge.*] The edge of cloth, where it is closed by complicating the threads; a woven border, or border of close work.
Selvagee, (*-jee',*) *n.* (*Naut.*) A skein of rope-yarns of spun-yarn marled together.
Selves, *pl.* of SELF, *q. v.*
Sem'ao, an island of the Eastern Archipelago, separated by a narrow strait from the island of Timor. *Ext.* 20 m. long, and 8 m. in average breadth.
Sem'aphore, (*-for,*) *n.* [Fr., from Gr. *sema*, a sign, and *pherein*, to bear.] A term used synonymously with *telegraph;* but which may be applied to any system of communicating intelligence by signals.
Sematol'ogy, *n.* [Gr. *sema, sematos*, a sign, and *logos*, a discourse.] The doctrine of the use of signs, particularly of verbal signs, in the operation of thinking and reasoning, comprehending the theory of grammar logic, and rhetoric.
Sem'blance, *n.* [Fr., from Lat. *similis*, like.] Likeness; resemblance; actual similitude. — Appearance; show; figure; form.
Sem'ble, *v. n.* [Fr. *sembler.*] (*Law.*) A term frequently used before the statement of a point of law which has not been directly settled, but about which the court have expressed an opinion, and intimated what a decision should be.
Semé, (*sā-mā',*) *a.* [Fr. *sown.*] (*Her.*) Applied to a shield covered with small charges over its entire surface.
Semecar'pus, *n.* [Gr. *samikoo*, to mark; *karpos*, fruit.] (*Bot.*) A genus of plants, order *Anacardiaceæ. S. anacardium* yields the *marking-nuts* of India, which are employed, with the fruits of *Holigarna longifolia*, in preparing the celebrated *black varnish of Sylhet.* This is extensively used for lacquer-work, and for marking linen. The seeds are edible, like those of the cashew. See ANACARDIUM.
Sem'ele. (*Myth.*) A daughter of Cadmus by Hermoine, was beloved by Jupiter; but Juno, determining to punish her rival, visited the house of Semele in the guise of her nurse, and persuaded her to entreat her lover to come to her with the same majesty as he approached Juno. Jupiter had sworn by the Styx to grant Semele whatever she required: he therefore came attended by the clouds, the lightning, and thunder-bolts. Semele, unable to endure so much majesty, was instantly consumed with fire. Her child was, however, saved from the flames by Mercury. This child was called Bacchus, or Dionysius.
Se'men, *n.* [Lat.] (*Anat.*) The spermatic secretion of the male.
S. contra. (*Med.*) The pharmaceutical name for a drug composed of the dried leaves and flower-heads of *Artemisia sieberi*, and some allied species. It is a celebrated vermifuge.
Semen'dria, a town of European Turkey, in Servia, on the Danube, 20 m. S.E. of Belgrade; *pop.* 10,000.
Semerone, or CIMARRON, (*sem'e-ron,*) a river of the Indian Territory, rises in the Rocky Mountains; Lat. 37° N., Lon. 104° 35′ W., and after a S.E. course of abt. 600 m. falls into the Arkansas in Lat. 36° 10′ N., Lon. 96° 15′ W.
Semes'ter, *n.* [Ger.; Fr. *semestre*, from Lat. *sex*, six, and *mensis*, a month.] A term of six months.
Sem'i. [Lat.] A prefix which, used in composition, signifies half; as, *semicircle*, half a circle.

Semiamplex'icaul, *a.* [Lat. *semi*, *amplexus*, to embrace, and *caulis*, a stem.] (*Bot.*) Half clasping the stem, as a leaf.

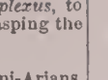
Semi-an'nual, *a.* Half yearly.

Semi-A'rianism, *n.* The belief of the Semi-Arians.

Semi-A'rians, *n. pl.* (*Eccl. Hist.*) A branch of the Arians, who denied the *consubstantiality* of the Son with the Father, but admitted the *similarity of substance.*

—*a.* Relating to the Semi-Arians, or to their doctrines.

Semi'breve, *n.* (*Mus.*) A note whose length is half that of a breve. It is the longest note generally used in modern music, and is the integer whose fractions are usually adopted to express the length of other notes.



Semi-cho'rus, *n.* (*Mus.*) A chorus sung by a part of the choir.

Semi-circle, (*-sir'kl,*) *n.* The part of a circle comprehended between its diameter and half its circumference.

—Any body in the form of a half circle.

Semi-circled, (*-sir'kld,*) *a.* Half round.

Semicir'cular, *a.* Having the form of half a circle.

Semicircum'ference, *n.* Half of the circumference.

Sem'icolon, *n.* (*Punctuation.*) The point (;) marking a greater distinction of sense than a comma, but less than a colon.

Sem'i-column, *n.* Half of a column.

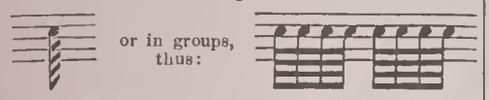
Semi-colum'nar, *a.* Resembling half a column: especially applied to botanical objects.

Semi-compact', *a.* Half compact.

Semi-cu'bical, *a.* (*Math.*) Applied to a parabola which may be referred to coördinate axes such that the squares of the ordinates of its points shall be to each other as the cubes of the abscisses of the same points.

Semi-cu'blum, Semi-cu'plum, *n.* [L. Lat., from Lat. *semi*, and *cupa*, a tub.] (*Med.*) A half-bath, or such as receive only the hips or extremities.

Semi-demi-semiqua'ver. (*Mus.*) A note, of which 8 are equivalent to a quaver, 32 to a minim, and 64 to a semibreve. It is represented thus:



or in groups, thus:

Semi-diam'eter, *n.* (*Geom.*) Half the diameter; the radius of a circle or sphere.

Semi-diapason, (*-pa'zn,*) *n.* (*Mus.*) An octave diminished by a minor semitone.

Semi-diapen'te, *n.* (*Mus.*) An imperfect or false fifth. — *Moore.*

Semi-diaphane'ity, *n.* Half-transparency; imperfect transparency.

Semi-diapi'anous, *a.* Half-transparent; imperfectly transparent.

Semi-diates'saron, *n.* (*Mus.*) A defective or false fourth.

Semi-di'tone, *n.* (*Mus.*) A lesser third having its terms at 6 to 5: a hemiditone. (R.)

Semi-diur'nal, *a.* Relating to half a day.

Sem'i-double, *n.* (*Bot.*) Having the innermost stamens perfect, while the outermost stamens have become petaloid.

Sem'i-floscule, Sem'i-floret, *n.* (*Bot.*) A ligulate floret.

Semi-flos'culous, Semi-flos'culer, *a.* (*Bot.*) Noting that the flowers of a head are ligulate.

Semi-flu'id, *a.* Half-fluid; imperfectly fluid.

Sem'i-form, *n.* An imperfect form.

Sem'i-formed, *a.* Half-formed.

Semi-ho'ral, *a.* Half-hourly.

Semi-in'durated, *a.* Imperfectly hardened.

Semi-lapid'ified, (*-fid,*) *a.* Half-changed into stone.

Semi-lentic'ular, *a.* Half, or imperfectly, resembling a lens.

Semi-liq'uid, *a.* Half-liquid.

Semi-liquid'ity, *n.* The state of partial liquidity.

Semi-lu'nar, Semi-lu'nary, or **Semi-lu'nate,** *a.* Resembling in form a half-moon.

Semi-metal'lic, *a.* Relating to a semi-metal.

Sem'inal, *a.* [Lat. *seminalis*, from *semen*, seed.] Pertaining to seed, or to the elements of production. — Contained in seed; radical; rudimental; original.

Seminal leaf. (*Bot.*) The first leaf of a plant, directly developed from the cotyledon.

Semina'rian, Sem'inarist, *n.* [Fr. *séminariste.*] A person educated in a seminary; — especially, one educated for the Roman Catholic priesthood.

Sem'inary, *n.* [Lat. *seminarium*, from *semen*, a seed.] Any school, academy, college, or university in which young men are instructed in the several branches of learning.

(*Roman Catholic Church.*) A college appointed for the instruction and education of young men destined for the priesthood.

Sem'inary, in *Illinois*, a township of Fayette co.

Semina'tion, *n.* [Lat. *seminatio.*] The act of sowing or spreading; dissemination.

(*Bot.*) The natural dispersion of seeds.

Seminif'erous, *a.* [Fr. *séminifère*, from Lat. *semen*, seed, and *ferro*, to bear.] Producing seed.

Seminific, Seminifical, *a.* [Lat. *semen*, seed, and *facere*, to make.] Productive of seeds or semen.

Sem'inoles, a tribe of American Indians, originally a vagrant branch of the Creeks, whose name, *Seminole*, signifies "wild" or "reckless." In 1805, they aided in driving the Appalaches from Florida; and in 1817, they joined with the Creeks and some negroes who had taken refuge with them, ravaged the white settlements in Georgia, plundering plantations, and carrying off slaves, whom they refused to surrender. General Jackson, sent to punish them, took at the same time several Spanish forts, and hastened the negotiations which ended in the cession of Florida to the U. States. By this cession, in 1823, the *S.* engaged to retire into the interior, and not molest the settlers; but as the negroes continued to take refuge with them, a treaty was made with some of the chiefs, in 1832, for the removal of the whole tribe W. of the Mississippi. This treaty was repudiated by the tribe, at the instigation of Osceola (*q. v.*), one of their chiefs. A war commenced, in which battles and skirmishes were of constant occurrence, and with various results. This war, which lasted seven years, and cost the government about $10,000,000, and the loss of 1,466 lives, ended in 1842, when the *S.*, except some 200 who took refuge in remote places, were removed to the Indian Territory, where nearly all the members of the tribe are now settled. They number about 3,000, receive an annuity of $25,000, have churches and government schools, and are under the training of missionaries of the Presbyterian denomination.

Semiog'raphy, *n.* [Gr. *semeion*, sign, and *graphein*, to describe.] (*Med.*) A description of symptoms or signs of disease.

Semiol'ogy, *n.* [Fr. *semeiologie*, from Gr. *semeion*, a sign, and *logos*, discourse.] (*Med.*) The branch of pathology which treats of the symptoms or signs of disease.

Semi'opal, *n.* (*Min.*) A silicious mineral, nearly resembling the common opal, but differing from it in being harder and more opaque, in exhibiting a less perfect conchoidal fracture, and in the muddiness of its colors. It is found at Okehampton in Devonshire, and in Cornwall, Eng., at Wheal Buller, and near St. Ives and St. Just.

Semi-orbic'ular, *a.* Having the shape of half a sphere.

Semi-osseous, (*-ŏsh'us,*) *a.* Half as hard as bone; partially bony.

Semipalatinsk', ("the seven palaces,") a fortified town of Siberia, govt. of Tomsk, on the Irtish, 250 m. S.W. of Barnaul; Lat. 50° 15′ N., Lon. 79° 30′ E.; *pop.* 7,000.

Semipal'mate, Semipal'mated, *a.* (*Zoöl.*) Having the toes connected together by a web extending along only their proximal half.

Sem'iped, *n.* [Lat. *semipes*, from *semi*, half, and *pes*, a foot.] (*Prosody.*) Half a foot.

Semip'edal, *a.* Containing half a foot.

Semi-Pela'gianism, *n.* (*Eccl. Hist.*) A modification of the doctrines of the Pelagians, consisting chiefly in maintaining the sufficiency of man's natural power, only so far as regards the first act of conversion to God, and the initial act of man's repentance for sin. *S.-P.* took its rise in 428, from John Cassian, a pupil of Chrysostom at Marseilles. The Council of Orange, July 3, 529, established the Augustinian doctrines in opposition to those of the Pelagians and Semi-Pelagians, as did that of Valencia, in July or Aug., 530; and Pope Boniface II. confirmed the decree in 530.

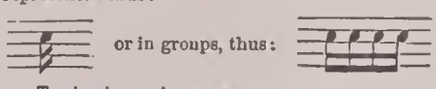
Semi-pellu'cid, *a.* Half-clear; imperfectly transparent.

Semi-pellucid'ity, *n.* State or quality of being imperfectly transparent.

Semi-perspic'uous, *a.* Half-transparent; imperfectly clear.

Sem'i-proof, *n.* The proof of a single evidence. (R.)

Sem'i-quaver, *n.* (*Mus.*) A note of half the duration of the quaver; the sixteenth of the semi-breve. It is represented thus:



or in groups, thus:

—*v. a.* To sing in semi-quavers.

Semir'amis, a queen of Assyria, of whom we have little certain historical knowledge. She is generally regarded as the wife of Ninus, and is said to have put him to death. The traditions agree that she reigned forty-two years after Ninus; she was called *Rea*, on account of her atrocities. See NINUS.

Semisopoch'no, or ISLE OF THE SEVEN MOUNTAINS, an island of the Aleutian Archipelago; Lat. 51° 59′ N., Lon. 179° 45′ 57″ W.

Sem'i-sospiro, *n.* [It.] (*Mus.*) A pause equal to an eighth of a bar in common time.

Semitch Islands, (*sa-mitch'*,) a group of the Aleutian Archipelago, N E. of the island of Attoo.

Semi-tertian, (*-ter'shan,*) *n.* (*Med.*) An intermittent fever possessing the characteristics of the tertian and quotidian.

—*a.* (*Med.*) Possessing the characteristics of the tertian and quotidian intermittent fevers.

Semit'ic, *a.* Relating to Shem, or to his descendants; as, the *Semitic* languages.

Semitic languages. (*Philology.*) The name of a family of languages which is divided into three branches,—the *Aramaic*, the *Hebraic*, and the *Arabic*. The Aramaic occupied the north, including Syria, Mesopotamia, and a portion of the ancient kingdoms of Babylonia and Assyria. It is known to us chiefly in two dialects, the *Syriac* and the *Chaldee*. A translation of the Bible was made in this dialect in the 2d century. Christian literature dating from the 4th century is rich in it, and it is still spoken, albeit in a very corrupt form, by the Nestorians of Kurdistan, as well as by some Christian tribes in Mesopotamia. The language adopted by the Jews during the Babylonian captivity had the name of *Chaldee* given to it. The Jews adopted this language of their conquerors, both for conversation and for literary purposes; yet they always retained a knowledge of their sacred language. The Aramaic was a dialect transplanted from Babylonia to Palestine. It was the dialect spoken by Christ and his disciples. Later, the Jews adopted the Arabic as their literary language, retaining it till the 13th century, after which they returned to a form of modernized Hebrew, which they still continue to make use of for learned discussions. The Arabic, or Southern class of the Semitic, includes the Ethiopic and the Himyalitic inscriptions, both being dead languages, while the living languages belonging to this class are the Arabic and the Aramaic. The Hebraic, or middle class of the same family, includes Biblical Hebrew, the Samaritan of the 3d century, the Carthaginian, and the Phœnician inscriptions, among its dead languages; its living dialects being represented by the modernized Hebrew of the Jews. The Aramaic, or Northern class, of the Semitic family of tongues, has only one living representative, the Neosyriac; the Chaldee, the Syriac of the 2d century, and the cuneiform inscriptions of Babylon and Nineveh being all dead languages.

Sem'itone, *n.* (*Mus.*) The half of a tone. Strictly speaking, this is not a proper definition of it, inasmuch as semitones are of different lengths, according to their nature. A *diatonic semitone* is when the name of the note changes, as, for example from C to D♭, or from B to C. A *chromatic semitone* is when the note is merely altered by a sharp or a flat, as from C to C♯, or from D to D♭.

Semiton'ic, *a.* Pertaining to a semitone; consisting of a semitone, or of semitones.

Sem'i-vocal, *a.* Half vocal; pertaining to a semivowel; imperfectly sounding.

Sem'i-vowel, *n.* (*Gram.*) One of those consonants which, like vowels, can be pronounced independently, or without the aid of any other letter. To this class belong *b*, c, *d*, *g*, *k*, *p*, *s*, *t*, *v*, *x*, and *z*.

Sem'lin, a fortified town of Austria, in Sclavonia, on the Danube, 3 m. N.W. of Belgrade, and 40 m. S.E. of Peterwardein. It is the principal entrepôt of the trade between Austria and Turkey.

Semmes, RAPHAEL, (*semz,*) the commander of the Confederate privateer *Alabama*, b. in Maryland, about 1810, was appointed, 1828, a midshipman on board the *Lexington*, and rose by successive steps to the rank of commander in 1855. He was nominated, in 1858, secretary to the Lighthouse Board, which situation he held when the war broke out. He then joined the Confederate service, March 26, 1861, and was made commander of the war-steamer *Sumter*. With this vessel he caused considerable damage to the U. States merchant navy, and having been driven into the port of Gibraltar by stress of weather, sold her to a "neutral." He was then ordered to take the command of a vessel built in England, and known at first as "290," which afterward became famous as the *Alabama*. His exploits, while commander of this vessel, although not so dashing as those of Paul Jones during the first American war, were far more destructive. After having inflicted an enormous amount of loss on our national commerce, the *Alabama*, which had been into Cherbourg for repairs, encountered outside the harbor a U. States war-steamer, the *Kearsarge*, Capt. John A. Winslow, June 10, 1864. A French man-of-war followed her to prevent any violation of international law. The fight took place about 9 miles from Cherbourg, and was both short and decisive. The *Kearsarge*, a powerful ship, was defended by iron chains slung over the bulwarks, upon which the shot of the *Alabama* could make but little impression; and in rather more than an hour from the beginning of the fight the *Alabama* was completely disabled. The crew tried to reach the French coast with her, but failed in the attempt, and she began to sink. *S.*, and some of the sailors, including 13 officers, were saved by the boats of an English steam-yacht, the *Deerhound*, which had accompanied the *Alabama* from Cherbourg to be a spectator of the fight. *S.* succeeded, after some difficulty, in making his way back to the Southern States; but the effectual blockade of their ports deprived him of any further chance of continuing his adventurous career. He wrote the *Cruise of the Alabama and Sumter*, and the *Log of the Alabama*, published in London in 1864; also, *Memoirs of Service Afloat*, published in Baltimore in 1868. D. near Mobile, Ala., Aug. 30, 1877.

Semo'la, Semoli'no, *n.* [Fr. *semoule*; It. *semolino.*] A light and wholesome food formed from wheaten flour into small grains. By the mode of preparation, all the gluten of the flour is preserved, and only the starch and corhonaceous matters removed.

Sem'pach, a small town of Switzerland, cant. of Lucerne, on Lake Sempach, 7 m. N.W. of Lucerne. It is noted for the defeat of the Austrians by the Swiss in 1386, when Arnold von Winkelried was killed. *Pop.*, 1,000. The lake is 4 m. long and 1 m. broad.

Sempervi'vum, *n.* [Lat., from *semper*, always, and *vivere*, to live.] (*Bot.*) A genus of succulent or herbaceous plants, order *Crassalaceæ*. *S. tectorum*, the common Houseleek, is a well-known plant, with thick fleshy leaves, arranged in the form of a double rose. It is commonly to be met with on the tops of outhouses and cottages, and is considered to possess cooling properties. *S. cæspitosum* has been known to remain alive in a herbarium for eighteen months, and, when subsequently planted, to grow.

Sempiter'nal, *a.* [Fr. *sempiternel*; Lat. *sempiternus*, from *semper*, and *æternus*, eternal.] Everlasting; eternal in futurity; endless.

Sempiter'nity, *n.* [Lat. *sempiternitas.*] Future duration without end.

Sempro'nius, a name of frequent occurrence in Roman history. The principals who have borne it were the GRACCHI, *q. v.* Besides these may be mentioned—

Sempronius Asellio, a military tribune of Rome, distinguished in Spain B. C. 137. — Sempronius Longus, consul of Rome B. C. 217, distinguished in the field against Hannibal. — Sempronius Tuditanus, a Roman tribune and commander, who was consul B. C. 203, and defeated Hannibal at Crotona. The others of the name are of less mark.

Sempro'nius, in *New York*, a post-township of Cayuga co., 18 m. S.E. of Auburn.

Semur, (*sœ'moor.*) a town of France, dept. of Côte d'Or, 34 m. N.W. of Dijon: *pop.* 4,000.

Se'na, or **Sen'na,** a Portuguese settlement, in S.E. Africa, in Mozambique, on the river Zambesi, 110 m. N.W. of Quitimane.

Se'nary, *a.* [Lat. *senarius*, from *seni*, six each.] Of six; belonging to six; containing six.

Sen'ate, *n.* [Fr. *sénat;* Lat. *senatus*, an assembly of elders.] (*Anc. Hist.*) The deliberative assembly of the Roman people; but the term has been applied to very different powers and constitutions in different countries. In the Greek republics, as well as among the Romans, the number of senators was regulated by the number of tribes into which the state was divided. Accordingly, while Attica was divided into four tribes, the number of senators was 400; and when the number of tribes was increased to ten, the number of senators was also enlarged to 500. The Roman Senate, during the primitive days of the city, participated in the judicial and executive powers of the king, and even in the management of military affairs. Romulus was said to have originated the Senate; but in doing this, he only imitated all the civilized nations dwelling on the shores of the Mediterranean, who all deemed it necessary to have an assembly of the elder citizens of the state, besides a popular assembly. Under Tarquinius Priscus, the number of senators was increased to 300, each of the 300 houses (*gentes*), which composed the three tribes, having its *decuria*, or representative head, in the Senate. Subsequently, the election of the senators was made by the censor reading aloud once in every lustre (five years) the names of the senators, the worthiest first, the one first named being styled *princeps senatus*. Those who were deemed unworthy of the dignity were degraded by the omission of their names. The senators were chiefly drawn from the ranks of the equestrian order. In the days of the Republic, a senator was required to possess property to the value of about $22,500, and in the days of Augustus of about $32,500. The Senate was assembled by the supreme officers of government, deciding the propositions laid before it, article by article, by a majority of voices. A decree of the Senate was called *senatus consultum*. If the decree was opposed by the tribune, or if the Senate was not full, the act was termed *senatus auctoritas*, and was submitted to the people, whose tribunes could reject every proposition by their vote. The Senate had within its jurisdiction all matters of public administration, questions of peace or war, the choice of public officers, and the financial concerns of the republic. Under the Empire, the Senate gradually lost its political consideration, but until the time of Constantine the Great many of its decrees took the place of the laws enacted by the people. In the end, it became so submissive to the will of the emperor, that it often decided upon the propositions of the ruler, without deliberation and with acclamation.

(*American Pol.*) See Congress.

(*French Hist.*) The title of the upper legislative chamber of France under Napoleon I., and Napoleon III., and also since, in our day, under the actual present republic. The Senate is composed of 300 members, of which 75 hold their seats for life, the vacancies being filled by the choice of the Senate. The remaining 225 seats are divided by lot into 3 classes of 75 each, one class going out at successive periods of 3 years.

Senato'bia, or Sinatobia, in *Mississippi*, a post-village of De Soto co., 40 m. S. of Memphis.

Sen'ator, *n.* [Lat.] A member of a senate.

Senato'rial, *a.* [Fr.; Lat. *senatorius.*] Pertaining to, or becoming, a senator.

Senato'rially, *adv.* In the manner of a senate; with dignity or solemnity.

Senato'rian, *a.* Same as Senatorial, *q. v.* (R.)

Sen'atorship, *n.* The office of a senator.

Send, *v. a.* [A. S. *sendan;* Ger. *senden;* Goth. *sandjan.*] To dispatch from one place to another, as on an errand or message. — To commission by authority to go and act. — To convey by the agency of another; to transmit; not to bring. — To cause to come, fall, or happen to; to bestow; as, "if God *send* life." — To emit; to hurl; to let fly; to cast or shoot. — To propagate; to diffuse, as sound or music.

To send forth or *out*, to produce, as the branches of a tree. — To diffuse; to emit, as a fragrant odor.

—*v. n.* To despatch an agent, a messenger, or message for some purpose.

(*Naut.*) To pitch suddenly and violently into the trough of the sea.

To send for, to require by message to come, or cause to be brought.

Send'er, *n.* One who sends.

Sen'eca, Lucius Annæus, a celebrated Roman philosopher, was the son of M. Annæus Seneca, an eminent rhetorician, and was born at Corduba, in Spain, about the beginning of the Christian æra. Taken early to Rome, he became an advocate, gained some distinction, and was made quæstor. But under Claudius, his intimacy with Julia, daughter of Germanicus, and an accusation of adultery with her, brought against him by the infamous Messalina, led to his being banished to Corsica, where he lived eight years. For a time he alleviated the bitterness of exile with the consolations of philosophy, but he afterwards stooped to the basest adulation and the most servile entreaties to Claudius to be allowed to return to Rome. In A. D. 49 he was recalled, through the influence of Agrippina, who was just married to Claudius. He was made prætor, and then tutor to Agrippina's son, the future Nero. *S.* ingratiated himself with the young prince, and continued to enjoy his favor after his accession to the throne. How far the philosopher strove to correct the vices of the emperor, or whether he did not rather wink at, or even pander to them, cannot perhaps be ascertained. But the philosopher grew immensely rich, had a palace sumptuously furnished at Rome, country seats and splendid gardens, and an enormous amount of ready money. After long profiting by the favor of Agrippina, he took her son's part against her, probably sanctioned, tacitly, if not expressly, her murder by her son, and wrote Nero's letter of justification to the Senate. He soon after lost the favor of the emperor, who coveted his money; and by the emperor's permission he quitted Rome for the country. In A. D. 65, *S.* was accused of taking part in the conspiracy of Piso, his intimate friend, and was ordered to put himself to death. He opened a vein in each arm, then in his legs, but the blood flowed very slowly; a dose of hemlock had no effect, and at last his tortures, which he bore with stoical fortitude, were ended by suffocation in a warm bath. His writings were very numerous, and many are still extant; among them are treatises *De Ira*, *De Consolatione*, *De Providentia*, *De Animi Tranquillitate*, and *De Vitabeata;* 124 Letters to Lucilius; 10 Tragedies, and a remarkable work entitled *Quæstionum Naturalium Lib. VII. S.* attached himself chiefly to the Stoic school, but adopted also principles from other systems. His works abound in quotable maxims and sentiments; his language is lucid and vigorous; but he is over-fond of antithesis. His style, like his conduct at his death, had a theatrical affectation about it. His works have been very much read, and very frequently republished.

Fig. 2335. — SENECA, (After an ancient bust.)

Sen'eca, in *Illinois*, a post-village of La Salle co., 12 m. E. of Ottawa.—A twp. of McHenry co.

Seneca, in *Kansas*, a city, cap. of Nemaha co., 32 m. E. of Marysville. *Pop.* (1895) 1,961.

Seneca, in *Michigan*, a flourishing post-township of Lenawee co.

Seneca, in *New York*, a central co.; *area*, 346 sq. m. *Rivers.* Seneca and Clyde. *Lakes.* Seneca and Cayuga. *Surface*, undulating; *soil*, fertile. *Min.* Iron and gypsum. *Cap.* Ovid and Waterloo.—A post-town of Ontario co., about 25 m. E. of Canandaigua.

Seneca, in *Ohio*, a N. co.; *area*, 544 sq. m. *Rivers.* Sandusky, and Honey and Green creeks. *Surface*, level; *soil*, fertile. *Cap.* Tiffin. *Pop.* (1897) 44,300.—A township of the above county.—A township of Monroe county.—A township of Noble county.

Seneca, in *Wisconsin*, a post-village and township of Crawford co., 18 m. N.N.E. of Prairie-du-Chien.—A township of Green Lake co.

Seneca Creek, in *Maryland*, enters the Potomac from Montgomery co.

Seneca Creek, in *Ohio*, rises in Monroe co., and enters Wills creek at Cambridge, Guernsey co.

Seneca Falls, in *New York*, a flourishing post-village and township of Seneca county, 43 miles W.S.W. of Syracuse.

Seneca Indians, a tribe of North American Indians belonging to the Iroquois, and formerly occupying W New York and a portion of N.W. Pennsylvania. They were once powerful; and their most famous chief was Sagoyewatha, or "Red-Jacket." They now occupy reservations in Kansas.

Seneca Lake, in *New York*, inclosed E. by Schuyler and Seneca cos., and W. by Steuben, Yates, and Ontario; 40 m. long, and from 2 to 4 wide, is alt. 210 feet above Lake Ontario, into which it falls through the Seneca and Oswego rivers. It is 630 feet deep, and is surrounded by beautiful scenery.

Sen'eca Oil, *n.* A name sometimes given to petroleum, after the Seneca Indians, who discovered it in Pennsylvania and used it as a medicine.

Sen'eca River, rises in the S.W. of N. Carolina, and flows S., falling into the Tugaloo River, in Anderson dist., S. Carolina.

Seneca River, in *New York*, which flows E., forming the outlet of Canandaigua, Cayuga, Seneca, Owasco, Skaneateles, and Onondaga lakes, after which it flows N. under the name of Oswego River, entering Lake Ontario at Oswego.

Sen'eca-root, *n.* (*Bot.*) See Polygala.

Sen'ecaville, in *Ohio*, a post-village of Guernsey co., 10 m. S.E. of Cambridge.

Sene'cio, *n.* (*Bot.*) The Groundsel, a genus of plants, order *Asteraceæ*, remarkable as being probably the most extensive in point of species in the whole vegetable kingdom. They are spread over all parts of the globe, nearly 900 different kinds being known to botanists. The Groundsel (*Senecio vulgaris*) and the Ragwort, or Ragweed (*S. Jacobæa*), afford a good idea of the appearance of the European species, the most noteworthy of which is, perhaps, the well-known *S. cineraria*, better known in gardens as *Cineraria maritima*, extensively used for planting in flower-beds for the sake of contrast with scarlet and other colors, its beautiful foliage being clothed with short white down. The Golden Senecio, *S. aureus* (Fig. 2336), an American species found in all the States, in meadows, woods, &c., is a handsome plant, with golden-yellow flowers; stem 1–2 feet high, simple or branched above, terminating in a kind of umbellate, single or compound corymb.

Fig. 2336. — GOLDEN SENECIO.

Seneff, (*se-nef'.*) a town of Belgium, prov. of Hainault, 6 m. S.W. of Nivelles, famous as the scene of a sanguinary battle, in 1674, between the Prince of Orange, afterwards William III. of England, and the French, under the Prince of Condé, in which the latter were victorious; *pop.* 4,000.

Senegal, (*sen'e-gawl.*) a large river in W. Africa, rises in Mount Cooro, in Lat. 10° 30′ N., Lon 10° 40′ W., flows first N.W. and then W., and falls into the Atlantic after a course of 1,000 m., for the last 740 of which it is navigable for flat-bottomed boats. Here and there, throughout the whole course, the navigation is interrupted by cataracts, shoals, and rocks. In the lower course, the river forms numerous, large, cultivated, and very fertile islands, and its banks are green and productive, and in part clothed with wood. The entrance is difficult on account of breakers, and a bar, which in the dry season is covered by only 8 to 9 feet of water.

Sen'egal, a French colonial establishment, on the W. coast of Africa, comprising several islands and small portions of the African continent between the Senegal and Gambia rivers. The soil is sandy along the coast, but very fertile inland. *Prod.* Cotton, indigo, coffee, hemp, cassia, millet, maize, &c. *Manuf.* Principally iron-working and ship-building. *Exp.* Gum, hides, ivory, cabinet-woods, gold dust, and wax. It is governed by a superior naval officer, who resides at St. Louis. The climate is unhealthy. *Chief towns.* St Louis, the cap., and Goree. *Pop.* 198,135.

Senegam'bia, an extensive maritime region of W. Africa, formerly comprised between Lat. 10° and 18° N., Lon. 4° and 17° 30′ E., having N. Sahara, E. Soudan, S. the colony of the Sierra Leone, and W. the Atlantic; *area*, 400,000 sq. m. It derives its name from the Senegal and Gambia, its principal rivers. It is level and fertile along the coast, but mountainous in the interior. *S.* is subject to France, and as now constituted extends along the coast from Cape Blanco to the mouth of the Senegal and inland as far as the Niger, including a number of "protected" states known collectively as French Soudan. Eastward the French "sphere of influence" extends indefinitely inland, reaching Lake Tsad and embracing the Sahara. Of this France occupies little more than the colonies of the Senegal.

Senes'cence, *n.* [Lat. *senescens*, from *senescere*, to grow old.] The state of growing old; decay by time.

Senes'cent, *a.* Growing old.

Seneschal, (*sen'e-shal.*) *n.* [Fr. *sénéchal;* L. Lat. *senescallus, senescalcus;* O. Ger. *senescalh*, from *sene*, old, and *scalc*, or *scalh*, a servant.] A steward; formerly, an officer in the house of princes and dignitaries, who had the care of the house, and the superintendence of feasts and domestic ceremonies.

Se'nex, in *Illinois*, a post-village of McLean co., 16 m. S.E. of Bloomington.

Se'night, (*sen'nit.*) *n.* [Contracted from *seven-night*, as *fortnight* from *fourteen-night.*] The space of seven nights and days; a week.

Se'nile, *a.* [Lat. *senilis*, from *senex*, *senes*, old, from *seneo*, to be old.] Pertaining to old age; proceeding from age.

Senil'ity, *n.* State of being old; old age; imbecility proceeding from old age; dotage.

Senior, (*seen'yur.*) *a.* [Lat. comp. of *senex*, old.] More advanced in years or office; elder.

—*n.* One older than another, or one more advanced in life. — One who is older in office, or one whose first entrance into office was anterior to that of another; one who has priority of rank. — An aged person.

Senior'ity, *n.* State of being senior; eldership; superior age; priority of birth.—Priority in office; priority of rank.

Senjen, (*sen'yen,*) one of the Lofloden Islands, off the N.W. coast of Norway. *Extent,* 45 m. long and 30 broad. *Pop.* 3,000.

Senlis, (*san'le,*) a town of France, dept. of Oise, on the Notte, a tributary of the Marne, 29 m. S.E. of Beauvais. *Manuf.* Cotton thread. *Pop.* 6,000.

Sen'na, *n.* [Fr. *séné.*] (*Med.*) The dried leaves of several plants of the genus *Cassia,* q. v. *S.* acts on the system as a strong and effective cathartic, and though apt to gripe in its operation, and somewhat heating in its nature, is a very useful, and, for children, a very valuable drug. The griping tendency can always be prevented by the addition of a few caraway or coriander seeds to the infusion, while its heating qualities can be corrected by the addition of Rochelle salts, which at the same time adds much to the efficacy of its action.

Sennaar, (*sen-nar',*) a negro state of E. Africa, forming the S. portion of Nubia (*q. v.*), between the rivers Bahr-el-Abiad and Bahr-el-Azrek. Its cap., Sennaar, is situate on the Bahr-el-Azrek, or Blue Nile, 150 m. S. of Khartoom; Lat. 13° 34′ 36″ N., Lon. 33° 30′ 30″ E. *Pop.* of township, 4,000.

Sennacherib, (*-năk-,*) King of Syria, succeeded his father Shalmaneser, B.C. 712. Hezekiah, King of Judah, having refused to pay him tribute, he entered his country, where he took several fortresses, and laid siege to Jerusalem; but his army being slain in the night by the Destroying Angel, he was obliged to return to his own country, where he was killed by his two sons, in the temple, B.C. 707.

Fig. 2337.— SENNACHERIB ON HIS THRONE,
(From a sculpture in Konyunjik Palace, Nineveh.)

Senne, (*sen,*) a river of Belgium, rising in Hainault, and, after a N. course of 55 m., joins the Dyle 3 m. W. of Mechlin.

Sennerut, (*sen'ner-oot,*) an island off the S.W. coast of Greenland, N.W. of Cape Desolation; Lat. 61° 25′ N., Lon. 45° W.

Sen'nett, in *New York,* a post-village and township of Cayuga co., 4 m. N.E. of Auburn; *pop.* abt. 2,500.

Sen'nit, *n.* (*Naut.*) A flat, braided cordage, formed by plaiting rope-yarns or spun-yarns together.

(*Com.*) Plaited straw or palm-leaves, &c., used in making straw-hats.

Sens, (*sans,*) a town of France, dept. of Yonne, on the Yonne, 30 m. S.E. of Auxerre, and 50 m. S.E. of Paris; *pop.* 11,000.

Sen'sate, Sen'sated, *a.* That is perceived by a sense, or by the senses.

Sensation, (*sen-sā'shun,*) *n.* [Fr.; from L. Lat. *sensatio,* from Lat *sensus*] An impression. The mental impression, feeling, or state of consciousness resulting from the action of external things on some part of the body, said, on that account, to be *sensitive.* The *S.* are classified according to the bodily organs concerned in their production. Thus, we have sight by the eye, hearing by the ear, touch by the skin, smell by the nose, and taste by the mouth. The difference of the mental feeling or consciousness in the various senses is very strongly marked, so that we never confound a taste with a sound, or a touch with a smell. In addition to these, physiologists commonly distinguish a sixth sense, of a more vague character, under the title of *common* or *general sensibility,* including the several feelings of pleasure and pain, comfort and discomfort, warmth, chilliness, hunger, thirst, &c. An important subject connected with our senses is their education. Our senses have to be educated, *i. e.,* to be drawn out and developed. We have to learn to see, to hear, and to touch. Many hundred repetitions are necessary before what we call a *S.* (*i. e.,* a distinct feeling, corresponding to that which the object will always produce upon the developed sense,) can be produced. Many *S.* are necessary to produce a perception; — a *perception* is a cluster of *S.* with an ideal element added. On the educated sense, objects act so as instantaneously to produce what we call their *S.*; on the uneducated sense they act only so as to produce a vague impression, which becomes more and more definite by repetition. The effects of education upon the senses are seen in the acute taste of the wine- or tea-taster, the hearing of the musician, the touch of the pianist, &c.

Sensa'tional, *a.* Relating to, or implying, sensation.

Sensa'tionalism, or **Sen'sualism,** *n.* (*Philos.*) A term applied to those systems which either directly or indirectly deduce all our knowledge from sensation, or from the experience which sense affords. The 18th century was particularly rich in sensational philosophers, the principal of whom were Condillac in France, and Hartley and Darwin in England. Condillac, in his celebrated work, *Traité des Sensations* (1754), attempts to show that "all our knowledge and all our faculties are derived from the senses, or, to speak more accurately, from sensations." He was a professed follower of Locke, and imagined that he was only following out his principles to their legitimate consequences, though Locke, indeed, does not sufficiently distinguish between sensations, and recognizes the two as being perfectly distinct. The opposite of *S* is *intellectualism* or *idealism.*

Sensa'tionalist, *n.* One who advocates or believes in sensationalism.

Sense, *n.* [Lat. *sensus,* from *sentire,* to perceive, to discern by the senses.] Perception by the senses, which are five: — *sight, hearing, smelling, tasting, feeling.* See SENSATION.

— Perception by the intellect; apprehension; discernment. — Moral perception.

— *pl.* The channel of communication by which the mind derives part of its materials of thought from the external world. — Quickness or acuteness of perception; understanding; soundness of faculties. — Opinion; notion; judgment; consciousness; conviction. — Meaning; import; signification.

Sense'less, *a.* Lacking sense; wanting life; void of all life and perception. — Unfeeling; wanting sympathy. — Unreasonable; foolish; stupid; acting without sense or judgment — Contrary to reason or sound judgment.

Sense'lessly, *adv.* In a senseless manner; stupidly; unreasonably.

Sense'lessness, *n.* State or quality of being senseless; unreasonableness; folly; stupidity; absurdity.

Sensibil'ity, *n.* [Fr. *sensibilité;* L. Lat. *sensibilitas.*] State or quality of being sensible; that faculty of living parts by which they are capable of impressions; susceptibility of impressions upon the organs of sense. — The capacity of feeling or perceiving the impressions of external objects. — Acuteness of sensation; capacity or acuteness of perception; susceptibility of quick and keen emotions. — Delicacy of feeling; actual feeling. — Quality of being easily affected.

Sen'sible, *a.* [Fr.; Lat. *sensibilis.*] Capable of being affected through the senses; susceptible of sensation. — Having the capacity of receiving impressions from external objects; capable of perceiving by the instrumentality of the proper organs — Perceiving, or having perception, either by the mind or the senses. — Having moral perception; capable of being affected by moral good or evil. — Having acute intellectual feeling; being easily or strongly affected. — Having good sense; judicious; wise; reasonable.

— *n.* Whatever is perceptible around us; that which is capable of affecting some sense; that which is the object of sense.

Sen'sibleness, *n.* State or quality of being sensible; sensibility. — Reasonableness; judgment.

Sen'sibly, *adv.* In a sensible manner; in a manner to be perceived by the senses; perceptibly to the senses or mind. — With intelligence or good sense; judiciously; feelingly.

Sensif'erous, *a.* [From Lat. *sensus,* and *ferre,* to bear.] Producing sensation. (R.)

Sensific, *a.* [Lat. *sensificus.*] Causing or producing sensation.

Sen'sism, *n.* Same as SENSUALISM, *q. v.*

Sen'sitive, *a.* [Fr. *sensitif;* L. Lat. *sensitivus.*] Having sense or feeling, or having the capacity of receiving impressions from external objects. — Having quick and acute sensibility.

— That affects the senses. (R.)

— Pertaining to, or depending on, sensation; sentient.

(*Physics.*) Easily affected; easily acted upon by the touch.

(*Chem.* and *Photog.*) Readily affected or changed by certain appropriate agents; as, iodized silver is extremely *sensitive* to the action of light.

Sen'sitively, *adv.* In a sensitive manner.

Sen'sitiveness, *n.* State or quality of being sensitive, or of having quick and acute sensibility, either to the action of external objects, or to impressions upon the mind and feelings.

Sen'sitive-paper, *n.* (*Photog.*) Paper prepared for photographic purposes by being rendered sensitive to the effect of light.

Sen'sitive-plant, *n.* (*Vegetable Physiol.*) The name generally applied to a small annual, called *Mimosa pudica,* inhabiting the tropics of America. It has a stem about a foot and a half high, covered with stiff hairs; the leaves are bipinnate in a somewhat digitate manner; and the flowers are collected in small pink balls. It derives its name from the irritability of its leaves, which collapse and fold up when touched, or even when irritated by casting on them the focus of a burning glass, or by exposing them to the vapor of hydrocyanic acid. The cause of this irritability has been investigated by Dutrochet (*Mémoires pour servir à l'Hist. Anat. et Phys. des Végétaux,* &c., vol. i., 534), who refers the phenomenon to the action of endosmose, and to the operation of a "fibrous tissue capable of moving inward under the influence of oxygenation." The nature of the phenomena may be thus explained: When the leaf of a sensitive plant is at rest, it consists of many leaflets spreading flat, and connected in pairs along the sides of certain common leaf-stalks. When one of these leaflets is irritated, the pair to which it belongs rise upward, and apply their faces to each other; this is rapidly followed by the same action in the succeeding leaflets, and in the course of a few seconds the whole of the leaflets are in a state of collapse; then the leaf itself suddenly bends downward; and if the plant is in very good health, the shock thus communicated to one leaf will extend to those immediately above and below it. After a time the leaf resumes its original position. Upon the approach of night, that is to say, upon the withdrawal of light, the leaf falls of itself into the same state, without any special irritation. This kind of irritability is by no means confined to the *Mimosa pudica;* on the contrary, some other species of the same genus, as the *M. dormiens, sensitiva, casta, somnians, palpitans,* &c., possess the same property, as is indicated by their names. And among the leguminous order, it is also found beyond the genus *Mimosa,* as in the *Hedysarum gyrans,* whose three leaflets are in a continual state of dancing or balancing during the day. In fact, the folding their leaves at night, which is universal in all the compound-leaved species of this order, is the same thing feebly exercised. Nor is such irritability confined to this order; the ternate and pinnate-leaved species of *Oxalis* and *Dionea muscipula,* and numerous other plants, exhibit similar phenomena.

Sensitiv'ity, *n.* The state or condition of being sensitive.

Senso'rium, *n.; pl.* Eng. SENSORIUMS; *pl.* Lat. SENSORIA. [Lat., from *sentio, sensus,* to discern by the senses.] (*Physiol.*) It was long attempted to determine some one point in the brain where the soul is more especially located or centralized; and to this ideal point the name of *Sensorium* was applied in the elder psychological speculations. The fancy of Descartes made it a small body near the base of the brain, called the "pineal gland." The recent views of the nervous system repudiate the idea of a central point of this nature; in consciousness, the brain generally is active, although, under different impressions and ideas, the currents may be presumed to follow different nerve-tracks. Consequently, no meaning is now attached to a sensorium in psychology, as distinct from the cerebrum at large. The term is actually applied by physiologists to a series of ganglionic centres, each of which has the power of communicating to the mind the impressions derived from the organ with which it is connected, and of exciting automatic or involuntary muscular movements in respondence to these sensations. (See Carpenter *On the Functions of the Nervous System in Human Physiology,* 6th ed., p. 515.)

Sen'sory, *a.* Connected with the sensorium, or with sensation.

Sensual, (*sen'shu-al.*) *a.* [Lat. *sensualis,* from *sensus,* sense.] Pertaining to the senses, as distinct from the mind or soul; consisting in, or affected by, the senses, or derived from them. — Carnal; not spiritual or holy. — Given to the indulgences of the appetites; voluptuous; luxurious.

Sen'sualism, *n.* Sensuality; state of subjection to sensual feeling and appetite; devotedness to sensual indulgence.

(*Philos.*) The doctrine that all our knowledge is derived originally from the senses. See SENSATIONALISM.

Sen'sualist, *n.* A person given to the indulgence of the senses or appetites; one who places his chief happiness in carnal pleasures; a voluptuary; an epicure.

Sensualist'ic, *a.* Sensual. — Adopting or teaching the doctrines of Sensualism.

Sensual'ity, *n.* [Fr. *sensualité.*] Quality of being sensual; devotedness to the gratification of the bodily appetites: free indulgence in carnal or sensual pleasures.

Sensualiza'tion, *n.* The act of rendering sensual; the act of being sensualized.

Sen'sualize, *v. a.* To make sensual; to subject to the love of sensual pleasure; to debase by carnal gratifications.

Sen'sually, *adv.* In a sensual manner.

Sen'sualness, *n.* Sensuality.

Sen'sualism, *n.* Sensualism.

Sen'suous, *a.* Pertaining to sense; sensual; connected with sensual objects; full of feeling or passion.

Sen'suously, *adv.* In a sensuous manner.

Sen'suousness, *n.* Quality of being sensuous.

Sent, *imp.* and *pp.* of SEND.

Sen tence, *n.* [Fr.; Lat. *sententia,* from *sentis.* See SENSE.] An opinion; a determination or decision; a judgment. — A maxim; an axiom; a short saying containing moral instruction. — A judgment pronounced by a court or judge upon a criminal; a judicial decision publicly and officially declared in a criminal prosecution, a period.

(*Gram.*) The form of words in which a thought or a proposition is expressed. A mere phrase or group of words, such as, "A very high mountain," which only conveys a meaning or calls up an idea, but does not make an affirmation, is not a sentence. Since speech is the expression of thought, the sentence is the proper unit or integer of speech, and thus forms the starting-point in the study of language. Every single sentence is made up of two parts — the one naming the subject, or the something that is spoken about; the other the predicate, or the something that is said of it; as, "The sun — shines;" "Those who have the greatest gifts, and are of the greatest usefulness — are the most humble." Every sentence must contain a finite verb, as it is the function of the verb to make affirmations. "The sun shines," is an example of a sentence in its barest form, containing merely the subject "sun," and the predicate "shines," which are called the *principal* elements. The enlargement or development of the sentence takes place by means of adjuncts, or *secondary* elements, tacked on to the principal elements; as, "*Young* birds build *nests without experience.*"

— *v. a.* To pass or pronounce sentence upon; to pronounce the judgment of a court on; to doom; to adjudge; to condemn; to devote to punishment.

Sen'tencer, *n.* One who sentences.

Senten'tial, *a.* Comprising sentences; pertaining to a sentence or full period.

Senten'tially, *adv.* By means of sentences.

Sententious, (*-ten'shus,*) *a.* [Fr. *sentencieux;* Lat. *sententiosus,* from *sententia.*] Abounding with sentences, axioms, and maxims; short and energetic; full of meaning; very expressive; pithy; terse.

Senten'tiously, *adv.* In short, expressive periods; with striking brevity and energy; pithily; tersely.

Senten'tiousness, *n.* Quality of being sententious; pithiness of sentences; brevity with strength.

Sen'tient, *a.* [Lat. *sentiens,* from *sentio,* to feel, hear, see, &c., to perceive.] Having sensation, or the capacity of sensation; affected through the senses; sensitive; having the faculty of perception.

Sen'tiently, *adv.* By sensation.

Sen'timent, *n.* [Fr.] A thought prompted by passion or feeling; opinion; notion; judgment; the decision of the mind formed by deliberation or reasoning; the sense, thought, or opinion contained in words, but considered as distinct from them; sensibility; feeling; emotion; tenderness; a particular disposition of mind, as love, hatred, &c.; a striking sentence in a composition; the idea which governs the general conception of a work of art.

Sentiment'al, *a.* Abounding in sentiment; having feeling; abounding with sentiments, or just opinions or reflections; expressing quick intellectual feeling; exciting to sensibility; affecting sensibility; maudlin.

Sentiment'alism, *n.* Sentimentality; affectation of exquisite sensibility; a sickly or affected mode of thinking, whether exhibited in speaking or in writing.

Sentiment'alist, *n.* One who affects sentiment, fine feeling, or exquisite sensibility.

Sentimental'ity, *n.* State or quality of being sentimental; affectation of fine feeling or exquisite sensibility.

Sentiment'alize, *v. n.* To form, cherish, or affect sentiment or sensibility.

Sentiment'ally, *adv.* In a sentimental manner; with intellectual feeling or sensibility.

Sen'tinel, *n.* [Fr. *sentinelle;* It. *sentinella,* from Lat. *sentia.*] One set to see, hear, or perceive; a soldier set to watch or guard an army, camp, or other place, from surprise, to observe the approach of danger and give notice of it; a vidette; a sentry.

Sen'tinelled, *a.* Furnished with a sentinel.

Sen'try, *n.* [Corrupted from *sentinel.*] A sentinel; a soldier placed on guard; patrol; watch; the duty of a sentinel.

Sen'try-box, *n.* A box to cover a sentinel at his post, and shelter him from the weather.

Sen'za, *prep.* [It.] (*Mus.*) A term which signifies without; as, *senza stromenti,* without instruments, *senza violini,* without violins.

Seoul, or **Söul,** cap. of Corea. See KING-KI-TAO.

Se'pal, *n.* (*Bot.*) One of the divisions of the *calyx.*

Sep'alous, *a.* Relating to sepals.

Separabil'ity, Sep'arableness, *n.* Quality of being separable, or of admitting separation or disunion.

Sep'arable, *a.* [Fr. *séparable;* Lat. *separabilis,* from *separo.* See SEPARATE.] That may be separated, disjoined, disunited, or rent asunder.

Sep'arably, *adv.* In a separable manner.

Sep'arate, *v. a.* [Lat. *separo, separatus* — *se,* and *paro,* to put, set, or place in order.] To put or set apart; to cause to be by itself; to part, in almost any manner, as things either naturally or casually joined; to disunite; to disjoin; to make a space between; to disconnect; to divide; to sever; to disassociate; to remove.

—*v. n.* To part; to be disunited; to be disconnected; to withdraw from each other; to be divided.

—*a.* [Lat. *separatus.*] Parted or divided from the rest; being parted from another; disconnected; disjoined; disunited; detached; unconnected; distinct; different; withdrawn; removed; disunited from the body; disengaged from corporeal nature.

Sep'arately, *adv.* In a separate or unconnected state; apart; distinctly; singly.

Sep'arateness, *n.* State of being separate.

Separat'ical, *a.* Relating to separation; sectarian.

Separa'tion, *n.* [Fr. *séparation;* Lat. *separatio.*] Act of separating, severing, or disconnecting; disjunction; state of being separate; disunion; disconnection; the operation of disuniting or decomposing substances; divorce; disunion of married persons.

Sep'aratism, *n.* Act of separating; disposition to withdraw from a church; a practice of withdrawing.

Sep'aratist, *n.* [Fr. *séparatiste.*] One who separates or withdraws from a church, or rather from an established church, to which he has belonged; a dissenter; a seceder; a schismatic; a sectarian.

Separatist'ic, *a.* Relating to separatists.

Sep'arative, Sep'aratory, *a.* That tends to separate.

Sep'arator, *n.* One who separates.

Sep'aratory, *n.* A vessel for separating fluids of different densities from each other.

Sepawn', *n.* (Written also *sepon.*) Maize boiled in water. [U. S.]

Se'pia, *n.* [Lat., from Gr. *sepia,* the cuttle-fish.] (*Zoöl.*) See SEPIADÆ.

(*Painting*) A pigment used as a water-color. It is prepared from the secretion of the ink-bag of the *Sepiadæ,* q. v. This secretion is black at first, and insoluble in water, but extremely diffusible through it; it is therefore agitated in water to wash it, and then allowed slowly to subside, after which the water is poured off, and the sediment, when dry enough, is formed into cakes or sticks. In this state it is called *India-ink.* If, however, it is dissolved in a solution of caustic potash, it becomes brown, and is then boiled and filtered, after which the alkali is neutralized with an acid, and the brown pigment is precipitated and dried: this constitutes the proper sepia. It is usually prepared in Italy, great numbers of the species which yield it most abundantly, *Sepia officinalis,* being found in the Mediterranean. The black kind, called *India-ink,* is prepared in China, Japan, and India, and forms the common writing-ink of those countries.

Sepi'adæ, *n. pl.* (*Zoöl.*) The Cuttle-fish family, comprising cephalopods whose calcareous internal shell or cuttle-bone consists of a broad laminated plate, terminating behind in a hollow imperfectly chambered apex. They are distributed world-wide, and are from three inches to three feet long. The best known species is *Sepia officinalis,* the common or officinal Cuttle-fish (Fig 2338). Its body is somewhat oval, but broader at the head than at the extremity, which is obtusely pointed. The head is furnished with eight arms and two feet, the latter being nearly similar in structure to the arms or tentacula, but considerably longer in their dimensions. A neck divides the head from the body, which is furnished on each side throughout its entire length with a narrow fin. The back is strengthened by a calcareous plate, well known as the *Cuttle-fish bone.* This bone was in former times in great repute among apothecaries as an absorbent: but now it is chiefly used in the form of a powder, to polish the softer metals. The term *bone,* however, is properly inapplicable to the calcareous shield of the Cuttle-fish, as in its composition it is exactly similar to shell, and consists of various membranes hardened by carbonate of lime, without the smallest mixture of phosphate. It is also termed the *Ink-fish.* Beneath its throat is a bladder, in which is secreted a black fluid, and which, when pursued, it ejects, so staining the water that it easily escapes. It has the chameleon-like power of changing its color.

Fig. 2338. — CUTTLE-FISH, (From *Tenney's Zoölogy.*)

Sep'iment, *n.* [Lat. *sepimentum,* from *sepire,* to inclose.] A hedge; a fence.

Sepino, (*sa-pe'no,*) a town of S. Italy, prov. of Molise, *Manuf.* Woollen goods and paper. *Pop.* 4000.

Sepoy Rebellion. In 1857, the natives of Upper India rebelled. Massacres took place at Cawnpore, Delhi, and Jhansi. It was put down only by the energetic action of the British and the loyal native troops.

Sepoys, (*se'poiz.*) *n. pl.* [Hind. *sipahi,* soldiers.] The name given in India to native soldiers disciplined in the European manner. The *S.* now in the pay of the English government form a large and well-trained army. In general, the men composing this army are somewhat smaller than European soldiers; but they are brave, hardy, and active, capable of undergoing much fatigue and of sustaining great privations. Previous to the mutiny of the Bengal army in 1857, the East-Indian army consisted of a far greater number of native than of European troops; and to them Great Britain is chiefly indebted for her Indian empire. The French were the first to see that the transportation of troops would be too expensive, and that Europeans would perish in great numbers by the exposure at sea and in the climate of India. In consequence they took Hindoos into their pay, and the same policy was adopted by the English. In 1858, the native army, with the whole of the East India Company's troops, were transferred with the government of India, and placed under the British crown. Since that time, the native army has been greatly reduced, the government seeking the recruits for its colonial army chiefly from the Sikh population, and not, as formerly, from the Hindoo.

Seps, *n.* [Gr., from *sepo,* to putrefy, in reference to the effects of its bite.] (*Zoöl.*) A genus of saurian reptiles, which have a long, round, serpentiform body, and four very short legs, each terminated in the common seps (*Seps chalcides*) by only three toes.

Sept, *n.* [It. *ceppo;* Lat. *cippus;* Heb. *shebet,* a staff, rod.] A clan, race, or family descended from a common progenitor; — used of the ancient races or families in Ireland and the Highlands of Scotland.

Sept'angle, *n.* (*Geom.*) A figure having seven sides and seven angles.

Septan'gular, *a.* Having seven angles or sides.

Septem'ber, *n.* [Lat., from *septem,* seven.] This month, so called from its being the seventh month in the Roman year, established, as is supposed, by Romulus, is the ninth month in the so called calendar of Numa. Several of the Roman emperors gave names to this month in honor of themselves; but, unlike the months of July and August, the name of September has outlived every other appellation.

Septem'brists, *n. pl.* (*Fr. Hist.*) The name given to the agents in the dreadful massacre which took place in Paris on Sept. 2, 1792, during the French Revolution. The numbers that perished in this massacre have been variously given; but the term has become proverbial throughout Europe for all that is bloodthirsty and malignant in human nature.

Septem'vir, *n.; pl.* SEPTEMVIRI. [Lat.] (*Antiq.*) One of the priests who, in ancient Rome, had for duty to prepare the sacred feasts at games, processions, and on other solemn occasions. Their number was increased from 3 to 7, it is supposed by Sylla.

Sep'tenary, *a.* [Lat. *septenarius,* from *septem,* seven; Fr. *septenaire.*] Consisting of seven. — Containing seven years.

—*n.* The number seven. (R.)

Septen'nial, *a.* [Lat. *septennis,* from *septem,* and *annus,* a year.] Lasting, or continuing, seven years. — Happening or returning once in every seven years.

Septen'nially, *adv.* Once in seven years.

Septen'trial, *a.* Pertaining to the north; septentrional.

Septen'trio, *n.* (*Astron.*) The Great Bear. See URSA.

Septen'trion, *n.* [Fr.; Lat. *septentrio.*] The north, or northern regions of the globe. (R.)

Septen'trion, Septen'trional, *a.* [Fr. *septentrional;* Lat. *septentrionalis.*] Northern; pertaining or relating to the north.

Septen'trionate, *v. a.* To make northing; to north; to tend or point toward the north.

Sep'tet, Sep'tette, Sep'tuor, *n.* [It.] (*Mus.*) A musical composition for seven instruments or voices.

Sept'-foil, *n.* [Lat. *septem,* seven, and *folium,* leaf.] (*Arch.*) In the Roman Catholic Church, a typical figure composed of seven equal segments of a circle, used to denote the number of the sacraments, gifts of the Holy Ghost, &c.

Sept-frères, (*set-frair'.*) ("Seven Brothers.") a group of small islands off the N. coast of the Island of Hayti, abt. 30 m. N.E. of Cape Haytien.

Sep'tic, *n.* A substance having the power of putrefying bodies.

Sep'tic, Sep'tical, *a.* [Fr. *septique,* from Gr. *septikos,* from *sepein,* to make putrid.] Having the property of promoting putrefaction.

Septicid'al, *a.* [Lat. *septum,* a partition, and *cædere,* to cut.] (*Bot.*) Denoting that mode of dehiscence in which the fruit is resolved into its component carpels, which split asunder through the dissepiments.

Septicity, (*tis'-*) *n.* Disposition to putrefaction.

Septifa'rious, *a.* [From Lat. *septifarium,* seven-fold.] Presenting seven different courses.

Septif'erous, *a.* [Lat. *septum,* partition, and *ferre,* to bear.] (*Bot.*) Producing septa.

Septifo'lious, *a.* [Lat. *septem,* and *folium,* leaf.] (*Bot.*) Seven-leaved.

Sep'tiform, *a.* Seven-formed.

Septifragal, *a.* [Lat. *septum,* a partition, and *frangere, fractum,* to break.] (*Bot.*) That mode of dehiscence in fruits in which the backs of the carpels separate from the dissepiments, whether formed by their sides or by expansion of the placenta.

Septilat'eral, *a.* [Lat. *septem,* seven, and *latus, lateris,* a side.] Seven-sided; as, a *septilateral* figure.

Septillion, (*sep-til'yun.*) *n.* [From Lat. *septem,* seven.] According to the English notation, the number expressed by a unit with 42 ciphers attached; according to the French notation, the number expressed by a unit with 24 ciphers attached.

Septisyl'lable, *n.* [Lat. *septem,* seven, and *syllabos,* syllable.] A word consisting of seven syllables.

Septuagena'rian, Septuagen'ary, *n.* A person seventy years of age.

Septuagenary, (*-aj'-*) *a.* [From Lat. *septuaginta,* seventy.] Consisting of seventy.

Septuagesima, (*-jes'-*) *n.* (*Eccl.*) The third Sunday before Lent, or Febore Quadrigesima Sunday, being about seventy days before Easter.

Septuages'imal, *a.* Comprising, or consisting of, seventy.

Septuagint, (*-jint.*) *n.* [Lat. *septuaginta.*] (*Script.*) A Greek version of the Old Testament, so called because it was said to be the work of seventy, or rather seventy-two, interpreters, about 280–270 B. C.

Sep'tuary, *a.* [From Lat. *septem,* seven.] Something composed of seven, as a week.

Sep'tulate, *a.* (*Bot.*) Having imperfect or spurious septa.

Sep'tum, *n.; pl.* SEPTA. [Lat. *septus,* part. of *sepio,* to fence in.] A partition separating two cavities; — specifically,

(*Bot.*) Any partition separating a body into two or more cells in a direction parallel with the longer axis, in distinction from partitions parallel with the shorter axis, called *phragmata.*

(*Anat.*) The plate or wall which separates from each other two adjoining cavities: as, the *septum narium.*

(*Conch.*) The partition of a chambered cell.

Sep'tuor, *n.* (*Mus.*) See SEPTET.

Sep'tuple, *n.* [Fr., from L. Lat. *septuplus.*] Sevenfold; seven times as much.

—*v. a.* (*imp.* and *pp.* SEPTUPLED.) To make sevenfold; to multiply by seven.

Sepulchre, (*sep'ul-kêr.*) *n.* [Fr. *sépulcre,* from Lat. *sepulchrum.*] A burial-place; a grave; a tomb; any place wherein the dead body of a human being is interred.

—*v. a.* To inter; to entomb; to bury; as, *sepulchred* with pomp.

Sepul'chral, *a.* Pertaining, or relating, to a sepulchre, or to burial, to the grave, or to monuments erected to the memory of the dead: as, a *sepulchral* urn, a *sepulchral* inscription. — Hence, deep; grave; hollow; as, a *sepulchral* voice.

Sepul'ga, a river of Alabama, rises in Butler co., and flows into the Conecuh river in Escambia co.

Sep'ulture, *n.* [Fr., from Lat. *sepultura,* from *sepelio.*] Burial; entombment; interment; act of depositing the

dead body of a human being in the grave; as, to administer the rites of *sepulture*.

Sequacious, (*se-kwā'shus,*) *a.* [Lat. *sequax, sequacis,* from *sequor,* to follow.] Having tendency or disposition to follow a leader; attendant; not moving on or acting independently; following; as, a *sequacious* herd.—Hence, ductile; pliant; malleable; manageable; as, *sequacious* metal. (R.)—Possessing or manifesting logical consecutiveness; logically consistent and consequential in development or transition of thought; as, *sequacious* thinking.

Sequa'ciousness, *n.* State or quality of being sequacious; tendency or disposition to follow or move after.

Sequacity, (*se-kwās'i-ty,*) *n.* [Lat. *sequascitas,* from *sequax.*] Sequaciousness; ductility; pliancy; tendency or inclination to follow.

Sequa'rious, *a.* Same as SEQUACIOUS, *q. v.*

Sequatchie, Sequatchee, or **Sequatchy,** (*se-kwat'chee,*) in *Tennessee,* a river which rises in Bledsoe co., and enters the Tennessee River at Jasper, Marion co., after a S.W. course of 100 m.

—A S.E. co.; *area,* 252 sq. m. It is traversed by the Sequatchie river. *Surface,* hilly; *soil,* generally fertile. *Cap.* Dunlap. *Pop.* (1897) 3,270.

Sequel (*sē'kwel*), *n.* [Fr. *s quelle;* Lat. *sequela,* from *sequor,* to follow.] That which follows; a succeeding part; continuation; as, the *sequel* of a novel.—That which results or is deducible; event; consequence; result; issue; as, the gallows will be the *sequel* of so criminal a career.—Consequentialness; logical sequence; inference of consequential action; as, a *sequel* to an argument.

Seque'la, *n.; pl.* SEQUELÆ, *n.* [Lat., a result, from *sequor,* to follow.] The person who, or thing which, follows; as, (1.) A follower, or a sect of followers.—(2.) That which follows as the logical result of a ratiocinative process; inference; conclusion; deduction; suggestion.—(3.) (*Med.*) The consequential effect of a disease.

Sequence, (*sē'kwens,*) *n.* [Fr., from L. Lat. *sequentia*—*sequens, sequor,* to follow.] State or quality of being sequent; order of following; succession.—That which follows, succeeds, or comes after; sequel; consequence.—Series; arrangement; method; as, the *sequence* of the seasons.

(*Games.*) A set of cards immediately following each other in the same suit; as, a *sequence* of trumps.

(*Mus.*) A similar succession of chords ascending or descending diatonically.

(*Eccl.*) In the Roman Catholic Church, a hymn introduced in the mass on certain festival days, and recited or sung immediately before the gospel, and after the introit, whence the name.

Sequent, (*sē'kwent,*) *a.* Following; succeeding; as, a *sequent* occurrence.—Consequential. (R.)

—*n.* A sequence; a sequel; a deduction; that which follows as a result or consequence. (R.)

Sequential, (*se-kwēn'shal,*) *a.* Following or succeeding in order.

Sequen'tially, *adv.* In succession; by following.

Seques'ter, *v. a.* [Fr. *séquestrer;* L. Lat. *sequestro,* from *sequor,* to follow.] To put apart; to separate from other things.—To deposit; to place, for safe-keeping, in the hands of a mediator or depository.

(*Civil Law.*) To take from parties in controversy, and put into the holding of an indifferent person; to separate from the owner for a time; to seize or take possession, as of some property that belongs to another, and hold it till the profits have paid the demand for which it is taken; to take from parties in dispute, and put into the possession of a third and disinterested person; as, to *sequester* an estate for the benefit of creditors.

To sequester one's self, to withdraw, retire, or seclude one's self for the sake of privacy or solitude; to hold one's self aloof from society; as, he has *sequestered himself* from public life.

—*v. n.* (*Law.*) To renounce, as a widow, any interference with her late husband's estate.

—*n.* (*Law.*) One who mediates between two parties; a mediator; an arbitrator; an umpire or referee.

Sequestrable, *a.* That may be sequestered; liable to separation or sequestration.

Seques'trate, *v. a.* Same as SEQUESTER, *q. v.*

Sequestration, (*sēk-wes-trā'shun,*) *n.* [Fr., from L. Lat. *sequestratio,* from Lat. *sequester.*] State of being sequestered, separated, or set aside; separation; seclusion or retirement from society.

(*Civ. and Com. Law.*) The separation or setting aside of a thing in controversy from the possession of both the parties who contend for it, to be finally awarded to the one adjudged to be entitled to it.—In chancery practice, a process for enforcing the decrees or orders of the court by seizure of the property of a person guilty of disobeying them.—(*International Law.*) The seizure of the property of an individual for the use of the state:—particularly applied to the seizure and appropriation, by a belligereut power, of debts due from its subjects to the enemy.

Seq'uestrator, *n.* One to whom the safe-keeping of sequestered property is committed.

Seques'trum, *n.* [Lat.] (*Surg.*) A piece of dead bone:—so styled because of its becoming separated from the sound portion.

Sequin, CHEQUIN, ZECQUIN, (*sē'kwin.*) *n.* [Fr.; It. *zecchino,* from *zecca,* a mint.] A gold coin formerly current in Italy and Turkey, varying in value from $1.81 to about $2.31.

Sequoi'a, *n.* (*Bot.*) A genus of trees, order *Pinaceæ,* belonging to N.W. America, and consisting of two species only. *S. sempervirens,* the Redwood of the timber trade, extends from Upper California to Nootka Sound. It attains gigantic dimensions, being frequently more than 300 feet high. *S. gigantea,* the Big, or Mammoth tree (Fig. 2339), was at first thought to be confined to a single spot, the so-called Mammoth Grove of Calaveras in the State of California; but it has since been found in the Mariposa and Frezno groves, and in various other parts of the Sierra Nevada, though nowhere attaining such a height as in the spot where it was first discovered, in June, 1850, by an American hunting-party. The tallest tree of the Mammoth Grove, stripped of its bark for the purpose of being exhibited, was 327 feet high, and at the base was 90 feet in circumference. The greatest dimensions seem to have been attained by a tree which was found broken at a height of 300 feet, and which measured at that place 18 feet in diameter. Considering that it was 112 feet in circumference at the base, and tapered regularly to the point where broken, it is calculated to have been, when in the fulness of its growth, 450 feet high. It was at first thought that these trees might be 3,000 years old; but some botanists, by actual counting of the concentric rings, have been led to think that that estimate must be reduced to about 1,100 years.

Fig. 2339.—BIG, OR MAMMOTH, TREES, (*Sequoia gigantea.*)

Seraglio, (*se-rāl'yo,*) *n.* [Fr. *sérail;* Turk. *seraï,* a palace; Pers. *sēraï.*] The palace of the Grand-Seignior or Sultan of Turkey;—improperly applied to that part of the building which is occupied by the women of the imperial court. The principal gate of the Seraglio is the *Babi Humayun,* or "Sublime Porte," whence the ordinary designation of the Turkish government is derived.—Hence, a harem; a suite of apartments for the residence of wives, or odalisques [concubines].—Hence, also, by implication, a place of licentious debauchery; as, to maintain a *seraglio.*

Seraï, *n.* [Pers. *sēraï,* a palace, an inn.] In Tartary and other countries of W. and Central Asia, an inn; a caravansary; a hospice for travellers.

Seraing, (*se-rang',*) a town of Belgium, prov. of Liege, on the Meuse, 30 m. from Liege; *pop.* 5,000.

Seralbu'men, *n.* [From *serum,* and *albumen.*] (*Chem.*) The albumen of the blood.

Serampore, (*se-ram-por',*) a town of British India, presidency of Bengal, formerly a Danish settlement, on the Hooghly River, 12 m. N. of Calcutta.

Seraua'ui, a group of small islands in the Eastern Archipelago, 15 m. S. of Mindanao, between Lat. 5° and 6° N.

Serapé, (*sā-rā'pā.*) *n.* [Sp.] A sort of outer garment, resembling a poncho, worn by Hispaño-Americans, Mexicans, &c.

Seraph, (*ser'af.*) *n.;* Eng. *pl.* SERAPHS; Heb. *pl.* SERAPHIM. [Fr. *séraphin,* from Heb. *saraph,* to be eminent or noble.] An angel of the highest order surrounding the throne of God. The prophet Isaiah—vi. 2, 3—represents them as reverently adoring the triune God, and burning with zeal to fly and execute his will. Each one had six wings, with two of which he covered his face, with two his feet, and with the two others he flew. They cried to one another, and said, "Holy, holy, holy is the Lord of hosts; the whole earth is full of his glory!"—Hence, a being of celestial grace or loveliness.

Seraph'ic, Seraph'ical, *a.* [Fr. *séraphique.*] Pertaining, or having reference, to a seraph; becoming or befitting a seraph; angelic; pure; sublime; refined from grossness or sensuality; as, *seraphic* love, a *seraphic* countenance.—Glowing or imbued with love, zeal, or enthusiasm; as, *seraphic* fervor.

Seraph'ically, *adv.* In the manner of a seraph.

Seraph'icalness, Seraph'icism, (*-sizm,*) *n.* State, quality, or character of a seraph.

Ser'aphim, *n. pl.* (*Script.*) See SERAPH.

Ser'aphine, *n.* (*Mus.*) A keyed musical instrument in which the sounds were produced by the action of wind on free vibratory reeds. It was the precursor of the harmonium, (q. v.)

Sera'pis, *n.* [Lat. and Gr.] (*Egypt. Myth.*) A deity (Fig. 2340) supposed to be the same as Osiris. There was a magnificent temple erected in his honor at Memphis, another at Alexandria, and a third at Canopus. The worship of Serapis was introduced at Rome by the Emperor Antoninus Pius, A.D. 146; but, on account of its licentiousness, it was soon abolished.

Fig. 2340. SERAPIS. (From a Seal in the Brit. Museum.)

Seraskier, (*se-ras'kēēr,*) *n.* [Pers. *serasker,* head, chief.] The title given to commanders-in-chief of the Turkish armies.

Serb, *n.* A native of Servia.

Sere, *a.* (See SEAR.) Dry; withered; sear; no longer green; as, in the *sere* and yellow leaf.

Sere'na, in *Illinois,* a post-township of La Salle county.

Serenade, (*sĕr'e-nād',*) *n.* [Fr., from It. *serenata,* fine weather at night, from Lat. *serenus,* clear, fair, bright.] (*Mus.*) Music performed in the open air on a clear or serene night;—usually applied to a musical concert given in the night, especially by gentlemen in a spirit of gallantry, under the windows of ladies. This practice was formerly very general in Spain and Italy, but has latterly fallen greatly into desuetude in those countries; however, it is still very common in the German university towns, where the students are in the habit of assembling in the evening under the windows of a favorite professor, and offering him a musical ovation. It is also practised to a considerable extent in some of the cities of the U. States, as a tribute of esteem tendered to some public or notable individual.—Also, a song composed for such, or the like occasions.

—*v. a.* To entertain with nocturnal music; as, to *serenade* a prima-donna.

—*v. n.* To perform a serenade or concert of nocturnal music.

Serena'ta, Ser'enate, *n.* (*Mus.*) A serenade.

Serene, (*se-rēēn',*) *a.* [Fr. *serein;* Lat. *serenus.*] Clear; fair; bright; cloudless; calm; still; as, *serene* weather.—Calm; tranquil; undisturbed; placid; unruffled; as, a *serene* temper, a *serene* demeanor.

Serene highness, a title of courtesy applied to certain European princes, immediately below the rank of *grand-duke,* and *reigning duke.*

—*n.* Serenity; placidity; tranquillity; calmness; quietude;—used poetically. (R.)

—*v. a.* [It. and Lat. *serenare.*] To render clear and calm; to appease; to quiet; to tranquillize.—To clear; to make bright or pellucid.

Serene'ly, *adv.* In a serene manner; tranquilly; calmly; quietly.—With equanimity or unruffled temper; coolly; composedly; as, "*serenely* pleasant, calmly fair."—*Prior.*

Serene'ness, *n.* State or quality of being serene; serenity.

Sereni'ty, *n.* [Fr. *sérénité;* Lat. *serenitas,* from *serenus.*] State, condition, or quality of being serene; clearness and calmness; quietness; stillness; peace; absence of agitation, cloudiness, or disturbance; as *serenity* prevailed throughout the country.—Calmness or composure of mind; evenness of temper; undisturbed state of the feelings or passions; quietude; coolness; as, he met his fate with *serenity.*

Sere'no, in *Pennsylvania,* a post-village of Columbia co., 14 m. E.N.E. of Danville.

Serep'ta, in *New Jersey,* a post-village of Warren co.; 6 m. N.E. of Belvidere.

Se'res, or **Sirus,** a fortified town of European Turkey, in Roumelia, on Lake Takinos, 45 m. N.E. of Salonica. It contains numerous handsome mosques and public fountains. *Manuf.* Linens and cottons. *Pop.* 25,000.

Se'reth, a river of European Turkey, rising in Austrian Galicia, 42 m. S. of Tchernowitz, and, after a S. course of 300 m., flowing into the Danube, 5 m. W. of Galatz.

Sereth, a town of Austria, in Galicia, on the Sereth, N.W. of Jassy; *pop.* 4,000.

Serf, *n.* [Fr., from Lat. *servus.*] In some countries, especially until of late years in Russia, a slave or bondman attached to the soil, and transferred with it; a helot. See RUSSIA.

Serfage, Serfdom, *n.* State or condition of serfs; bondage.

Serge, (*sĕrj,*) *n.* [Fr.; It. *sargia.*] A kind of twilled cloth, commonly made of wool, but sometimes of silk.

(*Eccl.*) In the Roman Catholic Church, a large candle used in ceremonies, sometimes painted with letters and devices, and frequently weighing many pounds.

Sergeancy, (*sar'jen-se,*) *n.* Same as SERGEANTSHIP, *q. v.*

Sergeant, (*sar'jent,*) *n.* [Fr. *sergent,* from Lat. *servions, servientio*—*servio,* to serve.] (*Mil.*) A non-commissioned officer who instructs recruits in discipline, forms the ranks, &c.—A sergeant is of higher rank than a *corporal,* and next below a *sergeant-major.*

(*Eng. Law.*) See SERJEANT, the more usual orthography.

Ser'geant, or **Sar'geant,** in *Minnesota,* a former township of Rice co.

Sergeant, in *Pennsylvania,* a township of M'Kean co.

Ser'geantcy, *n.* Same as SERGEANTSHIP, *q. v.*

Ser'geant-major, *n.* (*Mil.*) The chief non-commissioned officer in a regiment, who assists the adjutant, &c.

Ser'geantship, *n.* Rank, office, or condition of a sergeant.

Sergipe', a river of Brazil, prov. of Sergipe, flows E., entering the Vaza Barris 8 m. from its mouth.

Sergipe, or SERGIPE-DEL-REY, (*ser-zhee-pa',*) a marit. prov. of Brazil, bordering on the Atlantic, and extending from Lat. 10° 30′ to 11° 32′ S.; *area,* 31,918 sq. m. *Rivers.* São Francisco, Vaza Barris, Sergipe, and Cotindiba. *Surface,* mountainous, except along the coast; *soil,* fertile in the valleys and lowlands. *Prod.* Cotton, sugar, manioc, tobacco, rice, and flax. *Cap.* São Christovão or Sergipe. *Pop.* abt. 205,000.

Sergius I. (*-je'us,*) Pope, B. in Syria, a.t 630, succeeded Conova in 687. He opposed the canons of the Council of Constantinople, whereupon Justinian II. sent his general-in-chief to arrest Sergius; but the exarch of Ravenna protected the Pope, who humanely interposed to save the life of Justinian's envoy. He instituted several ceremonies and established various churches at Rome. D. at Rome, 701.

SERGIUS II., was a native of Rome, and succeeded Gregory IV. in 844. He was elected without the authorization of the Emperor Lothaire, who dispatched an army into Italy, under the command of his son Louis. But the

Pope succeeded in inducing that prince to retire, after having crowned him King of Italy. Shortly afterwards, the Saracens from Africa ascended the Tiber, and ravaged the environs of Rome, but were prevented from gaining an entrance into the city itself, in consequence of the defence offered by the walls which surrounded it. D. 847.

Sergius III., became Pope in 904, through the influence of the Marquis of Tuscany and of the notorious Roman lady, Marozia. These personages were at the head of a powerful party which had deposed Christopher. A son of Sergius, by Marozia, afterwards became Pope by the title of John X. The character of this pontiff has been variously represented. Sergius D. 911.

Sergius IV., was elected Pope, in succession to John XVIII., in 1009. Under his rule, and in consequence of his exhortation, the Italian princes combined to drive out the Saracens from the country. In his time, also, the Normans began to enter Italy. D. 1012.

Se'rial, *a.* Pertaining or relating to, or consisting of, a series; as, a *serial* publication or magazine.

(*Bot.*) In rows, or belonging to, or consisting of, rows.

—*n.* A literary publication appearing in a series of numbers or parts; also, a tale, or other literary composition, published in successive numbers of a periodical.

Se'rially, *adv.* In a serial order or manner; by series or succession; as, the work is published *serially*.

Se'riate, *a.* Pertaining or relating to, or constituting, a series or succession; arranged in a series.

Se'riately, *adv.* In a regular sequence or series; consecutively.

Seri'atim, *adv.* [Lat.] In regular order or series.

Sericeous, *(se-rish'us,) a.* [Lat. *sericeus*, from *sericum*, silk.] Pertaining, or having reference, to silk; consisting of silk; silken; silky; as, *sericeous* filaments.

(*Bot.*) Presenting a superficies of soft, silky hairs, lying close to the base: as, a *sericeous* leaf.

Sericulture, *(sĕr'i-kŭl'tyur,) n.* [Lat. *Seres*, the Chinese, and *cultura*, culture.] The rearing or culture of silk-worms.

Serido, *(se-ree'do,)* a river of Brazil, rises in the prov. of Parahyba, and falls into the Piranhas, 30 m. E. of Villa Nova do Principe after a N.E. course of 150 m.

Series, *(sē'rēz,) n. sing.* and *pl.* [Lat.] A continued or connected succession of things in the same order, and bearing the same relation to each other; a sequence: order: course; a line, link, or row of things in order of succession; as, a *series* of triumphs, a *series* of calamities.

(*Math.*) A number of arithmetical or algebraic terms in succession, increasing or diminishing according to a certain law. Series derive their names from the laws which govern the formation of their respective terms. Thus, an *arithmetical series* is one whose consecutive terms have a common difference; a *harmonic series* one of which every three successive terms are in a harmonic proportion. A *geometric series* is one every term of which has a constant ratio to the preceding one; it belongs to the family of *recurring* series, in which each term is a constant function of one or more preceding terms.

(*Chem.*) The first chemist who arranged organic substances in series whose members differed by equal increments or decrements of carbon, hydrogen, or oxygen, was Dr James Schiel, of St. Louis, in the U. S., although the credit of having originated this important method of classifying organic compound is generally given to Gerhardt. It would be impossible to give a list of all the series which have been established of late years in organic chemistry: the most important of them will be found under Homologous Series and Isologous Series.

Ser'in, *n.* (*Zoöl.*) The Fr. name for the Canary-bird, *q. v.*

Seringapur'. See Cashmere.

Seringapatam', ("city of Vishnu,") a decayed town and fortress of British India, S. of the river Krishna, formerly cap. of Mysore; Lat. 12° 25' N., Lon. 76° 45' E. It is situated on an island in the Cavery, 4 m. long and 1½ broad, 250 m. W.S.W. of Madras. It was stormed by the British in 1799, on which occasion Tippoo-Saib and most of the garrison were killed.

Serino, *(sai-ree'no,)* a town of S. Italy, prov. of Principato-Ulteriore, on the Sabato, 6 m. S.S.E. of Avellino; *pop.* 8,000.

Serio-com'ic, Serio-com'ical, *a.* Possessing an admixture of seriousness and comicality; partaking both of jest and earnest; as, a *serio-comic* poem.

Se'rious, *a.* [Fr. *sérieux*, from Lat. *serius*.] Grave; solemn; sedate; thoughtful; earnest; characterized by gravity of manner or disposition; not light, giddy, gay, or volatile: as, a *serious* person.—Being in earnest; really intending what is expressed or implied; not jesting or assuming falsely or pretentiously; as, to take a *serious* view of a question.—Of weight or importance; momentous; onerous: weighty; grave; not irrelevant, trifling, or inconsequential; as, this is really a *serious* matter.—Hence, fraught with risk or apprehension; implying danger; as, it may prove a *serious* drawback to our success.

Se'riously, *adv.* In a serious manner; gravely; solemnly; in earnest; in an important degree; momentously; without frivolity, levity, or volatility; as, do you *seriously* mean it?

Se'riousness, *n.* State, quality, or condition of being serious; gravity of manner or of mind; absence of trifling, levity, or frivolity; earnest attention, particularly to religious concerns; as, "that spirit of religion and *seriousness* vanished all at once."—*Atterbury.*

Serjeant, *(sar'jent,) n.* [See Sergeant.] (*Eng. Law.*) A barrister of the highest rank as a special pleader.

King's or *Queen's Serjeant*, one or more of the serjeants-at-law, whose presumed duty is to plead for the Crown in causes of a public nature, as indictments for high treason, &c.; — the title is now merely *honorary*.

Serjeant-at-arms, in certain legislative assemblies, a functionary who carries into effect the commands of the body, in the preservation of order and the punishment of offenders.

Serjeant-surgeon, in England, a servant-surgeon, or chief surgeon to the sovereign.

(*Mil.*) See Sergeant, the more correct orthography.

Sermide, *(sar-me'dai,)* a town of N. Italy, prov. of Mantua, on the Po, 9 m. E.S.E. of Revere; *pop.* 5,000.

Ser'mon, *n.* [Fr.; Lat. *sermo*, from *sero*, to join or connect.] A discourse delivered in public by a clergyman for the purpose of imparting religious instruction: a written religious discourse or exordium; as, to preach a *sermon*. (See Preaching.)—Hence, colloquially, a serious exhortation; a set address or exordium on one's deportment or duty;—generally used in a deprecatory sense; as, a certain lecture is a wife's *sermon*.

—*v. a.* To tutor; to lesson; to teach dogmatically.

Sermon'ic, Sermon'ical, *a.* Grave and didactic, and, generally, dogmatic; resembling, or partaking of, the character of a sermon; as, *sermonic* dissertations.

Ser'monish, *a.* Like, or partaking of the quality of, a sermon.

Ser'monist, Ser'monizer, *n.* One who writes or delivers sermons; a preacher; an expounder of scriptural doctrines or moral precepts.

Ser'monize, *v. a.* To affect or influence by means of a sermon or religious discourse; as, to *sermonize* a person asleep.

—*v. n.* To make, compose, or write a sermon, or sermons; to preach a sermon.—To inculcate rigid rules of moral or social propriety; as, a *sermonizing* preceptor.

Seron', Seroon', *n.* [Fr. *serron*; Sp. *seron*.] A package made of raw hide, for packing drugs and other articles; as, a *seron* of indigo.

(*Com.*) A weight varying with the substance to which it is applied; thus, a *seron* of almonds is a quantity of abt. 87½ lbs.; of anise-seed, from 3 to 4 cwt; of Castile soap, from 200½ to 300¾ lbs.—Also, an African weight of 85·55 grains.

Serosity, *n.* [Fr. *serosité*.] (*Physiol.*) The liquid which exudes from the serum of the blood when it is coagulated by heat. It is water holding some of the salts of the blood and a trace of albumen in solution.

Se'rous, *a.* [Fr. *séreux*. See Serum.] Thin; watery; resembling whey;—said of that part of the blood which, in coagulation, separates from the grumous or red part.—Pertaining, or relating, to serum, a watery fluid secreted into the *serous cavities*. See Membrane.

Serous membrane. (*Anat.*) See Membrane.

Ser'pa, a fortified town of Portugal, prov. of Alentejo, on the Guadiana, 17 m. E.S.E. of Beja: *pop.* 6,000.

Ser'pent, *n.* [Fr.; Lat. *serpens*, creeping.] (*Zoöl.*) An Ophidian. See Serpents.

—Metaphorically, a subtle or malicious person, or one who is guilty of baseness or treachery.

(*Pyrotechny.*) A kind of firework, which passes through the air with a serpentine motion, and makes a sort of sibilant noise.

(*Astron.*) There are no less than four kinds of serpents placed among the constellations. The first is *Hydra*, which is situated S. of the Zodiac, below Cancer, Leo, and Virgo; the second is *Hydrus*, which is situated near the S. Pole; the third is *Draco*, which is situated about the N. Pole; and the fourth is the serpent called *Serpens Ophiuchi*, situated chiefly between Libra and Corona Borealis.

(*Mus.*) A musical brass wind-instrument, formed like a serpent, serving as bass to the horns or cornets. It is most generally covered with leather, and has three parts; a *mouthpiece*, *neck*, and *tail*. The compass is two octaves, produced with six holes stopped by the fingers. This instrument is rarely employed in modern orchestras, but is chiefly used for accompanying Gregorian music in Roman Catholic churches.

—*a.* Serpent like: pertaining to, or resembling, a serpent; as, "*serpent* mazes of deceit."—*Pope.*

—*v. n.* To coil, wind, or meander like a serpent, as a river. (R.)

Serpenta'ria, *n.* [Fr. *serpentaire*.] (*Bot.*) See Aristolochia.

Serpenta'ria, an islet of the Mediterranean, off the S.E. coast of Sardinia.

Serpenta'rius, or **Ophiuchus,** *n.* (*Astron.*) One of the ancient constellations represented on the globe by the figure of a man grasping a serpent in his hand. It occupies a considerable space in the mid-heaven, directly south of Hercules, and west of Taurus Poniatowski. Its centre is very nearly over the equator, opposite to Orion, and comes to the meridian on the 26th of July. It contains seventy-four stars, including one of the 2d magnitude, five of the 3d, and ten of the 4th.

Ser'pent-eater, *n.* (*Zoöl.*) See Secretary-bird.

Serpent'iform, *a.* [Lat. *serpens*, serpent, and *forma*, form.] Possessing, or presenting, the form of a serpent.

Serpentigenous, *(-tij'e-nus,) a.* [From Lat. *serpens*, and *genere*, *gignere*, to procreate.] Serpent-bred; begotten of a serpent.

Ser'pentine, *a.* [Fr. *serpentin*, from Lat. *serpentinus*.] Resembling, or pertaining to, a serpent; winding in various circumvolutions like a moving serpent; twisted like a serpent; having the color or properties of a serpent; spiral; meandering; tortuous; anfractuous; as, a *serpentine* motion, *serpentine* mazes.

S. tongue. (*Far.*) A horse's tongue, when constantly in motion under or over the bit, after the manner of a serpent.—*S. verse.* (*Poet.*) A verse which begins and terminates with the same word.

—A meandering or winding stream, or sheet of lake water.

Ser'pentine, *n.* (*Ord.*) A cannon of the 15th and 16th centuries, somewhat larger than the culverin.

(*Min.*) A hydrated silicate of magnesia, found in compact masses, tinged with black, red, and green spots. It takes a high polish, and is coming into very general use for ornamental purposes. It is found chiefly in Cornwall, England, where there are several extensively-worked mines. It takes its name from the resemblance it bears to the skin of certain serpents.

—*v. n.* To serpentize; to move in the manner of a serpent.

Ser'pentinely, *adv.* In a winding, meandering, or serpentine manner.

Serpentinous, *a.* Pertaining or relating to, or resembling serpents in character.

Ser'pentize, *v. a.* To turn or wind, like a serpent, in a tortuous or anfractuous manner; to meander, as a river.

Ser'pent River, in British America, flows W.S.W., entering the N. channel of Lake Huron, 30 m. W. of La Cloche.

Ser'pentry, *n.* A winding or twisting, after the manner of a serpent.

—A place infested or haunted by serpents.

Ser'pents, *n. pl.* (*Zoöl.*) The common name applied by Cuvier to the *Ophidians*, or *Ophidia*, and comprising in his classification the third order of reptiles. The general form of a *S.* consists of a head, a body, and a tail, in one lengthened bone, without any extremities, though there are sometimes membranes to the head or neck, which admit of being inflated at the pleasure of the animal. The skeleton is simple in them, consisting chiefly of the skull, the spinal column and the bones of the head. The skull is small, and the brain is also small, and very imperfectly developed, a fact which renders naturalists averse to the idea that the *S.* is a good emblem of cunning or wisdom. The mouth is, in every case, merely a prehensile instrument, and not a killing, or even wounding, one; for, although the stroke of the poison-fang of a *S.* is often of the most deadly character, it is only so through the poison which it discharges. The teeth of *S.* are adapted for piercing and holding, but not for dividing or bruising; and, consequently, the animals belonging to this order swallow their prey whole; the jaws of *S.* being united by ligaments, a conformation which gives them the power of dilating their jaws to such an extent as to swallow bodies larger than themselves. *S.* are divided into *venomous* and *non-venomous*; and the former are divided again into venomous with many maxillary teeth, and venomous with isolated fangs. The venomous *S.* with isolated fangs present a very peculiar structure in their organs of mastication (Fig. 2341). Their superior maxillary bones are very small, carried on a long pedicle, analogous to the external pterygoid apophysis of the spheroid bone, and very movable. Here are fixed two pointed teeth, pierced with a small canal, which give issue to a liquor secreted by a considerable gland situated under the eye. It is this liquor which, when shed into the wound made by the bite of the serpent, produces effects more or less fatal, according to the species which has inflicted the wound. The fangs are concealed in a fold of the gum when the *S.* does not wish to use them; and there are behind it many germs, destined to fix themselves in their turn, in order to replace them if they should be broken in the wound they make. In the non-venomous, the branches of the upper jaw are furnished throughout their length, as well as those of the lower jaw and the palatine branches, with fixed teeth, which are not pierced. There are, therefore, four nearly equal rows of these teeth in the upper part of the mouth, and two in the lower. All the venomous species bring forth their young alive, in consequence of the egg being hatched internally before it is laid; whence their general name of *vipers*, a contraction of *viripares*. The venomous *S.*, with many maxillary teeth, have the jaws organized and armed nearly as in the innoxious; but the species have the first of their maxillary teeth greater than the others, and pierced so as to conduct the venom in the same manner as is effected in the venomous serpents with isolated fangs. The *S.*, with one exception (the *Deirodon*, which feeds on the eggs of birds), subsist on living prey, and, whether venomous or non-venomous, have their teeth, as might be expected, admirably constructed and arranged for the purpose of securing their prey and assisting in deglutition. The trachea of the *S.* is quite long; their heart situated very far backward; and the greater number have only one lengthy lung, with the vestige of a second. The tongue has great powers of mobility and extension, and terminates in two cartilaginous points. The skin in different genera is annulated, coriaceous, or granulated, or most frequently covered with scales. The powers of digestion are so slow, that one meal, in many cases, serves for weeks, or even for months. The structure of the vertebral column of the *S.* is different from that of any other animal; the most perfect specimens being found in the great crushing *S.*, which kill their prey by compressing it in their folds, and are so constructed as to give them the fullest latitude of action. The shell of the egg in the

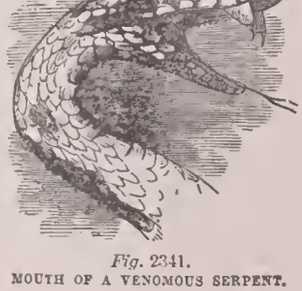


Fig. 2341.
MOUTH OF A VENOMOUS SERPENT.

oviparous *S.* is soft, like the eggs of the common hen when she has not enough calcareous aliment: are often more than thirty in number, and are connected by a sort of viscous matter, which coagulates and joins them in a kind of chain. The surface of the brain of *S.* is nearly smooth, and without sinuosities or circumvolutions. Their organs of touch, taste, smell, and hearing appear to be dull, if not defective, while that of sight is sufficiently acute. *S.* can creep, glide, grasp, suspend themselves, erect themselves, leap, dart, bound, swim, and dive. Cold latitudes do not agree with them; it is in warm climates that their numbers, their venom, and their volume, attain their maximum.

Ser'pents, (Isle of,) in the Black Sea, opposite the mouths of the Danube.

Ser'pent's Tongue, *n.* (*Bot.*) The Adder's Tongue. See OPHIOGLOSSACEÆ.

Serphanto, or **Ser'pho,** (*sair-fan'to.*) an island of the Grecian Archipelago, 20 m. W. of Syra; Lat. 37° 10′ N., Lon. 24° 30′ E. *Area*, 20 sq. m. *Pop.* 600.

Serpiginous, (*-pij'-,*) *a.* [Fr. *serpigineux.*] (*Med.*) Affected with ringworm.

Ser'polet, *n.* (*Bot.*) The Wild Thyme.

Serpookhov, or **Serpuchov,** (*ser-poo-kov'.*) a town of European Russia, government of Moscow, on the Oka, 60 m. S.S.W. of Moscow. *Manuf.* Woollen, linen, and cotton fabrics.

Ser'pula, *n; pl.* SERPULADÆ. (*Zoöl.*) A genus and family of *Annelidæ*, whose organs of respiration are in tufts attached to the head and anterior part of the body. In most cases, they live in tubes, and hence are often called *Tubicolæ*. In some the tubes are calcareous, in others horny, the result of transudation; others, still, are formed of grains of sand, or other particles, bound together by a membrane, also transuded. The genus *S.* has the anterior portion spread out in the form of a disc armed on each side with bundles of coarse hairs, and on each side of the mouth is a tuft of branchiæ shaped like a fan, and generally tinged with bright colors (Fig. 134 and 2342). At the base of each tuft is a

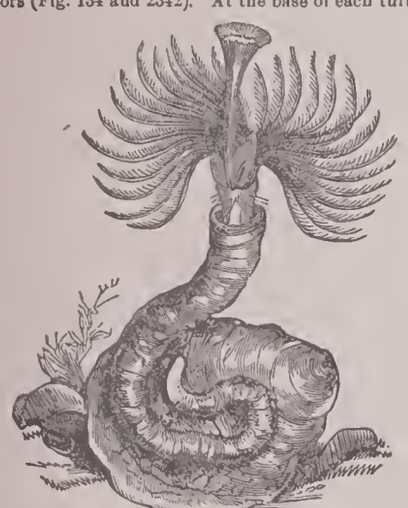


Fig. 2342.—SERPULA CONTORTRYLICATA.

fleshy filament, one of which is ever elongated, and expanded at its extremity into a disc, which serves as an operculum, and seals up the opening to the tube, when the animal is withdrawn into it. The calcareous tubes of the *Serpulæ* cover submarine bodies.

Ser'pulite, *n.* (*Pal.*) A petrified fossil of the genus *Serpula*.

Serra'na, and **Serranil'la,** two small islands in the Caribbean Sea, bet. Lat. 14° and 16° N., Lon. 80° W.

Ser'rate, Ser'rated, *a.* (*Bot.*) See LEAF.

Ser'rature, *n.* [Lat. *serratura*, a sawing.] A notching cut in the edge of anything, after the manner of those between the teeth of a saw; as, the *serratures* of a leaf.

Serre, (*sair.*) a river of France, dept. of Ardennes, which, after a W. course of 50 m., joins the Oise near La Fère.

Serrito, or JAGUARAO, (*ser-ree'to,*) a town of Brazil, 75 m. S.W. of Rio Grande; *pop.* abt. 4,000.

Ser'ro Fri'o, or VILLA DE PRINCIPE, a town of Brazil, 130 m. N.N.E. of Ouro-Preto; *pop.* abt. 5,000.

Ser'rulate, Ser'rulated, *a.* (*Bot.*) See LEAF.

Serrula'tion, *n.* State or condition of having minute notches, like a fine saw.

Serto'rius, QUINTUS, a distinguished Roman general, was a native of Nursia, in the country of the Sabines. He served under Marius in the Cimbric war, afterwards in Spain, and was made quæstor, B. C. 91. He joined the party of Marius in the Civil War, and commanded the Cisma at the siege of Rome, B. C. 87; but was indignant at the atrocious proscription which followed. The license and cruelty of the slaves especially excited his disgust, and he fell on them and slew several thousand. Appointed prætor in 83, he went soon after to Spain, where his courage and skill as a soldier were well known. He had, however, to retire before the forces of Sulla, and went to Africa; but on the invitation of the Lusitanians, returned and put himself at their head to fight for independence. His progress was rapid; he made himself master of the greater part of Spain, established a senate, founded a school at Osca for the education of young Spaniards in Greek and Roman learning, and to increase the superstitious reverence of the people for his person, gave out that he had communications with the gods through the white fawn which always accompanied him. Metellus Pius was sent against him in 79, but could effect nothing; two years later Pompey joined Metellus, but *S.*, reinforced by Perperna, held out against both till 72. He entered into negotiations with Mithridates, which caused fresh alarm at Rome. But his influence and popularity were shaken by his despotic acts, and especially by the massacre of all the scholars at Osca; and he was assassinated by Perperna, his ally, at a banquet, B. C. 72.

Se'rum, *n.* [Lat.] (*Anat.* and *Med.*) The watery part of the blood, which separates from and floats around the clot, or *crassamentum*, when the blood is drawn from the body. When, by a diseased action, *S.* is poured out in the brain, it produces *serous* apoplexy; when effused into the chest, *hydrothorax;* and into the abdomen, *ascites*, or dropsy.

Serum of milk, the whey, or serous fluid which remains after the removal of the caseine and butter.

Seruys', in *Illinois*, a village of Lake co., abt. 35 m. N. W. of Chicago.

Serv'able, *a.* That may be served.—Susceptible of being preserved.

Ser'val, *n.* (*Zoöl.*) The *Felis serval*, a fierce and rapacious animal, native of India and Thibet. It resides principally among trees; leaping with great agility from one to another, and pursuing birds. It resembles the panther in its spots, but the lynx in its size, the robustness of its make, and the shortness of its tail.

Servan, (St.,) (*sair'va,*) a seaport-town of France, dept. of Ille-et-Vilaine, at the mouth of the Rance, 1 m. S. of St. Malo; *pop.* 12,709.

Serv'ant, *n.* [Fr., from *servir*—Lat. *servus*, a slave.] One who serves; especially, a domestic or menial; a person who attends another for the purpose of performing menial offices for him, or who is employed by another for such offices, or for other labor, and is subject to his command; an employé; a subordinate assistant or helper; as, to hire or engage a *servant*. (This word is most generally employed in the sense of a *domestic help* or *menial.*)—One in a state of subjection to another; a drudge.—Hence, a person of low, mean condition, or base, ignoble spirit.

Servant of servants, one reduced to the lowest degree of servitude.—*Your servant, your humble servant, your obedient servant*, phrases of formal civility or courtesy, used, for the most part, in epistolary correspondence, and generally meaning nothing.

Ser'vant-girl, Ser'vant-maid, *n.* A female help or domestic: a maid-servant.

Ser'vant-man, *n.; pl.* SERVANT-MEN. A male menial or domestic; a man-servant; a body-servant.

Ser'vantry, *n.* A body of servants taken in the collective sense.

Serve, *v. a.* [Fr. *servir;* Lat. *servire*, from *servus*, a slave.] To work for and obey; to bestow the labor of body and mind in the employment of; to minister to; to subserve; to perform official duties to; to attend at the command of; to wait on; to help; to aid; to assist: to perform duties in the employment of, or required in; also, specifically, to render spiritual obedience and worship to.—To yield obedience to servilely or meanly; to be subservient or subordinate to; to act or appear as the inferior of.—To supply with food; to attend at meals; to wait upon in the service of the table; as, to *serve* one's guests.—Hence, to produce, arrange, deal, or distribute, as a portion of anything, especially of dressed food;—usually before *up* or *out;* as, to *serve up* dinner, to *serve out* provisions.—To perform duties in the service of; to give assistance to by good offices; to do the duties required in or for; as, to *serve* one's country in time of war.—To be of use to; to benefit; to contribute or conduce to; to advance; to further; to promote; to be sufficient for; to satisfy; to content; as, a small sum will *serve* for present needs.—To be in the place of anything to one; to do duty for; to answer as substitute for; as, this will *serve* my purpose as well as another.—To treat; to act toward; to requite; to conduct one's self to; as, he *served* me well.

To serve an attachment. (*Law.*) To levy a writ of attachment on the person or goods of, by seizure or replevin.—*To serve an execution*, to levy an execution on lands, goods, or person, by taking forcible possession.—*To serve a process* or *writ*, to read it in person before the party concerned, so as to give him due notice, or to leave an attested copy with him, or his solicitor, or at his usual place of address.—*To serve a warrant*, to read such document to, and thereupon seize the person against whose body it is issued.—*To serve an office*, to discharge a public function; as, to *serve* as mayor two years in succession.—*To serve a rope.* (*Naut.*) To wind, as service-leather, &c., round it, as a preventive against friction.—*To serve one out*, to retaliate upon; to requite; to give tit for tat for; as, I will *serve him out* one of these days.—*To serve one's self of*, to avail one's self; to make use of; to cause to subserve;—a Gallicism; as, "they would *serve themselves of* this form." (*Taylor.*)—*To serve the time*, to act as a time-server; to be guided by the requirements of the moment, rather than by one's duty; to comply with, as a matter of expediency.

—*v. n.* To be a servant, bondman, or slave; to be employed in labor or other business for another: to be in subservience or subjection to.—To wait upon: to attend; to perform menial or domestic offices to another; to act as servant to; as, some people require constant *serving.*—To perform duties, as in the military or naval, or any civil service or office; to discharge the requirements demanded by any official position or employment:—specifically, to act as a soldier, seaman, &c.; as, many gentlemen of fortune *served* as volunteers in the ranks.—To answer; to accomplish an end; to be of use; to suit; to conduce; as, when opportunity *serves* I shall be glad to see you.—To officiate or minister; to do the honors of, as, he *served* as chairman at the dinner.

Serv'er, *n.* One who serves.—That which serves; a salver, waiter, or plate for carrying things upon.

Ser'via, (anc. *Mœsia-Superior*), a kingdom of eastern Europe, between Lat. 42° 21′ and 45° N., Lon. 19° 10′ and 22° 45′ E., having N. the Danube, which separates it from Hungary. E. Wallachia and Bulgaria, S. Roumelia and Bosnia, and W. Bosnia; *area*, 20,850 sq. m. The surface is generally mountainous and well-wooded, with numerous fertile tracts. *Rivers.* Danube, Save, Morava, and Drina. *Prod.* Wheat, barley, oats, rice, hemp, flax, and tobacco. *Min.* Iron and salt. *Manuf.* Woollen, cotton, and hardware. *Chief towns.* Belgrade, the cap., Semendria, Ni-sa, Jogodina, Kragajewaez, and Poschega. The inhabitants nearly all belong to the Greek Church. They are distinguished for their vigor of frame, their personal valor, love of freedom, and glowing poetical spirit. Their manners and mode of life are exceedingly picturesque, and strongly prepossess a stranger in their favor. They rank among the most gifted and promising members of the Slavic family. The Servian language, or *Serb*, called also the Illyrian, belongs to one of the four great divisions of the Slavic family, and is more nearly allied to Russian than to Polish or Bohemian. It is distinguished from the other members of its division by the predominance of vowels, and consequently by its soft, melodious resonance. This character it owes in part to the influence of the Italian and Greek languages—the former influence being the result of commercial intercourse; the latter, of community of religious belief.—*Hist.* The *Servi*, or *Serbs*, a tribe of Slavonians, received some land south of the Danube from the Emperor Leo VI. in the 10th century. The Greeks failed in an attempt to reduce Servia under their control in the 11th cent. Pope Honorius III. erected Servia into an independent kingdom in 1217. The Servians, Hungarians, and other Christian nations, were defeated in the plain of Kossova in Sept., 1389, by the Turks, who, in the next century, reduced the whole country under their sway; and it remained a province of the Ottoman empire with but slight interruption until 1717. Austria conquered part of Servia in 1718, but had to resign it in 1730. In 1789 Marshal Laudohn took again Belgrade, which was restored to the Sultan in 1791. In 1804 the Servians rose against the Turks and expelled them. Their leader, George Czerny, ruled *S.* until 1813, when the Turks compelled him to fly from the country. Another insurrection broke out in 1815, when the country secured its independence. By the Treaty of Paris, March 30, 1856, *S.* was placed under the protection of the Great Powers. A dispute with the Turks broke out in 1867, as a result of which, through the intervention of the Powers, Turkey agreed to evacuate Servia. *S.* declared war against Turkey on July 3, 1876, and its independence was established by the Treaty of Berlin (1878). The prince was proclaimed king, as Milan I., in 1882, and in 1889 abdicated in favor of his son Alexander. The new king aroused much hostile feeling by an unpopular marriage and by making arbitrary changes in the constitution, to the advancement of his power. This led, in 1903, to a military conspiracy, and on June 11, the king and queen were assassinated in the palace at Belgrade. Peter Karageorgevitch, a descendant of an opposing royal family, was called to the vacant throne.

Fig. 2343.—SERB WOMAN.

Service, (*serv'is,*) *n.* [Fr.; Lat. *servitium*, from *servus*, a slave, servant.] Act of one who serves: business, duty, office, attendance, or condition of a servant; labor of body, or of body and mind, performed at the command of a superior, or in pursuance of duty, or for the benefit of another; actual employment of a servant: anything done by way of duty to, or attendance on, a superior or employer; also, spiritual obedience and worship; as, a domestic act of *service*, to go to *service*, &c.—Actual duty; that which is required to be performed in some office or employment; act or deed of one who serves; labor rendered to another; duty done or demanded; aid, help, or kindness afforded; as, will you do me a *service?*—That performance of religious duty or respect which God requires of man; public worship or office of devotion; official duties of a minister of the gospel; religious rites or ceremonials appropriate to any event or occasion; as, divine *service*, the marriage *service*, &c.—Hence, a musi-

cal composition for use in divine worship; also, the books required in the celebration of the rights of religion; as, a church *service*. — Official function; duty performed in, or having relation to, any official charge or employment; — hence, specifically, military duty by land or sea; performance of the duties of a soldier, seaman, &c.; as, the naval *service*, the merchant *service*, the united *services*, &c. — That which imparts or promotes interest or well-being; benefit, avail, or utility; useful office or assistance; advantage conferred; as, he rendered essential *service* in the furtherance of the work. — Profession of respect uttered or sent; devoir; duteous expression of regard; as, present my humble *service* to his majesty. — Set or order of dishes, appointments, &c., commonly used at table; as, a dinner *service*, a tea *service*, his constituents presented him with a *service* of plate.

(*Naut.*) Materials employed in serving a rope, as leather, spun-yarn, ambroline, &c.

(*Bot.*) See PYRUS.

Service of a writ, process, warrant, &c. (*Law.*) The execution of a writ or process. See SERVE. — *To see service.* (*Mil.* and *Nav.*) To serve in actual collisions with the enemy; to smell gunpowder, or be under fire in practical warfare; as, though still young he had *seen* much *service*.

Ser'vice, in *Pennsylvania*, a post-village of Beaver co.

Ser'viceable, *a.* That does or performs service; that imparts or promotes interest, advantage, happiness, or any quality conducive to well-being; useful; beneficial; helpful; advantageous; tending to the accomplishment of some good end, use, or object; as, a *serviceable* treatise, a *serviceable* suit of clothes. — Adapted or prepared for the performance of active service; capable of, or fitted for, the demands or exigencies of duty; as, *serviceable* troops; — hence, diligent; officious; pushing; energetic; as, a *serviceable* tool for an act of rascality.

Ser'viceableness, *n.* State or quality of being serviceable; usefulness in advancing good, or advantage of whatsoever kind; practical helpfulness or beneficialness; as, the *serviceableness* of an operation. — Promptness to render service; activity; diligence; officiousness.

Ser'viceably, *adv.* In a serviceable manner.

Ser'vice-berry, *n.* The berry of the Servia-tree. See PYRUS.

Ser'vice-book, *n.* A prayer- or hymn-book, or missal. See SERVICE.

Ser'vice-pipe, *n.* A pipe connecting mains with a dwelling, as in gas-pipes and the like.

Serviette, (*sĕr-ve-ĕt'*) *n.* A table-napkin.

Servile, (*ser'vĭl*) *a.* [Fr.; Lat. *servilis*, from *servus*.] Such as pertains to a servant, bondman, or slave; such as proceeds from dependence, voluntary or involuntary; slavish; abject; mean; as, *servile* submission. — Dependent; held in subjection or enforced subordination; as, a *servile* race. — Cringing; fawning; meanly obsequious; toad-eating; basely or pitifully subservient; as, a *servile* sycophant, *servile* deference, *servile* flattery.

(*Gram.*) Foreign to the original root; as, a *servile* letter.—Not itself articulated, but causing the lengthening of the preceding vowel; as, the final *e* in *sĕrve*.

—*n.* (*Gram.*) An element which is alien to the original root, in contradistinction to *radical*.

Ser'vilely, *adv.* In a servile manner; meanly; slavishly; with base submission, obsequiousness, or sycophancy; with cringing subservience or deference to another; as, he fawns *servilely* upon his employer.

Ser'vileness, Servil'ity, *n.* [Fr. *servilité*.] State or quality of being servile; condition of a slave, serf, or bondman; mean submission or subservience; slavishness; sycophancy; abject obsequiousness or slavish deference; to adviser; as, *servility* to vulgar riches.

Serv'ing-board, *n.* (*Naut.*) A flat piece of wood, used in serving ropes on shipboard.

Serv'ing-maid, *n.* A female help or domestic; a menial of the gentler sex; a servant-maid.

Serv'ing-mallet, *n.* (*Naut.*) A wooden mallet employed in serving ropes.

Serv'ing-man, *n.*; *pl.* SERVING-MEN. A menial; a male help or domestic; a servitor.

Serv'itor, *n.* [Fr. *serviteur*, from Lat. *servitor—servio*, to serve.] A servant; a help; an attendant; a retainer; one who acts or serves under another; a serving-man; as, a faithful *servitor*.

—In Oxford University, Eng., an undergraduate whose maintenance, while at college, is partially derived from a fund set apart for such purpose; — synonymous with *sizar*, at Cambridge.

Serv'itorship, *n.* Office, quality, or condition of a servitor.

Serv'itude, *n.* [Fr.; Lat. *servitudo — servus*.] State or condition of a serf, slave, or bondman; state of voluntary or involuntary subjection to a master or employer; service; slavery; bondage; position in life of a servant; — hence, a state or condition of slavish or helpless dependence; as, marriage with a rich and ugly old woman is splendid *servitude*.

(*Civil Law.*) The right to the use of a thing, without property in the same, for all or for some particular purposes. It consists either in the right to do some act, as to gather fruit from the estate, or to prevent the owner of the property from doing certain acts, as building walls beyond a certain height, blocking up a window, &c.

Ser'vius Tullius, the sixth mythical king of Rome. He married the daughter of Tarquinius the Elder, whom he succeeded, and was murdered by his son-in-law, Tarquinius Superbus.

Sesamoid', Sesamoid'al, *a.* [Gr. *sesamon*, a seed of sesamum, and *eidos*, form.] (*Anat.*) Applied to small bones situate in the substance of tendons, near certain joints. Their number is various, and they are commonly more in the male than female.

Ses'amum, *n.* (*Bot.*) The Sesame. A genus of plants, order *Pedaliaceæ*. *S. Indium*, or *Orientale*, has oily seeds, which yield by expression the product known in India as *teel*, *gingelly*, or *gingillie oil*. It is rarely imported, as it soon becomes rancid; but it is said to be largely employed for adulterating almond-oil.

Se'sia, (*sē'zha,*) *n.* (*Zoöl.*) A genus of lepidopterous insects, family *Sphingidæ*, comprising those with the antennæ always single, elongate-fusiform, and often terminated by a small bundle of scales.

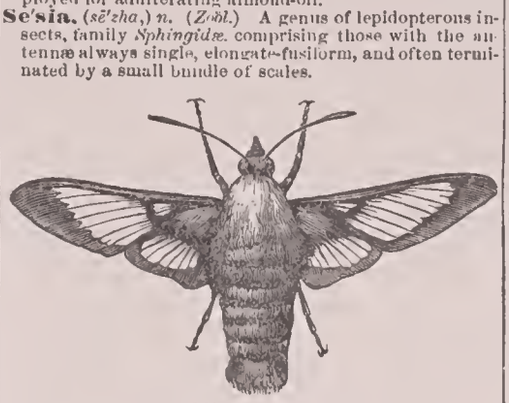


Fig. 2344. — SESIA THYSBE.

Sesia, (*sa'se-a.*) a river of N. Italy, in Piedmont, rising near Monte Rosa, and after a S. course of 85 m., joining the Po 5 m. E. of Casal.

Sesos'tris, the most celebrated of the early kings of Egypt. According to the legend, which evidently confounds the military exploits of several monarchs, he, upon succeeding to the throne, became ambitious of military fame, and marched at the head of a numerous army to make the conquest of the world. Libya, Æthiopia, Arabia, with all the islands of the Red Sea, were conquered; and the victorious monarch marched through Asia, and penetrated farther into the East than the conqueror of Darius. He also invaded Europe, defeated the Thracians, and placed columns in the several provinces he had subdued, bearing the pompous inscription, "Sesostris, the king of kings, has conquered this territory by his arms." After his return, he employed himself in encouraging the fine arts, and in improving the revenues of his kingdom. In his old age, Sesostris, having grown infirm and blind, destroyed himself. The time of *S.* is placed from 1400 to 1250 B. C. Sesostris, so called by the Greeks, is identical with *Rameses II.*, one of the most famous of the Pharaohs.

Sesqui, (*sĕs'kwī.*) [Lat., one and a half.] (*Chem.*) A prefix expressing the proportion of three equivalents of the substance to the name of which it is prefixed to two equivalents of the proximate principle: as, *sesquichloride of iron*, which is a compound of three equivalents of chlorine and two equivalents of iron.

Sesquial'ter, *n.* (*Mus.*) One of the compound stops of the organ, composed of either five, four, three, or two ranks of open metal-pipes tuned in thirds, fifths, and octaves to the diapason.

Sesquial'ter, Sesquial'teral, Sesquial'terate, *a.* (*Math.*) Having the ratio of one and a half to one.

Sesquidu'plicate, *a.* [Fr. *sesquidouble*.] Twice and a half; as, a *sesquiduplicate* ratio.

Sesquiox'ide, *n.* (*Chem.*) A compound of three equivalents of oxygen and two equivalents of another body.

Sesquipe'dal, Sesquipeda'lian, *a.* [Lat. *sesquipedalis*.] Containing a foot and a half; — occasionally ludicrously applied to long words; as, a *sesquipedalian* sentence.

Sesquip'licate, *a.* (*Math.*) Subduplicate of the triplicate; — a term applied to ratios.

Ses'quisalt, *n.* (*Chem.*) A salt containing three equivalents of one component to two of another.

Sesquiter'tial, Sesquiter'tian, Sesquiter'tional. [Prefix Lat. *sesqui*, and *tertianus*, from *tertius*, third.] In the ratio of one and one-third to one.

Ses'quitone, *n.* (*Mus.*) A minor third.

Sessa, (*sais'sa.*) a town of S. Italy, prov. of Terra di Lavoro, 30 m. N.W. of Capua; *pop.* 4,500.

Sesse, or **Sezza,** (*sait-sa.*) a town of Italy, on an eminence overlooking the Pontine Marshes, 20 m. S.E. of Velletri; *pop.* 9,000.

Sessile, (*sĕs'sĭl,*) *a.* [Fr.; Lat. *sessilis*, from *sedere*, *sessum*, to sit.] Connected without any apparent projecting support.

(*Bot.*) Emerging immediately from the main branch or stalk, without a petiole; as, a *sessile* leaf.

Session, (*sĕsh'un,*) *n.* [Fr.; Lat. *sessio*, from *sedeo*, *sessum*, to sit.] Act of sitting, or state of being seated or placed; as, "a usual way of *session*." (*Browne.*) — The actual sitting of a court, council, legislative body, &c., for the transaction of business; as, the members are in *session*.—The time, space, or term during which a court, council, legislature, and the like, meet daily for the transaction of business; or the period of time that elapses between the opening and the prorogation of a public assembly; as, a *session* of Congress, a *session* of Parliament.

—*pl.* (*Law.*) The title of several courts, chiefly those of criminal jurisdiction; as, the Court of Quarter *Sessions*.

High Court of Session. The supreme civil court of Scotland.

Sessional, (*sĕsh'un-al.*) *a.* Pertaining, or having reference, to a session, or to sessions; as, during *sessional* term.

Ses'terce, *n.* [Fr., from Lat. *sestertius*.] (*Numis.*) A Roman coin, was the fourth part of the *Denarius*, and thus contained at first 2 *asses* or *libræ*. The name is an abbreviation of the Latin *semis-tertius*, which was their mode of expressing 2; and their custom was to derive the names of all their coins from the foundation of their money-system, the *As*. The symbols for it were indifferently IIS or IIS, the former being only a modification of the latter, which expresses two units, and S for the additional half-unit (*semis*). In the Latin classics, the phrase *sestertius-nummus*, or merely *nummus*, is frequently employed to denote this coin. When the *Denarius* was made to contain 16 *asses*, the relation between it and the sestertius was preserved, and the latter from that time contained 4 *asses*, though the name, which was now no longer significant, was preserved. The sum of 1,000 sestertii was called *sestertium*, which, after Augustus, was equal to about $32, and was the "money of account" (never a "coin") used in the reckoning of large sums of money.

Ses'tet, SESTETT, SESTETTE, SESTETTO, SESTUOR, *n.* (*Mus.*) See SEXTET.

Sestri Levan'te, a seaport-town of N. Italy, 26 m. E.N.E. of Genoa. It is situate on a little bay near the mouth of the Gromolo; *pop.* 9,082.

Sestri Ponen'te, a town of N. Italy, 4 m. W. of Genoa, on the high road which runs along the sea-coast; *pop.* 6,421.

Set, *v. a.* (*imp.* and *pp.* SET) [A. S. *settan*; Ger. *setzen*.] To cause to sit; to seat; to settle; to put, plant, or fix, in any place or posture; to give site or place to; as, to *set* a table on its legs — Hence, to put or place on; to fasten in one place; to attach to; as, to *set* one's affections upon an object. To cause to take up a certain position, attitude, condition, employment, or the like; to cause to be; to put into a condition or state; as, to *set* to work, to *set* one man to fight another, &c. To make fast, permanent, or stable; to fix steadfastly; to give an unalterable form, place, or condition to.

"*Set* are her eyes, and motionless her limbs." — *Garth.*

—Hence, specifically, (1.) To obstruct; to retard; to block up; to cause to stop or be motionless; as, he is hard *set* for something to find fault with. (2.) To determine; to fix or decide upon priorily; — hence, to make hard, unyielding, or inflexible; as, his face was rigidly *set*, he drove at me with *set* fist, she *set* her mind on a new bonnet, &c. (3.) To plant; to imbed or fix firmly in the ground; as, to *set* out a parterre of shrubs. (4.) To fix in metal; as, to *set* a stone in a ring; — hence, to place or establish in something which reflects lustre or ornament; as, brighter eyes were never *set* in a lovely face. (5.) To make firm, stiff, compact, or solid; to convert into curd; as, to *set* milk for cheese.

—To assign; to appoint; to fix; to determine; as, to *set* a price on land. — To put or place in a fit or suitable condition or position; to adapt; to adjust; to regulate; as, his political faith is *set* for him by other men's opinions.

—Hence, especially, (1.) To put or place in due or working order, as an instrument; as, to *set*, that is, give an edge to, a razor; to *set*, that is, regulate by a standard, a watch, &c. (2.) To spread; to stretch out and put in position; as, to *set* the sails of a ship. (3.) To give a start to by fixing the key-note; to give a pitch to; as, to *set* a piece of music. (4.) To replace; to reduce to a proper or primary condition; to reduce from a fractured or dislocated condition; as, to *set* a broken leg.

—To wager; to risk; to hazard; to stake at play; as, "I have *set* my life upon a cast." (*Shak.*)—To fit to sounds; to adapt, as words to notes; as, to *set* a song to music. —To stud; to adorn or variegate with objects placed here and there; as, jewels *set* in a coronet. — To point out without noise or disturbance, as game; — said of dogs.

To set about, to apply; to commence, as an action, undertaking, or enterprise; as, *to set about* one's work. — *To set abroach*, to let flow; as, *to set abroach* a cask of beer.—*To set against*, to oppose: to pit against by way of comparison: as, I will *set* my chance *against* yours.—*To set a-going*, to cause to start or commence motion. — *To set apart*, to lay aside for a particular purpose; to reserve; to hold separate from the rest; as, to *set apart* a wife's jointure. — *To set a saw*, to bend each tooth a little to one side, every alternate one being bent to one side, and the remainder to the other side, so that the kerf may be a little wider than the thickness of the back, to hinder the latter from sticking. — *To set aside*, to pass by; to omit; to reject; to annul; to leave out of reckoning; to abrogate; as, *setting aside* his love of liquor he is not a bad kind of fellow. — *To set at defiance*, to defy; to challenge; as, we are strong enough *to set* you *at defiance*. — *To set at ease*, to pacify; to calm; to quiet; to tranquillize; as, to *set* one's mind *at ease*.— *To set at naught*, to despise; to contemn; to undervalue; to treat as of no value or account; as, to *set* authority *at naught*. — *To set a trap, snare*, or *gin*, to lay in such a position as to ensnare prey or game; — hence, to lay a plan to mislead and inveigle into the power of another. —*To set at work*, to cause to begin work or action, or to give directions how to commence work. — *To set before*. (1.) To exhibit; to expose to view before; as, roast beef is not amiss when *set before* a hungry man; also, to offer to one for selection; to propose for choice to; as, some fine silks were *set before* her. — *To set by*, to place on one side; — hence, to discard; to reject; also, to esteem: to value; to appreciate: to regard; as, I *set* great store *by* that relic. — *To set by the compass*, to note the bearing of by the compass. — *To set down*, (1.) To jot down in writing; to register; to record; to relate; as, *he set down* certain memoranda for his guidance. (2.) To ordain; to establish; to fix; as, *to set down* regulations for others to follow. (3.) To confound by superior arguments or eloquence: to confute; to rebuke; as, *to set down* a controversialist. — *To set eyes on*, to behold; to see; to view; to fix the eyes upon; as, I never *set*

eyes on a handsomer woman. — *To set forth*, to display; to offer or present to view; to expose to sight; to make manifest; also, to make appear; to publish; to promulgate; to circulate; as, it is *set forth* in the preamble. — *To set forward*, to further; to expedite; to promote; also, to advance; to move on; as, to *set forward* on a journey. — *To set free*, to liberate; to enfranchise; to emancipate; to release, as from confinement, bondage, imprisonment, or tutelage. — *To set in*, to give a start or beginning to; to initiate; to put in the way of; as, if you will *set* me *in* I can thenceforward assist myself. — *To set in order*, to reduce to systematic arrangement, order, or method; as, to *set* one's papers *in order*. — *To set milk*, to cause it to become curdled, as by the action of rennet; also, to expose it in flat, open dishes, so that the cream may accrete on the surface. — *To set off*. (1.) To ornament, adorn, embellish, decorate, or beautify; as, her looks require no paint to *set* them *off*. — (2.) To disengage from a whole and set apart; to devote to a special purpose; as, he *set off* a part of his property to portion his daughters. (3.) To speak of with eulogy; to recommend; to give a highly favorable or flattering account of; as, to *set off* a man's merit. (4.) To pit or place against as an equivalent; as, to *set off* the advantages of one scheme against another. — *To set on* or *upon*. (1.) To instigate; to incite; as, to *set* one *on* a mischief. (2.) To employ; to engage, as in a task or duty; as, *to set on* extra hands. (3.) To fix or determine toward with settled purpose; as, my affections were *set upon* her. — *To set one's cap for*, to strive to engage or attach the affections of; to make indirect love to; as, she *set her cap* at him publicly; — used as a colloquialism. — *To set one's self against*, to put one's self in a state of vehement or determined opposition or antagonism to; as, his mind is *set against* meanness of any kind. — *To set on fire*, to enkindle; to communicate fire to; — hence, figuratively, to inflame; to arouse; to irritate, as the passions of. — *To set on foot*, or *a-foot*, to put in motion or action; to start; to set a-going; as, a new project was *set on foot*. — *To set out*, (1.) To set off; to display; to exhibit; to expose to view; as, she has *set out* her charms to advantage. (2.) To allot; to assign; to mark off; to limit; as, to *set out* the widow's third of an estate. (3.) To furnish; to supply; to array; to raise, equip, and send forth; as, America, at a pinch, can *set out* a fleet of three hundred sail. (4.) To ornament; to decorate; to embellish; to adorn; as, an ugly woman *set out* with jewels.

(*Law.*) To state at large; to go into details. — *To set over*, to assign; to convey; to transfer; to appoint or nominate as inspector, overlooker, controller, or supervisor; as, to *set* a foreman *over* other men. — *To set right*, or to *rights*, to reinstate; to correct; to rectify; to place in order; as, let this matter be *set to rights*. — *To set the fashion*, to lead the mode; to determine what shall be the ruling style; as, who *set the* American *fashion* of chin-whiskers? — *To set the teeth on edge*, to affect the teeth with a disagreeable sensation, as when verjuice is brought in contact with them. — *To set to*, to affix; to attach to; also, to engage in close combat; as, they *set to* with their fists. — *To set up*, (1.) To raise; to elevate; to erect; as, to *set up* a building. (2.) Hence, to exalt; to place in a high or prominent position; as, "Homer took all occasions of *setting up* his own countrymen." (*Dryden.*) — (3.) To institute; to found; to establish; as, to *set up* a school. (4.) To enable or find the means to commence a new business; as, he *set* his son *up* as a bookseller. (5.) To place in open view; as, to *set up* a land-mark. (6.) To raise; to sound loudly; as, to *set up* one's voice. (7.) To advance; to propound, as for discussion or reception; as, to *set up* a new theory. (8.) To raise, as from a low state to a higher; as, marrying an heiress quite *set* him *up*. (9.) (*Print.*) To put in type; as, to *set up* a page of copy; to form or arrange in words, lines, &c., ready for the press; as, to *set up* type. (10.) (*Naut.*) To extend or lay out; as, to *set up* a stay. (11.) *To set up the rigging*, to make it taut by means of tackles.

Set, *v. n.* To sink; to decline; to go below the horizon; as, the *setting* sun. — To plant by root or slip; to produce plants or slips in the ground; as, to *set* an acre of land with cabbages. — To begin to strike root or germinate; to be fixed for growth. — To be fixed hard or rigid; to become fastened; — hence, to congeal; to concrete; as, this cement *sets* slowly. — To have a certain direction in motion, as a current. — To go forth; to begin to move; to start. (R.) — To silently indicate the position of game; also, to hunt game by the help of a setter; as, the dog *sets* well. — To undertake in earnest; to apply one's self; to bestir to action; as, he *sets* himself to work in proper style.

To set about, to begin; to commence; as, let us *set about* going home. — *To set forward*, to advance; to begin to march or move on. — *To set in*, to enter upon a particular state; as, the equinoctial gales have *set in*; also, to settle one's self; to become fixed or established. — *To set off*, to start, as upon a journey. — (*Typog.*) To deface or soil the next sheet; — said of the ink on a recently printed sheet, when another sheet comes in contact with it before it has had time to dry. — *To set on* or *upon*, to assault; to make an onset or attack; as, brigands *set upon* the travellers; also, to begin, as a journey or undertaking; as, he *set upon* writing a new book. — *To set out*, to commence a journey or course of action; as, he *sets out* for England by next steamer, to *set out* in life, &c. — *To set in*, to apply one's self to; as, to *set to* work. — *To set up*, to embark in business or an undertaking; as, to *set up* in business for one's self; also, to make ostensible progressions or pretensions; as, he *sets* himself *up* to criticise things he knows little about.

—*p. a.* Fixed; firm; obstinate; stubborn; as, he is *set* in his likes and dislikes. — Uniform; equable; formal; regular; as, a *set* speech, a *set* battle. — Prescribed; established; accepted: as, a *set* line of conduct. — *Set speech*, an oration, or a discourse carefully prepared before delivery; also, a precise, formal, or methodical harangue.

—*n.* Act of setting; declination of a heavenly body below the horizon; as, before *set* of sun. — That which is set, placed, fixed, or established; especially, a young plant for growth; as, a *set* of quicks; permanent alteration of shape or form, as the result of pressure; as, the *set* of a spring. — A number or collection of things of the same kind and of similar form, which are ordinarily placed or used together; a number of things that are united in the formation or assemblage of a whole; a suit; an assortment; as, a toilet-*set*, a *set* of china, a *set* of instruments. — A number of persons associated; a collective body of individuals allied by kindred or sympathetic tastes, qualities, opinions, or social grade; a group; a clique; a coterie; as, he belongs to the Prince's *set*, they are an odd *set* of people, &c. — Course; direction; tendency; as, the *set* of a current. — *Dead set*. (*Sport.*) Act of a setter-dog when sighting game; — hence, a fixed or stationary condition caused by obstacle or hindrance; a dead lock; also, a preconcerted plan to defraud by gambling; a determined onset; as, the bull made a *dead set* at him. — *To be at a dead set*, to be brought to a check; to be in a state which precludes further action or progress; colloquially, to come to grief.

Se'ta, *n.*; *pl.* SETÆ. [Lat.] (*Bot.*) A bristle, or something resembling a bristle.

Setaceous, (*-ta'shus,*) *a.* [Fr. *sétacé.*] Bristly; consisting of, or resembling, bristles.

—(*Bot.*) Bristle-shaped; as, a *setaceous* leaflet.

Seta'ria, *n.* (*Bot.*) A gen. of plants, order *Graminaceæ*. The Wild Timothy, *S. viridis*, and the Bottle Grass, *S. glauca*, are American species, common in fields and cultivated grounds; but the most important species are the European species commonly called *Millet*, cultivated for food, largely in certain parts of Europe, but rarely in this country. See MILLET.

Setauket, in *New York*, a post-village of Suffolk co., 58 m. N.E. of New York.

Set'-back, *n.* (*Arch.*) A plain, flat set-off in a wall.

Set'-bolt, *n.* (*Ship-building.*) An iron pin or bolt for fitting planks closely together.

Set'-down, *n.* A rebuff; a contumelious reply or rebuke; as, his presumption met a proper *set down*.

Sete-Lagoas, (*sa'tu-la-go-as.*) seven lakes of Brazil, on the top of the Serro da Melgueira, prov. of Matto-Grosso; Lat. 13° 30′ S, Lon. 55° 30′ W. They form the sources of the Paraguay.

Seth. [Heb., compensation.] (*Script.*) The third son of Adam, to whom Eve gave this name in consequence of regarding him as sent to replace Abel, whom Cain had slain.

Setiferous, Setig'erous, *a.* [From Lat. *seta*, and *ferre*, or *gerere*, to bear.] (*Bot.* and *Zoöl.*) Bristle-bearing.

Se'tiform, *a.* Bristle-shaped.

Set'ness, *n.* State or quality of being set; fixedness; regulation; adjustment; also, stubbornness; obstinacy.

Set'-off, *n.* [*set* and *off*.] An offset; that which is set against another thing; any counterbalance. — That which is employed to embellish or ornament a person or thing.

(*Arch.*) (Also called *off-set.*) That part of a wall, &c., which is exposed horizontally when the portion above it is reduced in thickness.

(*Law.*) The amount of a debt due by the plaintiff to the defendant is entitled to set-off, in answer either to the whole or a part, as the case may be, of the plaintiff's claim. Thus, if the plaintiff sues for $100, due on a note of hand, the defendant may set off $80 due to him self for merchandise sold to the plaintiff, and in case he pleads such *S.*, must pay the remaining balance into court. The *S.*, however, must be a determined and specific sum, for a mere claim for damages not ascertained cannot be *S.* against a specific debt, neither can a debt due to the defendant personally be set off to a demand against him as a trustee.

Seton, (*se'tn,*) *n.* [Fr., from Lat. *seta*, a bristle.] (*Surg.*) A twist of silk or cambric, or of a few horse-hairs or fine threads, drawn through the skin and areolar membrane by the agency of a large needle, by which a small aperture is made and continued.

Setose', Se'tous, *a.* [From Lat. *seta.*] (*Bot.* and *Zoöl.*) Bristly; set with bristles; as, a *setose* receptacle.

Set'-out, *n.* A display or exhibition; as, we had a fine *set-out* at dinner.

Set'-screw, *n.* (*Mach.*) A screw, as in a cramp, for bringing pieces of wood, metal, or other material, into close contact.

Set-stitched, (*-sticht,*) *a.* Stitched after the manner of a set or formal pattern; as, a *set-stitched* sampler.

Sett', *n.* In pile-driving, a piece laid temporarily across the head of a pile when the latter cannot be got at by the weight, or hammer, except by means of such an intervening piece.

Settee', *n.* A kind of lounge or chair for the seating of several persons at a time; a divan; an ottoman.

(*Naut.*) Same as POLACCA, *q. v.*

Set'ter, *n.* One who, or that which, sets; — commonly used in connection with an adverb; as, a *setter on*, a *setter up*, &c. — One who adapts words to music in composition.

Set'ter, *n.* [*Canis Familiaris Index.*] A mongrel dog produced by crossing, chiefly between spaniels and pointers. The principal varieties of *S.* are the English and the Irish. The English *S* does not differ from the pointer, but is more loosely made, so as to admit of more rapidity of motion, with less diminution of the continuance of that motion. It is equalled by few sporting dogs in sagacity, and excelled by none in docility and personal attachment. In color it may be met with of almost every tint and marking common to hounds and spaniels. Their hair is, in general, beautifully curled. The habits of the *S.* and the pointer are much the same (see POINTER); but it too frequently happens that its enthusiasm leads it to forget the instructions it has received, and a small sample of rebreaking is often required before the shooting practices of each season commence. The Irish *S.* is a large red dog, of very commanding mien, great powers, and excellent sporting qualities.

Fig. 2345. — ENGLISH SETTER.

Set'ter-wort, (*-wurt,*) *n.* (*Bot.*) The Bear's-foot. See HELLEBORUS.

Set'ting, *n.* Act of putting, placing, fixing, or establishing. — Act of apparently sinking below the horizon, as of the sun. — The direction of a current, sea, or wind. — Act or method of taking game by means of a setter. — That in which something is set; as, a diamond solitaire in a gold *setting*.

(*Building.*) The induration of mortar or cement.

Set'ting-coat, *n.* (*Arch.*) The best sort of plastering on walls or ceilings.

Set'ting-dog, *n.* (*Zoöl.*) See SETTER.

Set'ting-pole, *n.* In the U. States, an iron-pointed pole used for impelling boats in shallow water.

Settle, (*sĕt'tl,*) *n.* [A. S. *setl, gesetl*; L. Ger. *setel.*] A long bench, with a high, wooden back; also, a wide step or platform.

—*v. a.* [From *set.*] To place in a permanent state or condition after wandering, fluctuation, or disturbance; to make permanent, fixed, or established in any place; specifically, to establish in way of life; as, to *settle* in business, he *settled* in town. — To induct into the pastoral office; to ordain as the pastor of the care of souls; as, to *settle* a minister. (U. S.) — To free from doubt, or render determinate what is uncertain, as a question in litigation; to render fixed or stable; to make certain or permanent, as habits; to make sure, firm, composed, or constant; as, to *settle* pin-money on one's wife, to *settle* the mind when ruffled or disturbed. — To cause to sink or subside, as extraneous matter in liquors; as, to *settle* the grounds of coffee. — To free from a disturbed, broken up, or turbid state or condition; to still, as the surface of water. — To reduce to a smooth, dry, or passable condition, as roads, &c. — To lower; to depress; to render close or compact; as, to *settle* the contents of a barrel by shaking it. — To cause to subside after being upheaved and loosened by frost. — To bring to adjustment; to liquidate; to compose by amicable agreement or otherwise; to balance or to pay; to pacify; to make up; as, to *settle* a difference, to *settle* a bill or account, to *settle* in full. — To colonize; to plant with inhabitants; to people; as, the English *settled* Virginia, the Dutch first *settled* New York.

Settling-day, a day for making up or settling accounts, as on the Stock Exchange. — *To settle on* or *upon*, to confer by permanent grant upon; as, he *settled* his property *on* his wife to the exclusion of his creditors. — *To settle the land.* (*Naut.*) To cause the coast-line to sink or appear lower by receding from it.

—*v. n.* To become established or fixed; to become stationary; to assume a permanent form or condition; to quit a rambling or irregular course for a fixed or methodical one; as, he has *settled* his affections unwisely. — Hence, particularly, to fix one's residence or place of habitation; to take a lasting form or condition of life; to enter into the matrimonial or housekeeping state; also, to be established in a profession, employment, or vocation; as, to marry and *settle* down. — To subside; to sink or fall to the bottom, as of liquor; to sink and rest on the bottom; to become lower, as a building, by the sinking of the substructure; as, a house *settles* on its foundation. — To cease from agitation or disturbance; to become appeased, calm, or tranquil; as, let his anger *settle* before you approach him. — To come to an agreement, as with creditors or debtors; to adjust differences or accounts; as, he has *settled* all he owed. — To make a special provision for a wife; as, she had her fortune *settled* upon herself.

Set'tledness, *n.* State of being settled; fixed or established condition. (R.)

Set'tlement, *n.* Act of settling, or state of being settled; as, specifically, (1.) A becoming stationary, or taking a permanent residence after a roving course of life; act of taking a domestic or established state or condition of life; fixture in business, employment, &c. (2.) Act of planting or establishing, as a colony; act of peopling, or state of being peopled; plantation; colonization; as, the *settlement* of Java by the Dutch. (3.) Act of adjusting, pacificating, or determining; adjustment of accounts or differences; reconciliation; composure of doubts; arrangement of difficulties, and the like; as, the *settlement* of a debt, or of a dispute. (4.) Act of giving possession by legal sanction; act of granting any-

thing in a formal or permanent manner; as, a transfer by private *settlement*.

—That which settles, or is settled, fixed, or established; as, (1.) The falling of the foul or foreign matter of liquor to the bottom; subsidence; also, settings; lees; dregs; sediment. (2.) A place, country, or colony newly settled, peopled, or established; as, the back *settlements* of Canada. (3.) That which is granted formally and permanently; — particularly, the jointure conferred on a woman; as, a marriage *settlement*; — also, a sum of money or other provision bestowed on a minister at time of ordination, over and above his salary.

(*Law.*) A disposition of property of any kind made by the owner for certain purposes. It may be made either by deed or will; but commonly the term is only applied to those made by deed, and in fact only to a certain kind of these; namely, marriage *settlements*.—Also, a residence under such circumstances as to entitle a person to support or assistance in case of becoming a pauper. It is obtained in various ways, to wit: by *birth*; by the *legal settlement* of the father, in the case of minor children; by *marriage*; by *continued residence*; by the payment of requisite taxes; by the *lawful exercise of a public office*; by *hiring and service* for a specified time; by *serving an apprenticeship*; and perhaps some others, which depend upon the local statutes of the different States.

Set'tler, *n.* One who settles.— Hence, specifically, one who commences a settlement in a new country; a colonist: as, a *settler* in Alaska. — That which decides, settles, or finishes; — hence, a blow or retort which disposes of a wrangle or contest. (A colloquialism.)

Set'tling, *n.* Act of making a settlement; a planting or colonizing.—Act of subsiding, as of lees, dregs, or sediment. — The arrangement of disputes, debts, or differences; as, when shall we have a *settl ng?*

—*pl* Lees; dregs; sediment; that extraneous matter which settles at the bottom of a liquid.

Set'to, (*too,*) *n.* A contest in fisticuffs, controversy, &c. (A colloquialism.)

Setubal, or **St. Ubes,** (*sa'too-val.*) a seaport-town of Portugal, prov of Estremadura, on the Bay of Setubal, 18 m. S.E. of Lisbon; Lat. 38° 29′ N., Lon. 8° 53′ W. *Pop.* 15,000.

Set'ula, *n.; pl.* SETULÆ. [Lat. dim. of *seta*, bristle.] (*Bot.*) A small bristle or hair.

Set'ulose, Set'ulous, *a.* Bearing setules.

Sevas'topol, in the Crimea. See SEBASTOPOL.

Sevastopol, in *Michigan*, a village of Muskegon co., 5 m. W. of Muskegon.

Sevastopol, or **Sebastopol,** in *Wisconsin*, a township of Door co.

Seven, (*sĕv'n,*) *a.* [A. S. *seafon, seafen*; Ger. *sieben*; Lat. *septum*; Gr. *hepta.*] Four and three; one more than six, or less than eight; as, the *Seven* Ages.

Seven Dolors of the Blessed Virgin Mary. (*Eccl.*) A festival of the Roman Catholic Church, instituted by Pope Benedict XIII. in 1725, celebrated on the Friday preceding Palm Sunday. The seven incidents referred to under the title of *Dolors* are: 1. The prediction of Simeon (*Luke* ii. 34); 2. The flight into Egypt; 3. The loss of Jesus in Jerusalem; 4. The spectacle of Jesus bearing His cross towards Calvary; 5. The sight of Jesus upon the cross; 6. The piercing of His side with the lance; 7. His burial.—*Seven Stars.* (*Astron.*) See PLEIADES.—*Seven Wise Men.* (*Anc. Hist.*) The collective designation of a number of Greek sages, who lived about 620–548 B. C., and devoted themselves to the cultivation of practical wisdom. Their names, as usually given, are Solon, Thales, Pittacus, Bias, Chilon, Cleobulus, and Periander of Corinth; but there is no absolute unanimity among the ancients either as regards the names, the number, the history, or the sayings of these famous sages.—*Seven Wonders of the World.* See WONDERS.

—*n.* The number greater by one than six, or less by one than eight.—A symbol expressing seven units, as 7, or vii.

Seven Days' Battles. (*Amer. Hist.*) See CHICKAHOMINY.

Sev'enfold, *a.* [*seven* and *fold.*] Repeated seven times; doubled by folding seven times; increased to seven times the number, size, weight, or value; as, the *sevenfold* shield of Ajax.

—*adv.* Seven times as much or often.

Seven Islands, a group of Lower Canada, in the Gulf of St. Lawrence, at the entrance of Seven Islands' Bay.

Seven Mile, in *Ohio*, a post-village of Butler co., 7 m. N. of Hamilton.

Seven Mile Creek, in *Wisconsin*, a township of Juneau co.

Seven Mountains, in *Penna.*, a series of elevations on the border of Mifflin co., separating it from Centre co.

Sev'ennight, *n.* See SE'N GHT.

Sev'enoaks, a town of England, co. of Kent, on the Darent, 21 m. S.S E. of London; *pop.* 5,000.

Seven Pines. (*Amer. Hist.*) The name of a locality, 6 m. from Richmond, where, May 31, 1862, the Confederates, commanded by Gens. Longstreet and Stuart, defeated the Nationals under Gen. Casey. The battle received its name from seven solitary pine-trees at the spot where the fiercest fighting took place. This battle may be considered as the beginning of the battle of *Fair Oaks.*

Sev'enscore, *n.* Seven times twenty; that is, one hundred and forty.

Sev'ensome, *a.* Arranged by sevens; consisting of seven things or parts. (R.)

Sev'enteen, *a.* [A. S. *seofontyne.*] Seven and ten; one more than sixteen and less than eighteen; as, *seventeen* shillings

—*n.* The sum of ten and seven added; the number greater by one than sixteen.—A symbol representing seventeen units, as 17, or xvii.

Sev'enteenth, *a.* [From *seventeen.*] The ordinal of seventeen; the seventh after the tenth.

—*n.* The quotient of a unit divided by seventeen; one of seventeen equal parts.— The seventh after the tenth; the next in order after the sixteenth.

(*Mus.*) An interval consisting of two octaves and a third.

Sev'enteen Years Cicada, *n.* (*Zoöl.*) See CICADA.

Seventh, (*sĕv'nth,*) *a.* [A. S *seofeðha.*] The ordinal of seven; the first after the sixth; containing one part in seven.

Seventh-day Adventists. (*Eccl. Hist.*) See ADVENTISTS.

Seventh-day Baptists. (*Eccl. Hist.*) See SECOND BAPTISTS.

—*n.* The seventh part; one part in seven.—One next following the sixth.

(*Mus.*) The interval of five tones and a semitone, constituting seven degrees of the diatonic scale; also, a certain chord.

Sev'entieth, *a.* The ordinal of seventy; next in order after the sixty-ninth; as, the *seventieth* day of the year. —Constituting, or being, one of seventy equal parts into which a thing is divided.

—*n.* One of seventy equal parts; the quotient of a unit divided by seventy — The tenth after the sixtieth.

Seventy, (*sĕv'en-ty,*) *a.* Seven times ten; one more than sixty-nine; as, a person *seventy* years of age.

—*n.* The sum or amount of seven times ten. — A symbol denoting seventy units, as 70, or lxx. — *The Seventy*, the seventy, or, properly speaking, seventy-two, translators of the Old Testament into the Greek tongue, from whom this translation is called the *Septuagint.*

Seventy Sev'en, in *Iowa*, a village of Johnson co., 16 m. S.E. of Iowa City.

Sev'enty Six, in *Iowa*, a township of Muscatine co.; —A township of Washington co.

Seventy-six, in *Pennsylvania*, a post-village of Beaver county.

Seven Wonders of the World. See WONDERS.

Seven Years' War. (*European Hist.*) The name given to a war carried on in Germany between 1756 and 1763. The principal contending parties were Frederick II. of Prussia, and the Austrians; the latter being at one time assisted by Russia, France, the German empire, and Sweden; while the only fast ally of the former, during the struggle, was England. The war raged with varying success; but at length Frederick seemed brought to the verge of ruin, when, in 1762, the Empress of Russia died, and her successor, Peter III., made peace with Prussia, and thus led to a termination of the war, peace being concluded at Hubertsburg on the 15th of February, 1763. This disastrous war devastated Germany, and cost Europe a million of lives, without yielding material advantages to any party, except to Prussia, which annexed Silesia, and from that time took rank as one of the five great European powers.

Sev'er, *v. a.* [Fr. *sevrer, séparer*; It. *sverare*, from Lat *separare.*] To separate by cutting or rending; to part or divide from the rest by violence; as, to *sever* a limb from the body.— To separate or disjoin, as distinct things, but united; to separate and put in different orders or places; to disjoin; as, to *sever* man and wife.— To keep distinct or apart; to except; to make a distinction between.

(*Law.*) To disunite; to disconnect; to divide, as a joint estate among several.

—*v. n.* To make a separation or distinction; to discriminate; to distinguish.—To suffer disjunction; to be rent or parted asunder; as, "soul and body's *severing.*" *Shaks.*

Sev'eral, *a.* [From *sever.*] Separate; distinct; single; special; particular; not common to two or more.

"Each *several* ship a victory did gain."— *Dryden.*

—Diverse; different; various; as, four *several* individuals. —Divers; sundry; more than two, but not very many; as, he told the story to *several* persons.—*Joint and several note, bond, &c.*, any note or memorandum by which two or more persons signing it are collectively and individually bound.

—*n.* Each particular, or a small number, singly taken; as, *several* of the family rose to distinction.

Sev'erally, *adv.* Separately; distinctly; aloof or apart from others.

Sev'eralty, *n.* A state of separation or disjunction from the rest, or from all others. — *Estate in severalty.* (*Law.*) An estate which the tenant holds in his own right, without being joined in interest with any other person; — distinguished from *joint-tenancy, coparcenary*, and *common.*

Sev'erance, *n.* Act of severing or dividing; separation.

(*Law.*) Act of dividing; the singling or severing two or more that join, or are joined, in one writ; the putting in several or separate pleas or answers by two or more disjointly; the destruction of the unity of interest in a joint state.

Severe', *a.* (*comp.* SEVERER; *superl.* SEVEREST.) [Fr., from Lat. *severus.*] Serious or grave in deportment; austere or sedate in manner: not light, airy, lively, or cheerful; as, a *severe* countenance. — Rigid; harsh; stern; characterized by great strictness; regulated by stringent rules; not mild, lax, or indulgent; as, *severe* discipline, *severe* criticism, *severe* punishment.— Rigidly exact; strictly methodical; close; concise; not permitting laxity, neglect, or transgression; exactly conformed to a standard; not luxuriant or redundant; as, a *severe* style, *severe* morality — Sharp; keen; cutting; affective; distressing; violent; extreme; as, *severe* cold, *severe* pains, &c. — Inexorable; relentless; as, a *severe* judge. —Rigorously exact; critical or crucial in the highest degree; as, a *severe* test, a *severe* ordeal.

Severe'ly, *adv.* In a severe manner; harshly; strictly; sharply; rigorously; painfully; afflictively; extremely; crucially; as, "to be fondly or *severely* kind."— *Savage.*

Severe'ness, *n.* State or quality of being severe; severity.

Sever'ity, *n.* [Fr. *sévérité*; Lat. *severitas.*] Quality of being severe; harshness; rigor; austerity; want of mildness or indulgence; as, the *severity* of a reproof, *severity* of discipline or punishment.—Extreme strictness; rigorousness; crucial accuracy; as, the *severity* of a test.— Extreme degree or amount; as, the *severity* of a penalty or requisition.— Quality or power of distressing or paining; extremity; as, *severity* of pain or anguish.— Extreme coldness or inclemency; as, *severity* of winter. —Cruel treatment; harshness of punishment; as, *severities* practised on prisoners of war.— Rigid adherence to fact or truth; extreme accuracy; as, *severity* of criticism or judgment.

Sev'ern, an important river of England, rising in Plinlimmon Mountain, co. of Montgomery, N. Wales. It first flows S.E., under the name of *Hafren*, as far as Newton, where it takes the name of *Severn*, and flows N.E. until it loses itself in the British Channel. It is 200 m. long, and is navigable for 178 m. A tunnel 4⅓ m. long has been constructed under this river.

Severn, a river in Md. rises in Anne Arundel co., flows S.E., entering Chesapeake Bay 3 m. S. of Annapolis

Severn, a river of Upper Canada, which forms the outlet of Lake Simcoe, and flows N.W into Georgian Bay.

Severn, a river of British America, rises in Lat 50° 30′ N., Lon. 92° W., and flows into Hudson Bay, after a N. E. course of 350 m.

Sever, (St.,) (*sev'air.*) a town of France, dept. of Landes, on the Adour, 11 m. S.S.W of Mont de-Marsan; *pop.* 4,500.

Severus I., LUCIUS SEPTIMIUS, a Roman emperor, was born A. D. 146, at Leptis, in Africa, and was raised to the throne on the death of Pertinax. He had to contend with several rivals — first, Didius Julianus, whom he put to death; then Percennius Niger, whom he defeated at Issus; and at a later period Albinus, whom he defeated near Lyons in 197. *S.* had in the preceding year taken Byzantium, after a siege of two years. He carried on a successful war in the East, and in 208 visited Britain, made war on the Caledonians, and built the great wall across the north of England from the Solway to the Tyne. As a monarch he was cruel; and it has been said that he never performed an act of humanity, or forgave a fault. He was a man of letters, and composed a history of his own reign. He D. at York, in 211.

Severus, MARCUS AURELIUS ALEXANDER, a Roman emperor, B. in Phœnicia, 208. He was the cousin of the Emperor Heliogabalus, at whose death he was proclaimed emperor, 222. Towards the close of his reign, the peace of the empire was disturbed by the incursions of the Persians. Alexander marched into the East, but is said to have suffered defeat. The revolt of the Germans subsequently called him from the capital. His expedition in Germany was attended with some success; but his soldiers were undisciplined and turbulent; their clamors were fomented by the artifice of Maximinus, and Alexander was murdered in his tent, in the midst of his camp, after a reign of 13 years. His mother Julia Mammæa shared his fate, with all his friends. Severus possessed many virtues, was a patron of literature, and dedicated the hours of relaxation to the study of the best Greek and Latin historians, orators, and poets. Killed, 235.

Sev'ery, *n.* (*Arch.*) A box or compartment of a vaulted ceiling.

Sevier (*sev-eer'*), in *Arkansas*, a W. S. W. co., bordering on the Indian Territory; *area*, 547 sq. m. *Rivers.* Red river and Little river. *Surface*, diversified; *soil*, fertile. *Cap.* Lockesburg. *Pop.* (1897) 11,450.

Sevier, in *Tennessee*, an E. co., bordering on North Carolina; *area*, 560 sq. m. *Rivers.* French Broad, and Little Pigeon. *Surface*, mountainous; *soil*, fertile in the valleys. *Min.* Iron and limestone. *Cap.* Sevierville, a post-village, 30 m. S. E. of Knoxville. *Pop.* (1897) 19,950.

Sévigné, MARIE DE RABUTIN CHANTAL, MARCHIONESS DE, (*se-reen'yai,*) a French epistolary writer, B. in Paris, 1626. She was the daughter of the Baron de Chantal, who lost his life in defending the Isle of Ré against the English. After receiving a most careful education under her maternal uncle, she espoused, at the age of 18, the Marquis de Sévigné, who fell in a duel in 1651, leaving her with one son and a daughter, to whose education she paid strict attention. The daughter married, in 1669, the Count de Grignan, commandant in Provence; and it was on a visit to her that the Marchioness caught a fever, of which she died. Her letters are unequalled examples of the epistolary style, being elegant, picturesque, and animated. D. in Provence, 1696.

Seville, (*sĕv-il.*) a city of Spain, cap. of the prov. of Seville, on the Guadalquiver, 62 m. N E. of Cadiz, and 212 m. S.S.W. of Madrid; Lat. 37° 22′ 44″ N., Lon. 6° 0′ 59″ W. It is built in the Moorish style; the streets are narrow, but there are numerous squares and public walks. The Cathedral, a Gothic structure, surmounted by a colossal bronze statue of "Faith," is considered the finest in Spain. The other conspicuous edifices are the Alcazar, or palace, built in imitation of the Alhambra at Granada, the Lonja, or exchange, the Artillery School, and the Mint. *Manuf.* Silks, woollens, leather, hats, combs, earthenware, and tobacco. *S.*, anc. Hispalis, was called by the Romans *Romula Julia*, from Julius Cæsar, B. C. 45. It was taken by the Goths, and afterwards in 711 by the Moors, with whom it remained until taken by Ferdinand III., King of Castile, in 1248, when it became the cap. of his kingdom.

Seville', in *Michigan*, a township of Gratiot co.

Seville, in *Ohio*, a village of Medina co., 104 m. N.N.E. of Columbus.

Sèvres, (*saivr,*) a town of France, dept. of Seine-et-Oise, on the Seine, 5 m. N.W. of Versailles. It is famous for its manufacture of porcelain, or *Sèvres china.* *Pop.* 6,328.

Sèvres, (Deux,) a dept. of the N.W. of France, bet. Lat. 46° and 47° N., Lor 0° and 1° W., having N. the dept. Maine-et-Loire, E Vienne, S Charente and Charente-Inférieure, and W. Vendée. *Area,* 2,315 sq. m. The surface is diversified in the N. and level in the S., and the soil generally fertile. *Rivers.* The Deux Sèvres, Dive, and Thouet. *Prod.* The usual cerealia, flax, hemp, and fruits; also, numerous cattle, horses, &c. *Manuf.* Woollens, linens, cottons, leather, gloves, and beet-root sugar. *Min.* Iron, marble, and granite. *Chief towns.* Niort, the cap., Bressuire, Melle, and Parthenay. *Pop.* 353,1[illegible].

Sèvres-Nantaise, (*saivr'-non-taz,*) a river of France, rising in the dept. of Deux-Sèvres, and after a N.W. course of 70 m. flowing into the Loire, at Nantes.

Sevres-Niortaise, (*-ne-or-taz,*) a river of France, rising in the dept. of Deux-Sèvres, and after a W. course of 75 m. flowing into the Atlantic, at Aiguillon.

Sew, (*sō,*) *v. a.* [*imp.* SEWED; *pp.* SEWED, also, sometimes SEWN.) [A. S. *siwian, suwan;* Lat. *suo, suere,* to sew.] To unite or fasten together with a needle and thread; as, to *sew* cloth

To sew up, to inclose in anything sewed; also, to inclose by sewing; as, to *sew up* a pin-cushion; also, to close or stop by sewing; as, to *sew up* a rip.

—*v. n.* To practice sewing; to stitch; to join things with stitches.

Sewage, (*sū'ij,*) *n.* Contents of a sewer; sewerage; refuse matter carried off by sewers; as, the *sewage* of a city.—Sewerage: methodical arrangement or distribution of sewers or subterranean drains.

Seward, (*sū'ard,*) WILLIAM HENRY, an American statesman, b. in Florida, Orange co., N. Y., 1801, graduated at Union College in 1820, was admitted to the Bar in 1822, and commenced practice at Auburn, in his native State, in 1823. He was elected in 1830 to the State Senate of New York, in which he came forward as a champion of internal improvements, of the abolition of imprisonment for debt, and of giving the people more power in the election of public officers. He visited Europe in company with his father in 1833, and wrote a series of letters during his tour for an Albany newspaper, and they afterwards appeared in a separate form. Having been brought forward in 1834 as a candidate for the governorship of the State, he was defeated by Mr. Marcy, afterwards Minister for Foreign Affairs under President Franklin Pierce, but was more successful in 1838, when he was elected governor of New York by a large majority. In this position he recommended the increase of education, internal improvements, a liberal policy towards foreign immigrants, and took the side of abolition in the growing controversies on slavery. Mr. S. held the office of governor for two terms. He resumed afterwards the practice of law, first in the courts of his own State, and afterwards acquiring a lucrative share of patent causes in the courts of the U. States. In 1849, he was elected to the Senate of the U. States, where he became the acknowledged leader of his party, and in the debate on the admission of California he promulgated what was called his "higher-law" doctrine, in saying that there was "a higher law than the Constitution which regulated the authority of Congress over the national domain — the law of God and the interests of humanity." In a speech at Rochester, N. Y., in 1858, he

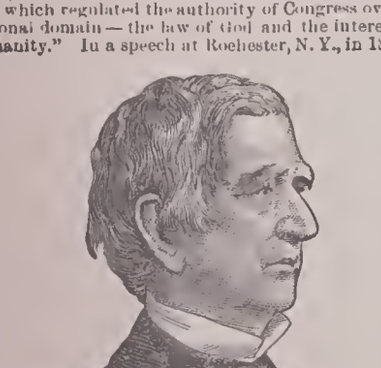


Fig. 2346. — WM. H. SEWARD.

declared that there was an "irrepressible conflict between opposing and enduring forces," and that "the U. States must become either entirely slave or entirely free." In 1859, he revisited Europe, and extended his tour to Egypt and the Holy Land, and in 1860 was the most prominent candidate of the Republican party for nomination for the presidency, but personal and local interests finally secured the election of Abraham Lincoln, while Mr. S. accepted the important post of Secretary of State, in which he guided the diplomacy of the Federal Government through the perils of the War of Secession with an almost unparalleled industry, energy, and success. On the 14th of April, 1865, at the same time that President Lincoln was assassinated by John Wilkes Booth, another assassin, named Payne, entered the house of Mr. S. (then confined to his room by a fall from his carriage), dangerously wounded his son, and with a poignard inflicted wounds upon him which were at first believed to be fatal, but from which he slowly recovered. After the death of Mr. Lincoln, Mr. S. continued to act as secretary until the close of Mr. Johnson's presidency. In 1868–69 he took an extended tour through the far north-west, Alaska, California, Mexico, &c., and in 1870, again set out for a travel through Eastern Asia. In Oct. of the same year he was received by the Mikado of Japan, being the first foreigner to whom the honor had been accorded. The works of Mr. S. have been published in 4 vols. 8vo, New York, 1853–60. They include his orations and addresses, political speeches, official correspondence, and miscellaneous writings. D. at Auburn, N. Y., Oct. 10, 1872.

Sew'ard, in *Illinois,* a post-township of Winnebago co. —A township of Kendall co.

Seward, in *Indiana,* a township of Kosciusko co.

Seward, in *Kansas,* a S.S.W. co., bordering on Oklahoma; *area,* 648 sq. m. *Rivers.* Cimarron, and its tributaries. *Surface,* level; *soil,* fertile. *Cap.* Liberal. *Pop.* (1895) 526.

Seward, in *New York,* a post-town of Schoharie co.

Sew'ard's Point, in *Illinois,* a village of Montgomery co., 50 m. S. of Springfield.

Sewel'lel, *n.* (*Zoöl.*) A N. American rodent animal, family *Sciuridæ,* and type of the genus *Aplodontia. A. seporina* of Puget's Sound, is about the size, and has the general appearance, of the muskrat, but with the tail very short and much depressed.

Sew'ell Mountain, in *W. Va.,* a v. of Fayette co.

Sewell, SAMUEL, an Am. jurist, b. in England, 1652. As Chief Justice for Mass. he presided at the witchcraft trials in 1692. D. 1730.

Sewell's (or SEWALL'S) **Point,** in *Va.,* a promontory to the S. of Hampton Roads, 4 m. S. of Fortress Monroe.

Sew'ellsville, in *Ohio,* a post-village of Belmont co.

Sewer, (*sū'er,*) *n.* [From O. Fr. *issur,* to Issue, to flow forth. See ISSUE.] A drain or passage to convey off water and filth underground; a subterraneous canal or outlet, particularly in cities.

Sewer gas, a term applied to the gaseous emanations from sewers, which, according to Prof. Chandler of N. Y., is composed as follows: Marsh gas 72 parts, carbonic acid 13, sulphuretted hydrogen 7, carbonic oxide 2½, ammonia, &c., 1 part.

—[O. Fr. *seuwer,* esquire.] Formerly, an officer of a great household who superintended the setting on and removing of the dishes at a banquet, and who also provided water for lavation of the hands of the guests.

"A feast serv'd up to ball with *sewers* and seneschals."—*Milton.*

—(*sō'er.*) One who sews, or uses the needle.

Sewerage, (*sū'er-ej,*) *n.* The construction and support of common sewers.—The system of sewers or subterranean conduits for receiving and carrying off the superfluous water, and the refuse, filth, &c., of a city.—Sewage; the matter collected and discharged by sewers.

Sew'ickley, in *Pa.,* a post-borough of Allegheny co., on Ohio river, 13 m. N.W. of Pittsburg. *Pop.* (1897) 5,500.

Sewing, (*sō'ing,*) *n.* Act or occupation of sewing, or using a needle. — That which is sewed with the needle.

—*pl.* Compound threads of silk, wound, cleaned, doubled, and thrown with especial reference to their ultimate use for sewing.

Sewing bird, a spring-clamp, representing a bird in form, to be screwed to a support, for holding an edge of work during the operation of sewing.

Sew'ing-machine, *n.* A mechanical contrivance which forms one of the most valuable inventions of the 19th century. Its discovery originated from the fertile brain of an ingenious, but poor mechanic, one Elias Howe, a native of Mass., who, in 1841, after painful and laborious efforts in the elaboration of his project, obtained a patent therefor in May of that year. Not succeeding at first in inducing his own countrymen to patronize his invention, Howe went to England, where he met with as little encouragement; and was obliged at length to sell his patent for $1,250 and a royalty of $15 per machine, to a staymaker. On his return to the U. States, Howe found his patent pirated by a wealthy company, but after considerable litigation, he succeeded in establishing his rights, and ultimately realized a fortune. Howe's invention worked what is called the *lock-stitch,* but so many improvements and modifications have been introduced by subsequent inventors, resulting in varieties of the machine, that we consider it beyond our limits to enter into the various details of their construction. In fact, these machines are so well and widely known, that such descriptions would be needless. The principal of the machines now in use are: — 1. *Machines which sew with one thread;* of which one kind make the *through and through,* or *shoemaker's stitch;* while another makes what is termed the *running-stitch.* The *chain-* or *tambour-stitch* is also a single-thread stitch. 2. *Machines which sew with a double-thread,* as the well-known examples patented by Wheeler & Wilson, and others. Machines have also been patented both in this country and in Europe for sewing the soles on shoes and boots, for gloves, for embroidery, &c. Sewing-machines are largely exported from this country to Europe, where they have become in almost as common demand and use as they are in this country.

Sex, *n.* [Fr. *sexe;* Lat. *sexus.*] The distinction between male and female, or that property or character by which an animal is male or female. — One of the two divisions of animals, formed on the distinction of male and female. — Womankind; females; — employed by way of emphasis.

"Unhappy *sex!* whose beauty is your snare." — *Dryden.*

The sex, the female sex; females in general; as, "*The sex* whose presence civilizes ours." — *Cowper.*

Sexagenarian, (*-je-nā'-,*) *n.* A person who has arrived at the age of sixty years.

Sexag'enary, *a.* [From Lat. *sexaginta,* sixty.] Designating, or pertaining to, the number sixty; proceeding by sixties.

Sexagenary or *Sexagesimal scale.* (*Math.*) A scale of numbers wherein sixty is the modulus, used in describing the divisions of the circle.

—*n.* A person sixty years of age; a sexagenarian; —also, something composed of sixty

Sexagesima, (*-jēs'-,*) *n.* (*Eccl.*) The second Sunday before Lent, or the next to Shrove Tuesday; —so called as being about the sixtieth day before Easter.

Sexages'imal, *a.* [Fr.] Sixtieth; pertaining to the number sixty.

Sexagesimal fractions. (*Arith.*) Such fractions as have 60, or some multiple of 60, for their denominator. Fractions of this kind were anciently the only fractions used in astronomy; and they are still retained in the division of the circle and of time, where the degree, or hour, is divided into 60 minutes, the minute into 60 seconds, and so on.

Sex'anary, *a.* Sixfold or six-parted. (R.)

Sexangle, (*sēks'ăng'gl,*) *n.* (*Geom.*) A hexagon. (R.)

Sexdigitism, (*sēks-dij'it-izm.*) *n.* [Lat. *sex.* six, and *digitus,* finger.] State of having six fingers on a hand, or six toes on a foot.

Sexdig'itist, *n.* One who has six fingers on a hand, or six toes on a foot.

Sexdnodecimal, (*-dēs'-,*) *n.* [Fr., from Lat. *sex,* and *duodecim,* twelve.] (*Crystallog.*) With eighteen faces; —said of a crystal.

Sex'enary, *a.* Sextuple; proceeding by sixes.

Sexen'nial, *a.* [From Lat. *sex,* six, and *annus,* a year.] Lasting six years, or happening once in six years.

Sex'fid, Sex'ifid, *a.* [Lat. *sex,* and *findere, fidi,* to split.] (*Bot.*) Six-cleft.

Sexisyl'lable, *n.* [Lat. *sex,* and *syllaba,* syllable.] A word of six syllables.

Sex'less, *a.* Having no sex.

Sexloc'ular, *a.* [Lat. *sex,* and *loculus,* a little place.] (*Bot.*) Six-celled.

Sex'tain, *n.* [It. *sestina,* from Lat. *sextus,* sixth.] (*Poet.*) A stanza of six lines.

Sex'tans, *n.* (*Astron.*) The sextant, one of the constellations formed by Hevelius; it is placed across the equator, and on the south side of the ecliptic.

Sex'tant, *n.* [Lat. *sextans,* a sixth.] (*Math.*) The sixth part of a circle.

(*Astron.*) See SEXTANS.

(*Navig.*) An instrument principally used at sea for measuring the altitudes of heavenly bodies, and ascertaining their apparent angular distance. It is constructed on a similar principle to that of the quadrant; but the arc, containing the sixth part of a circle, may be taken to 120°. A sextant is generally fitted with apparatus for ascertaining the angular distances, &c., in lunar observations.

Sex'tary, *n.* [Lat. *sextarius.*] (*Rom. Antiq.*) Among the ancient Romans, a measure about equivalent to an English pint, in both liquid and dry measure.

Sex'tet, Sextet'to, *n.* (*Mus.*) See SESTET.

Sextillion, (*sēks-til'yun,*) *n.* [From Lat. *sex, sextus.*] The number, in English notation, conveyed by a unit with 36 ciphers attached; according to French notation, the number denoted by a unit annexed to 21 ciphers.

Sex'to, *n.*; *pl.* SEXTOES. [From Lat. *sextus.*] A size of book formed by folding each sheet into six leaves.

Sextodecimo, (*-dēs'-,*) *a.* [From Lat. *sextusdecimus,* sixteenth.] Composed of sheets folded in such a manner as to make 16 leaves; of, or equal to, the size of one fold of a sheet of printing-paper when doubled in such a manner as to form 16 leaves, or 32 pages; as, a *sextodecimo* volume.

—*n.*; *pl.* SEXTODECIMOS. A book formed of sheets folded so as to make 16 leaves, or 32 pages. — The size of a book thus formed; — generally symbolized thus: 16*mo,* 16o.

Sex'ton, *n.* [A corruption of *sacristan,* q. v.] A subordinate officer of the church, whose business is to take charge of the sacred vessels, vestments, &c., belonging to the church, to attend on the officiating minister, and perform other duties, such as digging graves, &c.

Sexton'ess, *n.* A female sexton; the wife of a sexton.

Sex'tonville, in *Wisconsin,* a post-village of Richland, 56 m. W. of Madison.

Sex'tuple, *a.* [Fr., from L. Lat. *sextuplus* — *sex,* and *plico, plicatus,* to fold.] Sixfold: six times as much.

(*Mus.*) Noting a measure of two times, composed of six equal notes, three for each time.

Sexual, (*sēk'shu-al,*) *a.* [Fr. *sexuel,* from Lat. *sexualis.*] Pertaining, or having reference, to sex, or the sexes; distinguishing the sex; denoting what is peculiar to the distinction and office of the male and female organs; as, *sexual* characteristics, *sexual* intercourse, *sexual* diseases.

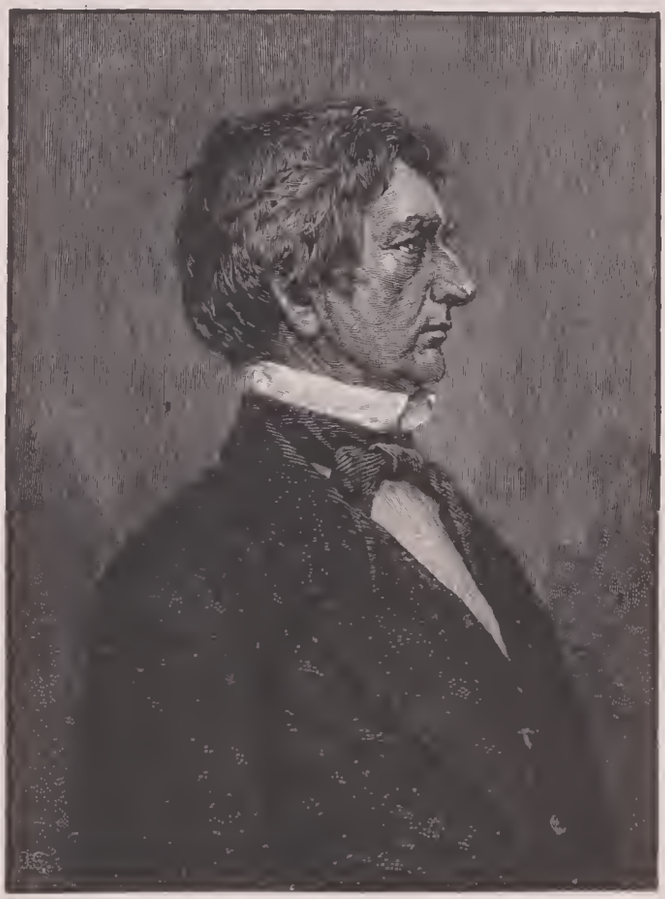
Sexual method. (*Bot.*) See BOTANY.

Sexual'ity, *n.* State or quality of being distinguished by sex.

Sex'ually, *adv.* In a sexual manner; by way of sexual relation.

Seybo, (*sī'bo,*) a town of the Island of Hayti, 55 m. N.E. of San Domingo; *pop.* abt. 5,500.

Seychelles, or **Sechelles,** (*sai'shel.*) a group of islands in the Indian Ocean, bet. Lat. 3° 40′ and 5° 35′ S., Lon. 55° 15′ and 56° E. Mahé, the principal, is 18 m. long, and 4 in average breadth. The *S.,* which are a dependency of the English colony of *Mauritius,* q. v., are moun-



William Henry Seward

1801–1872

tainous and well wooded, producing excellent timber for ship-building. *Chief town.* Victoria, on the N.E. of Mahé.

Sey'mour, Horatio, an American statesman, born in Onondaga co., N. Y., 1811, received a liberal education, studied for the bar, commenced practice as a lawyer in Utica, and was very successful. In 1842, he was elected a member of the Legislative Assembly, and held the position till 1845; was nominated Democratic candidate for the governorship of the State of N. Y., in opposition to Mr Washington Hunt, in 1850, and was defeated after a sharp contest. The Democrats again brought forward Mr *S.* in 1852, when he was elected by a large majority, took his seat as Governor, and signalized his term of office by vetoing the Maine Law Liquor Bill. The next election, in 1854, was very keenly contested by four candidates, nearly half a million of votes having been polled, and Mr. Clarke was elected. In 1856, Mr. *S.*'s name was put forward unsuccessfully by his friends as a candidate for the presidency, and in 1862 he was again nominated for the governorship of N. Y., in opposition to Gen. Wadsworth, and after a keen contest, defeated the Republican candidate. Governor *S.* took his seat Jan. 1, 1863, and adopted a very conservative line of policy. When the invasion of Pennsylvania took place, in June, 1863, he promptly forwarded more than the quota of militia required by the Governor of that State, though he sorely offended the Republican party by his opposition to the Conscription Bill passed by Congress, which gave the President power to call out, for military service, all able-bodied men between the ages of 18 and 45 Mr. *S.*, nevertheless, used his utmost exertion to allay the ill feeling provoked in the city of New York by the conscription, and to suppress the riots which, during four days, disturbed the city. Mr. *S.* was, in 1868, the candidate of a portion of the Democratic party for the presidency. D. 1886.

Seymour, Lady Jane, (*se'moor.*) the third wife of Henry VIII., and the mother of Edward VI. She was at first maid of honor to Anne Boleyn, whom she supplanted in 1536. She b. in 1537, a few days after giving birth to her son.

Seymour, In *Ontario*, a post-village of Northumberland co., on the Trent, 30 m. N.W. of Belleville.

Seymour, in *Connecticut*, a post-town of New Haven co., 12 m. N.W. of New Haven.

Seymour, in *Indiana*, a city of Jackson co., on 3 R. Rs., 18 m. S. of Columbus. *Pop.* (1897) 6,250.

Seyne, (*sain.*) a seaport-town of France, dept. of Var, on the Mediterranean, 3 m. S.W. of Toulon. It has an extensive sardine and tunny fishery. *Pop.* 9,070.

Sez'za, Sezze, a city of Central Italy, 20 m. S.E. of Velletri: *pop* 8,776.

Sfax, or **Sfak'kus,** a town of Tunis, on the Gulf of Cabes, in the Mediterranean, 70 m. N.E. of Cabes; *pop.* 6,900

Sforza, (*sfordz'a.*) a noble Italian family, founded by Giacomo Attendolo, a peasant of the Romagna, who was b. at Cottignola, in 1369, and, enlisting in a company of soldiers that passed through the village, rose gradually to the rank of general. He was called *Sforza* on account of his great vigor. He was drowned in effecting the passage of the River Pescara, in the service of Joan of Naples, 1424. — Francesco Alessandro, Duke of Milan, was a natural son of the preceding. He was b. in 1401, and rose to distinction in the service of Joan afterwards as general of the Milanese troops; he was created duke by the leaders of a revolt in 1450; d. 1466. The descendants of the latter possessed the duchy through several generations. The principal of them was Maximilian, who figured in the events that followed the league of Cambrai, and d. at Paris, in the reign of Francis I., 1530

Sforzan'do, Sforza'to, *n.* [It.] (*Mus.*) A term written over a note to signify that it is to be played or sung louder than the rest. It is abbreviated *sf*, *sfz*, or <.

Sfuma'to, *a.* [It., smoky.] (*Paint.*) A term applied to that style of painting wherein the tints are so blended that the outline is scarcely perceptible, the whole presenting an indistinct misty appearance. The Milanese school exhibits this quality more than any other.

Sgraffito, (*-fē'to,*) **Sgrafiato,** *a.* [It., scratched.] (*Paint.*) A species of drawing in which the ground is prepared with dark stucco, on which a white coat is applied, which last being removed with an iron instrument, the scraping it away forms the shadows, giving it the appearance of a chiaro-oscuro painting.

Shab, *n.* The itch or scab in animals.

—*v. a.* (*imp.* and *pp.* shabbed.) (*shăbd.*) To play mean tricks; to behave or act shabbily.

Shab'bily, *adv.* In a shabby manner; meanly; in a despicable manner; as, to act or behave *shabbily*; with rent, ragged, or seedy garments; as, to be dressed *shabbily*

Shab'biness, *n.* State, quality, or condition of being shabby; meanness; paltriness; ruggedness; seediness; as, the *shabbiness* of a hat, *shabbiness* of behavior, &c.

Shab'by, *a.* [Ger. *schäbig.*] Ragged; torn or worn to rags; poor; dingy; mean; seedy; as, a *shabby* coat. — Attired in threadbare or ragged apparel; as, a *shabby* mendicant. - Mean; paltry; despicable; contemptible; as, a *shabby* fellow, *shabby* treatment.

Shabby-genteel, presenting a shabby appearance combined with an air or aspect of former or natural gentility; as, a *shabby-genteel* mode of living.

Shabo'na, in *Illinois*, a post-township of De Kalb co.; *pop.* abt. 1,800.

Shab'rack, *n.* [Fr *chabraque*, from Turk. *tshâprâk.*] (*Mil.*) The large saddle-cloth forming part of the full-dress equipment of officers of cavalry and horse artillery.

Shack'elford, or Shackleford, in *Texas*, a N.W. central co.; *area*, 900 sq. m. *Rivers.* Clear Fork of Brazos River, and Hubbard's Creek.

Shack'le, *n.* (Usually in the plural, shackles.) [A. S. *sceacul*; Du *schakel*, the link of a chain.] That which binds, or that which prevents the free movement of the limbs; a fetter; a gyve; a manacle; a chain. — Hence, that which obstructs, impedes, or embarrasses free action; as, the *shackles* of tyrannical law. — A band, resembling a fetter-lock, worn as an ornament; a bangle; as, gold *shackles* for the legs. — A link or chain for connecting railroad cars; also called *drag-link* and *draw-link*. — A link in a chain fitted with a movable bolt, so that the chain can be separated.

(*Naut.*) A ring; applied on shipboard more especially to the rings of the posts through which the port-bar is passed to close the port-hole effectually, and to the ring of the anchor by which it is attached to the cable.

—*v. a.* To tie or confine, as the limbs, so as to prevent free motion; to chain; to fetter; to manacle; to gyve; also, to join by a link or chain, as railroad cars; as, to *shackle* a prisoner. — To bind or confine so as to obstruct or embarrass action; to cumber; to impede; as, to be *shackled* by promises or obligations.

Shac'kle-bar, *n.* (*Mach.*) The coupling-bar between a locomotive-engine and its tender.

Shack'ly, *a.* Shaky; rickety. (Vulgar and local.)

Shad, *n.* (*Zoöl.*) A fish of the genus *Alausa*, distinguished from the herrings by a deep notch in the middle of the upper jaw, and by the roof of the mouth and the tongue, which are destitute of teeth. *A. prestibilis*, the American shad, is about 20 inches long.

Shad'-bush, Shad'-berry, *n.* (*Bot.*) See Amelanchier.

Shad'dock, *n.* (*Bot.*) See Citrus.

Shade, *n.* [A. S. *scead*; Ger. *schatten*, from Sansk. *chayâ*, a shadow.] The separation or interruption of the rays of light;—hence, the obscurity which is caused by such interception;—*shade* is distinguished from *shadow*, in that the former implies no particular form or definite limit, whereas a *shadow* reflects the form of the object which intercepts the light. — Darkness; gloom; obscurity. — An obscure place, properly in a grove or dense wood, which precludes the sun's rays: and hence, a secluded retreat; a screen; umbrage; as, to seek a pleasant *shade*. — Shelter; protection; cover; as, under the greenwood *shade*. — Some object formed upon a surface by the interception of light; a shadow. — The soul, after its separation from the body; — so styled because the ancients supposed it to be perceptible to the sight, not to the touch; a spirit; a ghost; a spectre; an incorporeal presence; as, the *shades* of the defunct great. — Degree or gradation of light or color; as, a *shade* of blue. — A very minute difference; an infinitesimal degree; an almost imperceptible amount of alteration; as, he is a *shade* better to-day, every *shade* of opinion or belief.

(*Paint.*) The darker portion of a picture; deficiency or absence of illumination or brightness of tint.

—*v. a.* [A. S. *sceadan*, *gescadan.*] To shelter or screen from light by intercepting its rays; to put or place in shadow; as, a spot of ground *shaded* with trees. — To overspread with darkness or obscurity; to make overcast or gloomy; to obscure; to cloud. — To screen from danger; to shelter; to protect; to hide; to conceal. — To paint in obscure colors; to darken. — To mark with gradations of light or color; as, to *shade* a drawing.

Shade, In *Pennsylvania*, a post-township of Somerset co.

Shade Creek, In *Ohio*, enters the Ohio River from Meigs co.

Shade Creek, in *Pennsylvania*, falls into Stony Creek from Allegheny co.

Shade'ful, *a.* Shady.

Shade'less, *a.* Lacking shade; not shaded.

Shade Mountain, in *Pennsylvania*, forming the boundary between Mifflin and Juniata cos., and extending to the Susquehanna River in Union co.

Shad'er, *n.* One who, or that which, shades.

Shad'ily, *adv.* In a shady manner; umbrageously.

Shade'ville, in *Ohio*, a post-village of Franklin co., 9 m. S. of Columbus.

Shad'iness, *n.* [From *shady.*] State of being shady; umbrageousness.

Shad'ing, *n.* Act or process of making a shade. — The filling up of an outline, in a picture or drawing.

Shad'oof, *n.* See Irrigation.

Shadow, (*shăd'ō.*) *n.* [A. S. *scadu*, *sceadu.*] Obscurity or deficiency of light, perceptible on a surface, and representing the form or the outlines of the body which intercepts the rays of light; shade within defined and apparent limits.—Darkness; shade; obscurity; gloom; as, the *shadow* of an eclipse. — Shelter made by anything that intercepts the light, heat, or influence of the air; place of obscurity or seclusion; cover; protection; security. — The representation of comparative deficiency of light; the darker or less illuminated part of a picture. — An adumbration; an imperfect and faint representation; — hence, type; mystical configuration; as, "Coming events cast their *shadows* before." (*Campbell.*) — An inseparable companion; that which follows or accompanies a person like a shadow. — That which is unreal, incorporeal, or unsubstantial: as, "beckoning *shadows* dire." (*Milton.*) — An uninvited guest coming with one who is invited. — (A Latinism *Nares.*)

Shadow of death, awe-inspiring gloom, trouble, or death.

—*v. a.* To overspread with a shade or shadow, or with obscurity; to intercept light from; as, a *shadowing* cloud. — To protect; to shroud; to screen or conceal from danger; as, "we shall *shadow* the number of our host." (*Shaks.*) — To shade; to mark with faint gradations of light or color. — To paint in obscure colors. — To adumbrate: to body forth dimly: to represent slightly or imperfectly; — hence, to configurate typically; as, I have *shadowed* some part of your virtues under another name. — To cloud; to darken; to make gloomy — To follow closely and almost imperceptibly, as if in the manner of a *shadow*.

Shad'owiness, *n.* State of being shadowy or incorporeal.

Shad'owing, *n.* Shading; shade or gradation of light and color.

Shad'owless, *a.* With no shadow.

Shad'owy, *a.* [A. S. *sceadwig.*] Full of shade, shady; serving to shade; as, *shadowy* woods. — Hence, dark; gloomy; as, a *shadowy* desert. — Faintly light: not vividly luminous; as, a *shadowy* background. — Typical; faintly representative or configurative; as, *shadowy* expiations. — Unreal; immaterial; unsubstantial; as, a *shadowy* pretence.

Shadrach, (*shā'drăk,*) *n.* A mass of imperfectly smelted iron.

Shad'unn, an island of the Red Sea, in Lat. 27° 29′ N., Lon. 34° E. *Ext.* 7 m. long and 4 broad.

Shad'well, in *Virginia*, a post-village of Albemarle co., 4 m. E. of Charlottesville.

Shad'y, *a.* (*comp.* shadier; *superl.* shadiest.) Abounding with shade or shades; overspread with shade: as, a *shady* grove. — Sheltered or screened from the glare of light or sultry heat; as, a *shady* apartment.

Shady Grove, in *Pennsylvania*, a post-village of Franklin co., 60 m. S.W. of Harrisburg.

Shaeffers'town, in *Pennsylvania*, a post-village of Lebanon co., 34 m. E. of Harrisburg.

Shaf'er, or Shafer, in *Pennsylvania*, a village of Venango co., 7 m. S. of Titusville.

Shaft, *n.* [A. S. *sceaft*; Ger *schaft*, from *schaffen*, to fashion, to make.] The cylindrical, column-shaped part of anything; a stem; a stalk; a trunk; a body of a long, cylindrical shape. — Hence, the stem or yard of an arrow; — hence, also, an arrow; a missile weapon: as, "the *shaft* that quivered in his heart." (*Byron.*) — The handle or haft of a weapon; as, the *shaft* of a spear. — The stem, or stock, of a feather or quill. — The pole or thill of a carriage or wagon.

(*Arch.*) The body of a column or pillar; the part between the capital and base. (See Fig. 650.)

(*Mining.*) A sinking, or pit, either in the lode or through the country.

(*Mach.*) In mill-work, a large axle, in contradistinction to a small one, which is called a *spindle*; thus we say "the *shaft* of a fly-wheel," "the *spindle* of a pinion." Shafts are said to be *lying* when they are in a horizontal direction, and *vertical* when they are upright.

(*Mech.*) That part of a machine in which the motion is communicated by torsion, as in the paddle shaft or screw-shaft of a steamship.

(*Mil.*) In military mining, the vertical excavation made to reach the required position for the charge. Horizontal or inclined excavations are called *galleries*.

Counter-shaft. (*Mach.*) Any intermediate shaft between the power and the work. — *Shaft of a forge-hammer*, the helve, haft, or handle — *Shaft of a blast furnace*, in smelting, the internal cavity of the furnace.

Shaft'-bender, *n.* One who bends timber by steam and pressure.

Shaft'ed, *a.* Having a shaft or handle.

(*Her.*) Borne on a shaft;—applied to a spear-head.

Shaftes'bury, Anthony Ashley Cooper, Earl of, an English statesman, b. 1621, descended from a family intimately associated with the political history and literature of England, and was actively engaged in public offices during the Civil War. He first espoused the cause of royalty; he then became one of the most eminent of the Parliamentary leaders in the council, and not the least active in the field. When he saw that the restoration was inevitable, he took so prominent a part in bringing back Charles II. that he was raised to the peerage as *Baron Ashley*. He was a member of the justly infamous "Cabal" Ministry, and was afterwards appointed to be Lord-Chancellor, with the earldom of Shaftesbury. He was the Achitophel of Dryden, by whom his character is drawn with as much truth as power. He hated a calm, lived all his life in intrigues, but is honored as the author of the Habeas Corpus Act. D. 1683. — His grandson, Anthony Cooper (b. 1671, d. 1713), author of the *Characteristics*, the friend of Pope, obtained from Voltaire the questionable praise of being the boldest of the English philosophers.

Shaft'-horse, Shaft'er, *n.* The horse that works between the shafts of a carriage, wagon, &c.

Shaft'ing, *n.* Shaft in the collective sense.

Shafts'bury, in *Vermont*, a post-village and township of Bennington county, 100 miles south-west of Montpelier.

Shag, *n.* [A. S. *sceacga.*] Coarse hair or nap, or rough woolly hair; as, the *shag* of broad cloth. — A kind of cloth resembling frieze. — A kind of long-cut, dark-colored smoking tobacco.

(*Zoöl.*) A species of cormorant having a tuft of feathers on the head, between the eyes, at the beginning of the spring.

—*v. a.* (*imp.* and *pp.* shagged.) To make rough, hairy, or shaggy.

Shag'-bark, *n.* (*Bot.*) See Hickory.

Shag'ged, *a.* Shaggy; rough with shag.

Shag'gedness, Shag'gIness, *n.* State of being shagged or shaggy; roughness with long, loose hair or wool.

Shag'gy, *a.* Shagged; hirsute; rough with long hair or wool; as, a *shaggy* skin. — Rugged; rough; as, a *shaggy* wilderness.

Shagreen', *n.* [Fr. *chagrin*; Turk. *sagri.*] See LEATHER.

Shagreen', Shagreened, (*-grind,*) *a.* Made of the leather called *shagreen.*

Shah', SCHAH, *n.* [Pers. *shâh*, a king, sovereign.] The title assumed by the Persian monarchs.

Shahjehanpoor, (*sha-je-han-pur'*,) a town of British India, cap. of a district of same name, prov. of Delhi, on the Gurra River, 175 m. S.E. of Delhi; Lat. 27° 38′ N., Lon. 79° 18′ E.; *pop.* 65,000.

Shahpoor', a river of Persia, prov. of Khuzistan, rising 10 m. N. of the ruins of Sus, and, after a S.E. course of 60 m., joining the Karoon 50 m. S. of Shuster.

Shahpoor, or PADSHAHPUR, (*sha-poor'*,) a town of British India, presidency of Bombay, Lat. 16° 18′ N., Lon. 74° 45′ E.; *pop.* 7,000.

Shahpoorah, (*sha-poo-ra'*,) a town of British India, prov. of Ajmeer; Lat. 25° 43′ N., Lon. 75° 9′ E.

Shahporee, (*sha-po-rē'*,) an island of British India, off the coast of Aracan; Lat. 20° 40′ N., Lon. 92° 24′ E.

Shake, *v. a.* (*imp.* SHOOK; *pp.* SHAKEN.) To cause to move with quick vibrations; to move or oscillate rapidly one way and the other; to agitate; to make to totter or tremble; to cause to shiver. — To weaken the stability of; to move from firmness; to threaten with danger of an overthrow; as, his throne is too strong to be *shaken.* — To cause to waver or doubt; to sap or impair the resolution of; to depress the ardor or courage of; as, can nothing *shake* his purpose? — To trill; to give a tremulous, quivering note; as, to *shake* a note in music. — To throw down or away by a violent or sudden motion; to drive off or away by a jolting or vibratory motion; — commonly preceding an adverb, as *out, off,* &c.; as, he *shook off* the shackles of dependence.

To shake hands with, to join or unite with; to agree or contract with. — To take leave of; as, men who are *shaking hands with* their allegiance.

—*v. n.* To be agitated with a waving or vibratory motion; to tremble; to shiver; to quake; to quiver; to shudder; to dodder; to totter; as, he *shakes* with ague.

—*n.* A concussion; a vacillating or wavering motion; a rapid, oscillating movement; agitation; a trembling or shivering; as, a *shake* of the hand, the *shake* of an earthquake. — A fissure in rock or earth. — A fissure or rent in timber.

(*Mus.*) A quick, alternate repetition of the note above with that over which the mark *tr* is placed, commonly ending with a turn from the note below.

(*Naut.*) One of the staves of a barrel or harness-cask taken apart.

The shakes, an American colloquialism for the fever and ague; as, he is down with *the shakes.*

No great shakes, of no particular importance, value, or account; as, as a general he is *no great shakes.* (Colloq.)

Shake'-down, *n.* Any temporary substitute for a bed, as on chairs, on a sofa, on straw strewed on the floor, or the like.

Shaken, (*shāk'n,*) *a.* Cracked or split; as, *shaken* timber.

Shak'er, *n.* The person who, or thing which, shakes or agitates.

—*n. pl.* (*Eccl. Hist.*) A religious sect which originated in a secession from the Quakers, in Lancashire, in 1747, and received their name from the violent shaking of their bodies in religious worship. In their ordinary meetings they often engaged in a regular dance, jumping, turning round rapidly, falling on their knees, and assuming numerous other peculiar postures. At other times they marched in order round the room in harmony with songs sung on the occasion, shouting and clapping their hands. They had also intervals of shuddering, as if in a fit of ague. They were joined, in 1758, by Ann Lee, who subsequently became the leader of the sect, giving herself out to be inspired, and the woman alluded to in *Rev.* xii. In consequence of persecution, she, and a number of her followers, left England for New York, where they arrived in 1774. Their numbers rapidly increased, and they formed themselves into communities called *families,* each holding property in common. There still exists a considerable number of them in the U. S., and it is said a few of them in England; but they have given up the more violent of their exercises, and are generally distinguished as peaceful and well-conducted in ordinary life.

Shaker Village, in *New Hampshire,* a post-village of Merrimack co., 12 m. N.E. of Concord.

Shak'iness, *n.* State or condition of being shaky.

Shak'o, *n.* [Hung. *csákó.*] (*Mil.*) The head-dress worn by the infantry of the line in the British, French, Austrian, and other armies.

Shak'opee, in *Minnesota,* a city, cap. of Scott co., 28 m. W.S.W. of St. Paul. *Pop.* (1895) 1,966.

Shakspeare, WILLIAM, an English dramatist, b. at Stratford-on-Avon, Warwickshire, April, 1564. From the birth of the great poet until his marriage, and from that date until we find him an actor in London, we know almost nothing of him with any certainty. From such trivial matters as the spelling of his name and the house in which he was born, up to the high and difficult question of the meaning of his sonnets, almost all the particulars of his biography are either involved in total darkness, or only seen by the imperfect and bewildering light of conflicting traditions. All that is possible to do here is to tell the story as it is usually told, or the most probable particulars of it. The poet's father was John Shakspeare, a well-to-do inhabitant of Stratford, probably glover, grazier, and dealer in wool, owner of landed property, alderman, and in 1568 chief magistrate of Stratford. His mother was Mary Arden, of an ancient and wealthy family, but of whom personally nothing whatever is known. His name appears in the forms — *Shakspeare, Shakespeare, Shakspere, Shakspur, Shagspur, Saxpere, Chaksper,* and with other variations, and is spelt differently by himself on different occasions. His birth-place, as pointed out by traditions, is the house in Henley street, Stratford, which belonged to his father. But his father owned several other houses, and there is no evidence to show where he lived in 1564. The house is now the property of the nation. *S.* was educated at the free grammar-school of Stratford, where he probably remained from the age of 7

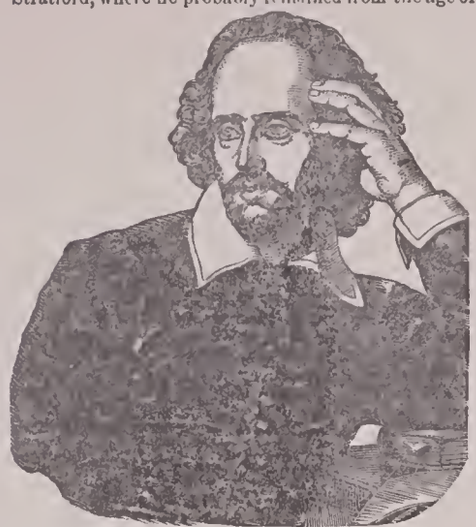


Fig. 2347. — WILLIAM SHAKSPEARE.

to about 14. During his boyhood Stratford was frequently visited by companies of strolling players, whose performances doubtless first attracted him to the stage. The beautiful scenery of the Avon, and the places of historical interest in the neighborhood, could not fail to influence his fine and sensitive nature. In his 19th year he married Anne Hathaway, daughter of a yeoman at the neighboring hamlet of Shottery, and eight years older than himself. Among the many suspicious stories told of *S.*'s early life, one is of a drinking challenge made by a club at Bidford, called "The Topers," and accepted by him and his comrades; and of his sleeping off the effects of the bout under a crab tree on the way home. More celebrated is the tale of his taking part in stealing deer from the park of Sir Thomas Lucy at Charlecotte, and of his detection and prosecution. This affair is said to have been the immediate occasion of his going to London, about 1586. It is quite as probable that nuptial disappointments and dissatisfaction may have driven him from home; and very natural that his course should be to the metropolis, with its large, full, and fascinating life. It is certain that he did go to London, and lived there many years, leaving his wife and children at Stratford; that he gained an honorable position as actor, play-writer, and shareholder in the theatre of Blackfriars, and afterwards in that of the Globe (Fig. 2318); enjoyed the favor and patronage of Queen Elizabeth, James I., and the Earl of Southampton, the warm friendship of Ben Jonson, and the highest respect and admiration of his associates, not only for his preëminence as a poet but for his honesty, geniality, and worth as a man. *S.* gained also wealth, and became the

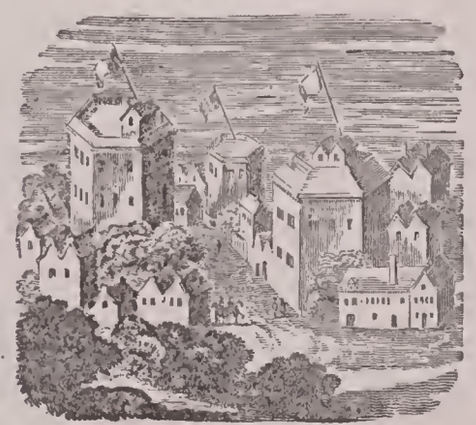


Fig. 2348.

THE GLOBE AND ROSE THEATRES, AND BEAR-GARDEN, (Southwark, 1612.)

purchaser of the house at Stratford called New Place, and afterwards of a large estate which he annexed to it. It was his ambition to found a family, and it was probably by his desire that his father, in 1597, obtained a grant of arms from the Heralds College, and, subsequently, permission to impale the arms of *S.* with those of Arden. During his residence in London he is said to have visited his native town annually, and he returned to spend his last years there, perhaps about 1604. Enjoying the dignified ease of the country gentleman, the highest respect of his countrymen, and the sweets of the rare wisdom to which he had attained, he awaited the end; not ceasing to write, but producing in those quiet years some of his grandest works. Of his end we have no other account than the short statement in the diary of the Rev. John Ward, vicar of Stratford, that "Shakspeare, Drayton, and Ben Jonson had a merry-meeting, and it seems drank too hard, for Shakspeare died of a fever then contracted." The date of his death is April 23d, 1616. Two days after, his remains were buried in the chancel of Trinity church, Stratford, and his well known bust was executed and placed near the spot within seven years. Besides his first child, Susanna, he only other children were a boy and a girl, twins, born in 1585. Susanna married Dr. Hall, a physician of Stratford, in 1607, was left a widow in 1635, and died in 1640. She had one child only, a daughter, who, though twice married, left no children. Of the twins, the boy, named Hamnet, died at the age of eleven, and the girl, Judith, married Thomas Quincy, and had three sons, who all died childless. Although we have no proof that *S.* ever sat to a painter, portraits of him exist; but they curiously differ, and only three are thought of much importance, viz., that engraved by Martin Droeshout for the folio of 1623; the Chandos portrait, copied in Fig. 2347; and that preserved in the museum at his birth-place. The bust is probably the best authenticated likeness. The Chandos portrait was presented by the Earl of Ellesmere, in 1856, to the London National Portrait Gallery. The first collected edition of *S.*'s plays was the folio of 1623. His poems of *Venus and Adonis,* and *The Rape of Lucrece,* were published in 1593 and 1594, and were the only works which appeared with his name in his lifetime. Of the 36 plays (exclusive of *Pericles*), the dates of publication of only a few are known. *The Two Gentlemen of Verona,* and *Love's Labor Lost,* were among the earliest; and *Tempest, Troilus and Cressida, Henry VIII., Coriolanus, Julius Cæsar,* and *Antony and Cleopatra* among the latest. The *Midsummer Night's Dream, Merchant of Venice, Romeo and Juliet, Richard II., Richard III., Henry IV.,* and *King John* were all produced before 1598. A copy of *Hamlet* is extant, bearing the date 1602. *Twelfth Night* was produced in 1601; *King Lear* was printed in 1607; the *Tempest* was written in 1611. The second folio edition of the collected plays appeared in 1632, and two others subsequently. It is said that by 1820 not less than 52 editions had been published, without including separate plays, and poems, and commentaries. Since then the number has been enormously increased. The works of Shakspeare have become, to a large part of the world, one of the primal necessities of life. In no other man's books, probably, is to be found so much truth, wisdom, and beauty as in his. Great to all men, he is greatest to the great, the homage of the highest intellects of the world is silently, or with eloquent speech, yielded to him. The myriad-minded man, the greatest intellect; who in our recorded world has left such a record of himself in the way of literature; the poet of the human race; the melodious priest of a *true* Catholicism; — such are some of the phrases in which other great men have striven to express their sense of his superiority. Ben Jonson, Milton, Dryden, Pope, and in our own day Coleridge, De Quincey, Carlyle, and Emerson, have led the chorus of his praise. In Germany, Lessing revived the knowledge of his works; and after him, Herder, Tieck, Wieland, Schlegel, and Gœthe have contributed to establish his supremacy. The most important of recent contributions to the critical study of *S.*, is the Commentary of Professor Gervinus, of which an English translation has appeared. Another valuable critical work is Dr. Hermann Ulrici's *Shakspeare's Dramatic Art,* also translated. A Shakspeare Jubilee, the first celebration of the kind in England, was suggested and carried out at Stratford by David Garrick, 6–8th September, 1769. A similar celebration took place under the auspices of the Shakspeare Club in 1824, and was appointed to be held annually. In April, 1864, a Tercentenary Festival, with dramatic performances, exhibition of relics, and even sermons, was held at Stratford. An attempt was made to get up a national subscription for a monument to the poet but it failed miserably. In Germany, one result of the centenary movement was the formation of a *Shakspeare Society,* which is to publish annually a volume devoted to Shakspearean subjects. Among the many editors of the works of *S.* may be mentioned Dryden, Pope, Sir T. Hanmer, Warburton, Steevens, Malone, Dr. Johnson, Coleridge, Dr. Chalmers, Hazlitt, Collier, Dyce, C. Knight, C. Lamb, Halliwell, Craik, Guizot, Mrs. Jameson, &c.

Shaksper'ean, *a.* Pertaining, or relating, to Shakspeare, or to his immortal works; in the style, or after the manner, of Shakspeare.

Shak'y, *a.* (*comp.* SHAKIER; *superl.* SHAKIEST.) Shaking, quivering, or trembling; as, a *shaky* hand, a *shaky* morass, &c.

—Noting timber when naturally full of slits or clefts.

—Loosely put together; ready to fall to pieces; as, a *shaky* scaffolding.

Shale, *n.* [Corrupted from *shell*; Ger. *schale.*] A cod or pod; a shell; a husk; as, the *shale* of a bean.

(*Geol.*) An indurated clay, which often forms beds in the coal measures. It is chiefly composed of silica and alumina, in variable proportions, but also frequently contains a considerable amount of carbonate of lime and oxide of iron. It is of a gray or grayish-black color, or brownish-red when containing much iron. Its structure is more or less slaty. It is soft, and easily reduced to powder. It is used for making slate-pencils. When free from lime and iron, it is reduced to powder, and used for making fire-bricks, for which it affords an excellent material. *S.* very often contains a notable quantity of bitumen, and when this is so much the case that the mineral has a shining resinous streak,

and crackles and blazes in the fire, emitting a black smoke and a bituminous odor, it is known as *Bituminous shale*, and from it may be distilled an oil known as *shale-oil*, used for illuminating purposes.

Shale, *v. a.* To shell; to take off the shell, coat, or incrustation of; as, to *shale* the husk of a nut.

Shaler, in *Pennsylvania*, a township of Allegheny co. *Pop.* (1897) 5,340.

Shalersville, in *Ohio*, a post-township of Portage co.

Shalersville, in *Pennsylvania*, a vill. of Allegheny co.

Shall, *v. n.* and *aux.* (*imp.* SHOULD,) (*shud*) [A.S. *sceal*, I owe, I ought; Icel. *skal*, I ought; Ger. *sollen*.] This word, as an auxiliary, denotes or implies a duty or necessity whose obligation is deduced from the person speaking; as, you *shall* come, she *shall* come; that is, I command or assure your or her coming. It thus customarily expresses, in the second or third person, an order, a menace, or a promise. When the auxiliary is emphasized, the order is rendered more imperative, the menace or promise more positive and assured. It is also used in language indicative of prophecy; as, "the time *shall* come, when . . .," in the sense that a threat or an assurance, and a dictatorial or magisterial prophecy nearly assimilate in coincidence. When employed with the first person, the force of the action is occasionally understood as residing elsewhere than in the speaker; as, I *shall* insist, we *shall* refuse; and there is necessarily always a less emphatic and determinate assertion of his volition than is expressed by *will*. "I *shall* come," infers merely a simple futurity; or, in the more exact sense, a prognostication or presage of my going, in which, naturally enough, some definite degree of scheme or purpose may be included. When *shall*, however, is emphasized, the circumstance is demonstrated as certain to happen, and the phrase becomes analogous in force of significance to our imperative, "I *will* go." Interrogatively, the relation of speaker and cause of obligation is necessarily transferred to the person accosted; as, "*shall* you go?" (reply, "I *shall* go;") "*shall* she go?" *i. e.*, "do you insist upon or assure her going?" (reply, "she *shall* go.") The same analogy is transferred to either second or third person in such terms as "you say, or believe, you *shall* go," "she says, or believes, she *shall* go." Following a conditional subjunction, as *whether*, *if*, the word *shall* is employed in all persons to indicate or imply futurity simply; as, if you *shall* say he is right. *Should* is in all cases used in the same relation and the same signification as *shall*, as its imperfect. In the early English, and accordingly in our English version of the Scriptures, *shall* is the auxiliary chiefly employed, in all the persons, to denote simple futurity. Inaccurate speakers, as foreigners, vulgarians, &c., are apt to frequently confound *shall* and *will*.

Shall, *n.* Same as CHALLIS, *q. v.*

Shalloon', *n.* [Said to take its name from *Chalons*, France.] A slight kind of worsted or woollen stuff.

Shallop, *n.* [Fr. *chaloupe*; Sp. *chalupa*.] An open, broad, two-masted boat, rigged schooner-fashion, formerly used by fishermen, but now nearly superseded by luggers and yawls.

Shallot', *n.* (*Bot.*) Same as ESCHALOT, *q. v.*

Shallotte, in *N. Carolina*, a post-village of Brunswick co., 30 m. S.W. of Wilmington.

Shallow, (*shăl'lō.*) *a.* (*comp.* SHALLOWER; *superl* SHALLOWEST.) [Probably from A. S. *scylf*, a shelf; accumulations of sand on the shore having formerly been called *shelves*.] Shoal; not deep; having little depth; as, a *shallow* river. — Not deep, or not entering far into the earth; as, a house with a *shallow* foundation. — Not intellectually deep; not profound; not entering deeply into abstruse subjects; superficial; empty; ignorant; simple; as, a *shallow* intellect, a *shallow* understanding. — Slight; not deep or sonorous; not of low, heavy, or penetrating sound; as, a *shallow* tone.

—*n.* A shelf; a flat; a shoal; a sand-bank; any place where the water is not deep; — usually in the plural; as, "the *shallows* of the moving sand." — *Dryden.*

Shallow-brained, Shallow-pated, *a.* Empty-headed; silly; vacuous; having superficial or petty understanding; as, a *shallow-brained* critic.

Shallowly, *adv.* In a shallow manner; superficially; ignorantly.

Shallowness, *n.* State or quality of being shallow; small depth; lack of depth; as, the *shallowness* of a stream. — Superficialness of the mental faculties; want of power to enter deeply into an abstruse subject; emptiness of brain; ignorance; silliness.

Shallow-searching, (*-sûrch-,*) *a.* Searching or seeking in a superficial manner.

Shalmane'ser, King of Assyria, ascended the throne abt. B.C. 728, and reigned 14 years. Scripture represents that he came into Palestine, subdued Samaria, and carried away most of the people beyond the Euphrates.

Shalstone, *n.* [Ger. *schalstein*.] (*Min.*) Tabular spar.

Shalt, the 2d person singular of SHALL, *q. v.*

Shaly, *a.* Having the characteristic qualities of shale.

Sham, *n.* [A. S. *scamu*; Ger. *scham*, shame.] That which is shameful because deceiving just expectation; any trick, fraud, or pretext that secludes or disappoints; imposture; feint; humbug; delusion; as, the *shams* of astrological judgments.

—*a.* False; counterfeit; pretended; spurious; as, a *sham* quarrel.

—*v. a.* (*imp.* and *pp.* SHAMMED.) To trick; to cheat; to humbug; to deceive the expectation of; to delude or bamboozle by false pretences; as, to *sham* piety, modesty, or humility. — To obtrude by fraud, feint, or imposture; as, to *sham* fallacies upon the world for current reason. — To ape; to imitate; to copy; to assume the style, manner, or characteristic appearance of; as, a vulgar person who *shams* gentility.

To sham Abraham, to feign sickness, infirmity, or incapacity. (Colloq.)

—*v. n.* To feign; to impose; to use false pretences; as, he is *shamming* poverty to hide his meanness.

Sha'manism, *n.* A general appellation given to the idolatrous religions of a number of barbarous tribes, comprehending those of Finnish race — the Ostiaks, Samoiyeds, and other inhabitants of Siberia as far as the Pacific Ocean.

Sham'ble, *v. n.* To walk awkwardly and unsteady, as if the knees were weak; to shuffle along.

—*n.* [A. S. *scamel*, a stool, bench, form; Ger. *schämel*; Fr. *escabeau*.] (*Mining.*) A shelf or niche left at proper distances to receive the ore which is thrown from one to another, and thus raised to the top.

—*pl.* The benches, or stalls, on which butchers expose their meat for sale; a flesh market.

Sham'bling, *n.* An awkward, clumsy, unsteady pace or gait; a shuffling motion.

Shame, *n.* [A. S. *scama*, *scamu*; Ger. *scham*.] A painful sensation excited by a consciousness of guilt, or of having done something which injures reputation, or by the exposure of that which nature or modesty prompts us to conceal; — hence, decency; propriety; decorum; as, her blush of maiden *shame*. — Reproach incurred or endured; ignominy; contumely; derision; contempt; dishonor suffered; as, "an erring sister's *shame*." (*Byron.*) — Cause or reason of shame or dishonor; that which brings reproach, and lowers or degrades one in the estimation of others; as, he is a *shame* to manhood. — The privy or secret parts. — *For shame!* fie upon you! shame on you! — *To put to shame*, to inflict shame on; to cause to experience or suffer shame.

—*v. a.* [A. S. *scamian*.] To make ashamed; to cause to feel or experience a consciousness of guilt or of doing something derogatory to honor or reputation; to cause to blush.

"He *shamed* oppression, till it set him free."—*Dryden.*

—To dishonor; to disgrace; to cover with reproach or ignominy; to confer infamy upon; as, speak truth and *shame* the Devil. —To deride; to ridicule; to mock at. (R.)

—*v. n.* To feel shame; to be ashamed; as, such language I *shame* to repeat. (R.)

Shame'faced, (*-fāst,*) *a.* Bashful; modest; diffident; coy; easily confused or put out of countenance; as, a *shamefaced* woman.

Shame'facedly, *adv.* In a shamefaced manner; with becoming or excessive modesty, or bashful coyness.

Shame'facedness, *n.* Bashfulness; excess of modesty; also, becoming coyness or diffidence.

Shame'ful, *a.* Full of shame; disgraceful; reproachful; that brings shame, dishonor, or infamy; disreputable; unbecoming; scandalous; reprehensible; as, a *shameful* retreat, a *shameful* act or proceeding. — Indecent; raising or exciting shame in others; as, a *shameful* sight.

Shame'fully, *adv.* In a shameful manner.

Shame'fulness, *n.* State or quality of being shameful; disgracefulness.

Shame'less, *a.* Destitute of shame; utterly short of, or wanting modesty or self-respect; insensible to reproach, dishonor, or disgrace; impudent; immodest; unblushing; audacious; indecent; done without shame; indicating absence of shame; as, a *shameless* reprobate.

Shame'lessly, *adv.* In a shameless manner.

Shame'lessness, *n.* Want of shame; absence of modesty or decency; insensibility to disgrace or dishonor; impudence.

Sham'er, *n.* One who, or that which, puts to shame; that which confounds.

Sham'mel, *n.* (*Mining*) A process by which ore or water is raised by bringing it first to an intermediate platform before lifting it to the surface of the ground.

Sham'mer, *n.* One who shams; an impostor; a humbug.

Shamo'kin, in *Pennsylvania*, a post-borough and township of Northumberland co., 13 m. E.S.E. of Sunbury. *Pop.* (1897) 16,160.

Shamokin Creek, in *Pennsylvania*, falls into the Susquehanna river at Sunbury.

Shamokin Dam, in *Pennsylvania*, a post-village of Snyder co.

Shamong', in *New Jersey*, a village and township of Burlington co., 40 m. E.S.E. of Camden.

Shamoo'la, *n.* (*Bot.*) See PANICUM.

Sham'oy, Sham'moy, Sham'my, *n.* See LEATHER.

Shamoy'ing, *n.* (*Manuf.*) See LEATHER.

Shampoo', *v. a.* [Hind. *champna*, to press.] To press and rub the entire surface of the body, and at the same time to bend and extend the limbs and rack the joints, in connection with flesh-brushes and the hot bath. — To wash and scrub thoroughly the head with the fingers, using either soap or a saponaceous preparation, for the more perfect cleansing.

Shampoo'er, *n.* One who shampoos.

Shampoo'ing, *n.* Act or practice of one who shampoos.

Sham'rock, *n.* [Irish.] (*Bot.*) A ternate leaved plant, adopted by the Irish as their national emblem. Many and warm have been the disputes to determine the veritable *S.* Some writers contend for the *Oxalis acetosella*, or Wood-sorrel, the leaves of which unfold about St. Patrick's day; while others maintain that the *Trifolium repens*, or White Clover, is the favored plant. Legends make out that St. Patrick, when preaching the gospel to the benighted inhabitants of Ireland, illustrated the great doctrine of the Trinity by the triple leaf of the *S.* Whether he plucked the bright, green leaf of the Wood-sorrel, or the more familiar herbage of the White Clover, cannot now be determined. The latter is, however, now generally worn by Irishmen on St. Patrick's day.

Sham'rock, in *Missouri*, a post-village of Calloway co., 48 m. N.E. of Jefferson city.

Shamrock, in *Ohio*, a village of Adams co., 88 m. S.E. of Cincinnati.

Sha'myl. See SCHAMYL.

Shandaken, in *New York*, a post-township of Ulster co., 56 m. S.S.W. of Albany.

Shanes'ville, in *Ohio*, a post-village of Tuscarawas co., 90 m. E.N.E. of Columbus.

—A village of Mercer co., 124 m. W.N.W. of Columbus.

Shanesville, in *Pennsylvania*, a post-village of Berks co., 16 m. N.E. of Reading.

Shang'hae, or **Shang'hai,** a city and river-port of China, prov. Kiang-su, on the Woosung Riv., 40 m. by water from the sea, and 160 m. E.S.E. of Nankin; lat. 30° 12′ N., Lon. 120° 50′ E. The city stands in a level and well cultivated plain, it consists of old *S.*, enclosed by a wall, and several suburbs, the foreign suburb is divided into the French, British and American concessions. It is well sewered, has excellent supply of water, electric lights and also gas. The total population with the suburbs is about 700,000. It has a mint, with manufactures of silk, vegetable oils, and oil cake (of which vast quantities are annually sent into the interior), ironware, glass, paper, and ivory-ware. *S.* is the most northerly of the 5 Chinese ports opened to foreigners by the treaty of 1842, and is now one of the Chinese treaty ports. The river, which may be navigated by ships of 450 or 500 tons for a considerable distance above the town, crosses the Grand Canal, so that *S.* is an entrepôt for all the vast and fertile countries traversed by the canal, and by the great rivers in the Yung-tse Kiang, and the Hoang-Ho, with which it is connected, — hence the present importance of this emporium, and hence, also, the indefinite extension to which its foreign trade will probably attain. Its inland and coasting trades are both very extensive. The inhabitants of *S.* are much more hospitable, and better disposed towards foreigners than those of Canton; and strangers may travel for miles into the interior, all round the city, with perfect security. The Chinese part, with narrow, filthy streets, is surrounded by a wall, between which and the river lie densely crowded suburbs. The French and English settlements are handsomely built.

Shank, (*shangk,*) *n.* [A. S. *scanca*; Ger. *schenkel*.] The large bone of the leg; the whole joint of the leg from the knee to the ankle; — hence, the legs, used in a contemptuous sense; as, a pair of pitiful *shanks*. — Hence, that long part of an instrument which serves as the handle or motor; as, specifically, the straight part of a hook above the bent portion; the shaft or principal member of an anchor (Fig. 121); the eye of a button; that part of a key which is between the bow and the part which enters the wards of the lock; that part of a cutting tool or implement which connects with the handle.

(*Arch.*) The space between the channels of a triglyph.

(*Metal.*) A large ladle moved by the action of bars.

(*Print.*) The body of a type.

Shank'er, *n.* (*Med.*) Same as CHANCRE, *q. v.*

Shank'-painter, *n.* (*Naut.*) A rope or chain which, passing round the shank of the anchor, lying horizontally, confines it to the ship's bow, abaft the cathead.

Shanks'ville, in *Pennsylvania*, a post-village of Somerset co., 77 m. E.S.E. of Pittsburg.

Shan'non, a large river in the W. of Ireland, and one of the finest in the British Islands. The *S.* has a length of 220 m., and is divided into the Upper and Lower *S.* The Upper *S.*, by far the longest and narrowest part of the river, rises in the mountains of Ulster, at the N.W. extremity of the co. of Cavan from the Kilkenh Mountains, and flowing S. enters and passes through Lough Allen, till, quitting the county of Leitrim, it flows S. and E. and S.W. to the town of Banagher, forming from this portion of its course the boundary between Connaught and Leinster. From Banagher the river has first a S.W. and then a S. course, till, a little above the city of Limerick, it divides into two branches, which, flowing round King's Island, the most ancient part of the city, unite below to form the Lower *S.* From its rise in Cavan to its encircling the King's Island, the river has a length of 180 m. In this course the river is greatly interrupted by shallows, falls, and rocks, impeding all navigation; many canals, however, have been constructed to overcome these difficulties, and connect the clearer portions of channel. The Lower *S.*, from Limerick to the mouth of its estuary in the Atlantic, has a length of 40 m. and a breadth of from 1 to 7 m.; though the channel in places is obstructed by islands, rocks, and shoals. It has, however, good anchorage everywhere, and forms a harbor of refuge for ships against the force of westerly gales.

Shan'non, in *Illinois*, a post-village of Carroll co., 14 m. S.W. of Freeport.

Shannon, in *Kansas*, a post-township of Atchison co. *Pop.* (1897) 2,338.

Shannon, in *Missouri*, a S.S.E. co.; *area*, 960 sq. m. *Rivers.* Current, Jack's Fork, and Big, and Sinking creek. *Surface*, diversified, and in part covered with pine forests; *soil*, generally fertile. *Min.* Copper. *Cap.* Eminence. *Pop.* (1897) 10,050.

Shannon, in *Ohio*, a village of Muskingum co., 11 m. N.N.W. of Zanesville.

Shan'nondale Springs, in *W. Virginia*, a watering-place of Jefferson co., about 5 m. S. of Charlestown.

Shan'non Hill, in *Virginia*, a post-village of Goochland co., 25 m. W. of Richmond.

Shan'nonville, In *Pennsylvania*, a post-village of Montgomery co., 5 m. W. of Norristown.

Shan-se, a prov. of China, between Lat. 35° and 41′ N., Lon. 110° and 114° 30′ E.; *area*. 55,268 sq. m. The surface is mountainous, but generally fertile. *Prod.* Wheat, cotton, millet, rice, tobacco, silk, chemicals, honey, and five-stock. *Cap.* Tae-yuen-foo. *Pop.* 15,000,000.

Shan States, a number of tributary states in Indo-China, lying between Munnipur on the W. and Yunnan on the E., and from this parallel of 24° N. Lat. south to Bangkok and Cambodia. Of these the northern states are tributary to Burmah, and the southern to Siam. A great portion of the mountainous region of these states is called the *Laos Country*, and is inhabited towards the N. by the *Black-bellies*, so called from the circumstance that they tattoo themselves with figures in ink, and in the S. by the *White-bellies*, who do not tattoo. Xieng mai, the cap. of Laos, stands on a wide plain on the Meinam, 500 m. N. of Bangkok, and is said to contain 50,000 inhabitants. The number of Laocians included in Siam alone is estimated at 1,000,000. They are meek, gentle, unwarlike, and superstitious. Their chief employment is agriculture; and in religion they are Buddhists.

Shan't. An inelegant contraction of *shall not*, frequently employed in colloquial language; as, I *shan't* do it.

Shan-tung', a marit. prov. of China, bordering on the Gulf of Pschelee, the Yellow Sea, and the Hoang-ho, bet. Lat. 35° and 38° N., Lon. 115° and 122° 40′ E.; *area*, 65,000 sq. m. The surface is mountainous in the E. and level in the W. *Prod.* Wheat, millet, indigo, drugs, and silk. *Manuf.* Carpets, caps, and henipen cloth. *Cap.* Tse-nan-foo. *Pop.* 28,000,000.

Shan'ty, *n.* [Etymol. unknown.] A temporary building or structure, used as a dwelling; a mean place of abode; a log-cabin; a hut.

—*v. n.* To become the occupant of a shanty.

Shan'ty-man, *n.*; *pl.* SHANTY-MEN. One who dwells in a shanty; a lumberer; a wood-cutter.

Shap'able, *a.* That may be shaped, formed, or fignred.

Shape, *v. a.* [A. S. *syppan*; Ger. *schoffen*.] To form or create; to produce; to make; as, "I was *shapen* in iniquity." (*Ps.* li. 5.)—To mould or make into a particular form or figure; to give form or figure to; to fashion; to cast.

"Grace *shaped* her limbs, and beauty decked her face."—*Prior.*

—To mould; to adapt or contrive to a purpose; to regulate; to direct; to adjust.

"There is a Providence that *shapes* our ends."—*Shak.*

—To image; to conceive; as, to *shape* one's ideas into elegancies of expression.

—*v. n.* To suit; to square; to be adapted or adjusted.

—*n.* To form or figure as constituted by lines or angles; external appearance; outward aspect; make; guise; the form of the trunk of the human body; as, the *shape* of a leg, of a horse, of a tree, &c.—A being, as endowed with form; a figure; an appearance.—Concrete embodiment, idea, or pattern, as of some quality; form, as of thought, conception, or language.

"Thy heart contains....of good, the perfect *shape*."—*Milton.*

Shape'less, *a.* Destitute of shape or of regular form; lacking symmetry or harmony of dimensions; formless; as, he battered it into a *shapeless* mass.

Shape'lessness, *n.* State or condition of being shapeless.

Shape'ly, *a.* Having a regular or harmonious shape; well-formed; symmetrical; as, *shapely* hands.

Shape'smith, *n.* A burlesque appellation given to one who undertakes to improve the form of the body.

Shapleigh, (*shap'lee,*) in *Maine*, a post-township of York co., 77 m. S.W. of Augusta.

Shard, *n.* [A.S. *sceard*.] A piece, or fragment, of an earthen vessel, or of any brittle substance.—Hence, a hard case that covers the wings of certain insects, as the beetle, &c.

Share, (*shair.*) *n.* [A. S *scear*.] The broad iron blade of a plough which cuts the ground or furrow-slice.—A part; a portion; a division; a certain quantity; as, she has a *share* of good looks.—A part or portion of a thing owned by a number in common; the part of a thing allotted or distributed to each individual of a number; allotment; dividend; as, he received his *share* of the profits.—Hence, a part belonging to one; portion possessed: part contributed; as, he owns *shares* in various railroads.—*To go shares*, to be equally a partaker of; to have an even interest in; as, *to go shares* in a business speculation.

—*v. a.* To part among two or more; to divide; to apportion; to allot; as, to *share* another's good fortune.—To seize and possess jointly or in common; to partake; to participate in; as, to *share* the spoils of war.

—*v. n.* To have part; to receive a dividend or portion; as, he *shares* in the national prosperity.

Share'-beam, *n.* That part of a plough to which the share is attached.

Share'-bone, *n.* (*Anat.*) The *os pubis*. See PUBIS.

Share'-broker, *n.* A dealer in government bonds, or railroad, or other shares and securities.

Share'-holder, *n.* One who holds or owns a share, or shares, in a joint fund or property.

Shar'er, *n.* One who shares; one who participates in anything with another; one who enjoys or suffers in common with another or others; as, a *sharer* in a commercial transaction.

Shark, *n.* [Lat. *carcharias*; Gr. *karcharias*, from *karcharos*, with sharp or jagged teeth.] (*Zoöl.*) A family of large and voracious sea-fishes. See SQUALIDÆ.

—A rapacious, grasping fellow; also, a sharper, a trickster.

—*v. n.* To play the petty thief; to pilfer; to swindle:—To cadge; to live by contemptible shifts or artifices; to act the hummer; as, he *sharks* for a dinner.

Shark'er, *n.* A cadger; a hummer.

Shark'ing, *n.* Petty theft; pilfering; trickery.—Cadging: getting one's livelihood by petty shifts and stratagems.

Sha'ron, (*Script.*) a level tract along the Mediterranean, between Mount Carmel and Cæsarea, celebrated for its rich fields and pastures. (*Josh.* xii. 18; *Cant.* ii. 1; *Isa.* xxxiii. 9, xxxv. 2, lxv. 10; 1 *Chron.* xxvii. 9.)

Sha'ron, in *Connecticut*, a post-village and township of Litchfield co., 40 m. N.W. of Hartford.

Sharon, in *Illinois*, a township of Fayette co., 4 m. N.W. of Vandalia.—A village of Whitesides co., 135 m. S.W. of Springfield.

Sharon, in *Iowa*, a village and township of Appanoose county, 100 miles south-west of Iowa City.—A township of Clinton county.—A township of Johnson county.

Sharon, in *Massachusetts*, a post-village and township of Norfolk co., 17 m. S. W. of Boston.

Sharon, in *Michigan*, a village and township of Washtenaw co., 60 m. S.W. of Detroit.

Sharon, in *Minnesota*, a township of La Sueur county.

Sharon, in *Mississippi*, a village of Madison co., 30 m. N. of Jackson.

Sharon, in *New Hampshire*, a twp. of Hillsborough co., 35 m. S.W. of Concord.

Sharon, in *New York*, a post-township of Schoharie co.

Sharon, in *Ohio*, a township of Franklin county.—A village of Hamilton county, 15 miles N.N.E. of Cincinnati.—A township of Medina county.—A post-village and township of Noble county, 27 miles N.W. of Marietta.—A township of Richland county.

Sharon, in *Pennsylvania*, a flourishing town in the W. part of Mercer co., on the Ohio State line, 16 m. W. of Mercer. It has 8 churches, 3 banks, 3 newspapers, some manufactories, several blast furnaces and foundries, and is the business centre of a large iron and coal trade.—A township of Potter county.—A village of Beaver county, 26 m. N. W. of Pittsburg.

Sharon, in *Vermont*, a post-village and township of Windsor co., 28 m. S.E. of Montpelier.

Sharon, in *Wisconsin*, a post-village and township of Walworth county, 65 miles E.S.E. of Madison.—A township of Portage county, 5 miles north-east of Stanton.

Sharon Centre, in *New York*, a post-village of Schoharie co., 46 m. W. of Albany.

Sharon Centre, in *Ohio*, a post-village of Medina co., 112 m. N.E. of Columbus.

Sharon Centre, in *Pennsylvania*, a post-village of Potter co., 192 m. W N.W. of Harrisburg.

Sharon Springs, in *New York*, a post-village of Schoharie co., 50 m. W. of Albany, celebrated for its mineral waters.

Sha'ronville, in *Ohio*, a post-village of Hamilton, 13 m. N.E. of Cincinnati.—A village of Pike co., 55 m. S of Columbus.

Sharp, *a.* (*comp.* SHARPER; *superl.* SHARPEST.) Having a very thin edge, or fine point; acute; keen; acuminated; not dull, blunt, or obtuse; as, a knife with a *sharp* edge.—Terminating in a point or edge; not rounded; peaked or ridged; as, a *sharp* roof.—Having acuteness of mind, or quickness to discern or distinguish; of keen perception; ready at invention; discriminating; not dull; as, a *sharp* sight or hearing.—Keen to the taste or smell; acrid; biting; tart; pungent; acid; sour; as, *sharp* mustard.—Affecting the sense of hearing, like sharp points piercing to the ear; shrill; as, a *sharp* sound, a *sharp* voice.—Characterized by severity or harshness of language; severely rigid; caustic; sarcastic; incisive; cutting; as, a *sharp* rebuke.—Distressing or trying to the feelings; painful; severe; bitter; as, *sharp* misery.—Eager in pursuit; keen in quest or seeking; impetuous to obtain gratification; hungry; as, a *sharp* appetite.—Vehement; violent; fierce; ardent; impetuous; as, a *sharp* onset upon an enemy.—Characterized by leanness, meagreness, or emaciation; as, a *sharp* visage.—Biting; pinching; nipping; piercing; as, a *sharp* wind.—Close and exact; shrewd; smart in dealing; keenly attentive to self-interest; as, a *sharp* man of business.—Hard; as, *sharp* sand;—a cant term among workmen.

(*Mus.*) Above the pitch; acute; as, a *sharp* note;—opposed to a *flat* tone; higher by a semitone in pitch; so heightened in sound as to be out of tune; as, that violin is *sharp*.

(*Pronunciation.*) Aspirated; whispered; non-vocal; surd, as certain consonants, as, *p, k, t, f*.

(NOTE. *Sharp* is largely employed in the construction of self-explaining compounds; as, *sharp*-cornered, *sharp*-edged, *sharp*-featured, *sharp*-toothed, &c.)

To brace sharp. (*Naut.*) To brace the yards as obliquely as possible, in order to bring a ship well up to the wind.

—*n.* A part of a stream where the current runs very rapidly; as, *sharps* and eddies.

(*Mus.*) A sign ♯ in music, which, when prefixed to a note, elevates it by a semitone in the scale. When placed at the beginning of a piece of music, it denotes that all the notes on the line or space on which it is placed, and their octaves above and below, are to be played sharp. A double sharp × raises a note two semitones.

—*v. a.* To sharpen; to make sharp, keen, acute, or penetrating; to render quick.

(*Mus.*) To make with a sharp; to raise a note or semitone.

Sharp, *v. n.* To act the sharper; to play tricks in bargaining.

Sharp, a co. of *Arkansas*.

Sharp'-cut, *a.* Clear; well-defined; having the outlines distinctly marked; as, a *sharp-cut* countenance.

Sharpen, (*shar'pn,*) *v. a.* To make sharp; to give a fine edge or point to; as, to *sharpen* a razor, to *sharpen* the teeth of a saw.—To make more eager or active; to render more keen; as, to *sharpen* the appetite.—To make more quick, acute, or ingenious; as, to *sharpen* the wit or understanding.—To make more quick or acute in perception; as, to *sharpen* one's sight.—To make more pungent or painful; as, to *sharpen* a disease.—To make incisive, sarcastic, caustic, or severe; as, to *sharpen* invective.—To render less flat, or more shrill and piercing; as, to *sharpen* sound.—To make sour; to make more piquant, tart, or acid; as, meat *sharpened* with vinegar.

(*Mus.*) To raise by means of a sharp, as a note or sound.

—*v. n.* To grow or become sharp.

Sharp'er, *n.* One who practises sharpness;—particularly, in a derogatory sense, a trickster in dealings, a cheat in bargaining or gaming; an over-shrewd man of business; as, he was fleeced of his money by *sharpers*.

Sharp'ie, *n.* (*Naut.*) A term for a long, sharp, flat-bottomed sail-boat.—*Webster.* (Local Amer.)

Sharp'ly, *adv.* In a sharp manner; with a keen edge or a fine point; severely; rigorously; roughly: keenly; acutely; violently; vigorously; vehemently; with keen perception or nice discernment; exactly; minutely; wittily.

Sharp Mountain, or THIRD MOUNTAIN, in *Pennsylvania*, extends over Schuylkill co. from N.E. to S.W. It contains inexhaustible beds of anthracite coal.

Sharp'ness, *n.* State or quality of being sharp; as, (1.) Keenness of an edge or point; as, the *sharpness* of a knife. (2.) Pungency; acidity; tartness, sourness; as, the *sharpness* of vinegar. (3.) Acuteness or severity of pain or affliction; as, *sharpness* of suffering. (4.) Severity or pungency of language; caustic sarcasm; as, the *sharpness* of a retort. (5.) Acuteness of intellect; power of nice discernment or quick discrimination; readiness or exactness of the understanding; sagacity; penetration; ingenuity; as, *sharpness* of wit. (6.) Keenness; severity; as, the *sharpness* of the air. (7.) Quickness of sense or perception; as, *sharpness* of vision. (8.) Keenness; eagerness; as, *sharpness* of appetite. (9.) Shrilliness; piercingness; as, *sharpness* of sound.

(*Mus.*) Elevation of a note by a semitone.

Sharps'burg, in *Kentucky*, a post-village of Bath co., 38 m. S. of Maysville.

Sharpsburg, in *Maryland*, a post-village of Washington co., 16 m. S. of Hagerstown, near Antietam Creek. See ANTIETAM.

Sharpsburg, in *Missouri*, a village of Marion co., 90 m. N.N.E. of Jefferson City.

Sharpsburg, in *Pennsylvania*, a post-borough of Allegheny co., 5 m. N.E. of Pittsburg. *Pop.* (1897) 5,450.

Sharp'-set, *a.* Affected by keen hunger; eager in quest of gratification; ravenous; as, he is *sharp-set* for his dinner.

Sharp'-shoot'er, *n.* [From *sharp* and *shoot*.] A skilled marksman with a rifle or carbine; one trained to aim at a mark with exactness.

Sharp'-shoot'ing, *n.* A shooting with precision or exactness of aim;—hence, a keen contest of wit, badinage, or argument.

Sharp'-sight'ed, *a.* Having quick or acute sight or perception; as, a *sharp-sighted* bird.—Having quick discernment or acute understanding; as, a *sharp-sighted* individual.

Sharp'-sight'edness, *n.* Quality of being sharp-sighted.

Sharp's Island, in the Chesapeake, with a light-house and fixed light at its N. extremity, opposite the entrance of Pawtuxent River.

Sharps'ville, in *Indiana*, a post-village of Tipton co., 48 m. N. of Indianapolis.

Sharps'ville, in *Pennsylvania*, a flourishing post-borough of Mercer co., 11 m. N.W. of Mercer, the principal shipping point for the Mercer coal block-coal. It contains several blast-furnaces, foundry, machine-shops, flour-mill, &c.

Sharp'town, in *New Jersey*, a post-village of Salem co., 10 m. N.E. of Salem.

Sharp-visaged, (*-viz'ajd,*) *a.* Having a sharp, thin, or wenzened face.

Sharp'-witted, *a.* Sagacious; penetrating; having an acute or nicely-discerning mind; as, a *sharp-witted* lawyer.

Shartlesville, (*shart'els-vil.*) in *Pennsylvania*, a post-village of Berks co., 65 m. E. of Harrisburg.

Shas'ta, in *California*, a N. co., bounded on the W. by the Coast Range, and intersected by the Sacramento and Pitt rivers; *area*, 3,960 sq. m. *Surface*, mountainous; *soil*, fertile in the valleys and along the streams. *Min.* Gold, salt, granite, and metamorphic limestone. Mineral springs are numerous. *Cap.* Redding. *Pop.* (1897) 13,100.—A post-township of the above co., about 40 m. N.N.W. of Red Bluff.

Shas'ta, SHASTE, or SHASTY, a mountain of the Cascade Range in the N. part of California, Lat. 41° 20′ N., Lon. 122° W., abt. 14,000 feet high.

Shas'ter, Shas'tra, Sas'tra, *n.* [Hind.] (*Bibliol.*) A term denoting the book which contains the interpretations or explanations of the Vedas by *sasta*, i. e., science;—of such books we have the *Vedanga-Sastra*, the *Shastra-Bade*, and several others.

Shat'ter, *v. a.* [A. S. *scateran*.] To break so as to scatter into pieces; to break at once into many pieces: to dash, burst, rend, or part into fragments by violence; to reud; to crack; to split, to rive into splinters; as,

to *shatter* a vase.—To dissipate; to break up; as, a man of *shattered* humor.—To disorder; to derange; to make unsound; to render delirious; as, to *shatter* the animal constitution, to be *shattered* in intellect, &c.

Shat'ter, *v. n.* To be broken into fragments; to fall or crumble to pieces by any force or violence applied.

—*n.* A fragment; — used for the most part, plurally, to denote the fragments of anything forcibly rent or broken; as, to break glass into *shatters*.

—*pl.* The fallen leaves of the pine-tree.

Shat'ter-brained, Shat'ter-pated, *a.* Having the brains or mind disordered or confused. — Heedless; wild; inconsequent, not consistent.

Shat'tery, *a.* Friable, brittle; easily breaking into many pieces or splinters; not firm, dense, or compact; as, *shattery* spar.

Shaum'burg, in *Illinois*, a post-township of Cook co., 25 m. W.N.W. of Chicago.

Shave, *v. a.* (*imp.* SHAVED; *pp.* SHAVED, or SHAVEN.) To cut or pare off something from the surface of; as, to *shave* a grass-plot.—To pare close; to make bare or smooth by cutting the hair from the surface; to take off the beard or hair of; as, to *shave* the beard with a razor. —To cut off thin slices from; to cut in thin slices; to make smooth by paring or cutting off slices; as, to *shave* wood.—To skim along the surface of or near it; to sweep along; —also, to ricochet; as, a gull *shaves* the ocean.—To fleece; to strip; to pillage; to oppress by exaction or extortion.

To shave a note, to buy up a note at a considerable discount, or to receive interest upon it much in excess of the legal rate. (Used colloquially.)

—*v. n.* To cut off the beard with a razor close to the surface; — hence, to cut closely or keenly; to be hard or exacting in bargaining; to cozen; to get the better of in dealing or trading.

—*n.* A shaving; a thin slice; as, a *shave* of bread. — The operation of shaving; as, an easy *shave*. — A drawing-knife; an instrument for shaving wood. — A fine or minute difference or distinction: as, he is a *shave* a better man than the other.—In the U. States, an exorbitant discount on a note for ready money.

Shave'-grass, *n.* (*Bot.*) The Dutch-rush. See EQUISETACEÆ.

Shave'ling, *n.* A man shaved;—hence, a term of contempt or derision for a monk or friar; as, a bald *shaveling*.

Shav'er, *n.* One who shaves, or whose occupation is to shave; hence, a barber. — A close harguiner; a sharp dealer; a cheat; a trickster; one who chisels; as, the man is a cunning *shaver*. — A pillager; a plunderer; one who strips or fleeces. — A youngster; a little fellow; an urchin; as, a small *shaver* in buttons opened the door.

Sha'vertown, in *New York*, a post-village of Delaware co., 15 m. S.E. of Delhi.

Shav'ing, *n.* Act of one who shaves; act of paring the surface.—That which is shaved or pared off; — especially, a thin slice or curl of wood planed or shaved off.

Shaving brush, a brush for administering lather to the face preparatory to the operation of shaving.

Shawa'naw, or **Shawa'no,** in *Wisconsin*, a N.E. co.; *area*, 1,152 sq m. *Rivers*. Wolf, Oconto, and Embarras. Lake Shawanaw, 6 m. long, is in the central part. *Surface*, mostly covered with forests of pine and other trees; *soil*, generally fertile. *Cap.* Shawano. *Pop.* (1895) 22,573.

—A thriving city, cap. of the above co., on Wolf river and the Ch. & N.W. R. R., 152 m. N.W. of Milwaukee. *Pop.* (1895) 1,759.

Shawangunk, (*shong'gum,*) in *New York*, a river which rises in Orange co., and enters Walkill River in Ulster co., 14 m. W.S.W. of Poughkeepsie, after a N.E. course of 80 m.—A post-township of Ulster co., 85 m. S.S.W. of Albany.

Shawan'gunk Moun'tains, in *New York*, a portion of the Appalachian system, extends through Orange and Sullivan cos. into Ulster.

Shawl, *n.* [Fr. *châle*; Pers. and Hind. *shal*; Sansk. *śāla.*] A kind of mantel or tunic; a cloth of cotton, wool, silk, or hair, used by females as a loose covering for the upper part of the body; as a Cashmere *shawl*.

—*v. a.* To wrap in a shawl; as, to *shawl* a lady.

Shawnee', in *Indiana*, a township of Fountain county.

Shawnee, in *Kansas*, a N.E. co.; *area*, about 558 sq.m. *Rivers*. Kansas and Wakarusa. *Surface*, undulating; *soil*, fertile. *Min.* Coal and limestone. The county is traversed by the Union Pacific and the Atch., Topeka & Santa Fé R.Rs. *Cap.* Topeka. *Pop.* (1895) 47,978.

—A post-village and township of Johnson co., 11 m. S.W. of Kansas City, Mo.

Shawnee, in *New York*, a post-village of Niagara co., 18 m. N.E. of Buffalo.

Shawnee, in *Ohio*, a township of Allen co.

Shawnee, in *Pennsylvania*, a post-village of Monroe co., 30 m. N. of Easton.

Shaw'nees, a tribe of N. American Indians of the Algonquin group, who lived on the Wabash and other neighboring affluents of the Ohio. They now live on the S. bank of the Kansas River, and number abt. 1200.

Shaw'neetown, in *Illinois*, a post-town, cap. of Gallatin co., abt. 9 m. S.W. of the mouth of the Wabash River.

Shaw's Flat, in *California*, a post-village of Tuolumne co., 2 m. W. of Sonora.

Shaws'ville, in *Virginia*, a post-village of Montgomery co., 77 m. S.W. of Lynchburg.

Shaws'wick, in *Indiana*, a township of Lawrence co.

She, *pers. pron. fem.* (*nom.* SHE; *poss.* HER, or HERS; *obj.* HER; *pl. nom.* THEY; *poss.* THEIR, or THEIRS; *obj.* THEM.) [A. S. *heo;* Ger. *sie.*] A pronoun which is the substitute for the name of a female, and of the feminine gender; also, the word which refers to a female mentioned in the preceding or following part of a sentence or discourse. — A woman; a female; — used, sometimes, as a noun, principally in a disparaging or humorous sense: as, "Whoe'er she be, that not impossible *she*." *Cranshaw.*

(NOTE. *She* is employed in composition for *female*, as representing an animal of the feminine sex; as, a *she*-cat, a *she*-fox.)

Sheaf, *n.* : *pl.* SHEAVES, (*sheevs.*) [A. S. *sceaf;* Ger. *schaub.*] A number or quantity of things shoved, pressed, or thrown together; — specifically, a quantity of the stalks of wheat, rye, oats, or barley bound together; a bundle of stalks or straw; as, *sheaves* of golden grain. —Any bundle, mass, or collection; —particularly, a number of arrows sufficient to fill a quiver.

(*Mech.*) See SHEAVE.

—*v. n.* To collect and bind into sheaves.

Sheaf'y, *a.* Pertaining or relating to, or consisting of, sheaves.

Sheak'leyville, in *Pennsylvania*, a post-village of Mercer co., 16 m. S.W. of Meadville.

Sheal'ing, *n.* The husk, pod, or shell, as of peas and the like.

Shear, *v. a.* (*imp.* SHEARED; *pp.* SHEARED, or SHORN.) [A. S. *sceran, scyran;* Ger. and Dn. *scheren.*] To cut or clip from the surface of with an instrument of two blades, as a scissors; as, to *shear* sheep. — To cut or clip from a surface; to separate or take off by shears; as, to *shear* a fleece.

—*v. n.* To divide, as the two parts of anything when cut or sheared.

—*n.* An instrument used to cut with; — generally used in the plural. See SHEARS.

—Anything having the form of shears; as, specifically,

(*Mining.*) Two very high joists or pieces of wood, placed in nearly a vertical position in each side of a shaft, and united at the top, over which, by means of a pulley, passes the capstan rope; this is for the convenience of lifting out, or lowering into the shaft, timber or other things of great length and weight.

(*Ship-building.*) See SHEER.

—A shearing; — used in expressing the age of sheep; as, a two- or three-*shear* ram.

(*Mach.*) The bed-piece of a machine-tool; as, the *shears* of a lathe.

Shear'er, *n.* One who shears; as, a *shearer* of sheep.

Shear'ersburg, in *Pennsylvania*, a post-village of Westmoreland co., 25 m. N. of Greensburg.

Shear'ing, *n.* Act of shearing; act of clipping or cutting off. — Proceeds of the act or process of clipping by shears; as, the *shearings* from cloth. — A once-sheared sheep; a shearling. — Tilting; the process of preparing shear-steel. — In Scotland, the operation of reaping.

Shear'ing-ma'chine, *n.* A machine for cutting plates of metal. — An apparatus for shearing cloth.

Shear'ling, *n.* A sheep that has been but once sheared.

Shears', *n pl.* Scissors on a large scale, chiefly used in gardening. They are variously modified to suit their particular purposes, such as pruning trees, hedges, box-edgings, &c.

Shear'-steel, *n.* A kind of steel made by welding several bars together, and again drawing them out. It is used for clothiers' shears, and many other cutting instruments.

Shear'water, *n.* (*Zoöl.*) The genus *Puffinus*, family *Procellaridæ*, including birds distinguished from the Petrels in having the bill compressed near the end, and a straight spur in place of the hind toe. They spend their lives mostly on the ocean, rarely visiting the shore

Fig. 2349.—MANX SHEARWATER, (*Puffinus anglorum.*)

except for the purpose of incubation. *P. anglorum*, the Manx *S.* of the coast from New Jersey to Labrador (Fig. 2349) is about 15 inches long, grayish-black, the neck mottled with gray, the throat and all the under parts white. *P. major*, the Greater *S.*, is about 20 inches long.

Sheas'ville, in *Indiana*, a post-village of Morgan co., 36 m. S.W. of Indianapolis.

Sheath, *n.* [A. S. *scæth*, from *sceadan*, to separate; Ger. *scheide.*] A cover, or covering; a case, usually of metal, for the reception of a sword or other long and slender instrument; a scabbard.

—Any thin covering for protection; as, a membrane investing a stem or branch, as in grasses; also, the wing-case of an insect.

Sheathe, (*shēth,*) *v. a.* (*imp* and *pp.* SHEATHED.) To put into a sheath, case, or scabbard; as, to *sheathe* a sword. — To fit with a sheath. — To case or cover with boards, or with sheets of copper, zinc, or yellow metal; as, to *sheathe* a ship's bottom. — To cover or line; as, to *sheathe* the intestines with any demulcent substance. — To obtund, as acrimonious particles. — *To sheathe the sword*, figuratively, to make peace; to cease from war or enmity; — synonymous with to *bury the hatchet*, or *tomahawk*.

Sheathed, (*shēthd,*) *p. a.* Put in a sheath; provided with a sheath; as, a *sheathed* weapon.

(*Bot.*) Invested with a sheath or membrane, as a stem.

Sheath'er, *n.* One who sheathes.

Sheath'ing, *n.* That which serves to sheathe; — particularly,

(*Naut.*) The covering laid on a ship's bottom as a protection against worms. Sheets of thin copper, zinc, or yellow metal, nailed on with copper or composition nails, constitute, at present, the sheathing of all the better class of vessels.

Sheath'less, *a.* Unsheathed; without a sheath.

Sheath'-winged, *a.* Provided with a case for covering the wings, as certain insects.

Sheath'y, *a.* Forming, or resembling, a sheath or case. (R.)

She'a-tree, *n.* (*Bot.*) The Butter-tree of Africa, supposed to be the *Bassia butyracea*. See BASSIA.

Sheave, (*sheev.*) *n.* [O. Dn. *schijve*, a disc, wheel.] (*Naut.*) The wheel in a block or pulley. In ships' blocks it is usually of brass or lignumvitæ, not infrequently in combination. — a square conk of brass being inserted in the centre of a wheel of lignumvitæ.

Sheave'-hole, *n.* (*Naut.*) The hole through a block or spar in which a sheave is fixed.

She'ba. (*Anc. Geog.*) A kingdom of S. Arabia, embracing the greater part of Arabia Felix, was named after *Sheba*, one of the sons of Jokshan, second son of Abraham and Keturah (*Gen.* x. 28). The Queen of Sheba visited Solomon, B. C. 990 (1 *Kings* x. 1–13). The Greeks and Romans called the people *Sabæi*, or *Sabæans*.

Sheboy'gan, or CHEBOY'GAN, a river of *Michigan*, rises in Otsego co., and flowing N. enters the Strait of Mackinaw at the town of Sheboygan.

Sheboygan, in *Wisconsin*, an E.S.E. co., bordering on Lake Michigan; *area*, 500 sq. m. *Rivers*. Sheboygan, Onion, and Mullet. *Surface*, level; *soil*, fertile. Pine and other timber is plentiful. *Capital*, Sheboygan.

—A flourishing city, cap. of the above co., on Lake Michigan and the Chic. & N.W. R. R., 52 m. N. of Milwaukee. *Pop.* (1895) 21,130.

Sheboygan, a river of *Wisconsin*, rises in Fond du Lac co., and flowing E., enters Lake Michigan at Sheboygan.

Sheboy'gan Falls, in *Wisconsin*, a post-village and township of Sheboygan co., on Sheboygan River, 6 m. from its mouth in Lake Michigan.

Sheehi'nah, *n.* (*Jewish Antiq.*) See SHEKINAH.

Shed, *v. a.* (*imp.* and *pp.* SHED.) [A. S. *scedan*, to pour out; Ger. *schütten.*] To cause or suffer to flow out; to emit: to throw off from one's self; to diffuse; as, to *shed* blood, to *shed* tears. — To cast; to let fall; to throw off, as any natural covering; as, trees *shed* their leaves in the autumn. — To cause to flow off without penetrating; as, an oilskin-coat is said to *shed* water. — To cover; to sprinkle; as, his hair is *shed* with gray.

—*v. n.* To let fall the parts forming the outer covering, as leaves, &c.

—*n.* Act of shedding, or causing to flow; — used only in composition; as, blood*shed*.

Shed, *n.* [A. S. *scead*, from *sceadan*, to hide, cover.] A shelter or protection; — especially, a shanty; a covering of timber, shingles, &c., for shelter against rain and the inclemencies of weather; a structure consisting simply of a roof supported on columns; a rude house; a hovel; a shed.

(*Weaving.*) The duplex sloping interstice made of the threads of the warp, through which to drive the shuttle.

She'chem, or **Si'chem.** See GERIZIM, and NABLUS.

Shed'der, *n.* One who sheds, or causes to flow; as, a *shedder* of blood.

Shed'ding, *n.* Act of spilling, effusing, or of casting off or out. — That which is shed, emitted, or cast off. (A.)

Shediac, (*shed-e-ak',*) in New Brunswick, a town and island opposite the mouth of Shediac River, in Shediac Bay, on the S.E. coast.

Sheel'in, (Lough.) (*lok,*) a lake of Ireland, partly in the cos. of Cavan, Meath, and Westmeath, 5 m. long and 2½ broad.

Sheen, Sheen'y, *a.* Lustrous; sparkling; glittering; —used in poetry only; as, "the azure *sheen; sheeny* heaven."—*Milton.*

—*v. n.* To shine; to glisten; to sparkle; to glitter; — used only in poetical composition.

Sheen, *n.* [A. S. *scieno, scine*, shining, clear; Ger. *schön*, beautiful.] Lustre; brightness; radiance; splendor; as, "Mercy throned in celestial *sheen*."—*Milton.*

Sheen'ly, *adv.* Brightly; lustrously; radiantly. (R.)

Sheep, *n. sing.* and *pl.* [A. S. *sceap;* Ger. *schaf.*] (*Zoöl.*) The common name of the genus *Ovis*, belonging to the *Caricornia*, or Hollow-horned Ruminant family. Naturalists are by no means agreed as to what was the original breed of this invaluable animal, which is, in modern farming, almost equally important for furnishing the farmer with a dressing of manure, and the community at large with mutton, clothing, and other necessaries of life. Of the several varieties of wild *S.*, which have by naturalists been considered entitled to the distinction of being the parent-stock, may be mentioned: 1, the Musmon (*O. musimon*), still found wild in the mountains of the larger islands of the Mediterranean and European Turkey; 2, the Argali (*O. ammon,*) or

wild Asiatic *S.*, which are the tenants of the highest mountains of Central Asia, and the elevated, inhospitable plains of its northern portions; 3, the Rocky Mountain *S.* (*O. montana*) (Fig. 2350), which is found on the mountains of N. America; 4, the Bearded *S.* of Africa (*O. tragelopleus*), found on the high lands of Egypt and in Barbary. The leading fact in the geographical history of this genus is that it occurs both in the New and the Old World, whereas the goat tribe are naturally unknown in America. It is usually regarded by naturalists as being not only specifically, but generically, distinguished from the goat tribe; but some authorities, on the other hand, are inclined to believe that the generic separation is founded chiefly upon characters which have arisen from the influential power of man. In a state of nature, the *S.* is scarcely less active or energetic than the goat: its dimensions are greater, its muscular strength at least equal, both in force and duration. It is also an Alpine animal, and among its native fastnesses, bounds from rock to rock with almost inconceivable swiftness and agility. The main characteristics of the four unsubdued races of *S.* mentioned above are as

Fig. 2350. — ROCKY MOUNTAIN SHEEP, (*Ovis montana.*)

follows: — The *Musmon* measures about three feet and a half in length, and its height, at the highest part of the back, is about two feet six inches. The neck is large, the body thick, muscular, and of a rounded form. The limbs are robust, and the hoofs short. The horns of the male are nearly two feet long. The body is protected by a short, fine, gray-colored wool, of which the filaments are spirally twisted, and by a stiffish silky hair, of no great length, yet sufficient to conceal the wool beneath. It is gregarious in a state of nature, and seldom descends from the highly-elevated portions of the mountains on which it dwells. The general opinion of naturalists is that it is from this species the domestic breeds have been obtained.—The *Bearded S.* of Africa has the hair on the lower part of the cheeks and upper jaws extremely long, so that it forms a double or divided beard. The hairs on the sides and body are short, those on the top of the neck somewhat longer, and rather erect. The whole under-parts of the neck and shoulders are covered by coarse hair, not less than fourteen inches long; and beneath the hair, on every part, there is a short genuine wool, the rudiments of a fleecy clothing. The tail is very short: the horns, which are about two feet long, approach each other at their base, and diverge outwards. — The *Argali*, or Wild sheep of Asia, measures about three feet in height at the shoulder, and five feet in length. His horns are nearly four feet long, and placed on the summit of the head, so as to cover the occiput. They nearly touch each other in front, bending backwards and laterally, and then forward and outward. The female is of smaller size, and her horns are nearly straight. The name of *Argali*, applied to this species, is the Mongol name of the female; the male is called *Guldschah*.—The *Ovis montana*, or Rocky Mountain sheep of America, is larger than the largest varieties of our domestic breeds. The horns of the male are of great dimensions, arising a short way above the eyes, and occupying almost the entire space between the ears, but without touching each other at their bases. The hair in this species resembles that of a deer, and is short, dry, and flexible in its autumn growth, but becomes coarse, dry, and brittle as the winter advances. There is no country where more attention has been paid to the improvement of the breeds of sheep, both foreign and domestic, or where more success has been attained, than Great Britain. The many varieties of sheep which tenant Great Britain and Ireland may be conveniently divided into two classes; the first consisting of sheep without horns, and the second of sheep with horns. Of the first class are, the *New Leicester sheep*, the characteristics of which are fineness and fulness of form, an early maturity and a propensity to fatten, a diminution in the proportion of offal, and the return of most money for the quantity of food consumed; the wool not so long as in some breeds, but considerably finer. — The *Cotswold sheep*, which have been long celebrated for the fineness of their wool, and which have been gradually improved by crossing with the Leicester sheep. Their mutton is fine-grained and full-sized. — The *Dartmoor sheep*, which have white faces and legs, some with and some without horns, small in the head and neck, and generally small-boned, carcass narrow and flat-sided. — The *Southdown sheep*, which takes its name from a tract of down extending more than sixty miles in length, through parts of the counties of Sussex, Surrey, and Kent. The wool is short, close, and curled, and free from spiry projecting hairs. The flesh is finely grained and of good flavor. — The *Romney-Marsh sheep*, which have long but coarse wool, much internal fat, and much hardihood, and require no artificial food during the hardest winter but a little hay. — The *Cheviot sheep* are a peculiar breed, which are kept on the extensive range of the Cheviot hills. They have the face and legs generally white, and the body long; their wool is short, thick, and fine; they possess very considerable fattening qualities, and can endure much hardship both from starvation and cold. — Of the *Horned sheep*, the chief varieties are: — The *Dorset sheep*. They are a good folding sheep, and their mutton is well flavored, but their principal distinction and value is the forwardness of the ewes, who take the ram at a much earlier period of the year than any other species, and thus supply the market with lamb at the time when it fetches the highest price. — The *Shetland sheep* are small and handsome; hornless, hardy, feeding on even sea-weed, and with soft and cottony wool. — The *Hebridean sheep* is the smallest of its kind, even when fat weighing only twenty pounds. — The most important breed of sheep as regards the texture of the wool is the Merino (*O. hispanica*), in modern times brought to the greatest perfection in Spain, though their originals probably formed the flocks of the patriarchs thousands of years ago, and have been the stock of all the fine-wooled sheep. Unlike the British breeds, they have wool on the forehead and cheeks; the horns are very large and heavy, and convoluted laterally: the wool is fine, long, soft, twisted, in silky spiral ringlets, and naturally so oily that the fleece looks dingy and unclean from the dust and dirt adhering to the outside, but perfectly white underneath; the form is not so symmetrical as in many English breeds, and there is generally a loose skin hanging from the neck. They readily form cross breeds, called *demi-merinos*, which have been brought to great perfection in France, whence, as well as from Spain, they have been imported into America. — Of the other remarkable varieties of the genus *Ovis* in different parts of the world, we may mention the *Fat-tailed sheep*, common in Tartary, Arabia, Persia, and Egypt, the tail of which is so loaded with fat that it alone frequently weighs 20 pounds. — The *Many-horned sheep* of Iceland, and the most northern part of the Russian dominions, which has three, four, or five horns, sometimes placed with great regularity, and sometimes differing in proportion and situation. — The *Cretan sheep*, chiefly found in the island of Crete, but kept in many parts of Europe on account of the strangeness of the appearance of its horns, which are remarkably large, long, and spiral; those of the male being upright, and those of the female at right angles to the head. — The *Fat-rumped tailless sheep* met with in all the deserts of Tartary, and which have long legs, a somewhat arched visage, horns, in the male, like those of the domestic sheep, large pendent ears, and a tail so enveloped in fat as to be scarcely visible. — The *African*, or *Guinea sheep*, a native of all the tropical climates, both of Africa and the East. The distinguishing characteristics are — a rough, hairy skin, short horns, pendulous ears, a kind of dewlap under its chin, and a long mane, which reaches below the neck. — Different names are given to the sheep, according to its sex and age. The male is called a *ram* or *tass*. After weaning, he is said to be a *hog*, *hogget*, or *hoggerel*, a *lamb-hog*, or *tuss-hog*, or *teg*; and if castrated, a *wether-hog*. After shearing, he is called a *shear-hog*, or *shearing*, or *dimmort*, or *tuss*. After the second shearing, he is a *two-shear ram*; and so on. The female is a *ewe* or *gimmer-lamb* till weaned, and then a *gimmer*, or *ewe-hog*, or *teg*. After being shorn, she is a *shearing-ewe* or *gimmer*, or *theave*, or *double-toothed ewe*; and after that a *two-*, or *three-*, or *four-shear ewe* or *theave*. The age of the sheep is reckoned, not from the period of their being dropped, but from the first shearing.

—Hence, a mawkish, silly fellow; — used by way of contempt. — Figuratively, the elect; God's people, considered as under a spiritual shepherd or pastor; as, "We are His people, and the *sheep* of His pasture."—*Psalms.*

Black sheep, a figurative term to denote a person who is, as it were, outlawed from society, by reason of his misdeeds or moral obliquities.

Sheep'-berry, *n.* (*Bot.*) See SIBURNUM.

Sheep'-cot, Sheep'-fold, *n.* A fold or pen for sheltering sheep.

Sheep'-hook, *n.* A shepherd's crook.

Sheep'ish, *a.* Like a sheep;—hence, bashful; timorous or diffident to excess; over-modest; as, he is *sheepish* in ladies' society.

Sheep'ishly, *adv.* In a sheepish manner.

Sheep'ishness, *n.* Quality of being sheepish.

Sheep'-run, *n.* Same as SHEEP-WALK.

Sheeps'-eye, (-*i*.) *n.* A modest, shy, timorous look; a languishing œillade; a wishful glance, such as lovers cast at each other in public.

Sheep'scott, in *Maine*, a river which rises in Waldo co., and flows into the Atlantic in Lincoln co., after a S. course of 60 m. — A post-village of Lincoln co., 5 m. N. of Wiscasset.

Sheep's'-foot, *n.*; *pl.* SHEEP'S FEET. A printer's tool in the form of a hammer combined with a lever.

Sheep'shank, *n.* (*Naut.*) See KNOT.

Sheep's'-head, *n.* (*Zoöl.*) See SPARIDÆ.

Sheep'-shear'er, *n.* One who strips or shears sheep.

Sheep'-shear'ing, *n.* The operation of clipping off the wool from the bodies of ewes and lambs; generally performed in the beginning of summer, when the animals are not likely to suffer from being deprived of their warm covering, and when there is sufficient time for the wool to grow again before winter. — The time of shearing sheep; also, a festival held on the occasion.

Sheep'-skin, *n.* The skin of a sheep, or leather made from it. — A diploma; — so called from its being written on parchment usually made from the skin of a sheep. (Colloquial and vulgar.) — In England, a woolly cushion attached to the saddles carried by cavalry horses.

Sheep'-split, *n.* The skin of a sheep split by a cutting instrument into two sections.

Sheep'-walk, (*wawk,*) **Sheep'-run,** *n.* A place of pasturage for sheep.

Sheep'y, *a.* Belonging, or relating, to sheep; resembling sheep; sheepish.

Sheer, *a.* [A. S. *scyr.*] Pure or unmingled; clear; separate from anything foreign or extraneous; as, *sheer* argument. — Thin; clear; diaphanous; as, *sheer* cambric. — Simple; pure; unmixed; mere; being only what it appears to be; unrelieved: as, a *sheer* impossibility. — Vertical; perpendicular; straight up and down; as, a *sheer* precipice

Sheer battens. (*Ship-building.*) Long battens by which the position of the wales or bends is marked on the timber preparatory to those planks being bolted on. — *Sheer plan*, in naval architecture, the longitudinal section of a ship, taken through the keel, at right angles to the horizon. It shows the position of every point in the vessel in regard to its distance fore and aft of the midship point, and to its height above the keel.

—*v. n.* To deviate or decline from the line of the proper course, as a ship when not steered with steadiness; to slip or move aside.

To sheer off, to turn or move aside to a distance; as, he *sheered off* when he saw a policeman approaching.

To sheer up, to turn and approach in a nearly parallel direction.

—*n.* (*Naut.*) The curve which the line of ports, or of the deck, presents to the eye when viewing the side of a ship. When these lines are straight, or the extremities do not rise, as is most usual, the ship is said to have a *straight* sheer.

Sheerness', a fortified seaport-town of England, co. of Kent, on the Isle of Sheppey, at the confluence of the Thames and Medway, 18½ m. W.N.W. of Canterbury, and 36 m. S.E. of London; *pop.* 12,015.

Sheers', *n. pl.* Shears.

(*Mach.*) An apparatus for raising heavy weights to a considerable height, as hoisting masts into a ship, or boilers into a steam-vessel. The easiest-formed sheers are made of two spars lashed together near the top, with a block suspended from the point of intersection. The resemblance borne by such spars to an open pair of scissors is said to have suggested the name. In permanent sheers, used in dockyards, the upper ends of the spars are cut off, the tops joined by an iron cap and bolts, the bases firmly set in masonry, and the apparatus is lowered or raised by chains working to the top of a massive mast, rising vertically from between the feet of the spars. In some instances a pair of sheers is placed on each side of the centre spar, the whole being built on a stone causeway, between two basins.

(*Ord.*) Two spars from 30 to 40 feet long, lashed together at one end. Their other extremities are placed in the ground, the lashed ends being raised by tackle, and fixed by guy ropes. To the lashed end is attached a tackle; and the whole arrangement is used for mounting and dismounting guns from towers, &c., in the same manner as a derrick.

Sheer'-strake, *n.* (*Ship-building.*) The strake under the gunwale in the top-side; it is generally worked thicker than the rest of the top-sides, and scarfed between the drifts.

Sheet, *n.* [A. S. *sceat*, a covering.] Something extended or spread out, as a covering; anything expanded:—specifically, a broad and large piece of linen or cotton cloth spread over a bed; a broad piece of cloth used as a part of bed-furniture next to the body.—A broad piece of paper as it comes from the manufacturers, or folded into pages.

—*pl.* Hence, a book or pamphlet; as, a collection of printed *sheets*.

—A broad surface or expanse of liquid, &c.: as, a *sheet* of water. — A broad, thinly spread-out portion of metal or other substance; as, a *sheet* of copper, a *sheet* of glass, &c.

In sheets, spread flat or expanded: not folded, or if folded, not bound; as, printed matter *in sheets*.

(*Naut.*) The rope attached to the after or leeward clew or corner of a sail, to extend it to the wind. In the square sails above the courses, the ropes attached to both clews are called *sheets*; in all other cases the weathermost one is termed a *tack*.

(NOTE. *Sheet* is frequently employed in composition to indicate that the substance to the name of which it serves as a prefix is in the form of sheets, thin leaves, or laminæ; as, *sheet* iron, *sheet*-lead, &c.)

—*v. a.* To furnish with sheets; as, to *sheet* a bed. (R.) — To cover, as with a sheet; to cover or overlay with something broad and thin; as, the ground is *sheeted* with snow. — To fold or swathe in a sheet; as, a *sheeted* corpse. — To draw out or expand like a sheet.

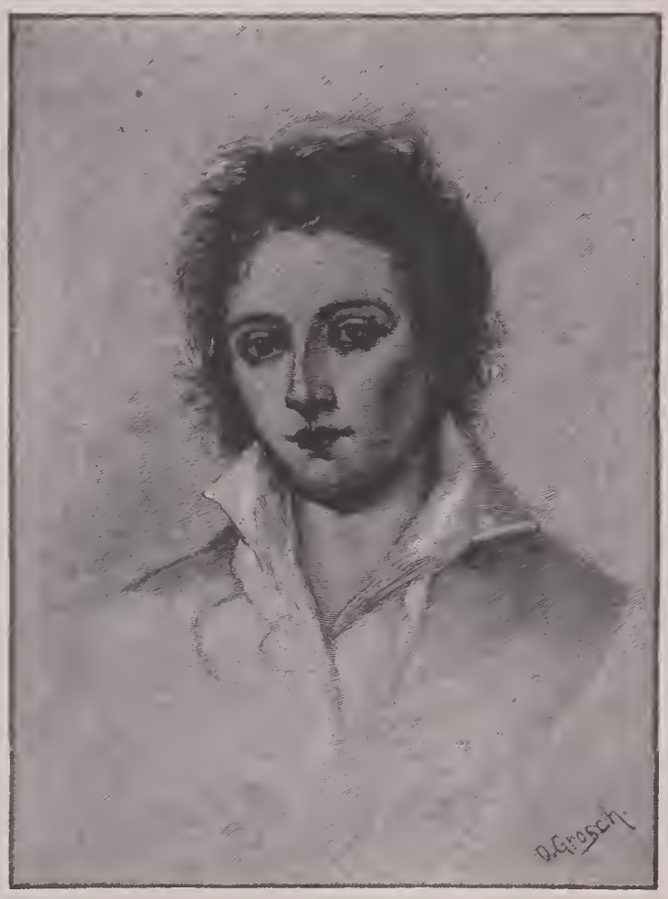
To sheet home. (*Naut.*) To extend a sail till the clew is close to the sheet-block; as, top-sails *sheeted home*.

Sheet'-anchor, *n.* (*Naut.*) The largest anchor belonging to a ship, on which, in cases of extremity, the vessel's safety depends: — hence, metaphorically, the mainstay or chief support; the last refuge for safety; as, rectitude is the mind's *sheet-anchor*.

Sheet'-cable, *n.* (*Naut.*) The cable which belongs to the sheet-anchor, being the strongest and best cable on shipboard.

Sheet'ful, *n.* As much as a sheet will hold.

Sheet'ing, *n.* Linen or cotton cloth for sheets.



Percy Bysshe Shelley

1792–1822

Sheet'-light'ning, *n.* Lightning thrown out or appearing in widely expanded flashes, in distinction from *fork-lightning*, which flashes in a zigzag manner

Sheet'ling, *n.* A small sheet. (R.)

Sheet'-pile, *n.* A pile of thick plank or scantling, shot or jointed on the edges, jammed between the main piles of a coffer-dam or other hydraulic substructure.

Sheffield, a large manufacturing town of the W. Riding of Yorkshire, Eng., on an eminence at the confluence of the rivers Sheaf and Don, both of which are here crossed by several bridges, 6 miles from Rotherham. The houses are well built, and many of them elegant; but the smoke of the numerous manufactories tends to give the town a sombre appearance. *Manuf.* Cutlery of all kinds, iron and steel goods, plated wares, metallic instruments, printing types, and files. Here coal is abundant, and some iron is raised in the vicinity. *Pop.* (1897) 355,460.

Sheffield, in *Georgia*, a village of Newton co., 65 m. N. W. of Milledgeville.

Sheffield, in *Illinois*, a post-village of Bureau co., 38 m. W. of La Salle. It has valuable coal mines.

—A village of Greene co.

Sheffield, in *Indiana*, a vill. of Lake co., on three railroads, 16 m. S.S.E. of Chicago.—A twp. of Tippecanoe co.

Sheffield, in *Iowa*, a post-village of Franklin co., on the Cent. R.R.—A v. of Story co., 14 m. N.N.W. of Nevada.

Sheffield, in *Massachusetts*, a post-village and township of Berkshire co., 120 m. S.W. of Boston.

Sheffield, in *Missouri*, a village of Cape Girardeau co., 16 m. N.E. of Jackson.

Sheffield, in *Ohio*, a township of Ashtabula co.—A post-township of Loraine co.—A village of Meigs co., on the Ohio, 2 m. W. of Pomeroy.

Sheffield, in *Pennsylvania*, a post-township of Warren co., 79 m. S.E. of Erie.

Sheffield, in *Vermont*, a post-township of Caledonia co., 37 m. N.E. of Montpelier.

Shef'ford, in prov. of Quebec, a S.W. central co.; *area*, 745 sq. m. Drained by the Yamaska river. *Cap.* Waterloo. *Pop.* (1897) 24,180.

Shehr, (*shair,*) a seaport-town of the S.E. of Arabia, 32 m. E.N.E. of Makallah; Lat. 14° 43′ N., Lon. 49° 40′ E. *Manuf.* Cotton cloth, gunpowder, arms, &c. *Pop.* 6,000.

Sheik, Scheik, Sheikh, (*shāk,*) *n.* [Ar. *sheikh*, older, or eldest.] A title of dignity properly belonging to the chiefs of Arab tribes. The heads of monasteries are also, in some instances, termed *sheiks* among the Mohammedans. It is also the title of the higher order of religious persons who preach in the mosques. The mufti at Constantinople bears the title of *Sheikh-ul-Islam.*

Sheil, Richard Lalor, one of the greatest orators that Ireland has produced, b. at Drumdowney near Waterford, 1794. Second to O'Connell alone, *S.* often surpassed even the "Agitator" himself in his powers of captivation, from the beauty of his language and the grace of his imagination. As an author, *S.* was also eminently distinguished. He wrote some successful tragedies; one of them, *Evadne*, still retains possession of the stage. When the Emancipation Act passed, *S.* was elected member for Milbourne Port, and, in spite of his shrill voice and vehement gesticulation, his fervid eloquence placed him at once in the foremost rank of the most attractive speakers in the House. When O'Connell's energies declined, many in Ireland looked upon *S.* as his successor; but the orator had too closely allied himself with the Whig party, and for some years was heard in the House but on rare occasions. Besides being a Queen's counsel and a privy-councillor, *S.* was successively a commissioner of Greenwich Hospital, Vice-President of the Board of Trade, Judge-Advocate-General, and Master of the Mint. His last appointment was that of minister-plenipotentiary at Florence, where he d., 1851.

Shek'el, *n.* [Heb.; Lat. *siclas;* Fr. *sicle.*] A Jewish weight equivalent to half an ounce avoirdupois. — Also, a Jewish coin of the value of 62 cents. There were, however, several standards of the *S.*, and many opinions are entertained respecting its real value.

Sheki'nah, Shechi'nah, *n.* (*Jewish Hist.*) The name given by the Jews to the Divine Presence which rested in the form of a cloud over the mercy-seat, or between the cherubim of the ark. The rabbins affirm that it descended on the day of the consecration of the ark by Moses in the wilderness, and afterwards passed into the sanctuary of Solomon's temple on the day of its dedication, continuing there until the destruction of Jerusalem and the temple by the Chaldeans, and not afterwards seen.

Shelbi'na, in *Missouri*, a post-town of Shelby co., 47 m. W. of Hannibal.

Shel'burne, a sea-port town and port of entry of Nova Scotia, cap. of a co. of the same name, on the Atlantic, 112 m. S.W. of Halifax. The harbor is the best in Nova Scotia, and has at its entrance a light-house on Rosneath Island, with two lights 125 ft. above the sea. *Pop.* 4,000.

Shelburne, in *Massachusetts*, a post-township of Franklin co., 95 m. N.W. of Boston.

Shelburne, in *New Hampshire*, a post-village and township of Coos co., 91 m. N.E. of Concord. The twp. is bounded on the west by Lake Champlain.

Shelburne, in *Vermont*, a post-village of Chittenden co.

Shel'burne Falls, in *Massachusetts*, a thriving post-village of Franklin county, 90 miles west north-west of Boston.

Shel'by, in *Alabama*, a N. central co.; *area*, 772 sq. m. *Rivers.* Cahawba and Coosa. *Surface*, diversified; *soil*, fertile. *Min.* Stone-coal and iron. The co. is intersected by several railroads. *Cap.* Columbiana. *Pop.* (1897) 21,965.

Shelby, in *Illinois*, a S. E. central co.; *area*, 776 sq. m. *Rivers.* Kaskaskia, Little Wabash, and the S. Fork of Sangamon river. *Surface*, undulating; *soil*, fertile. *Cap.* Shelbyville. *Pop.* (1897) 33,240.

—A village of Edwards county.

Shel'by, in *Indiana*, a S. E. central co.; *area*, 400 sq. m. *Rivers.* Blue river, and Sugar creek. *Surface*, level, with large forests of oak, ash, walnut, &c.; *soil*, fertile. The county is intersected by several railroads. *Cap.* Shelbyville. *Pop.* (1897) 26,260.

—A township of Jefferson county.

—A township of Ripley county.

—A township of Tippecanoe county.

Shelby, in *Iowa*, a W. co.; *area*, 576 sq. m. *Rivers.* The W. Fork of Nishnabotna river, and Key creek. *Surface*, undulating; *soil*, fertile. *Cap.* Harlan. *Pop.* (1897) 18,980.

Shelby, in *Kentucky*, a N. co.; *area*, 405 sq. m. It is drained by Beech, Brashears, Lear, Fox, and Six-Mile creeks. *Surface*, undulating; *soil*, very fertile. *Products.* Corn and wheat. *Cap.* Shelbyville. *Pop.* (1897) 17,950.

Shelby, in *Michigan*, a village and township of Macomb co., 22 m. N. of Detroit.

Shelby, in *Minnesota*, a township of Blue Earth co.

Shelby, in *Missouri*, an E. N. E. central co.; *area*, 514 sq. m. *Rivers.* South Fabius, Salt, and North rivers. *Surface*, undulating; *soil*, generally fertile. *Min.* Stone-coal. *Cap.* Shelbyville. *Pop.* (1897) 16,650.

Shelby, in *New York*, a post-village and township of Orleans co., 16 m. E. of Lockport.

Shelby, in *North Carolina*, a post-village, cap. of Cleveland co., 190 m. S. W. Raleigh. Large shipments of cotton are made from here.

Shelby, in *Ohio*, a W. co.; *area*, 420 sq. m. *Rivers.* Miami, and Loramies creek. *Surface*, undulating, with flat table-land in the N.; *soil*, fertile. *Cap.* Sidney. *Pop.* (1897) 27,405.

—A post-village of Richland co., 68 m. N. E. of Columbus.

Shelby, in *Tennessee*, a S. W. county, bordering on Mississippi; *area*, 728 sq. m. *Rivers.* Mississippi on the W., Wolf, and Loosahatchy, and Nanconnah creek. *Surface*, level; *soil*, fertile. *Products.* Cotton and corn. *Cap.* Memphis. *Pop.* (1897) 30,250.

—A village of the above co., 19 m. E. N. E. of Memphis, on the L. & M. R.R.

Shelby, in *Texas*, an E. co., bordering on Louisiana; *area*, 800 sq. m. *Rivers.* Sabine and Attoyac. *Surface*, level; *soil*, fertile. *Cap.* Center. *Pop.* (1897) 15,865.

Shelby's Basin, in *New York*, a post-village of Orleans co., 15 m. E. of Lockport.

Shel'byville, in *Illinois*, a city, cap. of Shelby co., 60 m. S. E. of Springfield. *Pop.* (1897) 3,425.

Shelbyville, in *Indiana*, a city, cap. of Shelby co., 26 m. S. E. of Indianapolis. *Pop.* (1897) 6,120.

Shelbyville, in *Kentucky*, a post-village, cap. of Shelby co., 30 m. E. of Louisville.

Shelbyville, in *Minnesota*, a village of Blue Earth co., 28 m. S. S. W. of Mankato.

Shelbyville, in *Missouri*, a post-town, cap. of Shelby co., 90 m. N. N. E. of Jefferson City.

Shelbyville, in *Tennessee*, a post-town, cap. of Bedford co., 59 m. S. S. E. of Nashville.

Shelbyville, in *Texas*, a post-village, former cap. of Shelby co., 325 m. E. N. E. of Austin city.

Shel'don, in *California*, a village of Sacramento co., 16 m. S. E. of Sacramento.

Sheldon, in *Illinois*, a post-village of Iroquois co., 109 m. E. of Peoria.

Sheldon, in *Minnesota*, a post-township of Houston co., 12 m. W. of Brownsville.

Sheldon, in *Missouri*, a post-village of Vernon co.

Sheldon, in *New York*, a post-village and township of Wyoming co., 15 m. W. of Warsaw.

Sheldon, in *Vermont*, a post-village and township of Franklin co., 54 m. N. W. of Montpelier.

Sheldon, in *Wisconsin*, a township of Monroe co., 34 m. E. of La Crosse.

Shel'drake, Sheldrake, or Bergander, *n.* (*Zoöl.*) The common name of the genus *Tadorna*, sub-family *Anatinæ*, the type of which is *T. vulpanser*, the common *S.* (Fig. 2351). The head and neck of the male is of a dark green; lower part of the neck, coverts of the wings, the back, sides, rump, and base of the tail, pure white; the scapulars, abdomen, quills, a large band across the belly, and tips of the tail-feathers, deep black. A large bay-colored gorget adorns the breast, and the wing is ornamented with a spot of purple-green. The bill, and the fleshy knob at its base, deep red. Feet, flesh color. Sheldrakes are very abundant in Holland and on the coasts of France. They may be domesticated, and are handsome ornaments in poultry-yards; but their flesh is rank and bad. — In this country the name *S.* is commonly given to the Red-breasted Merganser, *Mergus serrator*, which resembles the European *S.* only in the color of its breast.

Fig. 2351. — Sheldrake, (*Tadorna vulpanser.*)

Shel'duck, *n.* The female of the Sheldrake, *q. v.*

Shelf, *n.*; *pl.* Shelves, (*shelvz.*) [A. S. *scylfe.*] A board, or platform of boards or planks, elevated above the floor of an apartment, and fixed or set horizontally on a frame, or contiguous to a wall, for holding vessels, utensils, books, and the like. — A flat projecting layer of rock. — A sandbank in the sea, or a rock or ledge of rocks.

Shelf'y, *a.* Full of shelves; abounding with sandbanks or rocks.

Shell, *n.* [A. S. *scel, scyll;* Ger. *schale*, from the antiquated *schalen*, to cover.] A hard external covering; particularly, that serving as the natural protection of certain fruits and animals; as, (1.) The exterior coat of a nut; (2.) The integument or outer layer of an egg; (3.) The hard, calcareous substance which covers a testaceous animal. (See below, § *Zoöl.*) — Any framework or skeleton of a structure, considered as not filled in, or unfinished; as, the *shell* of a house, or ship. — Hence, by analogy, outer or superficial show without intrinsic substance; as, "this outward *shell* of religion." (*Ayliffe.*) —A rude kind of coffin. — A musical instrument resembling the lyre, supposed to have been originally formed by stringing the shell of a tortoise; — used only in poetry.

"The soul of music slumbers in the *shell.*" — *Rogers.*

—An engraved copper roller employed in print-works.

(*Zoöl.*) The hard calcareous substance which either protects the testaceous mollusca externally, or supports certain species of them internally. It has been truly said, that he who would know the nature of shells, must know first the nature of the animals of which shells form a part; and to this end we at once refer the reader to the article Mollusca. Although shells, properly so called, which form the habitation of testaceous animals are sometimes confounded with the shelly coverings which protect the crustacea (crabs and their numerous allies), a very obvious and striking difference exists between them, as well as between the kinds of animals which respectively inhabit them. The shells of testacea are composed of carbonate of lime, combined with a small portion of gelatinous matter; they are, in general, permanent coverings for their inhabitants; and the animal is of a soft substance, without bones of any kind, and attached to its domicile by a certain adhesive property. On the other hand, those animals which are defended by a crustaceous covering cast their shells, and renew them annually; while the animals themselves are of a fibrous texture, with articulated limbs, and protected, as it were, by a coat of mail. Shells are divided into *Multivalves*, *Bivalves*, and *Univalves*. The first order, *Multivalve*, is made up of shells consisting of more shelly parts or pieces than two. Every part of a shell which is connected with a corresponding part by a cartilage, ligament, hinge, or tooth, is called a *valve* of such shell. — The second order, *Bivalve*, is made up of shells having two parts or valves, generally connected by cartilage or hinge; as in the cockle and mussel. — The third order, *Univalve*, is made up of shells complete in one piece — as in the periwinkle and the whelk — and they are subdivided into shells with a regular spire, and those without a spire. The shells composing this order are far more numerous than those of the two preceding, both in genera and species. The spire is a prominent feature of the Univalve; and upon its being lengthened or elevated, shortened or depressed, &c., depends much of the generic and specific definition. Shells increase in size by the disposition of new layers internally upon those already formed. Each new layer extends more or less beyond the margin of the layer to which it is applied, so that as the animal becomes older its shell becomes larger and thicker. The outer surface is generally covered by a thin layer of membranous or horny matter, named the *epidermis*, and the inner surface is often covered with a layer of a pearly nature. — It is universally found that the marine shells of warm climates exceed all others in beauty of coloring, and in taking a fine polish. Several of the land shells, also, that are met with in tropical countries are remarkable for their bright colors and elegant forms. River and land shells, with very few exceptions, are thinner than those of the sea.

(*Mil.*) A hollow vessel of metal containing gunpowder, or other explosive compound, so arranged that it shall explode at a certain point, and spread destruction around by the forcible dispersion of its fragments. The invention of this murderous missile cannot be accurately traced. Shells were employed in 1480 A. D. by the Sultan of Gujerat, and by the Turks at the siege of Rhodes, in 1522. The Spaniards and Dutch both used them during the war of Dutch independence; and they appear to have been generally adopted by about 1634. Formerly, every shell was a hollow sphere of cast-iron, varying in thickness from half an inch to two inches, and in diameter from five and a half inches to thirteen inches. The sphere had a fuse-hole (like a bung-hole) an inch across, through which the charge was inserted, consisting of pieces of metal and powder to burst the shell. The hole was plugged by a fuse, which was a tube of slow-burning powder, timed to communicate fire to the charge after the lapse of a certain number of seconds. This fuse might either be kindled by hand the moment before the mortar was fired, or its ignition might be effected by the act of firing itself. Since the introduction of rifled ordnance, the shell has become the commonest form of projectile. It has ceased to be spherical, and is usually of cylindrical form and pointed at the end. Having a polar movement, so that the conical end always strikes first, they are adapted for percussion priming, which placed in this end explodes as the projectile reaches the object against which it is thrown.

—*pl.* The husks of the cacao-seeds, a preparation of which is often used as a substitute for cocoa, chocolate, &c.

Shell-bit, a gouge-like tool working with a brace in the boring of wood. — *Shell-boat*, a boat built with a flimsy framework, deck, &c. — *Shell-gun.* (*Ord.*) A gun made for projecting shells, bombs, &c.; a mortar. — *Shell of a boiler.* (*Mach.*) The plating; also, the barrel

Shell, *v. a.* To strip or break off the shell of, or to take out of the shell; as, to *shell* almonds. — To detach from the ear; as, to *shell* corn. — To bombard; to hurl shells upon; as, to *shell* a fort or city. — *To shell out,* to pay or give money freely. (Colloq.)

—*v. n.* To fall off, as a shell, crust, or external coat or covering; as, a scab *shells* off. — To cast the shell or outer covering; as, acorns *shell* in falliug. — To be detached or separated from the husk; as, wheat *shells* in harvesting.

Shel'lac, Shell'-lac, *n.* See LAC.

Shell'-bark, *n.* (*Bot.*) See HICKORY.

Shell'-button, *n.* A button made of a shell, especially of a mother-o'-pearl shell.—A hollow button made of two pieces of metal fused together, and sometimes coated with silk, &c.

Shel'ley, PERCY BYSSHE, an English poet, B. in Sussex, 1792. He received his rudimentary education at Eton, from which college, in consequence of his eccentric habits, he was removed before the usual time, and sent to Oxford, from whence, for his irregularities and open declaration of atheistical opinions, he was expelled. This conduct, joined with a very imprudent marriage contracted with the daughter of a coffee-house keeper, greatly estranged him from his family. After the birth of two children, Shelley separated from his wife, who soon after his desertion committed suicide. Before the scandal this affair created had subsided, Shelley married Miss Godwin, the daughter of Mary Wolstonecroft and William Godwin, author of *Caleb Williams.* By an order of the Lord-Chancellor he was deprived of the guardianship of his children, in consequence of his atheistical, and, as it was alleged, immoral opinions, upon which Shelley and his wife set out for Italy, where he renewed his acquaintance with Lord Byron and Leigh Hunt. While residing in the kingdom of Sardinia, on the 8th of July, 1822, he, while returning home in a boat across the Gulf of Spezzia, was overtaken by a violent storm, the boat capsized, and Shelley unfortunately drowned. Fifteen days afterwards, agreeably to an often-expressed wish, his body was burnt on the seashore, and the ashes buried in an urn near the remains of his friend Keats, at Rome. In force and splendor of imagination, *S.* is perhaps unrivalled; and few poets equal him in wealth and felicity of diction. He is no realist; he does not stand firmly on the ground and deal with men and women as Shakspeare does; hut, while denouncing the evils and wrongs, corruptions and miseries of the world, dreams splendid dreams of truth, and good, and beauty, and bliss, and creates scenes of Utopian peace and loveliness. His principal poems are, — *Queen Mab, The Revolt of Islam, Prometheus Unbound,* and *The Cenci.* His wife, B. 1798, D. 1851, wrote at the age of 18 her wild and extraordinary tale of *Frankenstein,* which gained immense popularity. She was also author of several novels, written after her husband's death.

Shell'-fish, *n.* A term applied, chiefly in commerce, to aquatic animals invested with a hard covering, either testaceous, as oysters, or crustaceous, as lobsters.

Shell'-flower, *n.* (*Bot.*) See MOLUCCELLA.

Shell'lug, *n.* The commercial term for groats.

Shell'-jacket, *n.* (*Mil.*) An undress military jacket.

Shell'-lime, *n.* Lime made by calcining shells.

Shell'-marl, *n.* A deposit of clay and other substances, mixed with shells, which collects at the bottom of lakes.

Shell'-meat, *n.* Food supplied by shell-fish or testaceous molluscs.

Shell River, in *Wisconsin,* enters the St. Croix River from St. Croix co.

Shell Rock, in *Iowa,* a post-village and township of Butler co.

Shell Rock, in *Minnesota,* a post-village and township of Freeborn county, 7 miles S. E. of Albert Lea.

Shell Rock Creek, in *Iowa,* joins Lime creek in Floyd co., and with it forms English river.

Shell'town, in *New Jersey,* a village of Monmouth co., 10 m. S. E. of Trenton.

Shell'y, *a.* Abounding with shells; as, a *shelly* beach. —Comprising or consisting of shells, or of a single shell; as, a *shelly* grotto.

Shelocta, in *Pennsylvania,* a post-village of Indiana co., 165 m. N.W. of Harrisburg.

Shel'ter, *v. a.* [A. S. *scyldan, gescyldan.*] To cover or shield from violence, injury, annoyance, or attack; to defend; to protect from danger; to secure or render safe; to harbor; as, to *shelter* a fugitive.—To cover from notice; to disguise for protection; as, to *shelter* love under the mask of friendship. — To betake to cover, or a safe place; — employed reflexively; as, to *shelter* one's self under a doorway from the rain.

—*v. n.* To take shelter: to avail one's self of shelter.

—*n.* That which covers or defends from injury or annoyance; an asylum; a refuge; a retreat; a covert; a harbor. — Hence, inferentially, one who shields or protects from danger; a guardian. — State of being covered and protected: protection; defence; security; as, the house receives *shelter* from the hill above it.

Shel'ter Island, in *New York,* a post-township of Suffolk co., 100 m. E. of New York.

Shel'terless, *a.* Without shelter, safeguard, or protection.

Shel'tie, Shel'ty, *n.* [From *Shetland.*] One of a breed of small, shaggy ponies, originally from the Shetland Islands, Scotland.

Shel'ton, in *Indiana,* a former township of Warrick county.

Shelton, in *South Carolina,* a post-village of Fairfield county, 66 m. N.N.W. of Columbia.

Shel'tonville, in *Georgia,* a post-village of Milton co.

Shelve, *v. a.* (*imp.* and *pp.* SHELVED,) (*shĕlvd.*) [From *shelf.*] To place on a shelf, or on shelves; — hence, analogically, to cast or put aside, as being no longer wanted; as, to *shelve* an argument, to *shelve* a dupe. — To furnish with shelves; as, to *shelve* a closet or pantry.

—*v. n.* To incline; to be aslope, as shelves or shallows in the sea; as, a *shelving* bank.

Shelv'ing, *n.* Act of laying on a shelf, or shelves. — Operation of fixing up a shelf, or shelves.—Materials for shelves, in a collective sense.

Shelv'y, *a.* Full of rocks, shoals, or sand-banks; shallow; as, a *shelvy* coast.

Shem'ite, *n.* A descendant of Shem.

Shemit'ic, Shem'itish, *a.* Same as SEMITIC, *q. v.*

Shem'itism, *n.* The system or idiosyncratic form or constitution of the Semitic or Shemitic languages.

Shem. (*Script.*) One of the three sons, and according to many commentators the elder son, of Noah (*Gen.* v. 32), from whom descended the nations enumerated in *Gen.* x. 22, *sq.*, and who was the progenitor of that great branch of the Noachian family, called from him *Shemitic,* or *Semitic,* q. v., to which the Hebrews belong.

Shenando'ah, in *Virginia,* a river formed by the junction of the N. and S. Forks at Front Royal, in Warren co., the latter, or Shenandoah Proper, rising by three branches, called N., S., and Middle rivers, in Augusta and Rockingham cos., and falls into the Potomac at Harper's Ferry, after a N.E. course of 170 m. It is navigated by small boats, called *gondolas,* for more than 100 m. above Fort Royal. — A N. co., bordering on W. Virginia; *area,* 500 sq. m. It is drained by the N. Fork of the Shenandoah. *Surface,* diversified; *soil,* generally fertile. *Min.* Iron, lead, copper, lime, and sandstone. *Cap.* Woodstock.

Shenandoah, in *New York,* a village of Dutchess co., 12 m. S.E. of Poughkeepsie.

Shenan'go, in *Pennsylvania,* a township of Lawrence co.—A township of Monroe co.—A vill. of Mercer co., 8 m. N.W. of Mercer.

Shenango Creek, in *Pennsylvania,* rises in Crawford co., and flows S., uniting with Mahoning Creek in Lawrence co. to form the Beaver River.

Shen'evas Creek, in *New York,* enters the E. branch of the Susquehanna River from Otsego co.

Shen'dy, a town of Africa, in Lower Nubia, on the Nile, 100 m. below Khartoum. The finest senna is obtained in its territory. *Pop.* 10,000.

She'ol, *n.* [Heb.] Hades; the Inferno; the limbo of departed spirits.

Shen-se', a prov of China, between Lat. 32° and 40° N., Lon. 106° and 111° E. The surface is mountainous, but in parts fertile. *Prod.* Wheat, millet, rhubarb, and other drugs, timber, &c. *Min.* Iron, copper, gold, and jasper. *Manuf.* Agricultural and military implements. *Cap.* Se-gan-foo. *Pop.* 15,000,000.

Shepang' River, in *Connecticut,* rises in Litchfield co., and enters the Housatonic in New Haven co.

Shepherd, (*shĕp'erd,*) *n.* [A. S. *sceaphcorde.*] One who tends or keeps sheep; a man employed in tending, feeding, and guarding sheep in the pasture.—A bucolic swain; a country lover.—The pastor of a parish, church, or congregation; — used figuratively, in the sense of the members being considered as a *flock.*

Shepherd's crook, a long staff with the upper end curved hook-wise, used by shepherds.

—*v. a.* To tend, guard, herd, or drive, as a shepherd. (R.)

Shep'herdess, *n.* A woman who tends sheep; — hence, a country lass.

Shep'herdism, (*-izm,*) *n.* Pastoral life; bucolic occupation.

Shep'herdling, *n.* A little shepherd.

Shep'herdly, *a.* Rustic; pastoral.

Shep'herd's Dog, *n.* (*Zoöl.*) See CANIS.

Shep'herd's-pouch, Shep'herd's-purse, *n.* (*Bot.*) See CAPSELLA.

Shep'herd's-rod, Shep'herd's-staff, *n.* (*Bot.*) The Teasel. See DIPSACACEÆ.

Shep'herdstown, in *Ohio,* a post-village of Belmont co., 7 m. N.W. of St. Clairsville.

Shepherdstown, in *Pennsylvania,* a post-village of Cumberland co., 8 m. S.W. of Harrisburg.

Shepherdstown, in *West Virginia,* a post-town, the former cap. of Jefferson co., on the Potomac, 12 m. N. of Harper's Ferry.

Shep'herdsville, in *Kentucky,* a post-town, cap. of Bullitt co., 18 m. S. of Louisville.

Shep'ody, in New Brunswick, a seaport of Albert co., on Shepody Bay, 90 m. N.E. of St. John; Lat. 45° 40′ N., Lon. 64° 30′ W.

Shep'pardtown, in *Alabama,* a village of Tuscaloosa co., on the Black Warrior River, S.W. of Tuscaloosa.

Shep'pey, an island of England, co. of Kent, at the mouth of the Thames and Medway; *ext.* 11 m. long and 8 broad. *Chief town.* Sheerness.

Sher'bet, *n.* [Ar. *sharbut, shurbet,* syrup, from *shereb,* to drink; Hind. *shoorb,* drink.] A favorite beverage in Eastern countries, bearing some resemblance to our lemonade, being made of water, lemon-juice, and sugar, with the addition of orange- or rose-water, to give it a delicious perfume.

Sher'born, in *Massachusetts,* a post-village and township of Middlesex co., 22 m. W.S.W. of Boston.

Sher'borne, a town and parish of England, co. of Dorset, on the Ivel, 16½ m. N. of Dorchester, and 110 W.S.W. of London. *Manufactures.* Buttons and silk twist.

Sher'boro, an island off the coast of Guinea, in W. Africa, opposite the mouth of a river of the same name, 40 m. S.S.E. of Sierra Leone; Lat. 7° 30′ N., Lon. 12° 40′ W.; *ext.* 30 m. long and 10 broad. *Prod.* rice and fruit.

Sher'brooke, in prov. of Quebec, an E. co.; *area,* 375 sq. m.—A town, cap. of the above co., 95 m. E. of Montreal.

Sher'brooke, in *Nova Scotia,* a town of the co. of Guysborough, on the æstuary of the St. Mary's River, 12 m. from the Atlantic.

Sher'burne, in *Minnesota,* an E. central co.; *area,* 424 sq. m. *Rivers.* Mississippi and Elk. *Soil,* fertile. *Products,* chiefly wheat, corn, and hay. *Cap.* Elk River. *Pop.* (1895) 7,137.

Sherburne, in *New York,* a post-village and township of Chenango co., 43 m. S.S.W. of Utica.

Sherburne, in *Vermont,* a post-township of Rutland co., 46 m. S.W. of Montpelier.

Sherburne Mills, in *Kentucky,* a post-village of Fleming co., 10 m. S.W. of Flemingsburg.

Sherd', *n.* A fragment. See SHARD.

Sher'eef, Sher'if, *n.* Same as SCHERIF, *q. v.*

Sher'idan, PHILIP HENRY, an American general, B. in Somerset, Perry co., Ohio, 1831. After being educated at West Point, he was admitted into the Military Academy in 1848, where he graduated in 1853. Entering the U. S. artillery, he served in Texas and Oregon till 1855, when he sailed for San Francisco, in command of an escort to the expedition for surveying the proposed branch of the Pacific Railway between San Francisco and the Columbia River. This work done, he continued in command of a body of troops among the Indian tribes until 1861, when he was promoted to the rank of captain. On the breaking out of the Civil War, he was appointed quartermaster of the army in course of organization in S.W. Missouri; in 1862, became chief quartermaster of the Western Department, and colonel of the 2d Michigan Volunteer Cavalry, in which capacity he cut the railroads S. of Corinth. He defeated two separate forces of cavalry at Baldwin and Guntown in June, 1862, and gained fresh laurels at Boonesville in July, for which he was promoted to the rank of brigadier-general of volunteers, and took the command of the third division of the Army of Ohio, distinguishing himself by the defence of Louisville, and in the engagement on the banks of Stone River, December 30, for which he was

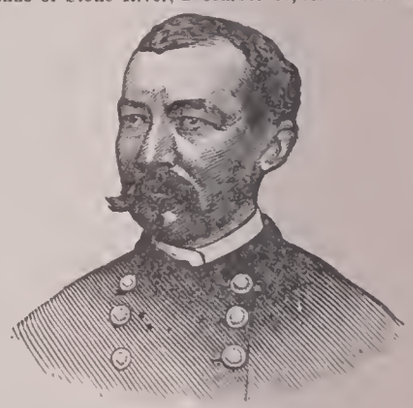


Fig. 2352. — GEN. SHERIDAN.

promoted to major-general of volunteers. He was engaged at Chickamauga, September 19 and 20, 1863, where he had his horse killed under him; was appointed, in April, 1864, to the command of the cavalry corps of the Army of the Potomac, defeated the Southern forces at Meadow Bridge, on the Chickahominy, in May, set out in June on a cavalry expedition into the heart of the rebel country, where he repulsed his opponents, and defeated Gen. Early in several engagements in the Shenandoah Valley. He was appointed to the chief command of the cavalry, which branch of the Federal forces, under his able and energetic direction, acquired an efficiency and gained a reputation such as it had never borne before. *S.* was appointed brigadier-general of the U. S. army Sept. 20, 1864, and major-general Nov. 8 of the same year. On Feb. 9, 1865, the thanks of Congress were tendered to him for "the gallantry, military skill, and courage displayed in the brilliant series of victories achieved by his army in the Valley of the Shenandoah, especially at Cedar Run." After the capture of Staunton, he pressed on to Columbia, laying waste the country in every direction; gained the battle of the Five Forks, April 1, 1865; assisted in compelling the Southern forces to evacuate Petersburg and Richmond, and encountered Gen. Lee near Appomattox Court House, who surrendered April 9. Gen. *S.* was in command of the military division of the S.W. from June 3 to July 17, 1865; of the military division of the Gulf, July 17, 1865, to Aug. 15, 1866; of the Department of the Gulf, Aug. 15, 1866, to March 11, 1867; and of the Fifth Military District of Louisiana and Texas, March 11 to Sept. 5, 1867; and of the dept. of the Missouri, Sept. 12, 1867. On March 4, 1869, he was appointed lieut.-genl., and Nov. 1, 1883, suc. Sherman in command of the army. Congress revived the grade of Gen. to which he was appointed June 1, 1888. D. Aug. 5, 1888.

Sher'idan, RICHARD BRINSLEY, an English dramatist and statesman, B. at Dublin, 1751, was the son of Thomas *S.*, author of a *Dictionary of the English Language.* His first dramatic attempt was *The Rivals,* which was acted at Covent Garden in 1775, with moderate success; but the *Duenna,* a musical entertainment, which followed, was received with general admiration; and his *School for Scandal* gained him the highest reputation as a comic writer. On the retirement of Garrick from Drury Lane Theatre, *S.* purchased a share in the

Philip Henry Sheridan

1831–1888

William Tecumseh Sherman

1820–1891

property, which qualified him for a seat in Parliament; and, in 1780, he was chosen member for the borough of Stafford. He attained great celebrity as an orator, especially during the progress of the impeachment of Warren Hastings. The political changes consequent on the death of Pitt, in 1806, occasioned the rise of the party with which *S.* was connected, and he obtained the lucrative post of Treasurer of the Navy, and the rank of a privy-councillor. This administration being weakened by the loss of Mr. Fox, who survived his rival only a few months, new alterations took place, and *S.* was deprived of office, to which he never returned. At the general election in 1806, he obtained a seat for Westminster, the great object of his ambition; but he was afterwards nominated for the borough of Ilchester, which he continued to represent during the remainder of his parliamentary career. The latter part of his life was embittered by misfortunes, principally arising from his own improvidence. His profuse habits involved him deeply in debt; his loss of a seat in Parliament deprived him of protection from arrest; intemperance had undermined his constitution, and mental anxiety completed the destruction of his health. D. 1816. Besides the pieces already noticed, he was the author of a part of *A Translation of Aristænetus;* the farce of *The Critic*, and poems. *S.* was twice married, first to Miss Linley, a celebrated singer; and the second time to Miss Ogle, daughter of the Dean of Winchester.

Sher'idan, in *Michigan*, a township of Calhoun county.

Sheridan, in *New York*, a post-township of Chautauqua co., 10 m. N.E. of Dunkirk.

Sheriff', *n.* [A. S. *scire-gerefa* — *scire*, a shire, and *gerefa*, a reeve, a wardeu.] An officer having jurisdiction over a shire or county, to whom is intrusted the execution and administration of the law. In England *S.* are appointed by the crown, but in this country the usual practice is for the people of the several counties to elect *S.* at regular intervals, generally of three years, and they hold subject to the right of the governor to remove them at any time for good cause, in the manner pointed out by law. Before entering upon the discharge of their duties, they are required to give bonds to the people of the State, conditioned for the faithful performance of their duties, without fraud, deceit, or oppression. It is the *S.*'s duty to preserve the peace within his county. To this end he is the first man within the county, and may apprehend and commit to prison all persons who break, or attempt to break the peace, or may bind them over in a recognizance to keep the peace. He is bound, *ex officio* to pursue and take all traitors, murderers, felons, and rioters; has the safe-keeping of the county jail, and must defend it against all rioters; and for this, as well as for any other purpose in the execution of his duties, he may command the inhabitants of the county to assist him, which is called the *posse comitatus*. And this summons every person over fifteen years of age is bound to obey, under pain of fine and imprisonment. In his ministerial capacity he is bound to execute within his county, any process that issues from the courts of justice, except where he is a party to the proceeding, in which case the coroner acts in his stead. He has no power or authority out of his own county, except when he is commanded by a writ of *habeas corpus* to carry a prisoner out of his county; and then, if he conveys him through several counties, the prisoner is in custody of the *S.* of each of the counties through which he passes. If, however, a prisoner escapes and flies into another county, the *S.* or his officers may, upon fresh pursuit, take him again in such county. To assist him in the discharge of his various duties, he may appoint an under-sheriff, and as many general or special deputies as the public service may require, who may discharge all the ordinary ministerial duties of the office, such as the service and return of process, and the like, but not the execution of a writ of inquiry, for this is in the nature of a judicial duty, which may not be delegated.

Sher'iffalty, *n.* Shrievalty. (R.)

Sher'man, William Tecumseh, general of the army of the United States, b. in Lancaster, Ohio, 1820. His father, one of the judges of the Supreme Court of Ohio, died in 1829, and William was educated in the family of the Hon. Thomas Ewing until he had reached the age of 16, when he went to West Point, graduated in 1840, entered the U. S. army, and was promoted to the rank of first lieut. in 1841. He acted as Assistant Adjutant-Gen. in 1847, and obtained a brevet of captain in the regular army from May, 1848, for meritorious services in California during the war with Mexico. He was appointed commissary of subsistence in 1850, served at St. Louis and New Orleans, but finding his pay inadequate to support his family, resigned his commission Sept. 6, 1853, and removed to San Francisco, Cal., where he was a partner in a bank till 1848, when he returned to St. Louis, and was elected Superintendent of the Louisiana State Military Institute, which position he resigned when the Civil War began. After the fall of Fort Sumter, he was commissioned colonel of the 13th infantry, and commanded the 3d brigade at the unfortunate battle of Bull Run, July 21, 1861. On the reorganization of the National army Colonel *S.* was made brigadier-general of volunteers, accompanied Gen. Anderson to Kentucky, succeeded him temporarily in command, until at his own request he was relieved by Gen. Buell, and was ordered to Missouri. In the early part of 1862, he was appointed to the command of a division under General Grant, and acted with great bravery at the battle of Shiloh, April 6; was promoted to the rank of major-general, May 1; and when the department of Tennessee was formed, in December, was made commander of the 15th army corps. At the end of that month, he led an expedition to Vicksburg; but the works were too strong to be taken by assault, and he was obliged to withdraw his troops, after a severe fight. He commanded the wing of the army that captured Fort Hindman, Arkansas, January 10, 1863, after which he resumed command of the 15th army corps; took part in the siege of Vicksburg, which capitulated July 3, 1863; and led the expedition which captured Jackson City, July 10. When Gen. Grant was placed in command of the army previously under Gen. Rosecrans, he gave the command of the dept. of the Tennessee to Gen. *S.*, who encountered Gen. Longstreet, and obliged him to retreat, Nov. 20; and in February, 1864, made his expedition to Meridian, Miss., and broke up that important railroad centre, driving Gen. Polk's army out of Mississippi. Having been charged with the command of the army in Georgia, May 4, he commenced the expedition through that State, which ended in the capture of Atlanta, the capital city. Gen. Hood thrice attacked the Federal army, and was repulsed, sustaining considerable loss. After his third failure, General Hood acted merely on the defensive in Atlanta, which fell into the hands of the Nationals in the beginning of September. In October, Hood began his movement towards Tennessee. *S.* followed him as far as Resaca, 75 miles, drove him from the railroad, and then sent part of his army to Tennessee to defend that State, and with the balance began his "march to the sea," to act in concert with the Union army in Virginia against Lee. The distance from Atlanta to Savannah is 290 miles. Gen. *S.* accomplished the march with very little loss in 23 days; and Savannah fell into his hands Dec. 21, 1864. The news of its capture was received with great rejoicing, not only because it showed how triumphant the campaign in Georgia had been, but because it opened up the seaboard of that State, and inflicted a heavy blow on the Confederate cause. Gen. *S.* defeated

Fig. 2353.—Gen. W. T. Sherman.
From a photograph taken in 1864.

the Confederate army of N. Carolina at Bentonville, in that State, March 19, 1865, and soon afterwards paid a visit to Gen. Grant, to concert those measures for the defeat of Gen. Lee, which ended in the submission of that general, and that of Gen. J. E. Johnston, who surrendered his army to Gen. *S.*, April 26, 1865, which was one of the closing actions of the war. Gen. *S.* was promoted to the rank of lieut.-general, July 25, 1866; succeeded Gen. Grant as general, March 4, 1869; retired Feb. 8, 1884, and died Feb. 14, 1891.

Sher'man, Roger, an American statesman, and one of the signers of the Declaration of Independence, b. in Newton, Mass., 1721. Having studied law, he was admitted to the bar in 1754. In 1774 he was appointed a member of the first Congress, a post in which he continued till his death. In 1783 he assisted in codifying the laws of Connecticut. D. in New Haven, 1793.

Sherman, in *Kan.*, a N.W. co.—In *Neb.*, a cent. co.—In *Tex.*, a co.

Sherman, in *Conn.*, a p. twp. of Fairfield co., 50 m. S.W. of Hartford.

Sherman, in *Mich.*, a twp. of St. Joseph co.

Sherman, in *New York*, a p. twp. of Chautauqua co., 10 m. S.W. of Maysville.

Sherman, in *Texas*, a city, cap. of Grayson co., on the Texas Pacific and 3 other R.Rs., 285 m. N.E. of Austin; has extensive industries, and a large trade. *Pop.* (1897) 10,700.

Sherman's Creek, in *Penn.*, enters the Susquehanna River from Perry co.

Sher'mansville, in *Rhode Island*, a village of Providence co., 20 m. N.W. of Providence.

Sher'rington, in Lower Canada, a vill. and township of Huntingdon co. 28 m. S.W. of Montreal.

Sher'ry, *n.* [Named from *Xeres*, in Spain, where the wine was originally made.] A strong, full-bodied wine of a deep amber color, and having, when good, an aromatic odor and nutty flavor, and containing from 20 to 23 per cent. of alcohol; as, dry *sherry*, Amontillado *sherry*.

Sherry-cobbler. (*Drinks.*) A favorite fancy beverage concocted of sherry wine, water, sugar, ice, &c., with a squeeze, or *soupçon*, of lemon-juice added, and commonly imbibed through a tube of straw.

Sher'ryvallies, *n. pl.* An American phrase for pantaloons of thick cloth or leather, buttoned on the outside of each leg, and generally worn over ordinary pantaloons, to protect from dust or mud when riding on horseback; — synonymous with the English *spatterdashes*.

Sher'wood, in *Michigan*, a post-township of Branch co.

Sherwood, in *Missouri*, a post-village of Jasper co., 80 m. W. of Springfield.

Sherwood's, in *New York*, a post-village of Cayuga co., 14 m. S.W. of Auburn.

Shesh'equin, in *Pennsylvania*, a post-township of Bradford co., 7 m. N. of Towanda.

Shetland, or **Zetland, Isles.** See Orkney and Shetland Islands.

Shetuck'et River, in *Connecticut*. It is formed by the junction of several small streams in Tolland and Windham cos., and flows S.E., uniting with the Quinebaug River near Norwich to form the Thames.

Shew, Shewed, Shewn, (*shō.*) A vulgar rendering of Show, Showed, Shown, *q. v.*

Shew-bread, (*shō'-brĕd,*) *n.* An inelegant orthography of Show-bread, *q. v.*

Shew'er, *n.* One who shows;—a vulgarism for Shower, *q. v.*

Shi'ah, *n.* Same as Shiite.

Shiawassee, (*shi-a-wos'see,*) in *Michigan*, a river which rises in Oakland co., and flows N.N.W., uniting with the Flint River to form the Saginaw River, abt. 10 m. S.W. of Saginaw.—A central co.; *area*, 528 sq. ▬ *Rivers.* Shiawassee, Maple, and Looking-glass rives. — *Surface*, diversified, and in parts heavily timbered; *soil*, fertile. *Min.* Coal. *Cap.* Corunna. *Pop.* (1894) 32,827.

—A village and township of the above co., 30 m. N.E. of Lansing. *Manuf.* Paper, flour, &c.

Shib'boleth, *n.* [Heb., an ear of corn.] A word by which the Gileadites tested the Ephraimites after the battle narrated in *Judges* xii. The latter, being unable to sound the aspirate, called it *sibboleth*, and were thus detected. The term is now sometimes applied to a watchword, or criterion of opinion on which all the members of a party are agreed.

Shie, *v. a.* More frequently written Shy, *q. v.*

Shield, (*shēld,*) *n.* [A. S. *scyld*, from *scyldan*, to protect; Du. and Ger. *schild;* Icel. *skiöldr.*] (*Mil.*) A broad piece of defensive armor, carried on the left arm; a buckler; a target; — a protection for the body very extensively used before the invention of gunpowder, and still employed by many nations among which military art has made little or imperfect progress. See Figs. 192, 194, 591.

—Hence, anything which serves to protect or defend; shelter; defence; safeguard; protection.

—Hence, also, figuratively, a person who protects, defends, or guards; as, "Achilles, the Grecian ornament and *shield*." (*Dryden.*) — A spot or mark having resemblance to a shield.

(*Bot.*) A small colored cup or line with a solid disc encircled by a rim, and containing the fructification of lichens.

(*Her.*) Same as Escutcheon, *q. v.*

(*Mining.*) A movable framework used to protect miners in making an adit under ground.

—*v. a.* To cover, as with a shield; to shelter from danger; to defend; to protect; to act as a safeguard to; to secure from attack or injury; as, to *shield* a woman from insult or outrage. — To ward off; to protect against; as, furs *shield* the Laplanders from cold.

Shield, in *Illinois*, a twp. of Lake co.

Shield'-fern, *n.* (*Bot.*) The Wood-fern;—a plant of the genus Aspidium, *q. v.*

Shield'less, *a.* Without a shield or buckler; — hence, defenceless.

Shield'lessly, *a.* In a shieldless manner; without protection.

Shield'lessness, *n.* State or condition of being shieldless; lacking defence.

Shields, (North,) a seaport-town of England. See Tynemouth.

Shields, (South,) a seaport-town of England, co. of Durham, at the mouth of the Tyne, 8 m. N.E. of Newcastle, and 16 m. N.N.E. of Durham. *Manuf.* Ropes, glass, soda, alum, and earthenware.

Shields, in *Wisconsin*, a township of Dodge county. —A township of Marquette county, 3 miles north of Montello.

Shields'borough, in *Mississippi*, a post-village, former cap. of Hancock co., 212 m. S.E. of Jackson.

Shields'ville, in *Minnesota*, a post-village and township of Rice county, 10 miles N.W. of Faribault county.

Shiel'ville, in *Indiana*, a village of Hamilton co., 35 m. N. of Indianapolis.

Shiff'nal, a town and parish of England, co. of Salop, 12 m. N.W. of Wolverhampton. *Manuf.* Paper. *Pop.* 6,000.

Shift, *v. a.* [A. S. *scyftan*, to divide, to drive away; Du. *schiften*, to separate.] To change or alter place or position; as, to *shift* the scenes. — To transfer from one location, direction, or position to another; as, to *shift* the helm, to *shift* one's place of residence.—To change one's clothes, particularly the under-garments or linen; as, she *shifted* herself once a week. — To put off or keep out the way by some artifice or expedient; as, I *shifted* my creditors to a distance. — To dress in fresh clothes; to put on a change of apparel; as, I must have time to *shift* myself.

To shift about, to turn round to the contrary side or opposite quarter; as, the wind *shifted* about. — *To shift off*, to delay; to defer; to put off or postpone; as, to *shift off* the paying of a tax. — To cast off or aside; to discumber one's self of; to shake off; as, he *shifted off* the task upon another.

—*v. n.* To move; to change place or position; to change in direction; to vary from one point to another; as, those people are continually *shifting* about.—To change one's employment or rules of action; as, he *shifts* from one

thing to another without edvantage to himself. —To change one's clothing, perticularly of linen or under-garments; as, turn aside while the lady *shifts*. —To practise in direct methods; as, to *shift* one's self out of a dilemma. —To resort to expedients for a livelihood, or for the accomplishmeut of a purpose; to scheme; to contrive; to manage; as, each must *shift* for himself as well as he can.

Shift, *n.* A chenge; a turning from one thing to another; — hence, an expedient attempted or resorted to in difficulty or embarrassment; one thing tried when another fails; a contrivance; an artifice; as, be makes a *shift* to live by some means. — Heuce, a meau refuge; a trick to escaps detection of evil; a paltry evasion or eubterfuge; fraud; artifice; last resource or alternative; as, "plous frauds end holy *shifts*." (*Hudibras.*) — A shirt; a smock; an under-garment; — particularly, a woman's under-garment; a chemise; a linen jupe; as, to change one's *shift*. — Among miners, a spell or turn of work or duty; as, it is his *shift* at six o'clock.

To make shift, to manage temporarily; to contrive for the time beiug; as, when a man has no money, he must *make shift* without it.

Shift'able, *a.* That may be shifted, changed, or moved.

Shift'er, *n.* One who shifts; —especially, one who plays tricks or practises subterfuge or artifice; a cozener; a trickster.

(*Naut.*) A person employed on sblpboard as an assistant to the cook in washiug, steeping, and shifting the salt provisions from tbe harness cask before cooking them.

Shift'iness, *n.* Stete or quality of heing shifty or variable; changeableness.

Shift'ingly, *adv.* By shifts, changes, or variations; trickishly; deceitfully.

Shift'less, *a.* Deatitute of expedients, or not resorting to successful expedients; wanting means or method to act or live; as, a *shiftless* fellow, *shiftless* diplomacy.

Shift'lessly, *adv.* In a shiftless manner.

Shift'lessness, *n.* State or condition of heing shiftless.

Shift'y, *a.* Fertile in expedients or contrivences; full of, or ready with, shifts or subterfuges; as, a *shifty* person.

Shiite, Shiah, *n.* [Ar. *shi'af.*] One of a Mohammedan sect who consider All, the fourth Caliph, as the rightful successor of Mohammed, and regard his predecessors Abubekr, Omar, and Othman, aa usurpers. The Persians belong to this division — the Moslems who hold that Abubekr and his two next successors were legitimate caliphs, heing called *Sonnites*, or *Sunnites*.

Shikarpoor', a town of British India, in Sinde, 15 m. W. of the Indus, and N.W. of Sukkur; Lat. 27° 55′ N., Lon. 68° 45′ E. It has an extensive trade. *Pop.* 30,000.

Shille'lagh, Shilla'ly, Shille'lah, *n.* A Hibernicism for a stout oaken cndgel about two feet long, carried and used by Irishmen in faction fights, and on similar occasions; — said to be derived from *Shillelagh*, a wood famous for its oaks.

"With his sprig of *shillelagh*, and shamrock so green."—*Lover.*

Shil'ling, *n.* [A. S. *scylling*; Ger. *schilling*; Icel. *skillingr.*] An English silver coin and money of account equal to twelve pence, or the twentieth part of a sovereign or pound sterling; and equivalent in the U. States to about 24 cents ($0.24).

—In the U. States, a denomination of money differing in value relatively to the dollar in different States, but below that of the English shilling, with a corresponding value for the penny, and in former usage, for the pound. The diversity arose from the scarcity of coin in the American colonies, and was fixed at an early period in their history. — *York shilling*, a designation given in some parts of Canada to a silver sixpenny piece, or English sixpence.

Shil'ly-shal'ly, *n.* (A vulgar rendering of SHILL-I-SHALL-I, reduplicated from *shall I:* that is, *shall I*, or *shall I not?*) A colloquialism expressing the sense of sllly trifling; awkward hesitation; wavering; irresolution.

—*adv.* In a hesitating, dubious, wavering, or irresolute manner; as, I will uot act *shilly-shally* when the proper time comes.

Shiloh, (*shī'lō,*) *n.* [Heb., quiet, rest.] (*Script.*) The Messiah; — an appellation of the Almighty, so styled by Jacob while moribund.

Shi'loh, in *Illinois*, a post-village of St. Clair co., 7 m. N E. of Belleville.

Shiloh, in *New Jersey*, a post-village of Cumberland co., 5 m. N.N.W. of Bridgeton.

Shiloh, in *Ohio*, a post-village of Richland co., 14 m. N.N.E. of Crestline.

Shiloh, in *Tennessee*, a locallty in Hardin co., 2 m. W. of the Tennessee River at Pittsburg Landing, aud abt. 12 m. S.W. of Savannah, tbe scene of a battle sometimes called *Pittsburg Landing*, between the Union army, under Gen. U. S. Grant, and the Confederates, under Gens. A. S. Johnston and P. G. T. Beauregard, April 6–7, 1862. The first day the Nationals were defeated with great loss; but, having received reinforcements during the night, they attacked the Confederates the day following, and compelled them to retire, with the loss of their commander.

Shi'ly, *adv.* See SHYLY, the more correct orthography.

Shim, *n.* (*Agric.*) A clod-breaker.

(*Mach.*) A thin piece of metal placed between two parts to fill up and cause them to fit.

Shim'erville, in *Pennsylvania*, a post-village of Lehigh co., 30 m. N.E. of Reading.

Shim'mer, *v. n.* [From A. S. *scimian*, to glitter; Ger. *schimmern*, to glisten.] To glimmer; to shine or sparkle faintly; to glitter with a subdued sheen; as, a *shimmering* rivulet.

Shim'mer, *n.* A gleaming or glimmering; as, the *shimmer* of twilight.

Shim'mering, *n.* A faint gleam or glimmering.

Shin, *n.* [A. S. *scina*; Du. *scheen.*] (*Anat.*) The fore part of the leg, or the bone or tibia of the fore part of a leg.

—*v. n.* (*imp.* aud *pp.* SHINNED.) To run about borrowing money hastily aud temporarily, as for the payment of one's notes at the bauk. — *Bartlett.* (An Americanism.)

—*v. a.* To climb by the aid of the hands and legs alone; as, to *shin* a tree; —(a colloq. Am., corresponding in this sense with the English word *swarm.*)

Shin'dy, *n.* A row; a riot; a rumpus; a general uproar; a rough-and-tumble fight; a scrimmage; as, to raise a *shindy*. — A game at ball played with a club; — also called *shinny* and *bandy*. — A fancy; a liking; a predllection; a hankering for; — as, to take a *shindy* to a girl. (Colloq.)

Shine, *v. n.* (*imp.* and *pp.* SHONE, or SHINED.) [A. S. *scinan*; Ger. *scheinen.*] To emit a steady brilliant light; to give forth rays of light; to exhibit brightness, luminousness, or splendor; as, tbe stars *shine* by night.—To beam; to radiate; to glitter; to be bright or brilliant; to be lively and auimated; as, her eyes *shone* on bim with affectiou. — To be glossy, bright, or polished, like silk; as, the *shining* blade of a sword, the *shining* scale of a fish. — To be gay, splendid, showy, or beautlful; as, "the imperial eusign *shone* like a meteor." (*Milton.*) — To be eminent, conspicuous, or distinguished; as, he is well qualified to *shine* iu society.

To cause the countenance to shine upon, to be favorable or propitious to. — *Num.* vi. 25.

—*v. a.* To make to shine; as, to *shine* the eyes of a stag.

—*n.* Fair weather; — hence, by implication, sunshine; as, "heat and cold, and *shine* and rain." (*Locke.*) — State or quality of shining; radiance; brightness; lustre; splendor; gloss; polish; as, tbe glittering *shine* of gold. —A fancy; a liking; a predilection for a person. (Colloq.)

Shin'er, *n.* That which shines or emits brilliance, as the sun.

—In England, a cant term for a brand-new piece of money, particularly a bright gold coin; as, he tipped me a *shiner*.

(*Zoöl.*) A name applied to several species of fishes, family *Cyprinidæ*, formerly grouped in the genus *Leuciscus*, but now distributed in several genera. The common *S., Plargyrus*, or *Leuciscus Americanus*, is 3–6 iuches long, head small, tail forked, general color golden, dark above.

Shi'ness, *n.* An inelegant orthography of SHYNESS, *q.v.*

Shingle, (*shing'gl,*) *n.* [Ger. *schindel*; allied to Icol. *skinn*, a skin, and Lat. *scindula*, a shingle.] (*Building.*) A small piece of wood sawed to a certain quality of scantling, used in roofing, instead of tiles or slates; as, a log-hut roofed with *shingles*.

(*Geol.*) Coarse sand and pebbles deposited by the surge of the sea, and which, accumulating in banks, form dangerous shoals.

Shingle-ballast. (*Naut.*) Ballast consisting of coarse gravel.

—*v. a.* To cover with shingles; as, to *shingle* a roof. — To cut, as heir, in such a manner that one portion overlaps auother, like shingles.

—*v. a.* (*Metal.*) To hammer, as Iron, after it has passed through the puddling furnace, in order to convert it into blooms, and detach impurities.

Shin'gler, *n.* One employed in the operation of shingling. — An apparatus for shingling puddled iron, prior to its conversion into blooms.

Shin'gle-roofed, (*-roofd,*) *a.* Possessing a roof covered with shingles.

Shingles, (*shing'glz,*) *n.* [From Lat. *cingulum* — *cingo*, to gird, to bind round.] (*Med.*) A kind of herpes, or eruptive disease, which apreads around the body like a zone.

Shin'gling, *n.* Act of roofing with shingles; also, a covering with shingles.

(*Metal.*) Act of detaching the Impurities from blooms of puddled iron by hammering or compressing, and converting it into malleable stuff.

Shin'gly, *a.* Abounding with gravel or shingle.

Shin'ing, *p. a.* Radlant; lustrous; luminous; bright; splendid; as, a *shining* light. — Conspicuous; eminent; distinguished beyond others; as, a *shining* instauce of self-denial.

(*Bot.*) Smoothed and polished of surface; — said of leaves.

—*n.* Radiance; brightness; effusion or transpareney of light.

Shin'inguess, *n.* Brilliance; lustre; luminousness. (R.)

Shin'-log, *n.* In the East Indies, a curl or crooked piece of timber.

Shin'necock Bay, in *New York*, on the S. coast of Suffolk co., Long Island, abt. 12 m. long, and inclosed S. by a sand beach.

Shin'ner, *n.* In the U. States, a colloquialism for one who goes about borrowing money temporarily, to meet pressing emergencies.

Shin'ning, *n.* An American colloquialism for a running about borrowing money temporarily to meet pressing exigencies.

Shinns'ton, or SHINNSTOWN, in *W. Virginia*, a post-village of Harrison co., 60 m. S.S.E. of Wheeling.

Shin'ny, *n.* (*Games.*) Same as BANDY and SHINDY, *q.v.*

Shin'-plaster, *n.* In the U. States, a colloquial vulgarism for paper-money; a bank-note of inferior denomination, generally noting a sum under one dollar.

Shin'ty, *n.* (*Games.*) In Scotland, the club used in playing golf; also, the game itself. See GOLF.

Shin'y, *a.* (comp. SHINIER; *superl.* SHINIEST.) Radiant; luminous; unclouded; as, a *shiny* day; also, glossy; lustrous; polished to brightness; as, a *shiny* hat.

Shloc'ton, in *Wisconsin*, a post-village of Outagamie co., 16 m. N.W. of Appleton.

Ship, [A. S. *scype.*] A termination expressing state, office, condition, dignity, vocetion, profession, art, &c., as in king*ship*, lord*ship*, steward*ship*, horseman*ship*, seaman*ship*, chancellor*ship*, &c.

Ship, *n.* [A. S. *scyp*; Ger. *schiff*; Fr. *vaisseau*; Lat. *scarpha*; Gr. *skaphē.*] (*Naut.*) Any sea-going vessel of large size. The term was formerly restricted to such as carried three complete masts; *i. e.*, lower, top-gallant, and royal masts (Fig. 2293,) but in modern days, when the application of steam and innumerable experiments in rigging have upset any universal principle of rig, the only limitation of the term *ship* is practically by the size of the vessel. The ship, as a whole, may be treated under four great heeds, viz., the *hull*; the *masts, rigging*, and *sails*; the *officers, crew*, and *passengers* (if any); the *cargo*. As regards the bull, the principles for designing its shape are shown under NAVAL ARCHITECTURE (*q. v.*); and the masting, rigging, &c., under MAST, RIGGING, SAIL (all of which see). The general functions of a ship's personnel are also stated in this work under their respective titles, while under various minor headings the minutiæ of a ship's equipment are fully particularized.

Ship of the line. (*Nav.*) One of the line of battle; *i. e.*, a ship of war of two or more gun-decks, with their respective tiers of guns; e three-decker.

—*v. a.* (*imp.* and *pp.* SHIPPED,) (*shipt.*) [A. S. *scipian.*] To put on board of a ship or vessel of any kind for transportation or conveyance; to send or dispatch hy water; as, to *ship* merchaudise; — hence, to dispose; to get rid of. — To engage for service on shipboard; as, to *ship* a deck-hand. — To take on board of a ship or vessel; es, she *shipped* a heavy sea. — To fix In working order in its proper place; es, to *ship* the rudder.

To ship off, to transport by water; as, to *ship off* convicts.

—*v n.* To engage for service on shipboard; aa, he *shipped* as an able seamen.

Ship'-biscuit, (*-bis'kit,*) **Ship'-bread,** *n.* Hard biscuit prepared for common use ou shipboard, in distinction from *soft-tack*, or *cabin-bread*.

Ship'board, *adv.* Aboard ship: upon or within a ship.

—*n.* The plank or deck of a ship; — used almost always in the phrase *on shipboard*.

Ship'-boy, *n.* A cabin-boy; a powder-monkey.

Ship'-breaker, (*-brāk-,*) *n.* One who breaks up condemned ships for the sake of the timber and materials.

Ship'-broker, *n.* An agent who conducts the business of chartering or freighting vessels; a broker who procures insurance on, or dispatches, a ship.

Ship'-builder, (*-bild'er,*) *n.* One who builds or constructs ships or other vessels; a naval architect; a shipwright.

Ship'-build'ing, *n.* Act, process, or operation of constructing ships or other vessels. See NAVAL ARCHITECTURE.

Ship'-canal, *n.* A canal for the passage of shipe; aa, for instance, the Suez *Canal*.

Ship'-carpenter, Ship'-wright, (*-rit,*) *n.* One who works at ship-building.

Ship'-chandler, *n.* A deeler in ship's stores; one who supplies the necessary cordage, canvas, tackling, &c., pertaining to a ship.

Ship'ful, *n.*; *pl.* SHIPFULS. Enough or sufficient to fill a ship.

Ship'-holder, *n.* A ship-owner.

Ship Island, in the Gulf of Mexico off the coast of Mississippi, 30 m. N. of the Chandeleur Islands.

Ship'-load, *n.* The load or cargo carried by a ship.

Ship'man, in *Illinois*, a post-village of Macoupin co., 19 m. N.N.E. of Alton.

Ship'-master, *n.* The commander of a merchant ship; — called, by courtesy, *captain*.

Ship'mate, *n.* One who serves aboard ship with another; a fellow sailor; a messmete.

Ship'ment, *n.* Act of shipping, or of putting anything on board of a ship or other vessel; embarkation; as, to make a *shipment* of cotton to Liverpool. — The goods, merchandise, or things shipped, or put on board of a ship or other vessel; as, I have an interest in that *shipment*.

Ship'-owner, *n.* The owner or proprietor of a ship, or ships.

Shippegan, (*ship-peh-gan',*) an island of New Brunswick, in the Gulf of St. Lawrence, at the entrance of Chaleur Bay, 20 m. long and 10 broad.

Ship'pen, Ship'pon, *n.* (The latter is the better orthography.) A cow-house; a shed for oxen or other cattle.

Shippen, in *Pennsylvania*, a village, former cap. of Cameron co., 100 m. W.N.W. of Williamsport.

—A township of McKean co.

—A village and township of Tioga co.

Ship'pensburg, in *Pennsylvania*, a post-borough and township of Cumberland co.

Ship'pensville, in *Pennsylvania*, a post-borough of Clarion co., 5 m. N.W. of Clarion.

Ship'per, *n.* One who ships goods; one who places merchandise in a ship's bottom for transportation abroad; as, a *shipper* of palm-oil.

Ship'ping, *a.* Pertaining or having reference to ships, their ownership, transfer, and employment; as, a *shipping* business.

—*n.* Ships in general; ships or vessels of any kind fitted for navigation; collective tonnage.

(*Law.*) See MARITIME LAW.

Shipping articles, articles of agreement between the captain of a vessel and the seamen on board, in respect to the amount of wages, length of time for which they

are shipped, &c. (*Bouvier.*) — *To take shipping*, to embark; to go on board ship for conveyance, transportation, or passage.

Shlp'pingport, in *Kentucky*, a village of Jefferson co., on the Ohio, 2 m. W. of Louisville.

Ship'-rigged, (*-rĭgd.*) *a.* (*Naut.*) Rigged in the manner of a full-masted ship; square-rigged.

Ship'-shape, *adv.* In a seamanlike manner; — hence, regular; exact; proper; according to method; as, he made love *ship-shape* and English fashion.

Ship'-worm, *n.* (*Zoöl.*) The *Pholadidæ* or *Pholas*, a family of *Lamellibranchiata*, embracing mariueacalepha which have the shell open at both ends, thin, white, exceedingly hard, and armed with rasp-like imbrications. They burrow in almost all substances.

Fig. 2354. — PHOLAS CRISPATA, (New England.)

Shipwreck, (*-rĕk,*) [*Ship* and *wreck.*] The destruction of a ship or other vessel by being cast ashore or broken to piecos by striking against rocks, shoals, and the like.—A ship wrecked or dashed to pieces, or the parts of such ship. — Hence, by analogy, utter destruction; total loss; ruin; as, his hopes suffered *shipwreck.*

—*v. a.* To destroy, as a ship, by running ashore on rocks or sand-banks, or by the force of winds or waves in a storm. — To make to suffer the perils or dangers of a wreck; as, a *shipwrecked* seaman.—Hence, analogically, to throw into utter confusion, distress, or difficulty; as, a passion for one woman *shipwrecked* his after life.

Shipwright, (*-rīt'.*) *n.* A ship-carpenter.

Ship'-yard, *n.* A yard or place where ships aro built or repaired.

Shiraz, or **Shiras,** (*she-raz',*) a city of Persia, prov. of Fars, or Persia Proper, formerly cap. of the empire, 115 m. N.E. of Bushire, and 220 m. S.S.E. of Ispahan; Lat. 29° 36′ N., Lon. 52° 44′ E. It is surrounded by walls, entered by 6 gates, and its environs are celebrated for their beauty and fertility. It also contains a royal palace, with numerous handsome mosques and bazaars. *Manuf.* Silk and woollen stuffs, sword-blades, earthenware, and soap, as well as wine (or rather liqueurs) and oil of roses. *Pop.* 30,000.

Shiraz', *n.* A growth of wine; — said to be derived from *Shiraz*, in Persia.

Shire, *n.* [A.S. *scyr*, from *sceran*, to divide.] In England, a county; — this word is unaccented, as in the compound *Cheshire*, i. e., the county of Chester (an abbreviation of *Chestershire*), pronounced *Chĕsh'ur.*

—In the U. States, a division of a state, comprising several contiguous townships; — a distinction must be drawn between the application of this word as between English and American usage; as, for instance, it is correct in this country to say "the county of Berk*shire*;" whereas, in England, such an expression would be tautological, or, in other words, would convey the sense of "a county of a county."

Shire', a river of S.E. Africa, which issues from Lake Nyassa, in Lat. 14° 28′ S., and joins the Zambesi after a S. course of 250 m. The navigation is obstructed by cataracts over a space of 35 m., in which it falls 1,200 ft.

Shire'mantown, in *Pennsylvania*, a post-borough of Cumberland co., 4 m. W. of Harrisburg.

Shire'town, *n.* A county town.

Shirk, *v. a.* (See SHARK.) To avoid; to shirk away from in a mean manner; as, to *shirk* duty.

—*n.* A person who seeks to avoid duty.

—*a.* Deceitful; cunning; inclined to shirk.

Shir'land, in *Illinois*, a post-village and township of Winnebago county, 10 miles S.W. of Beloit.—A post-village of McLean county, 6 miles S.W. of Bloomington.

Shir'ley, JAMES, an English dramatic writer, b. in London about 1594, who, after completing his degrees in arts at Cambridge, entered into orders; but subsequently embraced the Roman Catholic faith, and became a schoolmaster in Loudon. He and his wife both died the same day, of a fright, occasioned by the Fire of London, in 1666. He wrote thirty-nine plays, and a volume of poems.

Shir'ley, in *Kansas*, a township of Cloud co., on Republican River, 10 m. E. of Concordia.

Shir'ley, in *Maine*, a township of Piscataquis co., 85 m. N.E. of Augusta.

Shirley, in *Massachusetts*, a post-village and township of Middlesex co.

Shirley, in *New York*, a village of Erie co., 23 m. S. of Buffalo.

Shirley, in *Pennsylvania*, a township of Huntingdon county.

Shir'leysburg, in *Pennsylvania*, a post-borough of Huntingdon co., on the East Broad Top R.R., 85 m. W. of Harrisburg.

Shir'ley Village, in *Massachusetts*, a village of Middlesex co., 41 N.W. of Boston.

Shirr, (*shir,*) *n.* An elastic cord inserted between two pieces of cloth.

Shirred, *a.* Said of a cloth composed of two thicknesses, separated by elastic cords.

Shirt, *n.* [A. S. *syrce, syrice.*] A loose garment of linen, cotton, or other material, worn by men and boys next to the body.

—*v. a.* To cover or clothe as with a shirt.

Shirvan, or **Shirwan,** (*shir-van',*) a prov. of Asiatic Russia, in Trans-Caucasia, between Lat. 40° and 41° N., Lon. 48° and 49° 30′ E., having N. and W. Georgia and Daghestan, E. the Caspian Sea, and S. the river Kur. It is traversed by a range of mountains from N.W. to S.E., separating the basins of the Kur and the Tereck. The N. portion is, however, level and fertile. The principal town is Shamaka.

Shir'wa, or TAMANDUA, a lake of S.E. Africa, having its centre in Lat. 15° 30′ S., and Lon. 35° 40′ E. Length 60 m., breadth 10 to 23 m. It is 1,800 feet above the sea-level. On the West, between the lake and the river Shire, Mount Zomba rises to 7,000 feet.

Shis'dra, Jisdra, a town of Russia, govt. of Kaluga, 80 m. S.W. of Kaluga. *Manuf.* Woollens and glass. *Pop.* 8,000.

Shit'tah, or **Shit'tim,** *n.* (*Script.*) A kind of wood which was employed in making various parts of the tabernacle while the Israelites were wandering in the Wilderness. It is mentioned also as forming part of the offerings, as in *Exod.* xxv. 5, and xxxv. 7, 24. In *Isa.* xli. 19, it is mentioned as a tree worthy of planting. It was probably a species of *Acacia.*

Shive, *n.* [A. S. *scafan*, to shave.] A little piece or fragment; as, a *shive* of bread.

Shiv'er, *n.* A small piece or fragment into which a thing breaks by any sudden violence.—A slice; a shive.

—*v. a.* [Ger. *schiefern*, to peel off in flakes, to scale.] To break into many small pieces, flakes, or splinters; to shatter; to dash to pieces by a blow.

(*Naut.*) To cause to shiver or flatten, as a sail, by bracing it so that the wind strikes upon the leech.

—*v. n.* To fall at once into many small pieces or parts.— To quake; to tremble; to shudder. — To shake, as with cold, ague, fear, or horror; to be affected with a thrilling sensation, like that of chilliness. — To shake or flutter in the wind, as a sail.

Shiv'er, *n.* The act of shivering; a shaking fit; a tremor.

Shiv'ering, *n.* The act of shaking or shuddering, as from cold or fever.

Shiv'ery, *a.* Easily falling into many pieces; not firmly cohering; incompact. — Trembling; inclined to shiver.

Sho'a, or **Shwa,** a state of E. Africa, in the S. of Abyssinia, between Lat. 8° 30′ and 11° N., Lon. 38° and 40° 30′ E.

Shoad'-stone, *n.* A stone or fragment of ore rendered smooth by the action of running water.

Shoal, *n.* [A. S. *sceol*, a multitude.] A great multitude assembled; a crowd; a throng, as of fishes. — A place where the water of a river, lake, or sea is shallow or of little depth; a sand-bank or bar; a shallow.

—*v. n.* To crowd; to throng; to assemble in a multitude. To become more shallow.

—*v. a.* To cause to become more shallow.

—*a.* Shallow; of little depth; as, *shoal* water.

Shoal Creek, in *Illinois*, formed in Bond co. by the junction of the E. and W. Forks, and flows S. entering the Kaskaskia River in Clinton co.

Shoal Creek, in *Missouri*, rises in Clinton co., and enters Grand River in Livingston co.

Shoal Creek, in *Tennessee*, rises in Giles co., and flows S.W., entering the Tennessee River in Lauderdale co., Alabama, abt. 5 m. E. of Florence.

Shoal'iness, *n.* Shallowness; frequency of shallow places.

Shoal'ness, a headland of Alaska; Lat. 69° N., Lon. 162° W.

Shoal'water Bay, in *Washington*, an inlet of the Pacific, in Pacific co.

Shoaly, (*shōl'y,*) *a.* Full of shoals or shallow places.

Shock', *n.* [Dan. *sclok;* Fr. *choc;* Sp. *choque.*] A violent concussion or collision of bodies, or the concussion which it occasions; a violent striking or dashing against.—Conflict of contending armies or foes; external violence; also, offence; impression of disgust.

(*Elect.*) The concussion, or violent muscular contraction instantaneously experienced when a charge or current of electricity passes through the body.

(*Med.*) See CONCUSSION.

(*Agric.*) A pile or assemblage of sheaves of wheat, rye, &c.

—*v. a.* [Dan. *schokken;* Fr. *choquer.*] To shake with violence; to shake by the sudden collision of a body; to meet, as force with force; to encounter; to strike, as with terror or disgust; to offend; to disgust; to appal; to dismay; to cause to recoil, as from something odious or horrible; to make up into shocks, as grain.

—*v. n.* To meet with hostile violence; to collect sheaves into a pile.

Shock'-head'ed, *a.* Having thick, bushy hair.

Shock'ing, *a.* Striking, as with horror; causing to recoil with dismay or disgust; appalling; terrifying; frightful; dreadful; terrible; formidable; disgusting; offensive.

Shock'ingly, *adv.* In a manner to strike with horror or disgust.

Shock'ingness, *n.* State or quality of being shocking.

Shod', *imp.* and *pp.* of SHOE.

Shoe, (*shō,*) *n.*; *pl.* SHOES, (*shōz.*) [A. S. *sceo, sco, scoh.*] A covering or protection for the foot, usually of leather. The ancients usually wore *sandals* (*q. v.*), which are mentioned under the title of *buskins* and *cothurni*, and were often very costly. The crescent was employed as an ornament on the shoes of Romans of exalted rank, who appear to have carried on the art of shoe-making with great taste and skill. Only one instance is known of an ancient monument exhibiting shoes with separate heel-pieces. The custom of making shoes right and left was common in classical times. The fashion of shoes and boots, as has occurred with other articles of dress, has undergone innumerable changes. At one time these were pointed to an extravagant degree (see Fig. 2152); and in the last century, the high heels of ladies' shoes became a monstrosity. In our own day, the general disuse of the shoe proper, and the introduction of short ankle-boots, form the chief change of fashion. In the U. S., the manufacture of shoes has attained the highest perfection, chiefly in Massachusetts, where many towns are chiefly engaged in the manufacture, and where, in 1890, there were 1,057 establishments engaged in this business, with a product valued at $116,387,900. Maine, New Hampshire, New York, and Pennsylvania also produce largely, and there are large establishments for the manufacture of the finer kinds of boots and shoes in Philadelphia, New York, Baltimore, and others of the leading cities. Ingenious machines, all of American invention, are used in these factories, nearly the whole work on the shoe being performed by machinery. The goods thus produced are often made to resemble hand-work so closely as to be distinguished from it with great difficulty, while the best grades of machine-made are often more durable than hand-made shoes. There was little export trade in shoes before 1890, but the U. S. now exports about $35,000,000 worth annually. The total product in 1890 was valued at more than $220,000,000.

—A plate or rim of iron nailed to the hoof of a horse or an ox to defend it from injury.—A plate of iron, or a piece of wood nailed under the runner of a sleigh or a sled.— Anything resembling a shoe, or that answers the purpose of a shoe.

(*Naut.*) A piece of wood for the bill of an anchor to rest upon, to save the vessel's side; — also, for the heels of sheers, &c.

Shoe, *v. a.* To furnish with shoes; to put shoes on.—To cover at the bottom, as the fluke of an anchor.

Shoe'-boy, *n.* A boy that cleans shoes or boots.

Shoe'ing-horn, *n.* A horn used to facilitate the admission of the foot into a shoe. — Anything by which a transaction is facilitated; anything used as a medium; — in contempt.

Shoe'less, *a.* Destitute of shoes or covering for the feet.

Shoe'maker, *n.* One who makes shoes and boots.

Shoe'makertown, now OGONTZ, in *Pennsylvania*, a post-village of Montgomery co.

Shoe'neck, in *Pennsylvania*, a village of Lancaster co.

Sho'er, *n.* One who makes or puts on shoes, as a farrier.

Shoe'-stone, *n.* A sharpening-stone used by shoemakers, &c.

Shoe'-tie, *n.* A string or ribbon used for fastening a shoe to the foot.

Shog'-trot, *n.* A jog-trot.

Shoho'la, or SOHOLA, in *Pennsylvania*, a post-township of Pike co.

Sho'kan, in *New York*, a post-village of Ulster co., 15 m. W. of Kingston.

Sholapoor', a town of British India, in Bejapore, on the river Kistna, 165 m. from Poona; Lat. 17° 43′ N., Lon. 75° 40′ E.

Shoo', *interj.* Begone; — an expression used to frighten away animals or fowls; as, *shoo*, fly!

Shooks', *n. pl.* (*Com.*) Staves for making hogsheads; — boards for making sugar-boxes.

—*v. a.* To pack, as staves, in a shook.

Shoot', *v. a.* [A. S. *sceotan, scotian.*] To let fly, or cause to dart, as an arrow. — To discharge anything so as to make it fly with violence.— To discharge, as from a gun or bow; to let off, used of the instrument. —To strike with anything shot.— To emit new parts, as a vegetable. —To emit; to dart or thrust forth.—To push suddenly; as, to *shoot* a bolt or lock.— To push forward.— To fit to each other by planing; — a workman's term. — To pass through with swiftness. — To kill by a ball, arrow, or other thing propelled.

To be shot of, to become free from. (Colloq.)

—*v. n.* To perform the act of discharging, sending with force, or driving anything by means of an engine or instrument. — To germinate; to increase in vegetable growth. — To form itself into any shape; as, "Metal will *shoot* into crystals." (*Bacon.*) — To be emitted; to move with velocity; as, a *shooting* star. — To protuberate; to jut out, as a promontory.— To pass, as an arrow or pointed instrument.— To penetrate; to grow rapidly; to advance by rapid growth. — To feel a quick, darting pain.

To shoot ahead, to surpass or outstrip in running, &c.

—*n.* Act of shooting, or of propelling or driving anything with violence; the discharge of a fire-arm or bow.—Act of striking, or endeavoring to strike, with a missile weapon.—A young branch or plant; a scion.—A narrow passage in a river. See CHUTE.

(*Mining.*) A vein parallel to the stratification.

Shoot'er, *n.* One who shoots; an archer; a gunner.— Anything that shoots, as a fire-arm; as, a *six-shooter.*

Shoot'ing, *n.* Act of sending an arrow with force, or of discharging fire-arms. — Sensation of a quick, glancing pain.

(*Sportsmanship.*) Act or practice of killing game with bows or fire-arms.

Shoot'ing-box, *n.* A small house for use in the shooting season.

Shoot'ing-iron, (*-i-urn,*) *n.* A gun or other fire-arm.

Shoot'ing-star, *n.* (*Astron.*) See FALLING-STAR.

Shoot'ing-stick, *n.* (*Print.*) A wedge-shaped piece of wood or iron for tightening and loosening the quoins that wedge up the pages in a chase.

Shop', *n.* [A. S. *sceoppa;* Fr. *échoppe*, a stall; Ger. *schoppen*, a shed.] A building or room in which goods, wares, &c., are sold by retail.— A building in which mechanic work, and where they keep their wares for inspection.

Shop-bill, a list of a shop-keeper's goods, printed separately for distributing.

—*v. n.* To visit shops for the purpose of buying.

Shop'-board, *n.* A board or bench on which any work is done.

Shop'-books, *n. pl.* (*Com.*) The books of a retail dealer, manufacturer, or other person, in which entries or charges are made of work done, or goods sold and delivered to customers.

Shopiere, (*sho-pe-air'*,) in *Wisconsin*, a post-village of Rock co., 60 m. W.S.W. of Milwaukee.

Shop'keeper, *n.* One who keeps a shop; one who sells goods in a shop, or by retail; — in distinction from one who sells by *wholesale*.

Shop'lifter, Shop'-thief, *n.* One who steals anything in a shop, or takes goods privately from a shop.

Shop'lifting, *n.* The act, or the crime, of a shoplifter.

Shop'man, *n.* A shopkeeper; a tradesman.— One who attends in a shop; a salesman.

Shop'per, *n.* One who shops.

Shop'ping, *n.* Act of visiting shops for the purchase of goods.

Shop'-walker, *n.* One whose duty, in a shop or store, is to direct customers to the proper department for the goods they seek, and to see that they are waited on; also, to keep general supervision over the department in which he is placed.

Shore, *n.* [A. S. *score*, from *sceran*, *scyran*, to shear, to cut off.] The place where the continuity of the land is interrupted or separated by the sea or the river; the coast or land adjacent to the sea, or to a large lake or river.

—*v. n.* To prop; to support by a post or buttress.

Sho'rea, *n.* (*Bot.*) A genus of large resinous trees, belonging to the order *Dipteraceæ*. The most important species is *S. robusta*, a native of India, which furnishes the valuable timber known by the name of *saul* or *sal*. It also yields a balsamic resin, called *ral*, *dhoona*, or *dammar-pitch*, which is employed for incense.

Shored, (*shord.*) *a.* Having a bank or shore.

Shore'ham, (**New,**) a seaport-town of England, co. of Sussex, at the mouth of the Adur, 1 m. from the British Channel, and 6 m. W. of Brighton. It is noted for shipbuilding. *Pop.* 3,000.

Shore'ham, in *Vermont*, a post-village and township of Addison co., on Lake Champlain, 50 m. S.W. of Montpelier.

Shore'-land, *n.* Land bordering on a shore; the seacoast.

Shore'less, *a.* That has no shore or coast.

Shor'ing, *a.* Supporting; propping.

Short, *a.* [A. S. *scort*, *sceort*; Lat. *curtus*; Fr. *court*.] Not long; not having great length or extension. — Not extended in time; not of long duration. — Not of usual or sufficient length, reach, or extent.—Repeated at small intervals of time. — Not of adequate extent or quality; not reaching the point demanded, desired, or expected; deficient; defective; imperfect; not adequate; insufficient; scanty.—Not sufficiently supplied; (see the SUPP'T.)—Not far distant in time; near at hand.—Defective in quantity; narrow; limited; not large or comprehensive. — Brittle; friable; breaking all at once without splinters or shatters; not bending. — Laconic; brief; concise. — Abrupt; pointed; petulant; severe.

—*adv.* Not long; — used in composition. — At once; suddenly; as, to stop *short*.

To turn short, to turn on the ground occupied, or without making a circuit.

—*n.* A summary account. (*Shaks.*) — *The long and the short*, the whole. — *In short.* In few words; briefly.

Short'-breathed, *a.* That has short breath or respiration.

Short'-cake, *n.* A cake in which shortening is put.

Short'coming, *n.* A failing of the usual produce, quantity, or amount, as of a crop; a failure of full performance, as of duty.

Short Creek, in *Ohio*, enters the Ohio River from Jefferson co.

—A post-township of Harrison co.

Short'-dated, *a.* Having little time to run.

Short'en, *v. a.* To make short in measure, extent, or time; to abridge; to lessen; to curtail; to contract; to reduce or diminish in extent or amount; to confine; to restrain; to lop; to deprive; to make friable.

—*v. n.* To become short or shorter; to contract.

Short'ener, *n.* One who, or that which, shortens.

Short'ening, *n.* A making short, or shorter. — Something added to paste to make it short or friable, as butter or lard.

Short'-hand, *n.* Short writing; a compendious method of writing; otherwise called STENOGRAPHY, *q. v.*

Short'-jointed, *a.* Having a short pastern, as a horse.

Short'-lived, *a.* Not living or lasting long; being of short continuance.

Short'ly, *adv.* Quickly; soon; in a little time; in few words; briefly.

Short'ness, *n.* State or quality of being short in space or time; little length or brief duration; fewness of words; brevity; conciseness; want of reach, or the power of retention; deficiency; imperfection; limited extent.

Short'-rib, *n.* A rib shorter than the others; one of the lower ribs; a false rib.

Short'sight, *n.* Shortsightedness.

Short'sighted, *a.* Near-sighted: not able to see far intellectually; also, imprudent; inconsiderate.

Short'sightedness, *n.* A defect in vision, consisting in the inability to see things at a distance; — more correctly, near-sightedness; defective or limited intellectual sight or vision; MYOPY, *q. v.*

Short Tract, in *New York*, a post-village of Allegany co., 10 m. N. of Angelica.

Short'-winded, *a.* Affected with shortness of breath; having a quick respiration.

Shoshone (*sho-sho'ne*), in *Idaho*, a N. co., bordering on Montana; *area*, 4,400 sq. m. *Rivers*, Clearwater, Oro Fino creek, &c. *Surface*, mountainous in the N.E., elsewhere diversified, with forests of pine, cedar, &c. *Min.* Gold. *Cap.* Murray. *Pop.* (1897) 6,200.

Shosho'ne Falls. See IDAHO.

Shot, *n.*; *pl.* SHOT, or SHOTS. [A. S. *scotu*.] Act of shooting. — Discharge of a missile weapon. — The flight of a missile weapon, or the distance which it passes from the engine. — A marksman; as, a dead *shot*. — One who practises shooting.

—Any solid projectile; — those for cannon and carronades being of iron, those for small-arms of lead. The latter are known as *bullets* (q. v.) and *small-shot*. The usual method of making the small-shot, used in numbers at a time for killing game and other small animals, resembles, in some respects, the natural process by which rain is converted into hail. Melted lead is made to fall through the air from a considerable elevation, and thus leaden rain becomes cooled and solidified into leaden hail or shot. To carry out this manufacture, shot-towers and shot-wells had to be constructed. At the top of the tower melted lead is poured through a colander, and the drops are received into a vessel of water below. The colanders are generally hollow hemispheres of sheet iron, about ten inches in diameter. The size of the holes varies in different colanders, according to the size of the *S.* required. When the *S.* are taken out of the water, they are dried upon metal plates heated by steam. The imperfect shot are afterwards separated from the spherical in the following manner: A polished iron plate is tilted at a certain angle, and the mixed *S.* are strewed along the upper part of the inclined surface; the spherical *S.* roll down the plane in straight lines, and fall into a receptacle placed for them about a foot from the bottom of the iron plates; the imperfectly-formed *S.* roll with a zig-zag motion, and more slowly, and then fall, without any bound, into a bin placed for them immediately at the bottom of the iron plate. The perfect *S.* are next polished and made black with plumbago, and are then ready for sale. Shot towers are often of considerable height, the highest being one at Villach, in Carinthia, where there is a fall of 249 feet. There are many having a height of 100 to 150 feet.—The *S.* discharged from artillery are no longer made solid, if of more than 3 pounds in weight, except when made for old style ordnance, such as smooth-bore or Armstrong guns. Even the Palliser chilled shot used for piercing armor are not solid, but are made with a small internal cavity.—*Bar-shot*, formerly used to destroy the spars and rigging of a ship, were double-headed shot composed of a bar with a ball at each end.—*Chain-shot* were similar in purpose, they being connected by a chain instead of a bar.—*Grape-shot*, an obsolete device, consisted of small iron balls, of from 1 pound to 2 pounds in weight, held together on a spindle by canvas or by iron plates so as to be easily inserted in a gun.—*Case-shot*, or *canister*, consists of a tin cylinder filled with bullets, and of the proper size to fit the bore of the gun. It is used to ward off an overwhelming or sudden attack, as of boats or of cavalry.

—*v. a.* To load with shot over a cartridge, as a gun.

Shot'-belt, *n.* A long pouch for holding shot.

Shote, *n.* A young hog; a hog partially grown.

Shot'ten, *a.* [From *shoot*.] Having thrown out the spawn, as a herring.—Shooting into angles.—Shot out of its socket; dislocated, as a bone. — Being put forth or emitted.

Shot'-tower, *n.* A tower from the top of which melted lead is dropped in the process of making shot.

Should, (*shud,*) the *imp.* of SHALL, but now used as an auxiliary verb, either in the past time, or conditional present; and it often denotes obligation or duty. See SHALL.

Shoul'der, *n.* [A. S. *sculder*.] (*Anat.*) The joint by which the arm of a human being, or the fore-leg of a quadruped, is connected with the body. There are three bones which enter into the formation of this part of the body — the *scapula*, or blade-bone; the *humerus*, or bone of the arm; and the *clavicle*, or collar-bone, — which, with ligaments, muscles, and integuments, complete the entire anatomy of the part. (See Fig. 2355.)

Fig. 2355.

THE LEFT SHOULDER-JOINT AND ITS CONNECTIONS.

1. The clavicle, or collar-bone; 2, the acromion process; 3, the coracoid process; 4, the capsular ligament; 5, the coraco-humeral ligament; 6, the tendons of the biceps muscle; 7, the shaft of the humerus, or arm-bone; 8, the greater tuberosity of the humerus; 9, the lesser tuberosity; 10, the neck of the scapula; 11, the anterior surface of the scapula.

—The upper joint of the fore-leg of an animal cut for the market. — Something like the human shoulder. — Horizontal or rectangular projection from the body of a thing. — Figuratively, support; strength; sustaining power, or that which elevates and sustains.

(*Fort.*) The angle of a bastion included between the face and flank. (Fig. 745.)

—*pl.* The upper part of the back.

Shoul'der, *v. a.* To push or thrust with the shoulder; to push with violence. — To take upon the shoulder.

Shoul'der-belt, *n.* A belt that passes across the shoulder, or shoulders.

Shoul'der-blade, *n.* The blade-bone. See SHOULDER.

Shoul'der-knot, *n.* An ornamental knot of ribbon or lace worn on the shoulder; an epaulette.

Shoul'der-slip, *n.* Dislocation of the shoulder.

Shout, *v. n.* [Ar. *sayhat*, an exclamation, cry, shriek.] To exclaim; to cry out; to utter a sudden and loud outcry, usually in joy or exultation, or to animate soldiers in an onset.

—*n.* A loud burst of voice, or voices; a vehement and sudden outcry, particularly of a multitude of men, expressing applause, joy, triumph, exultation, or animated courage.

Shout'er, *n.* One who shouts.

Shout'ing, *n.* Act of crying out loudly; a shout.

Shove, (*shuv,*) *v. a.* [A. S. *scufan*.] To thrust or push forward; to push; to thrust; to propel: to drive along by the direct application of strength without a sudden impulse; to push a body by sliding, or causing it to move along the surface of another body; to press against.

—*v. n.* To push or drive forward; to urge a course; to push off; to move in a boat or with a pole.

—*n.* Act of pushing or pressing against by strength, without a sudden impulse; a sudden push.

Shov'el, *n.* [From *shove*.] That which shoves or thrusts; an instrument consisting of a broad scoop or blade with a handle, used for throwing earth or other loose substances.

—*v. a.* To take up and throw with a shovel; as, to *shovel* earth. — To gather in great quantities.

Shov'eller, *n.* One who shovels.

(*Zoöl.*) A species of duck (*Anas clypeata*, Linn.), remarkable for the length and terminal expansion of its shovel-like bill.

Show, (*sho,*) *v. a.* (*imp.* SHOWED; *pp.* SHOWN or SHOWED.) [A. S. *sceawian*.] To cause to see, or to be seen; to exhibit, present, or display to the sight or view of others; to bring to the eye, or to notice.—To make to know; to cause to understand; to make known to. — To teach, instruct, or inform; to prove; to manifest; to point out, as a guide. — To bestow; to confer; to afford. — To disclose; to make known; to discover; to explain.

—*v. n.* To appear; to look; to be in appearance; to seem.

—*n.* Something presented or offered to the sight or view; a sight; a spectacle; an exhibition; something offered to view for money.—Superficial appearance; not reality; ostentatious display or parade; osteutation. — Appearance, as an object of notice; public appearance in distinction from *concealment*; semblance; likeness. — Spaciousness; plausibility. — External appearance; pomp; magnificent spectacle; representative action. — Hypocritical pretence.

Show'-bill, *n.* A large sheet containing an advertisement in large letters or devices; a placard.

Show'-box, *n.* A box containing some object of curiosity to be exhibited.

Show'-bread, Shew'-bread, *n.* See BREAD, and Fig. 412.

Show'-card, *n.* A trader's placard.

Show'-case, *n.* A case, or box, with the top and one side of glass, in which articles are placed in a shop.

Show'er, *n.* [A. S. *scur*.] That which falls or runs down from a cloud; a fall of rain or hail, of short duration; a fall of things from the air in thick succession; as, a sharp *shower* of arrows. (*Spenser.*)—A copious supply bestowed; liberal distribution.

—*v. a.* To water with a shower; to wet copiously with rain, or with falling water; to bestow liberally; to distribute or scatter in abundance.

—*v. n.* To rain in showers.

Show'er-bath, *n.* A bath in which water is poured in drops upon a person.

Show'eriness, *n.* State of being showery.

Show'ery, *a.* Raining in showers: abounding with frequent falls of rain, hail, or sleet.

Show'ily, *adv.* In a showy manner; pompously; with parade; ostentatiously.

Show'iness, *n.* State of being showy; pomposness; great parade; ostentation.

Show'man, *n.* One who exhibits shows.

Shows'town, or **Shous'town,** in *Pennsylvania*, a post-village of Allegheny co., on the Ohio, 17 m. N.W. of Pittsburg.

Show'y, *a.* Making a great show; exhibiting ostentation: splendid; gay; gaudy; magnificent; stately; sumptuous; pompous; osteutatious.

Shrak'leyville, in *Pennsylvania*, a vill. of Mercer co.

Shred, *v. a.* (*imp.* and *pp.* SHRED.) [A. S. *screadian*.] To cut into small pieces;—particularly, narrow and long pieces.

—*n.* A long, narrow piece cut off, as of cloth; a fragment; a piece.

Shred'ding, *n.* A cutting into shreds; also, that which is cut off a piece.

Shred'dy, *a.* Consisting of shreds or fragments.
Shreveport (*shreev'port*), in *Louisiana*, a thriving city, cap. of Caddo parish, on the Red river, 300 m. N.W. of Baton Rouge. *Pop.* (1897) 13,500.
Shrew, *n.* [W. *criaw*, to cry.] A scold; a vixen: a termagant; a peevish, brawling, turbulent, vexatious woman; as, he has got a *shrew* for a wife.
(*Zoöl.*) The common name of the *Soricidæ*, a fam. of *Insectivora*, comprising numerous small animals, covered with short velvety fur, and having much of the general form and aspect of the mouse, from which, however, they may be easily distinguished by their long, taper, cartilaginous snout.
Shrewd, (*shrūd,*) *a.* (*comp.* SHREWDER; *superl.* SHREWDEST.) [A. S. *scrudinan*, to scrutinize.] Having the qualities of a shrew; malicious; troublesome; mischievous. — Maliciously sly; cunning; more artful than good. — Bad; ill-betokening.—Artful; sagacious; sharp-sighted; penetrating; acute; keen; astute.
Shrewd'ly, *adv.* Archly; sagaciously; with good guess.
Shrewd'ness, *n.* Quality of being shrewd; penetration; sagacity; acuteness; the quality of nice discernment; sagaciousness; sharp-sightedness; astuteness; cunning.
Shrew'ish, *a.* Having the qualities of a shrew; froward; peevish; petulantly clamorous.
Shrew'ishly, *adv.* Peevishly; clamorously.
Shrew'ishness, *n.* The qualities of a shrew; frowardness; petulance; turbulent clamorousness.
Shrew'-mole, *n.* (*Zoöl.*) See MOLE.
Shrew'-mouse, *n.* (*Zoöl.*) See SHREW.
Shrewsbury, (*shruse'ber-re,*) a town of England, cap. of the co. of Salop, on the Severn, 50 m. S.E. of Liverpool, and 138 m. N.W. of London. *Manuf.* Woollen cloths, flannels, lineu, thread, canvas, and iron-ware. *Pop.* (1897) 27,690.
Shrews'bury, in *Massachusetts*, a post-township of Worcester co., 38 m. S.W. of Boston.
Shrewsbury, in *New Jersey*, a post-village and township of Monmouth county, 42 miles northeast of Trentou.
Shrewsbury, in *Pennsylvania*, a post-borough and township of York county, 14 miles south of York.—A township of Lycoming county.—A township of Sullivan county.
Shrewsbury, in *Vermont*, a post-township of Rutland co., 59 m. S.W. of Montpelier.
Shrews'bury River, in *New Jersey*, an inlet of Sandy Hook Bay, in Monmouth co., S. of Neversink River.
Shriek, *v. n.* [Ger. *schreien, kreischen*, to scream, to shriek.] To cry out shrilly; to utter a sharp, lond cry; to scream, as in a sudden fright, in horror, or anguish.
—*n.* A sharp, shrill outcry or scream, such as is produced by sudden terror or extreme anguish.
Shriek'er, *n.* One who shrieks.
Shriek'ing, *a.* Crying out with a shrill voice.
—*n.* A crying out with a loud, shrill voice.
Shriev'alty, *n.* [From *sheriff.*] The office or jurisdiction of a sheriff.
Shrike, *n.* (*Zoöl.*) See LANIDÆ.
Shrill, *a.* Sharp; acute; piercing, as sound; uttering an acute sound.
—*v. a.* To make a shrill or piercing sound.
—*v. n.* To express in a shrill manner.
Shrill'ness, *n.* Quality of being shrill; acuteness of sound; sharpness or fineness of voice.
Shrill'y, *adv.* Acutely, as sound; with a sharp sound.
Shrimp, *n.* [Ger. *schrumpfen*, to shrink, to become crumpled.] (*Zoöl.*) The *Crangon vulgaris*, a small crustaceous animal, allied to the lobster and craw-fish, which frequents shallow waters along the sea-coast. In shape, it resembles these animals, but is much more elongated in proportion, and is destitute of the large anterior claws; it is distinguished from the prawn by the absence of the long, anterior, serrated spine. During life, the body is semi-transparent, and so much resembles seawater that the animal is distinguished with difficulty. In France and England, it is esteemed as one of the most delicious of the macrurous crustaceans. In the U. States, it is considerably used as food, but chiefly as bait.
Shrine, *n.* [A. S. *scrin*; Fr. *écrin*; Lat. *scrinium*—all meaning a chest, desk, or repository.] A case or box, particularly a receptacle of the remains or relics of a saint (Fig. 2356). *S.* are of 2 sorts; *portable*, used in processions; and *fixed*, in churches. The appropriate place for shrines in the churches of the Middle Ages was generally in the eastern part, in the space behind the high altar. Such is the situation of the celebrated *S.* of the Three Kings of Cologoe.

Fig. 2356. — SHRINE.
(From Ely Cathedral, England.)

—*v. a.* To place in a shrine; to enshrine.
Shrink, *v. n.* (*imp.* and *pp.* SHRUNK.) [A. S. *scrincan.*] To contract spontaneously; to draw back or be drawn back into less length, breadth, or compass by an inherent power; to shrivel; to become wrinkled by contraction, as the skin. To withdraw or retire, as from danger; to decline action from fear; to recoil, as in fear, horror, or distress.
Shrink, *v. a.* To cause to contract.
—*n.* Contraction; a spontaneous drawing back into less compass; corrugation; a withdrawing from fear or horror.
Shrink'age, *n.* A shrinking or contraction into a less compass.
Shrink'er, *n.* One who shrinks.
Shrink'ing, *n.* A contraction or spontaneous drawing into less compass; act of drawing back through fear.
Shrink'ingly, *adv.* By shrinking.
Shriv'el, *v. n.* [Ger. *schrumpeln.*] To draw back, or be shrunk, into wrinkles; to contract; to shrink and form corrugations.
—*v. a.* To contract into wrinkles; to cause to shrink into corrugations.
Shriv'elled, *a.* Contracted into wrinkles.
Shrop'shire, a co. of England. See SALOP.
Shroud, *n.* [A. S. *scrud, scruud*, from *scrydan*, to clothe.] That which clothes, covers, conceals, or protects; a cover; a shelter.—The dress of the dead; a winding-sheet.

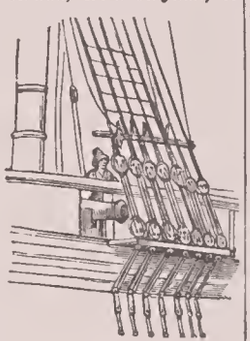


Fig. 2357. — SHROUDS.

—*pl.* (*Naut.*) A range of large ropes in a ship, extending from the head of a mast to the right and left sides of the ship, to protect or support the masts and enable them to carry sail. In Fig. 2357, the diagonal ropes and rope-ladders are the shrouds, fastened below to the chain-wales.
—*v. a.* To clothe; to cover; to shelter from danger or annoyance.—To dress for the grave; to cover, as a dead body.—To conceal; to hide; to defend; to protect by hiding.—To overwhelm.
Shrove'-tide, Shrove-Tuesday, *n.* [A. S. *shriven*, to confess.] The Tuesday following Quinquagesima Sunday, and immediately preceding Ash Wednesday, so called because the Roman Catholic Church enjoins confession to be made on that day in preparation for the fast of Lent.
Shrub, *n.* [A. S. *scrob, scrobb.*] (*Bot.*) A plant with woody stem and branches like a tree, but of smaller size, not generally exceeding 20 feet in height, and branching near the root, so as to have no main stem of considerable height. When a shrub is of small size and much branched, it is often called a *bush*. There is no more important botanical distinction between trees and shrubs, and the same genus very often includes species of both kinds. Many *S.*, as honeysuckles, are climbers.
—[Ar. *shrub*, drinking, anything drunk; allied to *syrup* and *sherbet.*] A liquor composed of acid, particularly lemon-juice and sugar, with spirit to preserve it.
—*v. a.* To rid from shrubs.
Shrub'bery, *n.* Shrubs; a plantation of shrubs.
Shrub'biness, *n.* State or quality of being shrubby.
Shrub'by, *a.* Full of shrubs; resembling a shrub; consisting of shrubs or brushwood.
Shrug, *v. a.* To draw up; to contract, as the shoulders.
—*v. n.* To raise or draw up the shoulders.
—*n.* A drawing up of the shoulders;—a motion usually expressing dislike or slight contempt.
Shubenacadie, (*shoo'ben-ah-kay-de,*) a river of Nova Scotia, which peninsula it nearly divides into two parts. It flows N. into Mines Basin, 45 m. N. of Halifax, and is connected with the harbor of that city by a canal 30 m. long.
Shud'der, *v. n.* [Ger. *schüttern.*] To quake; to tremble, shake, or quiver with fear, horror, or aversion; to shiver.
—*n.* A tremor; a shaking with fear or horror.
Shud'dering, *n.* A trembling or shaking with fear or horror.
Shud'deringly, *adv.* With tremor.
Shude, *n.* The husks of rice, and other refuse of rice-mills, largely used as an adulterating ingredient for linseed cake.
Shuf'fle, *v. a.* [Dan. *schoffelen*, to shove, from *schoffel*, a kind of shovel or hoe.] To shove one way and the other; to push from one to another; to mix by pushing or shoving; to confuse; to throw into disorder; — especially, to change the relative positions of, as of cards in the pack; to remove or introduce by artificial confusion.
—*v. n.* To change the relative positions of cards in a pack by little shoves.—To change the position; to shift ground; to avoid answering fair questions; to practise shifts to elude detection; to equivocate; to prevaricate; to quibble; to evade; to struggle; to shift.—To move with an irregular gait.
—*n.* A shoving, pushing, or jostling; the act of mixing and throwing into confusion by change of places; an evasion; a trick; an artifice.
Shuf'fle-cap, *n.* A play at which money is shaken in a hat.
Shuf'fler, *n.* One who shuffles or prevaricates; one who plays tricks; one who shuffles cards.
Shuf'fling, *a.* Evasive; as, a *shuffling* answer.
—*n.* Act of one who shuffles: act of throwing into confusion; trick; artifice; evasion; also, an irregular gait.
Shuf'flingly, *adv.* With shuffling; with an irregular gait or pace.
Shulls'burg, in *Wisconsin*, a city and township of Lafayette co., 15 m. N.E. of Galena. *Pop.* (1895) 1,295.
Shun, *v. a.* [A. S. *scunian, onscunian.*] To fly from; to avoid; to eschew; to evade; to keep clear of; not to fall on or come in contact with; not to mix or associate with; not to practise; to escape; to decline; to neglect.
—*v. n.* To decline; to avoid to do a thing.
Shun'less, *a.* Inevitable; unavoidable.
Shu'sau, in *New York*, a post-village of Washington co., 43 m. N.N.E. of Albany.
Shuster, (*shoos'ter,*) a city of Persia, prov. of Khuzistan, on the Karoon, 165 m. S.W. of Ispahan, and 50 m. E.S.E. of Shus; Lat. 32° N., Lon. 48° 59′ E.; *pop.* 15,000.
Shut, *v. a.* (*imp.* and *pp.* SHUT.) [Ger. *schützen*, to shelter, to dam, to dike.] To close, as water, so as to hinder ingress or egress; to close or stop up for defence or security; to prohibit; to bar; to forbid entrance into; to preclude; to exclude; to close, as the fingers; to contract.
—*v. n.* To close itself; to be closed.
—*n.* A close; the act of shutting.—A small door or cover; a shutter.
Shutes'bury, in *Massachusetts*, a post-township of Franklin co., 76 m. N.W. of Boston.
Shut'ter, *n.* A person who shuts or closes; also, a close cover for a window or aperture.
Shut'tle, *n.* [A. S. *scyttel, scyttels*, a bar, bolt, from *sceotan*, to shoot, dart, cast.] (*Weaving.*) An instrument used for passing or shooting the thread of the woof in weaving from one side of the cloth to the other, between the threads of the warp.
(*Founding.*) A gate or stop to the sow or trough by which the melted metal from the furnace is let out into the mould.
Shut'tle-cock, *n.* A wooden cock stuck with feathers, used to be cast or driven backwards and forwards by a battledoor in play; also, the play itself.
Shut'tle-race, *n.* A sort of shelf in a weaver's loom.
Shy, *a.* [Ger. *scheu*; It. *schifo.*] That shuns, avoids, or evades; that is fearful of near approach; keeping at a distance through caution or timidity; shunning approach; reserved; not familiar; coy; avoiding freedom of intercourse; cautious; wary; careful to avoid committing one's self or adopting measures; suspicious; jealous.
—*v. n.* To start suddenly aside, as a horse.
—*n.* The starting suddenly aside of a horse.
—*v. a.* To throw, as a flat stone or a shell, with a careless jerk; to fling.
Shyenne, SHEYENNE, or SHIENNE (*shē-en'*), in *North Dakota*, a river which rises by two branches in the northern central portion of the State, and flows into the Red River of the North in Cass co., after a S.E. course of something like 300 m. Locally, and in the best gazetteers and atlases, this name is spelled SHEYENNE, the other forms being practically obsolete.
—A post-village of Eddy co.
Shy'ing, *n.* Act of starting aside, as of a horse.
Shy'ly, *adv.* In a shy or timid manner; not familiarly; with reserve; bashfully; coyly.
Shy'ness, *n.* Quality of being shy; fear of near approach or of familiarity; reserve; coyness.
Shy Post, in *Missouri*, a village of Andrain co., 48 m. N.E. of Jefferson city.
Si, *n.* (*Mus.*) The French and Italian name for the seventh sound added by Le Maire, a Frenchman, at the latter end of the seventeenth century, to the six ancient notes, *ut, re, mi, fa, sol, la*, of Gnido. It corresponds to our B.
Si'ak, a river of the island of Sumatra, which flows into the sea nearly opposite Malacca; Lat. 1° 40′ N., Lon. 103° E.
Sial'ogogue, *n.* [Gr. *sialon*, saliva, *agogos*, a leader.] (*Med.*) One of a class of medicines which produce an increased flow of saliva. Of these there are both *vegetable* and *mineral*. The former embrace most of the pungent plants, particularly sorrel, tobacco, pellitory root, and mezereon; of the latter, several of the metals, when taken constitutionally, especially mercury. The first are called *masticatories*, because the effect is produced by merely chewing the article.
Sialidæ, *n. pl.* (*Zoöl.*) The Corydalis family, comprising neuropterous insects, which have very large anterior wings. They frequent the neighborhood of water, and pass their larva state in that element. Some of them (Fig. 2358) are of very large size.

Fig. 2358.
HORNED CORYDALIS (*C. cornuta*).
(Half size.)

Si'am, (called by the Burmese *Yoodra*, or *Yutha.*) An extensive country of India-beyond-the-Brahmapootra, comprising, in its former extension, most of the central and S. parts of that peninsula, extending between the 4th and 20th degrees of N. Lat., and 98th and 109th of E. Lon., having N. the Laos country, E. the French Annamite region, W. the British provs. of Burma and Tenasserim and the

Indian Ocean, and on the S. French Cambodia and the Gulf of Siam. It consists in chief of mountains, swamps, and jungles, a very small portion bslug ln a state of cul-vation. The principal rivers are ths Komboores, Msnan, and the Bang-Pa-Kong, all running south, and their numerous trihutaries. The wild animals of Siam include monksys of many varietiss, antelopes, buffaloss, tigers, lsopards, rhinoceroses, elephants, bears, and wild boars. The vegetable products are sugar, tobacco, pepper, cotton, coffee, sago, and immenss quantities of rice, which may be regarded as ths staple of the country. Immeuse forests of teak and other hard timber grow in all parts, while the value of sandal-, sapan-, rose-wood, and other fancy trees ohtained here, is very great. Next in abundance is fruit, which is yielded ln greater quantity and of richer flavor thsn in any country of India. The mineral wealth of Siam is no doubt large, but it has never heen properly worked. Gold, silver, tin, and antimony are the principal metals with which we are acquainted. The number of gems, or precious stones, found, however, ls very large. The exports are the metals already named, teak and fancy woods, ivory, hetel, pepper, wax, rattans, diamonds and other gems, and salt. The religion of the people is Buddhism, and the government a despotic monarchy, the people heing the absolute property of the sovereign — so completely his slaves that, by his tyrannical decree, it is death for a subject even to mention the king's name. The natives are of the Mongolian family, and remarkable for their cleanliness, orderly manners, and humanity, but so backward ln arts and manufactures, that they can neither manufacture cotton like the Hindoos, porcelain like the Japanese, nor silk like their neighbors of China. The temples of Siam are the most magnificent in India, and the language employed in their religion is distinct from that of common life. Music and poetry form the ruling passions of the Siamese; hut lnstrumental music is always valued solely in proportion to the loudness of the noise produced. Their tragedies generally represent extravagant fables; hut their comic writers lndulge in a pointed ridlcule against the reigning manners, and often against persons in power, who choose to wink at theso liberties. Dancing and wrestling form also common public exhibitions, and their puppet-shows are carried to greater perfection thau any in Europe. The annals of ths

Fig. 2359.—FORMER AUDIENCE OF A SUPERIOR.

Siamese begin about five centuries B. C. Bnt nothing authentic is known of the history of the country till 1350, in which year Aynthia, the former capital, was founded. Cambodia was first conquered in 1532, and in this century the Siamese dominion extended to Singapore. The present dynasty ascended the throne in 1782. There have heen numbers of Protestant and Catholic missionaries in *S.* since the year 1828, but so far as the Siamese are concerned, their labors have been almost, if not altogether, fruitless. — In commerce, Bangkok, the cap (*q. v.*), once ranked second only to Calcutta and Canton, but all-grasping monopolies, exorbitant dnties, and numberless restrictions had well nigh stifled production and hanished trade. In 1855–56, the King, Chao Pha Mongkout (D. 1869), concluded new treaties with Great Britain, the United States, and France. The purchase of land is now allowed; the monopolies and tonnage duties are abolished. Slavery ceased to exist after 1872; and siuce May 8, 1874, the king has exercised the legislative power in common with a supreme council of state. French aggressions have considerably reduced the territory of *S.*, a large section of it having been taken in 1893, while a disposition is shown to annex the remainder.

Siam, (Gulf of,) a large bay of the Indian Ocean, bet. Lat. 7° and 14° N., Lon. 99° and 105° E.; having E. the kingdom of Camboja, and W. the poninsula of Malacca. *Ext.* 500 m. loug and 300 broad.

Sia'mang, *n.* (*Zoöl.*) The *Hylobates syndactylus*, a quadrumanous animal of Sumatra, inferlor to the Chimpanzee and Orang-outang, both in structure and intelligence, and belouging to that division of monkeys called *Gibbons*.

Siamese', *n. sing.* and *pl.* A native, or the natives, of Siam.

Siamo, or **Siao,** (*se'a-mo,*) an island of the Eastern Archipelago, off the N.E extremity of the island of Celebes. It ls 35 m. in circumference.

Siam'pa, a state of S.E. Asia. See TSIAMPA.

Siascon'set, ln *Massachusetts*, a village at the S.E. extremity of Nantucket Island.

Siberia, (*si-beer'i-a,*) a vast extent of the Russian Empire, forming the whole of N Asia het. Lat. 45° and 78° N., Lon. 60° E. and 170° W., having N. the Arctic Ocean, E. ths Sea of Kamtchatka and the N. Pacific Ocean, S. the Sea of Okhotsk, China, and Indspendent Tartary, and W. European Russia. See SECTION II.

Sibe'rian, *n.* A native of Siberia.

Sib'ilance, *n.* A hissing sound.

Sib'ilant, *a.* [Lat. *sibilans*, from *sibilo*, to hiss.] Hissing; makiug a hissing sound. *S* is called a *sibilant* letter.

—*n.* A letter uttered with a hissing of the voics, as *s*.

Sibila'tion, *n.* Ths act of hissing; a hissing sound.

Sib'ilous, *a.* Hissing; sibilant.

Sib'ley, in *Minnesota*, a S. co.; *area*, 588 sq. m. *Rivers*. Minnesota, and S. Fork of Crow river. It has also several lakes. *Surface*, undulating; *soil*, excellent. *Cap.* Henderson. *Pop.* (1895) 16,436.

Sibley, in *Missouri*, a post-village of Jackson co., on the Missouri River, 16 m. N.E of Independence.

Sib'yl, *n.* [Lat. and Gr. *sibylla*.] The name given to certain prophetic women said to have lived in Greece aud Italy. Some authors recount as many as ten of them. The most celebrated was the Sibyl of Cumæ. According to the legend (B. C. 520) — "A woman of strange appearauco presented herself to Kiug Tarquinius Superbus, offering him nine books of the prophecies of the Sibyl for 300 pieces of gold. The offer was contemptuously refnsed; whereupon the prophetess hurned three of the books, and offering the remainder for the same price, these were again scornfully refnsed. The Sibyl then retired, and having burned three other hooks, again returned, asking the same price for the remaining three. The King, much amazed, demanded of the augurs what he should do. They said that he had acted unwisely in refusing them, and commanded him by all means to purchase the remaining books. The sacred volumee were put into a stone chest, which was deposited under ground in the Capitol, and two persons, called the *guardians of the sacred books*, were appointed in charge of them." The number was afterwards raised.

Sib'ylline, *a.* Pertaining to the sibyls; uttered or composed by sibyls; as, the *sybilline* books.

Sic. [Lat.] Thus.

Si'card, ROCH-AMBROISE CUCURRON, an eminent French teacher of the deaf and dumb, B. 1742, near Toulouse. On the death of the Abbé de l'Epée, in 1789, the Abbé *S.* was called to Paris to succeed him in the direction of the establishment there. In 1792, he was arrested amidst his scholars, sent to prison, and was in imminent danger of becoming a victim in the ensuing massacree. He, however, obtained his liberty, and in 1796 took part in compiling the *Annales Catholiques*, for which he was sentenced to transportation, but escaped. When this storm passed away, he resumed his situation as teacher of the deaf and dumb. He wrote several valuable works relating to the instruction of deaf mutes. D. 1822.

Sicasica, (*se-ka-see'ka,*) a town of Bolivia, 57 m. S. of La Paz.

Sic'cative, *a.* [Lat. *sicco, siccatus*, to dry.] Causing to dry.

Siccity, (*sĭk'se-te,*) *n.* [Fr. *siccité*.] Dryness; aridity; want of moisture.

Sicilian Ves'pers, (*sis-il'yan,*) *n. pl.* (*Hist.*) Charles of Anjon, brother of Louis IX., King of France, having seized Sicily by virtue of a grant from Pope Alexander IV., the natives rose against the French tho day after Easter, March 30, 1282. The massacre which ensued commenced at Palermo, extended to Messina and other parts of the island, and is known in history as the Sicilian Vespers.

Sicily, (*sĭs'e-le,*) an island belonging to the kingdom of Italy, in the Mediterranean, the largest and the finest in that sea, lying at the S.W. extremity of Italy, from which it is parted by the narrow Strait of Messina; Lat. between 36° 30′ and 38° 15′ N., Lon. between 12° 20′ and 38° 15′ E.; *area*, 10,500 sq. m. *S.* is of an irregularly triangular shape (hence ite ancient Latin name of *Trinacria*), and is 180 m. in length by 120 in breadth. A mountain-chain, seemingly a continuation of the Apennines, traverses the island east and west, throwing off spurs, from one of which in the east rises Mount Etna, the loftiest volcano in Europe, having a culmination of 10,900 feet; neither the lakes nor the rivers are of any considerable sizo or length. The plains and valleys which compose the greater portion of the island are remarkably fertile, and yield large crops of maize, wheat, rice, pulse, all kinds of vegetables, and abundance of fruits; the silk-worm is largely cultivated. The minerals are marble, iron, copper, stone, agate, jasper, salt, and coal, while of sulphur the yield is enormous,—above 150 mines, finding constant work for 12,000 men. The manufactures, generally unimportant, are silks, hats, furniture, skins, cotton, and cutlery; the exports comprise all native produce, with linseed, manna, rags, and tanned leather. *S.* is divided into seven provinces — Palermo, Messina, Catania, Girgenti, Syracuse or Noto, Trapani, and Catanisetta. — The Sicilians are of middle stature, well made, with dark eyes and coarse black hair; their features are hetter than their complexion; and they attain maturity and begin to decline earlier than the inhabitants of more northern regions. They are cheerful, lnquisitive, and fanciful, with a redundance of unmeaning compliments, showing they are not so deficient ln natural talents as in their due cultivation. Their delivery is vehemont, rapid, full of action, and their gesticulation violent; the latter is so significant as almost to possess the powers of speech, and animates them with a peculiar vivacity, bordering, however, rather on conceit than wit, on farce than humor. The upper classes are incorrigibly indolent, and fond to excess of titles and other marks of distinction. This love of ostentation is so inveterate that the poorer nobility and gentry are penurious to an extrsme in their domestic arrangements, and almost starvs themsslves to he ahle to appear abroad in the evening with a mean and poverty-stricksn equipage. The peasantry ars generally sober, but passionate, ignorant, credulous, and superstitious. They are, however, bigots rather than fanatics, and are civil and kind to such heretical strangers as may he thrown in their way. There is a great want of keeping and of comfort, even in the best houses; aud in them, and everywhere, there is a lack of cleanliness.—*S.* was originally peopled by the Phœniciaus, by the Greeke, next by the Carthaginians, and then by the Romans. The Saracens ln the 8th century subjugated the island, and some centuries later the Norwegians made inroads upon ite territory, and finaliy it feli under the Norman sway. — From this time *S.* became the prey of Spain, France, and Austria, till the crown was united to that of Naples under the title of the *Two Sicilies*, in 1734. When the French overran Italy under Bonaparte, the King of Naples, heing driven from his throne, took shelter in this, the insular portion of his dominions, where he reigned in peace, under British protection, till the final peace of 1815 placed him once more in his continental chair of Naples. The revolution in Italy hegun by Garibaldi in 1860 soon spread to Sicily, and on the landing of that patriot the whole island rose in arms, and the royal troope were heaten in every engagement. *S.* in a few months was free, and when Naples acknowledged Victor Emanuel as its sovereign, under the style of King of Italy, the Sicilian crowu was laid with rejoicings at the feet of that sovereign. *Pop.* (1897) 3,150,500.

Fig. 2360.—WOMAN OF TRAPANI.

Sic'ily, in *Ohio*, a village of Highland co., 16 m. S.W. of Hillsborough.

Sick, *a.* [A. S. *seoc*.] Suffering from a complaint of body or mind; affected with disease of any kind; not in health; not well; ill; indisposed: affected with nausea; disgusted; inclined to vomit; having a strong dislike to; tired; weary (followed by *of*); indicating a place where sickness is.

The sick, the person or persons affected with disease.

Sick'-bed, *n.* A bed to which one is confined by sickness.

Sick'-brained, *a.* Having a disease of the brain.

Sick'en, *v. a.* To make sick; to disease; to make squeamish; to disgust.

—*v. n.* To become sick; to fall into disease; to be satiated; to be filled to nausea; to become disgusting or tedious; to be disgusted; to be filled with aversion or abhorrence; to become weak: to decay; to languish.

Sick'ening, *a.* Becoming sick; making sick; disgusting.

Sick'eningly, *adv.* In a manner to sicken.

Sick'ish, *a.* [From *sick*.] Somewhat sick or diseased; inclined to be sick; exciting disgust; nauseating.

Sick'ishly, *adv.* In a sickish manner.

Sick'ishness, *n.* Quality or state of being sickish.

Sick'le, *n.* [A.S. *sicel, sicol*; Lat. *secula*, from *seco*, to cut.] (See SECTION.) An instrument for cutting grain; a reaping-hook.

Sick'led, *a.* Furnished with a sickle.

Sick'lied, *p. a.* Made sick.

Sick'liness, *n.* State of being sickly; state of heing habitually diseased; state of producing sickness extensivoly; disposition to generate disease exteusively.

Sick'-list, *n.* See LIST.

Sick'ly, *a.* Affected with sickness; not healthy; somewhat affected with disease, or habitually indisposed; ailing; infirm; weakly; feeble; languid; faint; producing diseaso extensively; marked with sickness; tending to produce disease; diminished in strength or brightness.

—*adv.* Not in health.

Sick'ness, *n.* State of heing sick; nausea; a failure of strength under a sense of disgust or squeamishness; state of heing diseased; malady; illness; a morbid state of the body.

Sick'-room, *n.* The apartment where one lies ill.

Sicnliana, (*see-kool-ya'na,*) a seaport of S. Italy, in Sicily, prov. of Girgenti, 18 m. W.N.W. of Girgenti; *pop.* 6,000.

Sicyon, (*sis'i-on,*) (anc. *Sicyonia,*) a once celebrated city and small state of Greece, situated a few miles S. of Corinth, ln the Morea. *S.* was a chief seat of painting and statnary (tradition asserting that the formes

Sir Philip Sidney

1554–1585

was invented there), it having given its name to a school of painting which included among its disciples Pamphilns and Apelles, both natives of Sicyon. It was also the native city of Aratus (*q. v.*), the general of the Achæan League. There exists at the present day a few remains of the ancient city, as well as of the more modern buildings erected by the Roman conquerors of Greece, near which stands a small modern village named *Vasilika*.

Sida, *n.* (*Bot.*) An extensive genus of plants, order *Malvaceæ*, many species of which are used medicinally.

Sid'dons, SARAH, an English actress, B. at Brecon, S. Wales, 1755, was the sister of John and Charles Kemble. At the age of 18 she married a young actor named Siddons. Garrick engaged her for Drury Lane Theatre, where she made her *début*, in 1775; but she incurred the displeasure of the English "Roscius," and was compelled to again retire to the provinces. In 1782 she again appeared at Drury Lane. She made her first appearance in her celebrated part of "Lady Macbeth" in 1785, and rapidly became the leading actress of the English stage. She retired from the stage in 1812; but reappeared on some subsequent occasions, for benefits and charities. She gave readings from Shakspeare and Milton at a later period, and appeared before Queen Charlotte and the royal family, and at the universities of Oxford and Cambridge. D. 1831.

Sid'donsburg, in *Pennsylvania*, a post-village of York co., 12 m. S.W. of Harrisburg.

Side, (*sīd,*) *n.* [A. S. *side, sidan.*] That part of the body on which one usually lies or reclines. — The part of an animal between the back and the face and belly. — The broad and long part or surface of a thing, as distinguished from the end, which is of less extent, and may be a point; margin; edge; verge; border; the exterior line of anything, considered in length; the outward part between the top and bottom. — The slope, declivity, or ascent, as of a hill or mountain. — One part of a thing or its superficies; any part considered in respect to its direction or point of compass. — Party; faction; sect; any man, or body of men, considered as in opposition to another, or others. — Any part being in opposition or contradistinction to another.

—*a.* Being on the side, or toward the side; lateral; oblique; indirect.

—*v. n.* To take the same side with another; to embrace the opinions of one party or engage in its interest, when opposed to another party; — followed by *with*.

Side'-board, *n.* A kind of table with drawers, &c., placed at the side or end of a dining-room, to hold dining utensils, &c.; a buffet.

Side'-bones, *n. pl.* (*Far.*) Enlargements situated above a horse's heels, resulting from the conversion into bone of the elastic lateral cartilages. They occur mostly in heavy draught horses with upright pasterns, causing much stiffness, but, unless when of rapid growth, little lameness. They are treated at first by cold water applied continually, until heat and tenderness are removed, when blistering or firing must be resorted to.

Side'-box, *n.* A box, or inclosed seat, on the side of a theatre.

Sid'ed, *a.* Having a side or sides; used in composition; as, one-*sided*, many-*sided*, &c.

Side'ling, *adv.* Sidewise; with the side foremost; sloping.

Side'ling Hill, in *Pennsylvania*, a mountain range stretching N.E. and S.W. from the Juniata River, in Huntingdon co., to the Maryland line, S. of Bedford co.

Side'ling Hill Creek, in *Pennsylvania*, rises in Bedford co., and flows into the Potomac River near Hancock, in Maryland.

Side'long, *a.* Being along, or on the side; lateral; oblique; not directly in front; as, a *sidelong* glance.

—*adv.* On the side; laterally; obliquely; in the direction of the side.

Side'-posts, *n. pl.* (*Carp.*) A kind of truss-posts placed in pairs.

Sid'eral, Side'real, *a.* [Lat. *sidus*, a constellation.] (*Astron.*) A term used in order to distinguish that which has reference to the fixed stars from that which relates to the sun, moon, planets, or comets. Thus a *S. day* is the time during which the whole body of fixed stars appears to revolve round the earth. It is found by observing two successive passages of the same star over the meridian. The time for one passage to another consists of 24 hours, each of 60 minutes, of 60 seconds each, &c., of *S.* time, the *S.* day being nearly 4 minutes shorter than the solar day. *S.* time is not suited for the purposes of every-day life; but because of its uniformity, it is very useful in astronomical observations.

Sid'erite, *n.* [Gr. *sidēros*, iron.] (*Min.*) Sparry iron-ore, or native carbonate of iron.

Sid'eritis, *n.* (*Bot.*) A genus of plants, order *Lamiaceæ*, having generally flowers of a ferruginous color, whence its popular name of *Iron-wort*.

Siderog'raphy, *n.* [Gr. *sidēros*, iron (or steel), and *graphein*, to write.] The art or practice of engraving on steel.

Sideroschis'olite, *n.* [Gr. *sidēros*, and *schizein*, to cleave, and *lithos*, stone.] (*Min.*) A hydrate silicate of iron, found in small six-sided black prisms in Brazil.

Sid'eroscope, *n.* [Gr. *sidēros*, and *skopein*, to view.] An instrument for detecting minute degrees of magnetism in substances usually supposed to be non-magnetic — the name having reference to the hypothesis that the traces of magnetism so detected are due to the presence of atoms of iron.

Siderox'ylon, *n.* (*Bot.*) A genus of plants, order *Sapotaceæ*. The name of Iron-wood is often given to *S. inerme*, a species native to the Cape of Good Hope, on account of the weight and hardness of its wood.

Side'-saddle, *n.* A saddle for a woman's seat on horseback.

Side'-saddle-flower, *n.* (*Bot.*) See SARRACENIACEÆ.

Sides'man, *n.* [*Side* and *man.*] An assistant to a church-warden. — One who takes sides; a partisan; a party-man.

Side'-table, *n.* A table to be placed at the side of a room.

Side'-taking, *n.* A taking sides, or engaging in a party.

Side'-view, *n.* An oblique view; a side-look.

Side'walk, *n.* A walk for foot-passengers by the side of a street or road; a foot-way; a trottoir.

Side'ways, Side'wise, *adv.* Toward one side; inclining. — Laterally; on one side.

Side'wind, *n.* A wind blowing against the side, or laterally; hence, an indirect effort or means.

Sid'i-Bel-Ab'bes, a town of Algeria, prov. of Oran, 50 m. S. of Oran; *pop.* 6,500.

Sid'ing, *n.* The attaching of one's self to a side or party. — The turn-out or place of passing on a railway.

Sidlaw, or Sudlaw Hills, (*sid'law,*) a mountain range of Scotland, extending from Kinnoul Hill, near Perth, N.E. to Forfar, at which place is the summit of Dunsinane, 1,400 ft. high.

Si'dle, *v. n.* To go or move side foremost; to lie on the side.

Sid'mouth, a seaport-town of England, co. of Devon, on the Sid, 13 m. E.S.E. of Exeter; *pop.* 3,500.

Sidney, ALGERNON, (*sid'ne,*) an English statesman and political martyr, was the son of Robert, 2d Earl of Leicester. He distinguished himself at the beginning of the Civil War by his opposition to Charles I.; became a colonel in the Parliament army, and avowed himself a republican. When Cromwell assumed the title of Protector, Sidney retired into private life. In 1683 he was apprehended on a charge of being concerned in the Rye-house plot, tried before Judge Jofferies, most illegally sentenced to death, and executed.

Sid'ney, SIR PHILIP, an English poet, B. 1554, and educated at Oxford. In 1576, he was sent as ambassador to Vienna, where he formed an alliance of the Protestant States of Europe against Spain. On his return he became a brilliant ornament of Elizabeth's court, and wrote the celebrated pastoral, *Arcadia*. In 1585, he was appointed general in the expedition against the Netherlands, where he was killed at the siege of Zutphen, same year.

Sid'ney, in *Illinois*, a post-village and township of Champaign co., 48 m. N.E. of Decatur.

Sidney, in *Indiana*, a post-village of Fulton co., 30 m. N.E. of Logansport. — A village of Marshall co., 115 m. N. of Indianapolis.

Sidney, in *Iowa*, a post-vill. and twp., cap. of Fremont co., 12 m. E.N.E. of Nebraska City.

Sidney, in *Maine*, a post-township of Kennebec, on the Kennebec, N. of Augusta.

Sidney, in *Michigan*, a post-township of Montcalm co., 35 m. N.E. of Grand Rapids.

Sidney, in *Missouri*, a post-village of Ralls co., 15 m. W.S.W. of Hannibal.

Sidney, in *New Jersey*, a post-village of Hunterdon co., 11 m. N.W. of Flemington.

Sidney, in *New York*, a post-village and township of Delaware co., 24 m. N.W. of Delhi.

Sidney, in *Ohio*, a post-village, cap. of Shelby co., 72 m. N.W. of Columbus.

Sidney, in *Virginia*, a village of Augusta co., 11 m. N. N.E. of Staunton.

Sid'ney Plains, in *New York*, a post-village of Delaware co., 100 m. W.S.W. of Albany.

Si'don, a town of Palestine. See SAIDA.

Si'dra, (Gulf of,) the principal inlet of the Mediterranean Sea, on the N. coast of Africa, between Lat. 30° and 33° N., Lon. 15° and 21° E.

Sie'bengebirge. [Ger., the seven mountains.] A collection of conical heights in Rhenish Prussia, on the right bank of the Rhine, about 22 miles above Cologne. The highest of the peaks is the Löwenkopf, or Löwenberg, 1,560 feet high; but the most famous is the *Drachenfels*, q. v.

Siedlec, (*seed'lets,*) a town of Poland, 55 m. E.S.E. of Warsaw; *pop.* 5,500.

Sieg, (*seeg,*) a river of Rhenish Prussia and Westphalia, rising 10 m. N.E. of Siegen, after a W. course of 80 m. joins the Rhine 2 m. N. of Bonn.

Siege, (*sēj',*) *n.* [Fr. *siége*, from Lat. *sedes*, a seat. See SEAT.] (*Mil.*) The seating, or setting, of an army around or before a fortified place for the purpose of compelling it to surrender, or the surrounding or investing of a place by an army, and approaching it by passages and advanced works, which cover the besiegers from the enemy's fire.

—Any continued endeavor to gain possession.

Siegen, LUDWIG VON, (*se-gen,*) the inventor of mezzotint-engraving, B. at Utrecht, 1609; D. abt. 1676.

Sie'gen, a town of Prussian Westphalia, on the Sieg, 38 m. S.S.W. of Arnsberg. *Manuf.* Woollens, cottons, leather, and iron- and steel-wares. *Pop.* 7,000.

Sienna, or **Siena,** (*se-en'na,*) a city of Italy, prov. of Sienna, 30 m. S.E. of Florence; Lat. 43° 22′ N., Lon. 11° 10′ E. It is situated on three eminences on the high road to Rome from Florence, and has a circuit of nearly five miles. The city abounds in superb churches, magnificent palaces, and fine public monuments. It has a university, clerical seminary, and several charities. The city is noted for the purity with which the Italian language is spoken.

Sienna Earth. See TERRA DI SIENNA.

Sienne, (*se-en,*) a river of France, dept. of Manche, which, after a W. course of 40 m., flows into the Atlantic 7 m. S.W. of Coutances.

Sien'nese, *n.* (*Geog.*) A native of Sienna.

Sierra, (*se-er'ra,*) *n.* [Sp., from Lat. *serra*, a saw.] (*Geog.*) A term signifying a chain of hills, and prefixed to the names of several mountain ranges in Spain, and countries discovered or colonized by the Spaniards.

Sier'ra, in *California*, a N.E. co., bordering on Nevada; *area*, 900 sq. m. *Rivers.* N. and Middle Yuba rivers, and Cañon, Kanaka, Sierra, and Oregon creeks. *Surface*, mountainous, the Downieville Buttes near the center being about 8,800 ft. high. *Min.* Gold and granite. *Cap.* Downieville. *Pop.* (1897) 5,350.

Sierra Acarai, (*-a-ka-ri',*) a mountain range of S. America, forming a part of the boundary between Brazil and Guiana, between the Equator and Lat. 2° N., Lon. 57° and 59° W.

Sierra de la Platte (*-platt*), the name of a mountain range in the S. E. of Utah, about Lat. 38° N., Lon. between 108° and 110° W.

Sierra de la Vinda, (*-veen'da,*) the W. mountain range of the Andes, in Pern, between Lima and the table-land of Pasco, crossed by two passes, abt. 15,000 ft. above the sea.

Sierra Leone, (*-le-one',* or *lai-o-nai',*) a small British colony on the W. coast of Africa, consisting of a peninsula, 18 m. long and 12 broad, on the coast of Senegambia. It consists generally of one vast, almost impenetrable forest, only particular spots of which have been cleared and cultivated; Lat. of Cape Sierra Leone, 8° 30′ N., Lon. 13° 18′ W. Sierra Leone was purchased by Great Britain in 1787 from the native chiefs, for the purpose of a settlement for liberated negroes, and to aid in the suppression of the slave-trade. *Cap.* Free Town. *Pop.* 41,806, mostly negroes.

Sierra Ma'dre, a name given to central portions of the great chain of Cordilleras or Rocky Mountains in Mexico, from Lat. 19° to 25° N., and in New Mexico, to the great western range, from Lat. 34° to 38° N. These ranges contain some of the richest silver-mines in the world.

Sierra More'na, in Spain. See MORENA.

Sierra Morina, or BROWN MOUNTAINS, (*-mo-ree'na,*) in *California*, extending through San Francisco and Santa Clara cos., the highest peak of which is 3,000 ft.

Sierra Neva'da, a mountain range of Spain, in Andalusia, 60 m. long and 25 in breadth, extending from Padul, 12 m. S. of Granada, E. to the prov. of Almeria. The principal peaks are Mulhaçen and Valeta; the former of which is 11,678 ft. high, and the latter 11,387 ft.

Sierra Nevada, in *California*, a mountain range, stretching N. from the Coast Mountains in Los Angeles co. to the Cascade Range in Oregon. Its highest summit is 14,898 feet.

Sierra Pacarai'ma, in S. America. See MOUNT PACARAIMA.

Sierra Pari'ma, in Venezuela. See PARIMA (SIERRA).

Sierra Soledad', a mountain range in the S. of New Mexico, between Lat. 32° and 34° N., Lon. 106° 30′ W.

Sierra Valley, or SIERRA CITY, in *California*, a post-vill. of Sierra co., 30 m. E. of Downieville; *pop.* abt. 400.

Sies'ta, *n.* [Sp.] The name given to the practice indulged in by the Spaniards, and the inhabitants of hot climates generally, of sleeping two or three hours in the middle of the day, when the heat is too oppressive to admit of their going from home.

Sieve, (*siv,*) *n.* [A. S. *sife, syfe.*] A vessel or utensil for separating flour from bran, or the smaller particles of any substance from the larger.

Sieyes, COUNT EMANUEL JOSEPH, commonly called the ABBÉ SIEYES, a French political philosopher and Consul of France, B. at Fréjus, 1748, gave, by his pamphlets, a great impetus to the French Revolution, and by his councils brought the National Assembly into existence. He was carried along by the torrent, the sluices of which he had opened, vainly endeavoring to control it, and failing, retired for a time during the Reign of Terror. He, however, voted for the King's death, took part in the 18th Brumaire, and was elected Consul along with Napoleon and Ducos. He soon resigned this office, and retired on a pension and an estate. At the Restoration he left France, but returned as a private citizen in 1830. He was author of several political brochures. D. 1836.

Sift', *v. a.* [A. S. *siftan.*] To separate; to part; to separate by shaking or agitating; to separate by a sieve, as the fine parts of a substance from the coarse, as flour from bran; to examine minutely or critically; to scrutinize; to try; to discuss.

Sift'ed, *a.* Separated by a sieve; purified from the coarser parts; critically examined.

Sift'er, *n.* One who sifts; that which sifts; a sieve.

Sig, *n.* Urine. (Local Amer.; prov. Eng.)

Sigebert, (*sig'bert,*) two kings of France, the first born about 535, was the third son of Clothaire I., King of the Franks, whom he succeeded as King of Austrasia, or Metz, 561. He was assassinated at Vitry, at the instance of Fredegonde, mistress of his rival, Childeric, 575. — The second of the name, son of Dagobert I., succeeded to the kingdom of Austrasia 638, D. 656.

Sigel, FRANZ, a Major-Gen. of Volunteers, U. S. army, B. at Zinsheim, Baden, in 1824, was educated at the military school of Carlsruhe, and became Adjutant-Gen. of the army of Baden in 1847, which position he resigned in 1848, becoming Minister of War under the Republican Revolutionary government of Baden organized in that year. After the defeat of the Revolutionists under Mieroslawski, by the Prussians, at Waghäusel and Ettlingen, *S.* took command and retreated within the fortress of Rastadt, which, being taken soon after, and the Provisional Government overthrown, *S.* fled into Switzerland, and thence to the U. S. in 1850, obtaining employment as a teacher in New York city, and afterwards, in 1858, in St. Louis, Mo. At the outbreak of the late war in 1861, *S.* became colonel of the 3d Mo. Volunteers, under Gen. Lyon; was sent with 1,200 men to the S.W.

of Missouri, where, being attacked by a superior force of Confederates, he effected a masterly retreat; took part in the battle of Wilson's Creek, where, on the death of Gen. Lyon, he directed the retreat of the Union army to Rolla; after which he was appointed brigadier-general, and took part in the battle of Pea Ridge. Becoming dissatisfied with Gen. Halleck, who commanded the dept., he resigned in May, 1862, but his resignation not being accepted, he was promoted to major-general, and appointed to a command in Virginia, where he served under Gens. Fremont and Pope, participating in the second battle of Bull Run. Died Aug. 21, 1902.

Sigh, (sī,) *v. n.* [A. S. *sican;* Du. *zuchten;* Ger. *seufzen;* Sansk. *svang,* to move one's self.] To suck in or inhale a larger quantity of air than usual, and immediately expel it; to suffer a single deep respiration; to inhale and expire a long breath audibly, as from grief — To grieve; to mourn; to lament. — To utter a sound like sighing.

—*v. a.* To lament; to mourn.

—*n.* (*Physiol.*) A deep inspiration, in which a more than usual volume of air is slowly inspired: it is an action, as is well known, often produced by strong mental affections, but the want of such inspiration is also often produced by the feebleness or imperfection of the normal action of the respiratory functions. According to a popular belief, not yet wholly exploded, a person is supposed to lose a drop of blood with every sigh. Shakspeare alludes to this fallacy when he makes one of his characters talk about "blood-drinking *sighs.*" That the habit of giving way to this state of melancholy is hurtful, by imperfectly inflating the lungs, is undoubted; but as regards the loss of blood at every sigh, the idea is preposterous.

Sigh'-born, *a.* Mournful; sorrowful.

Sigh'er, (sī'er,) *n.* A person who sighs.

Sigh'ing, *n.* The act of one who sighs.

Sigh'ingly, *adv.* With sighing.

Sight, (sīt,) *n.* [A. S. *gesiht,* from *séon, geséon,* to see; Ger. *sehen.*] Act of seeing; perception of objects by the eye; view. — Faculty of vision, or perceiving objects by the instrumentality of the eyes. (See below, 3 *Physiol.*) — Open view; the state of admitting unobstructed vision; a being within the limits of vision. — Notice from seeing; knowledge. — The organ of seeing; the eye. (R.) — A small aperture through which objects are to be seen; as, the *sights* of a quadrant. — That which is beheld; show; spectacle; exhibition. — A small piece of metal fixed on the muzzle of a musket, &c., to aid the eye in taking aim. — A large quantity or number; as, a *sight* of people. (Colloq.)

(*Physiol.*) One of the five human senses, having for its organ the Eye, *q. v.* In this organ, then, we have the retina, an expansion of the optic nerve, to receive and transmit to the brain the impressions of light; certain refracting media for so disposing the rays of light traversing them as to throw a correct image of an external body on the retina; and a contracting diaphragm, with central apertures for regulating the quantity of light admitted into the eye. When the eye is directed to any object, an image of that object is depicted on the back of the eye by means of the rays of light entering the pupil, and duly refracted by the different humors. The image, which is inverted, produces, somehow, an impression upon the retina with the assistance of the choroid coat, and this impression passes inwards to the nervous centres, whence the optic nerve takes its rise. No satisfactory explanation has yet been given to account for the fact that we see objects erect the images of which are presented to us inverted on the retina. According to Müller, the mind really perceives the objects inverted; but as this inversion is uniform, it is not perceived. The subject of binocular vision, or that with two eyes we only perceive one object, was long a perplexing subject to philosophers, until it was satisfactorily explained by means of that now well-known instrument the *stereoscope.* The power of adapting the eye to vision at different distances has received the most varied explanations; but the opinion now generally entertained is that it depends mainly on some alteration, either in position or form, which takes place in the crystalline lens. Some persons possess this power of adaptation in a very slight degree, and thus labor under defective vision, of which there are two kinds, the person in the one case only seeing distinctly those objects which are near, in the other, only such as are distant. *Near-sightedness* is caused by anything — such as undue convexity of the cornea — which increases the refracting power of the eye, and so causes the image of an object to be formed at a point anterior to the retina, and is remedied by the use of concave glasses. *Long-sightedness,* on the other hand, is owing to conditions the reverse of this, and is remedied by the use of convex glasses, which diminish the focal distance of an image formed in the eye. In order to distinctness of vision, the following conditions are necessary: 1, A sufficiency of light or illumination in the object viewed; 2, the formation of the image exactly on the retina, and not either before or behind; and 3, the minute size of the ultimate divisions of the retina capable of independent sensation. The great superiority of the eye as a medium for perceiving the outer world, lies in this power of independent sensibility to minute points. We judge of the motion of an object partly from the motion of its image over the surface of the retina, and partly from the motion of our eyes following it; and of the form of bodies, partly from the mere sensation, and partly from the association of ideas. There is none of the senses capable of affording so large an amount of instruction and delight as the eye; none in which the judgment has to play so important a part; and none so susceptible of education

(*Law.*) Presentment. — Bills of exchange are frequently drawn payable *at sight* (*i. e.* on presentation), or a certain number of days *after sight.* In the last case, the time begins to run from the period of presentment and acceptance. *Sight draft* and *Sight bill* are bills payable at sight.

To take sight. To take aim at. — *Field of sight.* The circular space within which objects are visible through a properly adjusted microscope or telescope.

—*v. a.* To come in sight or view of; to obtain a view of, as land. — To look at through an aperture or sight.

—To give a proper direction or elevation to fire-arms or artillery by means of a sight.

—*v. n.* To obtain a view of anything. — To take sight, or aim.

Sight'ed, *a.* Having sight, or seeing in a particular manner; as, near-*sighted.*

Sight'less, *a.* Wanting sight; blind; that cannot be seen; invisible.

Sight'lessly, *adv.* In a sightless manner.

Sight'lessness, *n.* Want of sight.

Sight'liness, *n.* The state or quality of being sightly.

Sight'ly, *a.* Pleasing to the sight or eye; striking to the eye or view. — Open to the view; that may be seen from a distance.

Sight'-seeing, *a.* Eager for novelties, or for seeing sights.

—*n.* Act of seeing sights or novelties.

Sight'-seer, *n.* A person eager for seeing sights, or for novelties.

Sight'-shot, *n.* Reach of the sight.

Sights'man, *n.* (*Mus.*) One who reads or sings music readily at first sight.

Sig'il, *n.* [Lat. *sigillum,* dim. of *signum,* a sign.] A signature.

Sigilla'ria, *n. pl.* [N. Lat. from *sigillum,* a seal.] (*Pal.*) An extinct genus of fossil plants found in the coal formation. They are represented mainly by the stems, which have leaf-scars like seal-impressions; whence the name of the genus.

Sigismund', Emperor of Germany, and King of Hungary and Bohemia, was second son of the Emperor Charles IV., and was b. in 1366. On the death of his father, in 1378, he became Margrave of Brandenburg, and was occupied four years in visiting his states, and receiving their homage. He married, in 1386, Maria, daughter of Ludwig Louis, King of Hungary, and was crowned king the same year. He soon after extended his dominions by the conquest of Wallachia. His queen dying in 1392, his claim to the crown of Hungary was contested by Ladislaus V., King of Poland, but unsuccessfully; and the frequent conspiracies formed against *S.* by the nobles made him suspicious and cruel. Alarmed by the conquests of the Turks, he sought aid of France and England; and a great battle was fought at Nicopolis in 1396, in which the French, under the Count of Nevers, were defeated and almost all slain, the Hungarians fled without fighting, and *S.* narrowly escaped, and led a wandering life for eighteen months. In 1410 he was chosen emperor by one party of the electors, Jobst, Marquis of Morsvia, being chosen by another party, and Wenceslaus, who had been deposed, still retaining the title of emperor. At the same period there were also three rival popes. But the death of Jobst and the acquiescence of Wenceslaus left *S.* without a rival in the following year. He was crowned at Aix-la-Chapelle in Nov., 1414, and went thence to the great Council of Constance. He surrounded the town with his troops, and remained master of its gates during the Council. The Bohemian reformer, John Huss, had come to Constance under a safe-conduct of the emperor; but he was, nevertheless, burnt, as was also his disciple, Jerome of Prague. *S.* had a conference with the Pope, Benedict XIII., at Perpignan, hoping to induce him to resign the tiara, but he failed. About the same time he sold Brandenburg to Frederick of Hohenzollern, Burgrave of Nürnberg; raised Savoy into a duchy for Amadeus VIII., and visited France and England. He professed to negotiate a peace between Charles VI. and Henry V., but perfidiously made a secret alliance with the latter, hoping to recover Arles. By the death of his brother, Wenceslaus, in 1419, he succeeded to the crown of Bohemia, and the Hussite war began, which lasted fifteen years. The famous Zisca defeated *S.* before Prague in 1420, but agreed to a truce, and *S.* was crowned soon after. After the death of Zisca the war was ably carried on by the two leaders, named Procopius. In 1431, *S.* was crowned King of Italy at Milan; and in 1433, Emperor of Rome by Eugenius IV. D. 1437.

Sigismund' I., King of Poland, called *The Great,* son of Casimir IV., b. 1466, succeeded his brother, Alexander, in 1507; d. 1548. — Sigismund II., surnamed *Augustus,* b. 1520, was son of the preceding, and succeeded him in 1548; d. 1572. — Sigismund III., surnamed *De Vasa,* b. 1566, was son of John III., King of Sweden, and of Catharine, the daughter of Sigismund I. He was elected King of Poland in 1587, and succeeded to the crown of Sweden in 1594. Being a Catholic, his uncle, Charles, Duke of Sudermania, easily undermined his authority in Sweden, and he lost that kingdom in 1604. In 1610, he succeeded in placing his son, Vladislaus, on the throne of Russia, but was afterwards obliged to succumb, and besides that, was involved in a war with Gustavus Adolphus. D. 1632.

Sig'la, *n. pl.* [Lat.] In printing and in ancient MSS., notes, breviatures, letters used for words, characters, or shorthand.

Sig'ma, *n.* The Greek letter Σ, *σ, ς,* corresponding to the English *s.*

Sigmaring'en, a town of Prussia, about 30 m. from Constance, which, till 1849, was the cap. of Hohenzollern-Sigmaringen; *pop.* 2,500.

Sig'moid, *a.* [From Gr. *sigma,* s, and *eidos,* form.] (*Anat.*) A term applied to the valves which guard the pulmonary artery, named from their resemblance to a segment of a circle. — Also applied to a part of the large intestine — the colon — where it forms a sort of double curve in the pelvis, called the *sigmoid flexure* of the colon.

Sigmoid'al, *a.* (*Bot.*) Having the form of S.

Sign, (sīn,) *n.* [Fr. *signe;* Du. *sein;* Ger. *zeichen;* Goth *taikns;* Icel. *tákn;* Lat. *signum.*] That by which anything is known; something by which another thing is shown or represented; a mark; a note; a character. — A wonder; a miracle; a prodigy; a remarkable transaction, event, or phenomenon. — Something hung or set near a house, or over a door, to give notice of the tenant's occupation, or what is made or sold within. — A memorial or monument; something to preserve the memory of a thing. — A note or token given without words.

"They made *signs* to his father." — *Luke.*

—Visible representation; a mark of distinction; cognizance.

"Aloft by angels borne, his *sign* in heaven." — *Milton.*

—Typical representation; a symbol; a type.

(*Astron.*) A portion of the ecliptic or zodiac, containing thirty degrees, or a twelfth part of the complete circle. The first commences at the point of the equator through which the sun passes at the time of the vernal equinox; and they are counted onwards, proceeding from west to east, according to the annual course of the sun, all round the circle. The names of the twelve signs, in the order in which they follow each other, with the characters by which they are indicated on globes, and in the almanacs and books of astronomy, are as follows: *Aries* ♈, *Taurus* ♉, *Gemini* ♊, *Cancer* ♋, *Leo* ♌, *Virgo* ♍, *Libra* ♎, *Scorpio* ♏, *Sagittarius* ♐, *Capricornus* ♑, *Aquarius* ♒, *Pisces* ♓. It is to be remarked, that the above are also the names of the twelve constellations of the zodiac; and in ancient times (more than 200 years before our æra), the places of the signs and the constellations were coincident; but owing to the motion of the earth's equator, by which the equinoctial points are carried backwards on the ecliptic about 50·6″ annually, the intersections of the ecliptic and equator, and consequently the commencement of the signs, now correspond to different stars, the first point of the sign Aries being at present near the beginning of the constellation Pisces. On this account care must be taken not to confound the signs of the zodiac, which are fixed in respect of the equinoxes, with the constellations, which are movable in respect of those points.

(*Algebra.*) A symbol indicating an operation to be performed, or a relation subsisting between two quantities. Of the former kind, those most commonly used are, + for addition, — for subtraction, × for multiplication, ÷ for division, $\sqrt{}$ for the square root, $\sqrt[3]{}$ for the cube root, $\sqrt[n]{}$ for the *n*th root, &c. The signs denoting relations are, = equal to, > greater than, < less than, &c.

—*v. a.* To mark; to represent typically; to denote; to signify; to indicate by sign. — To mark with characters, or one's name.

—*v. n.* To communicate intelligence by a sign or signal.

Signa, (*sen'ya,*) a town of N. Italy, prov. of Florence, 8 m. from Florence. *Manuf.* Straw bonnets. *Pop.* 5,500.

Sig'nal, *n.* [Fr.; L. Lat. *signale;* Lat. *signum.*] A sign that gives, or is intended to give, notice, or to communicate intelligence or orders, or the notice given. — At sea, signals are of very great importance, and they may be divided into three classes; — First, those which are made by the sound of any particular instrument, such as a trumpet, horn, or fife; and to these may be added striking the bell and beating the drum. Second, signals made by displaying pendants, ensigns, and flags of different colors, or by lowering or altering the position of sails. Third, signals which are executed by rockets of various kinds, by firing cannon or small arms, by artificial fireworks, or by lanterns. Very few subjects have engaged the attention of nautical men more than the arrangement of signals. They are numerous and important, and are all communicated in the instructions sent to the commander of every ship of the fleet, or squadron, before putting to sea. — In the army, signals are generally made by the firing of cannon or the sound of trumpet. Balloons, rockets, or semaphores placed from distance to distance, are also used. — The subject of *railway signals* is one of great importance in its relation to the saving of life and property. The most valuable of these are the signals transmitted by telegraph.

—*a.* Distinguished from what is ordinary; eminent; remarkable; memorable; extraordinary; notable; conspicuous.

—*v. a.* To mark with a sign; to communicate by signals.

Sig'nalize, *v. a.* To make signal; to make remarkable or eminent; to render distinguished from what is common

Sig'nally, *adv.* Eminently; remarkably; memorably; in a distinguished manner.

Sig'nalment, *n.* The act of giving a signal, or of communicating by signals; the act of signalizing; — hence, description by peculiar, appropriate, or peculiar marks.

Sig'natory, *a.* Relating to a seal; used in sealing.

Sig'nature, *n.* [Fr., from Lat. *signo, signatus.* See Sign.] A sign, stamp, or mark impressed; a mark for proof, or proof drawn from marks: a sign-manual; the name of a person written or subscribed by himself — An external mark or feature, supposed to indicate the nature and characteristics of a person, &c.

(*Mus.*) In writing music in any key with sharps or

flats, the sharps and flats belonging to the key, instead of being prefixed to each note as required, are placed together immediately after the clef on the degrees of the staff to which they belong; and this collection of sharps or flats is called the *signature*.

(*Print.*) A letter or figure at the bottom of the first page of each sheet, to denote the order of the sheet, and to facilitate the arrangement of them for binding.

Sign'-board, *n.* A board on which a person sets a notice of his occupation, or of articles for sale.

Sign'er, *n.* One who signs or subscribes his name.

Sig'net, *n.* [Fr.] A mark; a stamp; a seal. — The seal used by a sovereign in sealing his private letters and grants.

Significance, Significancy, *n.* [From Lat. *significo.* See SIGNIFY.] That which is signified; meaning; import; that which is intended to be expressed; force; energy; power of impressing the mind; importance; moment; consequence.

Signif'icant, *a.* [Fr., from Lat. *significans.*] Signifying; expressing or containing signification or sense; standing as a sign of something; betokening something; indicative; expressive or representative of some fact or event.

Significantly, *adv.* With signification or meaning; with force of expression.

Significate, *n.* (*Logic.*) One of the several things signified by a common term.

Significa'tion, *n.* [Fr.; Lat. *significatio.*] Act of signifying or making known, or of communicating ideas to another by signs or by words, by anything that is understood, particularly by words. — That which is understood to be intended by a sign, character, mark, or word. — Meaning; import; sense.

Significative, *a.* [Fr. *significatif.*] Betokening or representing by an external sign; having signification or meaning; expressive of a certain idea or thing.

Significatively, *adv.* So as to represent or express by an external sign.

Significativeness, *n.* Quality of being significative.

Significator, *n.* One who, or that which, signifies.

Significatory, *n.* That which signifies or represents.

Sig'nify, *v. a.* [Fr. *signifier;* Lat. *significo* — *signum,* a sign, and *facio,* to make.] To make known either by signs or words; to express or declare by a token; to betoken; to point to; to make known; to declare; to proclaim; to intimate; to manifest. — To mean; to denote; to imply; to purport. — To import; to weigh; to have consequence.

— *v. n.* To express meaning with force.

Signior, (*seen'yor,*) *n.* See SEIGNIOR.

Sign-manual, *n.* [See MANUAL.] One's own name written by himself; — applied particularly to the signature of a sovereign or prince.

Signor, (*seen'yor,*) *n.* [Sp. *señor;* Lat. *senior,* elder.] The Italian term equivalent to the English *Sir* or *Mr.*, the French *Monsieur,* and the German *Herr.*

Signora, (*seen-yo'ra,*) *n.* The Italian term corresponding to the English *Madame* or *Mrs.*

Signorina, (*seen-yo-re'na,*) *n.* The Italian term answering to the English *Miss.*

Sign'-post, *n.* A post on which a sign hangs, or on which papers are placed to give public notice of anything.

Sigour'ney, in *Iowa,* a city, cap. of Keokuk co., 45 m. S.W. of Iowa City. *Pop.* (1895) 1,777.

Siguenza, (*se-gwain'tha,*) (anc. *Segontium,*) a town of Spain, 75 m. from Madrid; *pop.* 5,000.

Sikes'ton, or SIKESTOWN, in *Missouri,* a post-village of Scott co., 26 m. S.W. of Cairo, Illinois.

Sikhs, (*seeks,*) *n. pl.* [Corrupted from Sansk. *sithya,* disciples.] A warlike race of India, who commenced their career, as a religious sect, adopting a kind of combination of the Mohammedan and Hindoo creeds. Their dispositions were originally mild, abstracted, and almost philosophic; but persecution, and a cruel death inflicted on two of their chiefs, roused them into fury, and changed them into a race of desperate warriors. While the Mogul power, however, continued in its vigor, they could avenge their wrongs only by hasty and stolen ravages, after which they sought the recesses of the Northern mountains. The seat of their power was principally in Lahore or the Punjab. They attained to their highest pitch of power under Runjeet Singh, at the beginning of the present century; but, after a series of sanguinary conflicts with the British, their territories were definitively annexed to the English East India possessions in 1849.

Sikino, (*se-ke'no,*) an island of the Grecian Archipelago, 20 m. N.W. of Santorini; *area,* 17 sq. m.; *pop.* 300.

Sila'o, a town of Mexico, 10 m. N.W. of Guanaxuato; *pop.* abt. 4,000.

Silenales, *n. pl.* (*Bot.*) An alliance of plants, subclass *Hypogynous exogens.* DIAG. Monodichlamydeous flowers, a free central placenta, an external embryo curved round a little mealy albumen, and more than one carpel completely combined into a compound fruit. The alliance includes 4 orders, — CARYOPHYLLACEÆ, ILECEBRACEÆ, PORTULACACEÆ, and POLYGONACEÆ, *q. v.*

Si'lence, *n.* [Fr.; It. *silenzio;* Lat. *silentium,* from *sileo,* to be still or silent.] State of being silent; stillness or entire absence of sound or noise; state of holding one's peace; forbearance of speech in man, or of noise in other animals; habitual taciturnity; secrecy; stillness; calmness; quiet; cessation of rage, agitation, or tumult; absence of mention; oblivion.

— *v. a.* To make silent; to oblige to hold the peace; to restrain from noise or speaking; to still: to quiet; to restrain; to appease; to stop; to cause to cease firing by a vigorous cannonading; as, to *silence* an enemy's batteries. — To put an end to; to cause to cease.

Si'lence, *interj.* Be silent! be still! — *Shaks.*

Sile'ne, *n.* (*Bot.*) The Catch-fly, Campion, or Fly-bane, a genus of plants, order *Caryophyllaceæ,* with a tubular 5-toothed calyx; 5 notched or bifid petals, which terminate in a narrow claw at the base, spring from the stalk of the germen, and have each an appendage forming a corona in the mouth of the corolla; 10 stamens; 3 styles; the capsule 3-celled, 6-toothed, many-seeded. The species are numerous, mostly natives of the temperate parts of the northern hemisphere, annual and perennial plants; about a dozen of them natives of the U. States, and others frequent in our flower-gardens.

Si'lent, *a.* [Lat. *silens,* from *sileo,* to be silent.] Making no noise or sound; still; calm; quiet; not speaking; mute; dumb; speechless; habitually speaking little; taciturn; not inclined to much talking; not loquacious. — Not operative; wanting efficacy; not mentioning; not proclaiming; not acting; not transacting business in person. — Not pronounced; having no sound, as a letter.

Si'lently, *adv.* Without speech or words; without noise; without mention.

Si'lentness, *n.* State of being silent; stillness.

Sile'nus, (*Myth.*) The foster-father and attendant of Bacchus, and likewise leader of the satyrs. He was represented as a robust old man in a state of intoxication, and riding on an ass, with a can in his hand. He was invested with prophetic powers, and hence became the symbol of wisdom hidden beneath a rough exterior.

Sile'sia, *n.* (*Manuf.*) See SECTION II.

Silesia, a prov. of Prussia, having N. the prov. of Posen, E. Poland and Cracow, S. Austrian Silesia, Moravia, and Bohemia, and W. Saxony and Brandenburg; Lat. between 49° 40′ and 52° N., Lon. 14° 25′ and 18° 12′ E. *Area,* 15,711 sq. m. The surface is mountainous on the S. and S.W., but level and very fertile in the other parts. *Rivers.* The Oder, the two Neisses, the Boher, Malapane, and Bartsch. *Prod.* Corn, flax, hemp, beet-root, sugar, tobacco, timber, and madder. *Min.* Iron, lead, zinc, copper, and coal. *Manuf.* Linens, cottons, woollen cloth, and hardware. *Principal towns.* Breslau, Liegnitz, Glogau, Gorlitz, Niesse, Glatz. *Pop.* 3,843,699. *S.* became a province of Poland in the 10th century. It was divided and governed by three independent princes in 1163; invaded by the Mongolians in 1241; by John of Bohemia in 1327; and it placed itself under the protection of the King of Bohemia in 1459. Matthias Corvinus, King of Hungary, took possession of Silesia, and extended his protection to the descendants of John Huss, in 1478. It fell to the house of Austria in 1526. *S.* was conquered by Frederick the Great during the Seven Years' War, and the greatest part of it was ceded to Prussia by the three treaties of 1742, 1745, and 1763.

Silesia, (Austrian.) That part of Silesia which was retained by Austria in 1742, when the province described in the foregoing article was ceded to Prussia. *Area,* 1,845 sq. m. It is divided into the circles of Troppau and Teschen, and is now completely incorporated with Moravia. See MORAVIA.

Si'lex, *n.* [Lat., a flint.] Flint-stone; pure quartz; SILICA, *q. v.*

Sil'het, or **Sylhet,** a town of British India, presidency of Bengal, on the Soormah, 120 m. N.E. of Dacca, and 260 m. from Calcutta; Lat. 24° 55′ N., Lon. 91° 55′ E.

Silhouette, (*sil'oo-et.*) *n.* In the fine arts, *S.* is the representation of the outlines of an object filled with black color, in which the inner lines are sometimes finely drawn in white. The name comes from *Etienne de Silhouette,* a French minister of finance in 1759, who strove to enforce severe economy in the administration. While he was in power, all the fashions in Paris took the character of parsimony. Coats without folds were worn; snuff-boxes were made of plain wood; and, instead of painted portraits, outlines only were drawn in profile, and filled with Indian ink. All these styles were called *à la Silhouette;* and profiles made by tracing the shadow projected by the light of a candle on a sheet of white paper (Fig. 2361) being then much in vogue, have continued to bear the name.

Fig. 2361. SILHOUETTE.

Silica, SILICIC ACID, (*sil'e-ka,*) *n.* [Lat. *silex,* flint, because it constitutes the chief part of that substance.] *S.* only forms a single oxide, which has caused a difficulty in deciding on the number of equivalents of oxygen it contains. The theory generally adopted at the present time is, that it is a *binoxide,* and not a *teroxide,* as represented by Berzelius, making the equivalent of silicon to be 28·4, instead of 42·72. This view has received confirmation at the hands of Wöhler, who has formed a *siliciuretted hydrogen,* exactly corresponding to carburetted hydrogen. Pure *S.* occurs in nature, crystallized in six-sided prisms, terminated by six-sided pyramids in rock crystal and some other forms of quartz. It enters largely into the composition of agate, chalcedony, flint, opal, sandstone, felspar, and a vast number of other minerals. In a perfectly pure state it is quite transparent and colorless. Its hardness is next to that of the precious stones, and it has a sp. gr. of 26. It fuses in the oxy-hydrogen blowpipe, and may be drawn into threads like glass. It is insoluble in water when anhydrous, and in all acids except the hydrofluoric. When heated alone, *S.* is not volatile, but when heated with water, it undergoes partial sublimation at a high temperature. *S.* presents the general characters of an earthy base, but acts as an acid, forming with the bases compounds known as *silicates.* These are very abundant in nature; clay, felspar, mica, hornblende, and a large number of other common minerals, are compounds of this description. *S.* may be obtained pure by fusing one part of finely-powdered quartz or sand in a platinum crucible, with 2½ parts of a mixture in equivalent proportions of the carbonate of potash and soda, the mineral being added to the fused mass from time to time, until the whole of the carbonic acid is driven off. The fused mass is allowed to cool, and is dissolved in very dilute hydrochloric acid, and filtered. It is then evaporated to dryness, and the residue is again heated with hydrochloric acid, and thrown on a filter, washed with hot water, dried, and ignited. In this state it forms a finely-divided gritty white powder, insoluble in water and acids, with the exception of hydrofluoric acid. It may be precipitated in a gelatinous form by the decomposition of fluoride of silica by water, being considerably soluble in that liquid. The history of the hydrates of *S.* is somewhat complicated. The industrial applications of *S.* are very numerous. Glass and pottery are compounds of *S.*, with various metallic oxides. It is extensively used in metallurgical operations, as a flux for effecting the decomposition of ores by the formation of a light glassy slag, which floats on the top of the molten metal, carrying with it the impurities contained in the mineral. *Form.* SiO_2.

Sil'icate, *n.* (*Chem.*) See SILICA.

Sili'cated, *n.* (*Chem.*) Impregnated with silica.

Silic'ic Acid, *n.* (*Chem.*) See SILICA.

Silicif'erous, *a.* (*Chem.*) Containing silica.

Silic'ify, *v. a.* (*Chem.*) To convert into silica, or to petrify by silica.

Sili'cious, Sili'ceous, *a.* (*Chem.*) Belonging to, resembling, or containing silica.

Sili'cite, *n.* (*Min.*) A yellowish-white Labradorite.

Sili'cium, *n.* (*Chem.*) The former name of SILICON, *q. v.*

Sili'ciuretted hydrogen, *n.* (*Chem.*) See SILICA.

Sil'icle, Sil'icula, *n.* [From Lat. *siliqua,* a pod.] (*Bot.*) A short silique, the length of which is not more than twice its breadth, as, for example, that of Shepherd's purse, &c.

Sil'icon, *n.* (*Chem.*) The base of silica, discovered by Berzelius in 1823. It was at first supposed to be a metal, and received the name of *silicium;* but from its close analogy to carbon and boron, it is now considered to be a non-metallic element. It is in the form of its only oxide, silica, the most abundant solid element in nature. It is obtained in a state of purity by igniting the double fluoride of *S.* and potassium with sufficient potassium to combine with the whole of the fluorine. The mass is washed first with cold, and then with hot water. *S.* thus obtained is a dull-brown powder, sinking in water, in which it is insoluble. It soils the fingers when touched, is a non-conductor of electricity, and is insoluble in all acids but the hydrofluoric. Heated in oxygen or air, it burns with a brilliant flame, being converted into silica, its only oxide. If heated in a closed platinum crucible, its properties become changed. It is now insoluble in hydrofluoric acid, it is decreased in bulk, and may be heated strongly in air and oxygen without taking fire. Deville describes a kind of modification of *S.*, which has the appearance of platinum filings. It is formed by acting with hydrochloric acid or silicide of sodium and aluminum. *S.* unites with hydrogen, forming a gas spontaneously inflammable in air or oxygen. It also forms compounds with sulphur, chlorine, bromine, fluorine, and one or two other elements; but these combinations possess little or no practical interest. *Equiv.* 28·4; *symbol,* Si.

Siliculose', *a.* (*Bot.*) Pertaining to, or bearing, silicles.

Silique, (*si'lēk,*) *n.* [Lat. *siliqua.*] (*Bot.*) A superior 1- or 2-celled, many-seeded, long, narrow fruit, dehiscing by two valves separating from below upwards, and having the seeds attached to two parietal placentas, which are commonly connected together by a spurious vertical dissepiment, called a *replum.* The placentas are opposite to the lobes of the stigma instead of alternate, as is the case in all fruits which are regular in structure. When the replum extends entirely across the fruit, the latter is said to be 2-celled; when only partially, it is 1-celled. Examples occur in the Wall-flower, Stock, Cabbage, Cardamom (Fig. 2362), and in many other plants of the order *Brassicaceæ.* When a fruit possesses the general structure of the siliqua, but with the lobes of the stigma alternate with the placentas, as in the Celandine, it is termed a *ceratium,* or *siliquiform capsule.*

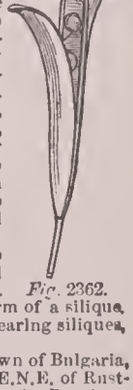


Fig. 2362.

Siliquic'la, *n.* (*Bot.*) A subordinate part of such fruit as the Poppy, composed of the carpel and two extended placentæ.

Sil'iquiform, *a.* (*Bot.*) Having the form of a silique.

Sil'iquose, Sil'iquous, *a.* (*Bot.*) Bearing siliques, or pods resembling siliques.

Silis'tria, (Turk. *Dristra*), a fortified town of Bulgaria, on the right bank of the Danube, 63 m. E.N.E. of Rustchuk. In 1854 this town was besieged by the Russians, who, after sustaining a great loss of men, were forced to abandon all hope of taking it.

Silk, *n.* [A. S. *seolc;* Dan. and Sw. *silke;* Russ. *schilk;* Lat. *sericum* (passing into *selikum*), silk; Gr. *serikon;* from *ser, seros,* pl. *seres,* the *Seres,* a Chinese people, from whom the ancients got the first silk; *ser,* also, the silk-worm; Fr. *soie.*] A well-known species of glossy thread, spun by the caterpillar of various species of the genus *Bombyx,* of which *Bombyx mori* is that which is more commonly employed for this purpose, and to

which is more especially applied the name of *silk-worm*. The threads as spun by the silk-worm, and wound up in its cocoon, are all double, in consequence of the twin orifice in the nose of the insect through which they are projected. These two threads are laid parallel, and are glued together by a sort of varnish which envelops them, and constitutes 25 per cent. of the weight of the silk. The thickness of the double thread is about the one thousandth part of an inch. It is much the strongest of all textile fibres, a thread of it of a certain diameter being nearly three times as strong as a thread of flax, and twice as strong as a thread of hemp. The color of raw silk is generally bright yellow, but in some varieties it is nearly white. — *Raw silk* is produced by the operation of winding off, at the same time, several of the balls or cocoons (which are immersed in hot water, to soften the natural gum of the filament) on a common reel, thereby forming one smooth even thread. When the skein is dry, it is taken from the reel and made up into hanks; but before it is fit for weaving, and in order to enable it to undergo the process of dyeing, without furring up or separating the fibres, it is converted into one of three forms — viz., *singles*, *tram*, or *organzine*. — *Singles* (a collective noun) is formed of *one* of the reeled threads, being twisted, in order to give it strength and firmness. — *Tram* is formed of two or more threads twisted together. In this state it is commonly used in weaving, as the *shoot* or *weft*. — *Thrown silk* is formed of two, three, or more singles, according to the substance required, being twisted together in a contrary direction to that in which the singles of which it is composed are twisted. This process is termed *organzining*; and the silk so twisted, *organzine*. — The art of making the fibrous substance of the cocoon available for textile purposes seems to have originated with the Chinese, and to have been practised by them from a very early period. According to the written records of this nation, the art seems to have been known and practised by them 2,700 years before the Christian æra. Until the reign of the Emperor Justinian, the silk-worm was only cultivated in China: but the raw material was purchased and manufactured for a long time before by the inhabitants of Persia, Tyre, and other places. Until the reign of Augustus, however, silk was very little used in Europe. In the 6th century, two monks brought some eggs of the silk-worm from China and India to Constantinople, and the Emperor Justinian encouraged them to breed the insect and cultivate its cocoons. Within a short period afterwards, silk manufactures were established at Athens, Thebes, and Corinth, not only for rearing the worm upon mulberry-leaves, but for unwinding its cocoons, twisting their filaments into stronger threads, and then weaving them into cloth. At that time, and for a long period afterwards, the Venetians became the only channel through which the silk produce of the Greek empire was transferred to the Western; and they derived great wealth from the trade. The silk manufacture remained in this state for six centuries; but in 1146, Roger I., King of Sicily, in his conquest of Greece, took many of the people engaged in this branch of industry, and compelled them to continue their avocations in Palermo and Calabria. From these places the silk industry spread throughout Italy, and ultimately reached Spain, from which country it was introduced into France during the reign of Francis I. The cultivation of the silk-worm was not commenced in France till 1564. The mulberry plantations for their propagation were greatly encouraged by Henry IV., and since that period they have been the source of most beneficial employment to the French people. James I. was very anxious to introduce the breeding of silk-worms into England; but it would appear that that country is not well adapted for this species of husbandry, on account of the cold east winds which are so prevalent in April and May, a time when the silk-worm requires a plentiful supply of mulberry-leaves. The manufacture of silk goods, however, made great progress during that king's peaceful reign, and the revocation of the Edict of Nantes, in 1685, contributed in a remarkable manner to the increase of the English silk trade, by the influx of a large colony of skilful French weavers who settled in Spitalfields. But the great European mart for silk manufacture is still, up to the present day, the French city of Lyons. In this country, there had been from the beginning of the century, some importation of raw silk, mostly for the fringe and dress trimming manufacturers, and to some extent also for exportation; in some years it had amounted to $100,000, $200,000, and in one year to $600,000. These new manufacturers now began to import raw silk from China, from Turkey and from Italy; and though they had to contend with unfavorable tariffs, with the general prejudice in favor of imported goods, and with the difficulties attendant upon the employment of unskilled and incompetent workmen, they persevered. In 1850 the Cheney Bros., at Hartford, and South Manchester, Conn., and several manufacturers at Mansfield, at Newton, Groton, Northampton, and other points in Mass., Philadelphia, Baltimore and New York, were doing an increasing business in the manufacture of sewing silk and twist. As yet, there was little done save in sewing silks, dress trimmings, and a few styles of ribbons. But in the next decade (1850–1860) the demand for sewing-machine silk and twist began to increase, and by this time it was found that the best brands of American sewing silks were superior in quality, evenness, strength and color, to the best Italian; pongees, Japanese silks, and other mixed goods were made of as good quality as the imported; handkerchiefs, ribbons and a few pieces of broad goods were put upon the markets, and were creating a demand for more; and after years of experiment, on the part of the Brothers Cheney, the spun silk made from silk waste, pierced cocoons, etc., were coming into use, and greatly reducing the cost of those goods of which they formed a part. As yet (in 1860) American silk manufacturers had received no protection or aid from the government; indeed, they had been hindered rather than helped, since the moderate duties on manufactured silks were more than counterbalanced by the duties on raw silk, which they needed to have free. But in 1861, the exigencies of the war, requiring the raising of a large revenue, and a heavy duty (40 per cent., afterwards raised to 60 per cent.), was imposed on manufactured silk, while raw silk was admitted duty free. Here was the opportunity for the silk manufacturers, and they improved it. In every direction their enterprise was manifest. Paterson became, to some degree, the Lyons of America, and its forty or fifty silk houses (now over 100) were active and wide awake. In Philadelphia, New York, Boston and Baltimore, as well as in numberless smaller towns and cities, one form or other of the silk industry was established, and profitable work furnished to many thousands of busy workers. The sewing silk and machine twist still continued to be in great demand, and since 1870 has been sold in Europe as well as in other countries; ribbons and scarfs of all kinds are manufactured here, and are crowding out the foreign goods; dress trimmings, from the simplest fringe, and the plainest buttons to the richest marabout trimming and bullion fringe, and the costliest of silk buttons, are now manufactured here better and cheaper than the imported goods; lace, in all the varieties of which silk is a constituent—scarfs, veils, nets, etc.—is contesting in our markets the palm with the choicest products of the looms of Nottingham and St Gall. But the greatest advance has been made in what are known as broad goods—dress silks of all colors, fancy and brocaded silks wrought by the improved Jacquard looms, millinery silks, foulards and spun silks of slight lustre but of great durability and beauty, and at the same time so moderate in price as to be within the reach of all. In color, quality and durability, as well as in beauty, the American silks surpass the French silks of the same grade, with two additional advantages—they are not weighted with dye stuffs, as are the same grade of foreign silks, and hence are of more durable and of more enduring colors, and they are lower in price.

— *Rearing of Silk-worms.* Of the several species of mulberry, the white (*Morus alba*) is the best adapted for the feeding of the worms, and is grown wherever silk culture is practiced. The worms are fed on the leaves in some specially favorable localities in the open air, but they are usually reared in specially constructed buildings, the mulberry leaves being gathered and brought to them daily. In tropical countries the natural heat suffices for hatching the eggs, but in Southern Europe artificial heat is usually necessary, and stoves are employed, the temperature being gradually increased during 10 days from 64° to 82°, at which it is maintained until the insects are hatched. The eggs are usually first washed to remove gumminess and other impurities. The worms are fed in trays, in which the leaves are so distributed as to prevent them from crowding each other, the most careful operators chopping the leaves small and spreading them very carefully about. The worms of each brood are kept separate, unless of the same age, lest the stronger insects should deprive the weaker of food. Small bundles of twigs are placed over the trays for the caterpillars to spin in. When ready to spin its cocoon the silk-worm ceases to eat, and begins by producing a loose, rough fiber, which forms the outside of the cocoon. Then the more valuable interior fiber is spun, it being very closely disposed by the movement of the insect's head. This work occupies about 5 days, during which often more than 1,000 feet of thread are produced. The insect then rests in the pupa state for 2 or 3 weeks, at the end of which time the perfect insect forces open the cocoon and emerges. As this, however, is injurious to the silk, the rearer prevents it by killing the pupa with hot water or air, retaining only sufficient cocoons for breeding purposes. In reeling the silk, the natural gum with which it is coated is first softened by steam or hot water, the ends of the threads from 3 to 5 cocoons are caught up and united, and these are combined into one by aid of a reeling apparatus, each cocoon yielding about 300 yards of thread. The rearing of silk-worms has long been attempted in the U. S., but with little success, the profit not being sufficient to attract industry or capital. Silk manufacture, on the contrary, has largely developed, the importation of raw silk having increased from 2,562,236 lbs. in 1880 to 7,510,440 lbs., valued at $24,325,531, in 1890, and being still on the increase. See SILK-WORM.

Silk'-cotton Tree, *n.* (*Bot*) See BOMBAX.

Silk'en, *a.* [A. S. *scolcen*.] Made of silk; like silk; soft to the touch; soft; delicate; tender; smooth.

—*v. a.* To make soft or smooth like silk.

Silk'-grass, *n.* See YUCCA.

Silk'iness, *n.* Quality of being silky; softness and smoothness to the feel.

Silk'-mercer, *n.* A dealer in silks.

Silk'-mill, *n.* A mill for spinning raw silk, or manufacturing silk goods.

Silk'-shag, *n.* A coarse, rough, woven silk, resembling plush.

Silk'-thrower, Silk'-throw'ster, *n.* One who twists or spins, and prepares silk for weaving.

Silk'-weaver, *n.* One who weaves silk stuffs.

Silk'-weed, *n.* (*Bot.*) See ASCLEPIAS.

Silk'-worm, *n.* (*Zoöl.* and *Sericulture.*) The ordinary name of the caterpillar of *Bombyx mori*, a lepidopterous insect, type of the genus *Bombyx*, family *Bombycidæ*. It was originally from China, and is of a white or cream color, with a brown fascia, and two or more waved lines of a deeper color crossing the upper wings. The males fly swiftly in the evening, but the females are inactive: they live but a few hours after the eggs are deposited on the mulberry trees. The eggs are about the size of mustard-seeds, and the young emerge in a few days, if the weather or air of the breeding-room be warm and dry: when first hatched, they are 1 or 2 lines long, of a dark color, and very soon commence eating voraciously, with short intervals of abstinence during the moultings, until full-grown, when they are about 3 inches long, of a light-green color, with darker marks, blackish head, and fleshy protuberance on the last joint but one; there are 12 segments to the body, 9 stigmata or breathing-holes on each side, and 16 legs, of which the anterior 6 are hooked, and the others, including the 2 on the last segment, end in disks; the mouth has a vertical opening with strong and serrated jaws; the stomach is very large, as would be expected in such a voracious larva. It lives exposed in the wild state, but none of the Chinese or European worms are allowed to incur the risks of life in the open air. According to the experiments of Count Dandolo, 100 newly-hatched silk-worms weigh 1 grain, after the first moult 15, after the 2d 94, after the 3d 400, after the 4th 4,628, and at full size 9,500 grains; each consumes an ounce of mulberry leaves during these stages, about 60,000 times its primitive weight, and its length increases from 1 to 40 lines during the same period; by calculation, the product of an ounce of eggs eats upward of 1,200 lbs. of leaves, and should furnish 120 lbs. of cocoons. The caterpillar *S.* is at first of a dark color, but soon becomes light, and in its tints much resembles the perfect insect. Its proper food is the mulberry, though it will sometimes eat the lettuce and some few other plants. The *S.* is about eight weeks in arriving at maturity, during which period it changes its skin four or five times. For about three days before casting its skin, it is lethargic, refusing its food. On the termination of this period, the old skin opens at the anterior end, the fore-legs are disengaged, and the new and delicately-attired worm escapes forth. Immediately after this renewal, the body of the worm appears gray

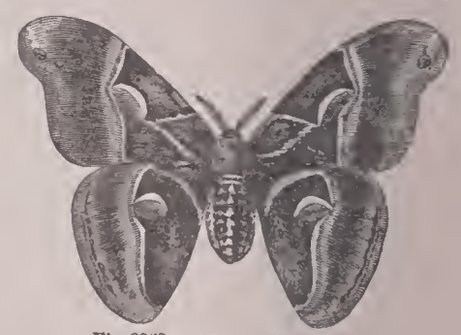


Fig. 2363. — THE AILANTUS MOTH, (*Bombyx cynthia.*)

and somewhat wrinkled, the new coat being made of full size, to admit of future growth; but the latter attribute speedily disappears. After the fourth or fifth casting of its skin, it measures from an inch and a half to two inches long, and for a continuous period of about ten days it eats voraciously, and increases greatly, both in length and thickness. On the expiry of this last-mentioned period it has attained the full size of a *S.*, being from two and a half to three inches long. Its desire for food abates; it nibbles and wastes its leaves; then ceases to eat, and becomes restless to eat and uneasy, seeking a quiet haven in which to spin its silken shroud. In the course of about twenty-four hours from the time of its having ceased to feed, the silky fluid becomes abundantly supplied to the interior reservoirs; the body becomes of a soft yellow, and somewhat transparent towards the neck. The beautiful silken covering, or *cocoon*, as it is called, is generally completed in three or four days. It is commenced by the formation of a loose, decomposed structure, of an oval form, made of what is denominated *floss-silk*. Within this, in the course of the ensuing days, the firmer cocoons are constructed. These are rounded, somewhat oval balls, varying in tint, some being of a golden tint, some of a straw color, and others, again, white. The included worm, having finished its labors, casts its skin once more, but never appears again as a caterpillar, as it now assumes that rounded, shapeless form termed *chrysalis*. In the chrysalis state it remains a fortnight or three weeks. It then bursts its horny cases, coming forth as a moth into the hollow chamber of the cocoon. The moth subsequently emits a fluid, which has the effect either of dissolving the gum or the threads at one end of the cocoon. The length of the thread in a cocoon varies from six hundred to a thousand feet. In 1856, another species of the same genus, *Bombyx cynthia* (Figs. 2363–'4), was introduced into Europe, which proved to be a happy rival to the mulberry-feeder. The Piedmontese Abbé Fantoni obtained its worms from the N. of China, and sent them to France, where they succeeded perfectly. This new silk-producer feeds on the *Ailantus glandulosa*, a hardy tree, which stands the severest winters and longest draughts without injury, grows well in any climate, thrives in almost any soil, and has been naturalized and widely propagated in this country as a shade-tree, where

it is, nevertheless, rather an object of aversion than of real benefit, on account of the peculiar odor it emits when in blossom. The *B. cynthia* produces two crops per annum, and would easily produce three in such countries as California, where the season is longer, and the foliage

Fig. 2364. — AILANTUS SILK-WORM AND COCOON.

more plentiful in the autumn. Its eggs are nearly twice as large as those of the *B. mori*, equally large at both ends, and of a white color, with a black mark, caused by the germ inside the egg. The cocoons are elongated, of a pale-gray color, and are reeled off in one continuous thread. The Cynthia cocoon yields *floselle*, or floss-silk. It is manufactured in France under the name of *galette*, or *fantaisie*. According to French report, "the silk produced by the Ailantus lasts double that of the mulberry. It does not spot so easily; and it washes like linen." See *The Silk-worm*, Riley, Washington, D.C., 1879.

Silk'y, *a.* Made of silk; consisting of silk; like silk; soft and smooth to the touch.

Sill, *n.* [A. S. *syl*; Lat. *solum*, the ground, the lowest part of anything, the foundation; Fr. *seuil*; It. *saglia*, a threshold.] (*Arch.*) A piece of timber on which a building rests; the timber or stone at the foot of a door; the threshold; the timber or stone on which a window-frame stands; or the lowest piece in a window-frame. See GROUND-SILL.

Sill'abub, *n.* [Etymology uncertain.] (*Drinks.*) A liquor made by mixing wine or cider with milk, and thus forming a soft curd. (More frequently written SYLLABUB.)

Silla de Caracas, (*seel'ya-da-ka-rah'kas,*) a mountain of Venezuela, near Caracas, 8,700 feet high.

Sil'lily, *adv.* In a silly manner; foolishly; without the exercise of good sense or judgment.

Sil'limanite, *n.* [Named after Professor *Silliman.*] (*Min.*) An anhydrous silicate of alumina, found in a vein of gneiss at Chester, near Saybrook, in Connecticut. It is of a dark-gray color, passing into clove-brown, and either occurs in slender prisms, which are flattened and striated, or fibrous, columnar, or compact and massive.

Sil'liness, *n.* State or quality of being silly; weakness of understanding; want of sound sense or judgment; simplicity; harmless folly.

Sil'lon, *n.* (*Fort.*) A work raised in a ditch to defend it if too wide. It may be of any form, but must be lower than the works of the place, and higher than the covered way.

Sil'ly, *a.* [A. S. *sæli, sælig, gesælig*, happy.] Inoffensive; harmless; artless; weak in intellect. — Destitute of ordinary strength of mind; witless; senseless; foolish; stupid; shallow; proceeding from want of understanding or common judgment; characterized by weakness or folly; unwise; indiscreet; imprudent; as, a *silly* person, a *silly* thought. [ENSILAGE.

Si'lo, *n.* A pit or subterraneous repository for grain. See

Silo'am, (*John* ix. 7, 11.) or SHILOAH, (*Neh.* iii. 15; *Isa.* viii. 6); a fountain and pool at the base of the hill Ophel, near the opening of the Tyropœon into the valley

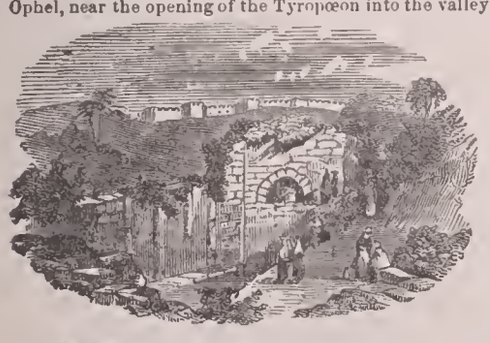


Fig. 2365. — FOUNTAIN AND POOL OF SILOAM.

of the Kidron on the south of Jerusalem. The small upper basin, or fountain, excavated in the rock is merely the entrance, or rather the termination, of a long and narrow subterranean passage beyond, by which the water comes from the Fountain of the Virgin.

"*Siloam's* brook, that flowed
Fast by the oracle of God." — *Milton.*

Silo'am, in *N. Carolina*, a village of Surry co., 141 m. W.N.W. of Raleigh.

Siloam, in *New York*, a post-village of Madison co., 110 m. N.W. of Albany.

Sil'phium, *n.* (*Bot.*) A genus of plants, order *Asteraceæ*, of which the most interesting species is the Compass-plant, *S. laciniatum*, the leaves of which are said to present their faces uniformly N. and S., a statement which needs confirmation. The plant is also known as Pilot-weed, Polar-plant, Rosin-weed, and Turpentine-weed — the latter named from the abundant resin exuded by its stems, which grow to a height of three to six feet, as well as by the leaves, which are deeply pinnatifid. It is common in the U. States to Texas, producing columns of smoke in the burning prairies by its copious resin.

Silt, *n.* [Sw. *sylta*, to pickle.] A deposit of mud or fine earth from running or standing water.

—*v. a.* To choke or obstruct by accumulation of mud, clay, sand, or earth.

—*v. n.* To ooze or percolate, as muddy water.

Silty, *a.* Of the nature of silt.

Silures', *n. pl.* (*Eng. Hist.*) The early inhabitants of South Wales.

Silu'rian System, *n.* (*Geol.*) A name first applied by Murchison to a series of fossiliferous strata lying below the Old Red Sandstone, and occupying that part of Wales which once constituted the kingdom of the *Silures*. It comprises the oldest fossiliferous strata as yet known to geologists. During the last twenty years they have undergone a most minute and careful survey. The system, although consisting in the main of alternate flagstones and sandstones, of argillaceous and calcareous shales, of clayey limestones and limestones of a concretionary character, has been divided into lower and upper groups, which have been sub-divided variously in different countries. In America, geologists generally have adopted that sub-division into periods and epochs which is derived from the succession of rocks in the State of New York, where the strata are well displayed and have been carefully studied. For the order of succession in the Silurian periods and rocks, see Fig. 1142.

Silu'ridæ, *n. pl.* (*Zoöl.*) A family of malacopterygious fishes, the type of which is the genus *Silurus*, comprising species of large size, *S. glanis* (Fig. 2366), of the rivers of Germany and Hungary, sometimes exceeding 6 ft. in length, and 300 pounds in weight. They are chiefly distinguished by the want of true scales, having merely a naked skin, or large osseous plates. A strong osseous spine forms the first ray of the dorsal and pectoral fins, except in the genus *Malapterurus*, which includes the Electrical Silurus of the African rivers, whose power of giving electrical shocks appears to derive from a particular tissue situated between the skin of the sides and the muscles. The genus *Pimelodus* contains the Cat-fishes of the U. States, of which there are about 30 species. The Cat-fish of the Great Lakes, *P. nigricans*, is from 2 to 4 feet long, and attains the weight of 30 pounds. The common Horn-pout, or Horned Pout, *P. atrarius*, is from 6 to 10 inches long, and abounds in ponds and slow streams.

Fig. 2366. — SILURUS GLANIS.

Silu'rus, *n.* (*Zoöl.*) See SILURIDÆ.

Sil'van, *a.* [From Lat. *silva.*] Pertaining to a wood or grove; inhabiting woods; woody; abounding with woods. See SYLVAN.

Sil'van, in *Michigan*, a village and township of Washtenaw county, about sixty miles west of Detroit.

Sil'vas, *n. pl.* [Lat. *silva*, a wood.] A tract covered with forest vegetation, occupying at least a million of sq. m. in the tropical part of S. America. A fifth part of this vast area is annually subject to inundation, and the exuberance of animal and vegetable life resulting from such conditions renders the whole district almost hopelessly unapproachable by civilized man. This tract is chiefly on the course of the Amazons, and the group of rivers connected with it.

Sil'ver, *n.* [A. S. *seolfer*, silver.] (*Chem.*) This beautiful metal has been known from the earliest ages, and has always been highly valued for its rarity, beauty, lustre, and permanence. It is of a white color, with a slight tinge of red. It is between iron and copper in point of hardness, and is very tenacious. It may be hammered into thin leaves and drawn into very fine wire. It fuses at about 1873° F., expanding forcibly at the moment of solidification. It is one of the best known conductors of heat and electricity, and is not oxidized at any temperature, even in the presence of moisture. When perfectly pure, it has the property of absorbing oxygen mechanically at its melting-point, giving it off with effervescence at the moment of solidification; — hence, the bubbly appearance of the surface of ingots of the pure metal. It has a powerful affinity for sulphur, speedily turning black in atmospheres containing notable portions of sulphuretted hydrogen. Alloyed with certain proportions of copper, to give it increased hardness and tenacity, it is adopted by all civilized nations for purposes of coinage and for articles of plate. From its purity of color, it is the most perfect reflector known, and is always employed for reflecting surfaces when practicable. — *S.* occurs in nature in the native state, crystallized in cubes and forms derived therefrom. It is not uncommon, though not in large masses, in the silver-bearing veins of the Western States and Territories of the United States. It is more generally alloyed with gold, arsenic and antimony. The native alloy in the great Comstock Lode of Nevada, contains about forty-three per cent. of silver, the rest being gold. The galena ores of the United States, with the exception of those of the Mississippi valley, nearly all contain silver in quantities varying from 0·10 to 3·0. In the case of argentiferous copper, it is found with a certain amount of lead. The alloy is heated gradually, so that the lead melts out and flows away, carrying with it the silver, and leaving behind a spongy mass of copper. The argentiferous lead is then submitted to cupellation. The rich ores, such as the sulphides already mentioned, are reduced by the process of amalgamation. The sulphide of silver is converted into chlorids by mixing the ore in a finely-divided state with chloride of sodium and roasted copper pyrites. The chloride of copper formed acts on the sulphide of silver, converting it into chloride. Mercury is added to the mass, which decomposes the chloride of silver, and the amalgam so formed is distilled. There are several other methods of separating silver from its ores, for an account of which the reader is referred to Abel and Bloxam's *Handbook of Chemistry*. The only alloy of silver worth noting is that used for coinage, the standard for which in this country, as fixed by law, is 11·1 parts of silver and 0·9 of copper. To increase the beauty and usefulness of many articles made of the baser metals, they are often covered with a coating of silver by different processes. *Plating*, properly so called, consists in covering a clean sheet of copper with a thin film of silver, by washing over it a solution of lunar caustic. A plate of silver rather larger than the plate of copper is then laid upon it and the edges turned over. The two are heated to a dull redness, and passed through powerful rollers. The process of *electro-plating* has already been described under that head. Of late years, silver has been substituted for mercury in the silvering of glass in numerous instances. The deposition is effected by pouring over the glass a mixture of alcohol, nitrate of silver, carbonate of ammonia, and ammonia, to which has been added a few drops of essential oil of cloves. A gentle heat is applied for two or three hours, until the whole of the surface is coated, after which the residue is poured off, and the film of silver is dried and varnished. Grape sugar and Rochelle salt are sometimes added instead of the essential oil. Copper and brass are *silvered* either by rubbing over their cleaned surface a mixture of cream of tartar, chloride of silver, and corrosive sublimate, or by agitating them in mercury in which silver is dissolved. By the application of heat, the mercury is expelled, leaving the silver behind as a very thin film. Chemically pure metallic silver may be obtained by dissolving standard silver in nitric acid; the solution is filtered, and pure chloride of sodium added until the whole of the silver is thrown down. The precipitate is then washed in distilled water until the washings are tasteless. The chloride is then mixed with one-fourth of its weight of oil of vitriol, and bars of zinc are placed in the mass. The zinc gradually reduces the chloride to the metallic condition. It is then washed with sulphuric acid, and lastly with water, until the washings give no precipitate with nitrate of silver. The reduced silver thus obtained is not absolutely pure: it is therefore once more dissolved in pure nitric acid, precipitated by pure hydrochloric acid, and reduced by fusion in a deep clay crucible, with 70·4 per cent. of chalk and 4·2 per cent. of powdered charcoal, for an hour and a half. *Eq.* 108; *sp. gr.* 10·53; *symbol*, Ag. See PRECIOUS METALS.

Aceto-nitrate of S. (*Phot.*) The so-called aceto-nitrate of silver, used in photography, is made by adding 1½ drachms of glacial aceto-acid to 50 grains of nitrate of silver, dissolved in one ounce of water.

Ammonio-nitrate of S. (*Phot.*) The so-called ammonio-nitrate of silver, used in photography, is made by adding strong liquor ammoniæ to a solution of nitrate of silver, until the precipitate formed is redissolved.

Bromide of S. (*Chem.*) It may be formed by precipitating a solution of the nitrate with bromide of potassium. It is of a light-yellow color, is insoluble in water, and less soluble in ammonia than the chloride. It dissolves readily in bromide of potassium and other soluble bromides, forming with them double salts, and in hyposulphate of soda. It is one of the constituents of the sensitive film used in the collodion process. It occurs in nature as *bromite*, at Santa Fiora, in Mexico, and in combination with chloride of silver as *embolite*, in Chili, Mexico, and Honduras. *Form.* AgBr.

Chloride of S. (*Chem.*) There appears to be two chlorides of silver — the ordinary chloride, AgCl, and the sub-chloride, Ag_2Cl. Chloride of silver is formed as a dense white flocculent precipitate, by adding hydrochloric acid, or a solution of any soluble chloride, to a soluble salt of silver. It is insoluble in water and dilute acids. It is dissolved by boiling hydrochloric acid, and by strong solutions of the alkaline and earthy chlorides, with which it forms double salts. It melts at 500° into a horny mass; hence its old name of *horn-silver*. It is easily reduced by hydrogen, when heated, and by zinc, iron, and most of the easily oxidizable metals when moist. Cyanide, iodide, and bromide of potassium dissolve it with the formation of double salts. It is also soluble in solutions of the hyposulphates, forming compounds having an intensely sweet taste. In combination with organic matter, it possesses the property of being blackened by light; hence its use in photography. It is found native in most silver-mines as *kerate*, or *horn-silver*. The sub-chloride is obtained by digesting leaves of pure silver in chloride of copper, or perchloride

of iron. It forms black scales, which are not acted on by nitric acid.

Iodide of S. (*Chem.*) It is formed by precipitating the nitrate by iodide of potassium. It is a pale-yellow substance, insoluble in acids, and nearly so in ammonia. It dissolves readily in iodide and cyanide of potassium, forming double salts. Its sensitiveness to light renders it of great use in photography. It occurs in nature as *iodite*, in thin flexible plates, in Mexico, Chili, and Spain.

Nitrate of S. (*Chem.*) This important salt is made by dissolving silver in strong nitric acid. It crystallizes in square anhydrous colorless tables, and dissolves in an equal weight of water. It fuses when heated, and may be cast in cylindrical moulds, in which form it is used by surgeons as an escharotic, under the popular name of *lunar caustic*. When perfectly pure, it undergoes no alteration when exposed to light; but if the smallest portions of organic matter be present, it darkens perceptibly. When exposed to light in contact with organic matter, as in the ordinary photographic processes, it forms a dark brownish-purple compound of an organic nature, whose composition is at present but little understood. For photographic purposes, it must be perfectly neutral and pure, free from contaminations of nitric acid and organic matter. For this purpose, the ordinary so-called pure nitrate should be carefully fused and recrystallized. It is also used as a source of silver in the electrotype process, in silvering glass and in marking-ink.

Oxides of S. (*Chem.*) There are three oxides of silver —the *sub-oxide*, Ag_4O, is a dark powder, formed when nitrate of silver is heated in a current of hydrogen; the *protoxide*, Ag_2O, procured by adding a solution of potash or soda to the nitrate when it falls, as a brown hydrate; and the *peroxide*, Ag_2O_2, a compound formed in gray circular crystals when a dilute solution of nitrate of silver is decomposed by the voltaic current. The protoxide is a powerful base, combining with the acids to form neutral salts. It is soluble to a slight extent in water, to which it communicates a feeble alkaline reaction.

Phosphates of S. (*Chem.*) Silver from several phosphates, but they are unimportant.

Sulphate of S. (*Chem.*) When the metal is boiled in sulphuric acid, a portion of the acid is decomposed, and sulphate of silver is formed. It may be obtained in rhombic prisms, which dissolve in ninety parts of water. It is a very stable salt, requiring a greater heat for its decomposition than the sulphates of copper and iron.

Sulphide of S. This compound is the principal ore of silver, and is found native, crystallized in cubes and octahedra, as well as in massive concretions. It has a metallic lustre, from which it derives its mineralogical name, *Silver glance*. *S. of S.* is also found in combination with other sulphides, especially those of copper and silver. Metallic silver has a very powerful affinity for sulphur, the metal becoming blackened by exposure to an atmosphere containing sulphuretted hydrogen in the gaseous state, even though largely diluted with air. *S. of S.* may be prepared chemically by transmitting a current of sulphuretted hydrogen through a solution of the nitrate, or by fusing metallic silver with excess of sulphur in a crucible. In a massive form, *S. of S.* is to a certain extent malleable, and will take impressions from a die.

Sil'ver, *a.* Made of silver; white like silver; white or pale; of a pale lustre.— Soft and clear, as tones.

—*v. a.* To cover superficially with a coat of silver; to foliate; to cover with tinfoil amalgamated with quicksilver: to adorn with mild lustre; to make smooth and bright.— To make hoary; as, *silvered* locks.

Sil'ver-bell-tree, (*Bot.*) *n.* Same as the Snow-drop. See HALESIA.

Sil'ver City, in *Idaho*, a post-village, cap. of Owyhee co., 1 m. W. of Ruby City.

Silver City, in *Nevada*, a post-village of Lyon co., 2 m. N.W. of Dayton.

Sil'ver Creek, in *Illinois*, enters the Kaskaskia River at Athens, in St. Clair co.—A twp. of Stephenson co.

Silver Creek, in *Indiana*, flows into the Ohio River from Clark co.—A township of Clark co.

Silver Creek, in *Iowa*, a township of Mills county.

Silver Creek, in *Michigan*, a township of Cass county.

Silver Creek, in *Minnesota*, a post-township of Wright co., 7 m. N.W. of Monticello.

Silver Creek, in *Mississippi*, flows into Sunflower River from Washington co.—A post-vill. of Lawrence co.

Silver Creek, in *Missouri*, a township of Randolph co.

Silver Creek, in *New York*, a post-village of Chautauqua co., 31 m. S.W. of Buffalo.

Silver Creek, in *Ohio*, a township of Green county.

Sil'ver-fir, *n.* See FIR.

Sil'ver-fish, *n.* (*Zoöl.*) A small species of carp, striped with silvery lines.

Sil'ver Glance, *n.* (*Min.*) A valuable ore of silver; composed of 87·1 per cent. of silver, and 12·9 sulphur. It is of a blackish-gray color, but acquires a superficial iridescent tarnish on exposure; opaque, with a metallic lustre; flexible, but difficultly frangible; malleable and sectile, yielding easily to the knife, and cutting like lead. It is found in various cubical forms.

Sil'vering, *n.* The art or operation of covering the surface of anything with silver; the silver thus laid on. See SILVER.

Sil'ver Lake, in Wyoming co., *New York*. It is 3 m. long, and its surplus waters flow into Genesee River.

Silver Lake, in *Pennsylvania*, a post-township of Susquehanna co., 9 m. N.W. of Montrose.

Sil'ver-leaf, *n.* Silver beaten into a thin leaf.

Sil'verly, *adv.* With the appearance of silver.

Sil'ver Mount'ain, in *California*, a village, former cap. of Alpine co., 56 m. E. of Placerville.

Sil'verside, *n.* (*Zoöl.*) The common name of the genus of fishes ATHERINA, *q. v.*

Sil'versmith, *n.* One whose occupation is to work in silver.

Sil'ver Spring, in *Pennsylvania*, a village and township of Cumberland co., 10 m. W. of Harrisburg.— A post-village of Lancaster co.

Sil'verton, in *Oregon*, a post-village and township of Marion co., 15 m. E. of Salem.

Sil'verville, in *Indiana*, a post-village of Lawrence co., 10 m. W. of Bedford.

Sil'ver-weed, *n.* (*Bot.*) A fine American plant of the genus *Potentilla*, found in meadows and rocky hills in the Northern states; *P. anserina*.

Sil'very, *a.* Like silver; having the appearance of silver; white; of a mild lustre; bespriukled or covered with silver.

Silves'ter I., POPE, was elected in 314. The Arian heresy commenced in his pontificate, and he distinguished himself against the Donatists. D. 336.

SILVESTER II., was at first a monk in Auvergne; but his superior talents exciting the envy and hatred of his companions, he withdrew from the monastery and went to Spain. The Duke of Barcelona took him to Italy, where he was noticed by the Emperor Otho, who gave him an abbey, which he afterwards quitted, and, proceeding to Germany, became preceptor to Otho III. He was afterwards tutor to the son of Hugh Capet, by whom he was made archbishop of Rheims. By the interest of Otho, he gained the papacy in 999. He was a man of considerable learning, particularly in the mathematical sciences. D. 1003.

Sil'veyville, in *California*, a post-village of Solano co., 20 m. N.E. of Suisan City.

Sily'bum, *n.* (*Bot.*) A genus of plants, order *Asteraceæ*, the most familiar of which is *S. marianum*, the Milk Thistle, which grows to the height of three or four feet or more, with large spreading wavy spinous leaves, of which those next the root are pinnatifid, and variegated with green and milk-white. The specific name *Marianum* was given to this plant to preserve the legend that the white stain on the leaves was caused by the falling of a drop of the Virgin Mary's milk.

Simaba, (*sim-a'ba,*) *n.* [Its native name.] (*Bot.*) A genus of the order *Simarubaceæ*. The seeds of the species *S. cedron* are highly esteemed throughout Central America for their febrifugal properties.

Simar', Simare', Cimar', Cymar', *n.* [Fr. *simarre.*] A woman's long gown or robe. — Also, the outer robe of a Protestant bishop.

Simarru'ba, *n.* (*Bot.*) The typical genus of the order *Simarubaceæ*. The species *S. amara*, the Mountain Damson, is a native of South America and the West Indies. The bark of the root acts like a tonic, and has been employed medicinally in diarrhœa, dysentery, &c.

Simaruba'ceæ, *n. pl.* [*Simaruba*, its Caribbean name.] (*Bot.*) The Quassia family and order of plants, alliance *Rutales*. DIAG. Few-seeded, finally apocarpous fruit, whose pericarp does not laminate, a dry inconspicuous torus, exalbuminous seeds, and alternate leaves without stipules. — They are trees or shrubs, found in the tropical parts of India, America, and Africa. A bitter principle is the most remarkable characteristic of the order. See PICRASMA, QUASSIA, SIMARUBA.

Simbirsk', a city of Russia in Europe, cap. of a government of the same name, on the Volga, near the confluence of the Sviaga, 420 m. S.E. of Moscow; Lat. 54° 18′ 49″ N., Lon. 48° 22′ 15″ E. *Pop.* 24,837.

Sim'blot, *n.* [Fr.] (*Weaving.*) The harness of a draw-loom.

Simcoe, (*sim'kō,*) in prov. of Ontario, a lake abt. 30 m. long, and about 18 broad at its widest part, situate between Lake Ontario and the arm of Lake Huron called Georgian Bay, into which it discharges its waters through Lake Gongichin and the Severn. It contains numerous islands, and generally frozen over in the winter, so as to be passable with safety for sleighs. — A co. between the above lake and Georgian Bay; *area*, 1,797 sq. m. *Cap.* Barrie. *Pop.* abt. 57,500. — A town, cap. of Norfolk co., 8 m. N. of Lake Erie; *pop.* abt. 1,900.

Sim'eon. (*Script.*) The second son of Jacob and Leah. When he and his brethren went into Egypt to buy corn, his brother Joseph insisted on Benjamin, the youngest brother, being brought to him, and detained Simeon as a hostage for his forthcoming. He gave his name to one of the Twelve Tribes, which dwelt to the north of the territory occupied by the tribe of Judah. B. about 1755 B. C.

Simeon, surnamed STYLITES, a Christian fanatic who acquired immense fame by passing the last forty-seven years of his life upon the tops of ruined pillars. He flourished, if such a word is at all applicable to him, from 392 to 461. A second saint of the name dwelt on his pillar sixty-eight years, but the former was the original inventor of this pastime.

Simiadæ, (*sim'e-a-de.*) *n.* [Lat. *simia*, an ape.] The name of a quadrumanous family of mammalian animals, which embraces the most highly developed forms of the monkeys. They are all of them inhabitants of the old world. The nostrils are divided by a narrow septum; they possess opposite thumbs on their fore- and hind-feet; the callosities on the rumps are generally naked. Some of the species only are furnished with cheek-pouches. The *S.* are divided into two groups:—1. The Tailless, or Apes, comprising the Chimpanzee, the Gorilla, and the Orang-outang; 2. The Tailed monkeys, including all the true monkeys of the old world.

Sim'ilar, *a.* [Fr. *similaire*, from Lat. *similis*, like.] Like; resembling; having a like form or appearance; having like qualities.

(*Geom.*) Similar figures are those which have the same shape. More accurately defined, similar rectilineal figures or polygons are such as have their angles respectively equal, and the sides about the equal angles proportional. Of these two conditions, triangles alone necessarily satisfy the one when they satisfy the other.

Similar'ity, *n.* State of being similar; likeness; resemblance; similitude; uniformity.

Sim'ilarly, *adv.* In like manner; with resemblance.

Sim'ile, *n.* [Lat., from *similis*, like.] (*Rhet.*) A figure by which two things are considered with regard to a third, that is common to both. Similes serve two purposes: when addressed to the understanding, their purpose is to instruct; when to the heart, their purpose is to please. To have a just notion of *S.* they must be distinguished into two kinds; one common and familiar, as where a man is compared to a lion in courage, and another more distant and refined, as where two things which have in themselves no resemblance or opposition are compared with respect to their effects; as where a comparison is instituted between a *flower* and a *song*, with reference to the emotions they produce in the mind.

Simil'itude, *n.* [Fr.; Lat. *similitudo*, from *similis*.] Likeness; resemblance; similarity; likeness in nature, qualities, or appearance; comparison; simile.

(*Geom.*) The relation which similar figures bear to each other. The *centre of similitude* of two similar figures, is a point such that like or oppositely directed radii vectores from it to the two figures are proportional.

Sim'ilor, *n.* [Ft.] A golden-colored variety of brass.

Sim'ious, *a.* [Lat. *simia*, an ape.] Relating to, or resembling, a monkey.

Sim'mer, *v. n.* To boil gently, or with a gentle hissing.

Simms, WILLIAM GILMORE, an American author, b in Charleston, S. C., 1806. At a very early age he exhibited evidences of his literary abilities in short verses narrating the exploits of the American army during the War of 1812. Owing to the reduced circumstances of his family and a sickly childhood, his early education was very simple. After serving for several years as an apprentice in a Charleston drug and chemical establishment, he at eighteen years of age began the study of law. At twenty he was married, and at twenty-two admitted to the bar. One year's experience in the practice of his profession sufficed to weary him of it, and he quitted it in 1828 to become editor and part proprietor of the Charleston *City Gazette*. — He had previously, in 1825, published a *Monody on the Death of Charles Cotesworth Pinckney*, and two volumes in 1827, entitled *Lyrical and other Poems*, and *Early Lays*. These were followed in 1829 by *The Vision of Cortez; Cain, and other Poems*; and in 1830 by *The Tricolor; or, Three Days of Blood in Paris*. The *Gazette*, during the nullification troubles in S. Carolina, having espoused the cause of the Union, involved its proprietors in much pecuniary trouble, and in 1832 *S.* found himself nearly penniless. Having about the same time lost his father and his wife, he left Charleston for the North. At Hingham, Mass., where he resided for some time, he prepared the largest, best known, and most liked of all his poems, *Atalantis, a Story of the Sea*, published at New York, in 1833. In the same year appeared his first prize-tale, *Martin Faber, the Story of a Criminal*. From that date down to within a few years ago, *S.* has been one of the most prolific and industrious of modern authors. He has written and published in rapid succession volumes of poetry, romance, history, biography, and miscellaneous literature, many of which have obtained a wide popularity. His poetical works, in addition to those enumerated above, comprise *Southern Passages and Pictures* (1839), *Donna Anna* (1843), *Grouped Thoughts and Scattered Fancies* (1845), *Lays of the Palmetto* (1848), and a series of ballads illustrating the deeds of the S. Carolina soldiers during the war with Mexico; *Poems—Descriptive, Dramatic, Legendary, and Contemplative* (2 vols. 1854); *Areytos; or, Songs and Ballads of the South*, in 1860, and a number of occasional pieces. He also wrote two dramas, *Norman Maurice; or, the Man of the People*, and *Michael Bonham; or, the Fall of Alamo*. *S.*, nevertheless, was best known and will be longer remembered as a writer of prose romances. No American writer in his productions has drawn more largely from local and revolutionary history. His contributions to imaginative fiction are very numerous, and many of them have enjoyed great popularity. To the departments of history and biography he contributed a *History of S. Carolina*; *S. Carolina in the Revolution*; *A Geography of S. Carolina*; and the *American Loyalists of the Revolutionary Period*. *S.* occasionally mingled in politics, but since 1845 he held no public position. He passed the last years of his life in comparative retirement at Savannah, and in a style in keeping with his fortunes, which were sadly impaired by the late war. Died in 1870.

Simms, in *Illinois*, a village of Edgar co.

Si'mon, called the brother of JESUS, was the son of Cleophas, and elected bishop of Jerusalem after the death of St. James, A. D. 62. In the reign of Trajan he was put to death by being crucified, in 107.

Simon, (St.,) an apostle of Jesus Christ, was called the *Canaanite*, or *Zelote*. He preached the gospel in Egypt, Libya, and Mauritania, and suffered martyrdom in Persia. He is by some supposed to be the same with the preceding.

Simon, JULES, a French philosopher, b. at L'Orient, 1814, was one of the most brilliant pupils of Cousin. He became Professor of History and Philosophy at the Sorbonne in 1839. He was elected a member of the French Academy in 1875, and senator for life in the same year.

In Dec. 1876, he became Minister of the Interior and President of the Council, and resigned on May 16, 1877. His principal works are: *Histoire de l'Ecole d' Alexandrie*, 2 vols., 1844-45; *Le Devoir*, 1854; *La Religion Naturelle*, 1856; and *La Liberté de Conscience*, 1857.

Simo'niac, *n.* [Fr. *simoniaque.*] One guilty of simony; one who buys or sells preferment in the church.

Simoni'acal, *a.* Guilty of simony; consisting in simony, or the crime of buying and selling ecclesiastical preferment.

Simoni'acally, *adv.* With the guilt or offence of simony.

Simonides, (*si-mon'i-dees.*) a celebrated Greek lyric poet, born in the island of Ceos, B. C. 556. He lived at Athens during the reign of Hipparchus, and spent his last years at the court of Hieron of Syracuse. *S.* especially excelled in the elegy and epigram, was the contemporary of Æschylus, Pindar, and Lasus of Hermione, won very numerous prizes, and even defeated Æschylus by his elegy on the heroes who fell at Marathon. Only fragments of his poems are extant. *S.* made poetry his profession, and is said to have been the first poet who wrote for pay. He was also in repute as a philosopher, and is said to have added four letters to the Greek alphabet. Died B. C. 467.

Simon Magus, or THE MAGICIAN, a heresiarch, who is supposed to have been the founder of the Gnostic sect. He was a native of Samaria, and perceiving the miracles wrought by Philip the Deacon, he was baptized; but, on offering money to the apostles that he might receive the Holy Ghost, or the gift of tongues, and of working miracles, he was excommunicated by St. Peter. It is from this circumstance that the term *Simoniac* is applied to such as purchase spiritual things. He afterwards fell into the grossest errors, and maintained that God has left the world to be governed by certain beings called *Æons.*

Si'monsville, in *Vermont,* a post-village of Windsor co., 89 m. S. of Montpelier.

Sim'ony, *n.* [From *Simon Magus,* q. v.] (*Eccl. Law.*) The corrupt presentation of any one to a benefice for gift, money, or reward.

Simoom', *n.* A noxious hot wind which occurs in most countries situated at no great distance from sandy deserts, and which always blows from that quarter in which the desert is situated. In Senegambia and Guinea it blows from the north-east, in the delta of the Nile from the south-west, on the eastern shores of the Gulf of Suez from the north-east, in Syria from the south-east, at Mecca from the east, at Bagdad from the west, and at Surat from the north. The approach of the *S.* is indicated by terrible appearances. The eastern horizon is pervaded by a dull yellow hue; a thick sulphurous exhalation rises from the ground, which is first hurried round in rapid gyrations, and then ascends into the air, covering the whole heavens. Hissing and crackling sounds are heard; and a hot current of air rushes over the ground. There is generally a considerable quantity of fine sand in the hot air, and the wind affects the human body very powerfully, often producing great feebleness, and sometimes even death.

Si'mous, *a.* Having a flat nose; snub-nosed.

Sim'per, *v. n.* [Sw. Goth. *semper.*] To smile in a silly or affected manner.

—*n.* A smile, with an air of silliness or affectation.

Sim'perer, *n.* One who simpers.

Sim'pering, *a.* Smiling foolishly or affectedly.

Sim'peringly, *adv.* In an affected or foolish manner; with a silly smirk.

Simpher'opol, or **Akmetchet,** a town of European Russia, in the Crimea, of which it is the cap., 40 m. N.E. of Sebastopol.

Sim'ple, *a.* [Fr.; Lat. *simplex—sine,* without, and *plico,* to fold.] Without fold or doubling; single; consisting of one thing; not complicated, complex, or combined; not compounded, mingled, or associated with anything else; elementary; not given to design, stratagem, or duplicity; plain; artless; sincere; harmless; guileless; frank; open; unaffected; inartificial; unadorned; unsuspecting; credulous; silly; foolish; shallow; not wise; not sagacious.

—*n.* Something not mixed or compounded.

Sim'ple-hearted, *a.* Ingenuous; open; frank.

Sim'ple-m'inded, *a.* Artless; undesigning; simple.

Sim'pleness, *n.* State or quality of being simple, single, or uncompounded; artlessness; simplicity; also, weakness of intellect.

Sim'pler, *n.* A collector of simples; a simplist.

Sim'pleton, *n.* A simple, silly person; a person of weak intellect; a trifler; a foolish person.

Simplic'ity, *n.* [Fr. *simplicité*; Lat. *simplicitas,* from *simplex,* simple.] State or quality of being simple; simpleness; state of being unmixed or uncompounded; state of being not complex, or of consisting of few parts. — Artlessness of mind; freedom from a propensity to cunning or stratagem; freedom from duplicity; sincerity; plainness; freedom from artificial ornament; freedom from subtilty or abstruseness. — Weakness of intellect; silliness.

Simplifica'tion, *n.* [Fr.] Act of making simple; act of reducing to simplicity, or to a state not complex.

Sim'plify, *v. a.* [Fr. *simplifier*; Lat. *simplex,* and *facio,* to make.] To make simple; to reduce, as what is complex to greater simplicity; to make plain or easy.

Sim'plist, *n.* One skilled in medicinal herbs.

Simplon, (*sam-plawng.*) a mountain of the Alps, in the south of Switzerland, separating the canton called the Valais from the Piedmontese territory. The old road across it being impracticable for heavy carriages, a new one, called the *Route of the S.,* was formed by order of Napoleon I., at the joint expense of France and the kingdom of Italy. Though the ascent is everywhere gradual, the highest point of the road is nearly 6,600 feet above the level of the sea. The length is 38 miles, and the width between 25 and 30 feet. It is carried

Fig. 2367.

A BRIDGE ON THE OLD PASS OF THE SIMPLON, NEAR SION.

through several tunnels, over upwards of 600 bridges, and has twenty station-houses for travellers. The road of the *S.,* long regarded as one of the greatest feats accomplished by modern engineering, has become of less importance since the formation of a railroad. The Simplon tunnel, now in construction, will be larger than either that of St. Gothard or Mt. Cenis.

Sim'ply, *adv.* In a simple manner; without art; without subtilty; artlessly; plainly; of itself; without addition; alone; merely; solely; weakly; foolishly.

Simp'son, in *Kentucky,* a S. co., bordering on Tennessee; *area,* 320 sq. m. *Surface,* level; *soil,* excellent. *Cap.* Franklin. *Pop.* (1897) 11,480.

Simpson, in *Mississippi,* a S. central co.; *area,* 580 sq. m. *Rivers,* Pearl and Strong. *Surface,* undulating, and mostly covered with pine forests; *soil,* sandy and unproductive. *Cap.* Westville. *Pop.* (1897) 11,155.

Simp'son's Store, in *Pennsylvania,* a post-village of Washington co.

Simp'sonville, in *Kentucky,* a post-village of Shelby co., 30 m. W. of Frankfort.

Sims, in *Indiana,* a post-township of Grant co.

Sims'bury, in *Connecticut,* a post-vill. and township of Hartford co., 11 m. N.W. of Hartford.

Sims' Port, in *Louisiana,* a post-village of Avoyelles parish, 237 m. N.W. of New Orleans.

Sim'ulate, *v. a.* [Lat. *simulo, simulatus,* from *similis,* like.] To copy; to counterfeit; to feign; to assume the mere appearance of, without the reality.

Sim'ulated, *a.* Feigned; pretended; assumed artificially.

Simula'tion, *n.* [Fr.; Lat. *simulatio.*] Act of simulating or of counterfeiting; act of feigning to be that which one is not; the assumption of a deceitful appearance or character.

Simula'tor, *n.* [Lat.] One who simulates or feigns.

Simultane'ity, *n.* State of being simultaneous. (R.)

Simulta'neous, *a.* [Fr. *simultané,* from Lat. *simul,* at once.] Existing, or happening, at the same time.

Simulta'neously, *adv.* At the same time.

Simulta'neousness, *n.* State of being simultaneous.

Sin, *n.* [A. S. *syn, sin, synn.*] That which requires to be atoned for; any action, word, thought, or purpose contrary to the law of God, or any omission of what it requires; any voluntary transgression or violation of the divine law, or any voluntary failure to comply with its requirements; any violation of a divine command; transgression; wickedness; iniquity; a wicked act.

—*v. n.* [A. S. *singian, syngian.*] To violate or transgress the law of God, or to omit or neglect what it requires; to depart voluntarily from the path of duty prescribed by God to man; to violate any known rule of duty; to do wrong; to offend against right, against men, or against society; to trespass.

Sinai, (*si-ni',* or *si-na-i.*) a mountain, or mountain-range, in Arabia Petræa, in the peninsula formed by the two arms of the Red Sea, and rendered memorable as the

Fig. 2368.

PLAIN OF ER-RAHAH, AND CONVENT OF ST. CATHARINE.

spot where, according to the Pentateuch, the law was given to Israel through Moses. This mountain-pass is divisible into three groups; a N.W., reaching, in Mount Serbal, an elevation of 6,340 feet; an E. and central, attaining, in Jebel Katherin, a height of 8,160 feet; and a S.E., whose highest peak, Um Shaumer, is the culminating point of the whole Sinaitic range. Serbal, with its five peaks, looks the most magnificent mountain in the peninsula, and is identified with Sinai by the earlier church fathers, Eusebius, Jerome, Cosmas, &c.; but it does not meet the requirements of the Hebrew narrative, and even as early as the time of Justinian, the opinion that Serbal was the Sinai of Moses had been abandoned, and to a ridge of the second or eastern range that honor had been transferred, the N. summit of which is termed *Horeb;* and the S. Jebel Mûsa, or Mount of Moses, continues to be regarded by the great majority of scholars as the true Sinai. Its height is variously estimated at from 6,800 to 7,100 feet above the sea. It is separated from the Jebel ed-Deir on the W. by a narrow valley, called Er-Rahah, on one of the steps of which stands the famous convent of Mount Sinai (Fig. 2368), devoted to St. Catharine. In many of the western Sinaite valleys, the more accessible parts of the

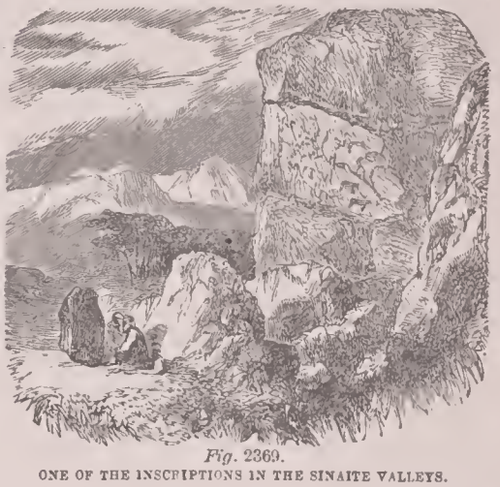


Fig. 2369.

ONE OF THE INSCRIPTIONS IN THE SINAITE VALLEYS.

rocky sides are covered by thousands of inscriptions (Fig 2369), usually short, and rudely carved in spots where travellers would naturally stop to rest at noon, frequently accompanied by a cross and mingled with representations of animals. The inscriptions are in unknown characters, but were at first ascribed to the ancient Israelites on their way from Egypt to Sinai, and afterwards to Christian pilgrims of the fourth century. Recently, however, many of them have been deciphered by Professor Beer of Leipzig, who regards them as the only known remains of the language and characters once peculiar to the Nabathæans of Arabia Petræa. Those thus far deciphered are simply proper names, neither Jewish nor Christian, preceded by some such words as "peace," "blessed," "in memory of."

Sina'ic, Sinait'ic, *a.* Belonging to Mount Sinai.

Sinapis, (*si-nai'pis,*) *n.* [Lat.] (*Bot.*) The Mustard, a genus of plants, order *Brassicaceæ.* The seeds of two species are commonly used for culinary and medicinal purposes. The seeds of *S. nigra* are of a dark reddish-brown color, and are known as *black mustard-seeds;* those of *S. alba* are of a yellowish color, and are termed *white mustard-seeds.* The flour of mustard, so extensively used as a condiment, is prepared from a mixture of the two kinds, usually in the proportion of two parts black and three parts white. The seeds are pounded, and the husks then removed from the flour by sifting. Both the black and white mustard-seeds contain a large quantity of bland fixed oil, resembling rape, which is readily obtained by submitting them to pressure. It is remarkable that the pungent principle for which mustard is valued does not exist in the seeds, but it is produced when the constituents of the seeds are brought together under the influence of water. The acrid and pungent *volatile oil of mustard* is obtained by distilling black mustard-seeds with water. Internally, flour of mustard is used as a stimulant, diuretic, and emetic; externally, as an irritant and rubefacient. White mustard-seeds are often taken in an entire state as stimulants in dyspepsia. The young herbs, with their seed-leaves, are commonly used in salads.

Sinaruco, (*se-na-ro'ko,*) a river of Venezuela, which joins the Orinoco, after an E. course of 100 m.

Since, (*sins,*) *prep.* [A. S. *siththan.*] After; from the time of; from the time that.

—*adv.* Ago; past; before this; from that time.

—*conj.* Seeing that; because that; inasmuch as.

Sincere, (*sin-sēr',*) *a.* [Fr. *sincère;* Lat. *sincerus.*] Pure; unmixed; unfeigned; real; true; genuine; not pretended; being in reality what it appears to be; not simulated; not assumed or said for the sake of appearance; not hypocritical; honest; ingenuous; unaffected; inartificial; frank; upright; undissembling.

Sincere'ly, *adv.* Honestly; with real purity of heart; without simulation or disguise; unfeignedly.

Sincere'ness, *n.* Honesty; sincerity.

Sincer'ity, *n.* [Fr. *sincérité;* Lat. *sinceritas.*] State or quality of being sincere; honesty of mind or intention; freedom from simulation or falsity; freedom from hypocrisy, disguise, or false pretence.

Sincip'ital, *a.* (*Anat.*) That belongs to the sinciput.

Sin'ciput, *n.* [Lat., from *semi,* half, and *caput,* the

head.] The fors part of the head from the forshsad to the coronal sutnre.

Sinclair, (*sin'kler,*) in *Illinois*, a village of Morgan co., 6 m. N.E. of Jacksonville.

Sin'clairsville, in *New York*, a villags of Cbautauqua co., 50 m. S.W. of Buffalo.

Sinde, a rivsr of Hindostan, rises uear Seronge, and after a N.E. conrse of 220 m. joins the Jnmna 26 m. S.E. of Etawah.

Sinde, or **Scinde,** (*sind,*) an extsnsive conntry of Brltish India, between Hindostan and Beloochistan, comprising the lower conrse and delta of the Indus, between Lat. 23° and 29° N., Lon. 66° and 72° E., having N. the Punjab and Bahawalpoor territories, E. Rajpootana, S. the Rnnn of Cutch and the Indian Ocean, and W. Beloochistan and Cutch-Gundava. *Area*, estimated at 60,000 sq. m. S has been compared, in consequsnce of some of its physical features, to Egypt; the conntry consisting, like Egypt, of a long fertile valley, bordered on either side by high hills, and snrrounded by a wide sandy desert, the fertile portion being anunally inundated by the overflowing of the Indus. Though in general features resembling the land of pyramids, it falls immensely short of that conntry in the real fertility of the soil. The land is by no means well cultivated, though irrigation is very extsnsively practised. Large tracts of the country are dsvoted to pastnre; and there are woods of palm, mangroves, banyans, and mimosas. Tigers, hyenas, and wolves are the chief wild animals or beasts of prey. The rest are those common to N. India. *Cap.* Hyderabad. The principal port, Knrrachee, from whence nearly all the exports are dispatched, is situated at the month of the Indus. The *Ameers*, or upper orders of the people, are of Mohammedan religion, and till lately exercised a sort of feudal right in the country, under the dominion of the sovereign of Cabul. In 1844, Slr Chas. Napier advanced against the Ameers, and after a series of victories, the country was annexed to the British empire. *Pop.* 1,795,994.

Si'ne. [A Lat. *prep.*] Without.

Si'ne, *n.* [Lat. *sinus*, a curved surface, a curve. See Sinus.] A geometrical line drawn from one end of an arc, perpendicular to the diameter drawn through the other end.

Si'necural, *a.* Relating to a sinecure.

Si'necure, *n.* [Lat. *sine*, without, and *cura*, care.] A benefice without cure or care of souls; an office which yields revenue without active employment.

—*v. a.* To place in a sinecure.

Si'necurism, *n.* The state of having a sinecure.

Si'necurist, *n.* One who has a sinecure.

Si'ne die. [Lat., without day.] A term usually employed in connection with meetings or assemblies, which are adjourned or prorogued without a day being specified for reassembling.

Sinepux'ent Bay, in *Maryland*, a long, narrow bay and inlet of the Atlantic in Worcester co.; Lat. 38° 12′ N., Lon. 75° 10′ W.

Si'ne qua non. [Lat., without which not.] That without which the matter in hand is null; an indispensable condition.

Sinew, (*sin'yoo,*) *n.* [A.S. *sinu, sinw, senw.*] (*Anat.*) That which unites a muscle to a bone; a tendon.

—*pl.* Strength, or rather that which suppliea strength; muscle; nerves.

"Money is the *sinews* of war." — *Johnson.*

—*v. a.* To hind or join, as by sinews; to atrengthen; to harden.

Sinewless, (*sin'yu-les,*) *a.* Having no sinews; — hence, lacking in strength or vigor.

Sin'ew River, in British America, risea E. of the Rocky Mountains, abt. Lat. 56° N., Lon. 119° W., and flowe into the Peace River after a N.E. course of 100 m.

Sin'ew-shrunk, *a.* (*Farriery.*) That has tbe sinews uuder the belly stiff and coutracted, as an overworked horse.

Sin'ewy, *a.* Consisting of a sinew or nerve; nervous; strong; well braced with sinews; vigorous; firm.

Sin'ful, *a.* [From *sin.*] Tainted with sin; wicked; iniquitous; criminal; unholy; containing sin, or consisting in sin; contrary to the laws of God.

Sin'fully, *adv.* In a manner which the laws of God do not permit; wickedly; iniquitously; criminally.

Sin'fulness, *n.* Quality of being sinful or contrary to the divine will; wickednesa; iniquity; criminality; corruption; depravity.

Sing, *v. n.* (*imp.* sung, sang; *pp.* sung.) [A. S. *singan.*] To read or recite with musical modulations; to utter sounds with various inflections or melodious modulatione of voice, as fancy may dictate, or according to the notes of a song or tune; to utter sweet or melodious sounds, as birds; to make a small, shrill sound; to tell or relate something in nnmbers or verse.

—*v. a.* To utter with musical modulations of voice; to chant; to carol; to celebrate in song; to give praises to in verse; to relate or rehearse in nnmbers, verse, or poetry.

Singapore', a settlement belonging to Great Britain, iu S.E. Asia, consisting of a small island at the S. extremity of the Malay peninsula, including the town of the same name, the latter being in Lat. 1° 17′ N., Lon. 103° 50′ E.; *area*, 275 sq. m. The climate is hot, but remarkably healthy; nutmegs and all kiuds of spices grow well; and the forests contain much timber well suited for nantical purposes. The town of Singapore, situated on the S. side of the island, is an emporinm for merchandise from all parts of the world; and its trade is probably the largest of any siugle port in the Chinese waters. The chief articles of export to N. America are gambier, tin, sago, tapioca, black and white pepper, tortoise-shell, nutmegs, gutta-percha, camphor, coffee, Japan-wood, and rattans. *P.* of ialand 1888, abt. 160,000.

Singboom', a town of British India, presidency of Bengal, prov. of Orisea; Lat. 22° 37′ N., Lon. 85° 55′ E.

Singe, (*sinj,*) *v. a.* [A. S. *sængan.*] To burn slightly or superficially; to scorch; to burn the surface of, as the nap off cloth, or the hair off ths skin.

—*n.* A burning of the enrface; a slight burn.

Sing'er, *n.* [From *sing.*] Ons who eings; ons vsrsed in music, or oue whose occupation is to siug; a bird that singe.

Singhalese', *n. sing.* and *pl.* A natives, or the natives, of Ceylou; Ceylouese. See Cinoalese.

Sing'ing, *n.* Act of uttering sonuds with musical intonations; musical articulatlon; the utteraace of melodious notes.

Sing'ingly, *adv.* In a singing manner; with a kind ot tune.

Sing'ing-master, *n.* A mnsic-mastsr; one who teaches vocal music.

Sing'ing-school, *n.* A scbool where singing is taught.

Single, (*sing'gl,*) *a.* [Lat. *singulus*, from the root, *sim*, once, whence *semel*, once, a single time.] One to each; separate; single; one; ouly; individnal; consistiug of one only; particular; uncompounded; alone; having no companion or assistaut; unmarried; uot double; not complicated; performed with one person or autagonist on a side, or with one person only opposed to another; pure; eimple; incorrupt; unbiassed.

—*v. a.* To separate; to select, as an individnal person or thing from among a number; to choose one from others. (Followed by *out.*)

Sin'gle-entry, *n.* See Book-keeping.

Sin'gle-hand'ed, *a.* Unassisted; nnalded; alone.

Sin'gle-heart'ed, *a.* Without duplicity; sincere; upright.

Sin'gle-mind'ed, *a.* Having a single purpose.

Sin'gleness, *n.* State of being single, or one only, or separate from all otbers; tho opposite of *doubleness, complication*, or *multiplicity*; simplicity; sincerity; purity of mind or purpose; freedom from duplicity.

Sin'gles, *n. pl.* See Silk.

Sin'gle-stick, *n.* A stout cndgel for fencing or fighting with; also, a game at cndgels.

Sin'gle-tree, *n.* A whiffle-tree.

Sin'glo, *n.* A fino kind of tea, with large, flat leaves, not much rolled.

Sin'gly, *adv.* Individnally; particularly; only hy one'e self; without partners or companions; also, honestly; sincerely.

Sing Sing, in *New York*, a post-village of Westchester co., on the Hudson, 33 ui. N. of New York. It is situated on an acclivity, and contains many elegant villas, but is particularly noted as the seat of ono of the New York State-prisons, composed of two separate stone buildiugs, oue containing 1,200 cells, for male convicts from the 1st and 2d judicial districts, with the addition of Ulster, Greene, and Sullivau cos.; the other, with 120 cells, receives female convicta from every conuty iu the State.

Sing'-song, *n.* A term for bad singing, or for drawling.

Sin'gular, *a.* [Fr. *singulier*; Lat. *singularis*, from *singulus.*] That is single; alone; aolitary; not complex or compound; expressing one person or thing; not plural; not dual. — Particular; existing by itself; without precedent; unexampled. — Remarkable; eminent. — Unusual; rare; not common. — Implying something censurable or not approved — Peculiar; atrange; odd.

(*Gram.*) Expressing only one; not plural.

Sin'gularity, *n.* [Fr. *singularité*; Lat. *singularitas*, from *singularis.*] State of beiug singular; pecnliarity; some character or quality of a thing by which it is distinguished from all, or from most others; au uncommon character or form; something curious or remarkable; particular privilege, prerogativo, or distinction; character, or trait of character, different from that of othera; eccentricity; oddity.

Sin'gularly, *adv.* Peculiarly; in a manner or degree uot common to others; oddly; etrangely. — So as to express one, or the aingular number.

Singul'tous, *a.* Relating to, or affected with, hiccough.

Singnl'tus, *n.* [Lat.] (*Med.*) A noise made by the sudden and involnntary contraction of the diaphragm, and the simultaneous contraction of the glottis, which arrest the air in the trachea. It is the symptom of many morbid conditions, and especially of gangrene, but occurs frequently iu persous otherwise in good health. Also, a sob.

Sinigaglia, (*sin-e-gal'ye-a,*) a seaport-town of Italy, prov. of Ancona, at the month of the Misa, in the Adriatic, 16 m. W.N.W. of Ancona; *pop.* 9,000.

Sin'ister, *a.* [Lat. *sinistra*, from *sinister.*] Left; on the left hand, or the eide of the left hand. — Evil; bad; corrupt; p vorse; dishonest. — Unlucky; unfortunate; inauspicious.

—*n.* (*Her.*) The left-hand side of the escutcheon, or anything that is used in armory; that is, the object being placed immediately before the spectator, the side opposite the right-hand is the *sinister*, and the side opposite the left-band the *dexter*.

Sin'isterly, *adv.* Absurdly; perversely; unfairly.

Sin'istral, *a.* To the left; belouging to the left hand; sinistrous.

Sin'istrality, *n.* Quality of being sinistral.

Sin'istrally, *adv.* Toward the left; on the left-hand.

Sin'istrorse, *a.* (*Bot.*) Turned to the left.

Sin'istrous, *a.* Being on the left side; inclined to the left; — hence, wrong; absurd; perverse.

Sin'istrously, *adv.* Perversely; wrongly; with a tendency to use the left as the stronger hand.

Sink, (*singk,*) *v. n.* (*imp.* sunk; *pp.* sunk.) [A. S. *sencan.*] To move one's self downwards; to fall or go downward in a medium or snbstance of less specific gravity; to go to the bottom; to snbside; opposed to *float* or *swim*; to fall gradually; to enter or penetrate into any body; to hecoms lower; to settle to a level; to be overwhelmed or depresssd; to enter deeply; to be imprssaed; to become deep; to retire or fall withiu ths enrfacs of anything, as the eyee into the head; to decline; to droop; to decay; to decrease; to fall into rest or indolence. — To be lower; to hscome less, as prices.

Sink, *v. a.* To cauas to eink, settle, or descend; to put under water; to inmerse in a fluid; to make by digging or delving; to depress; to degrade; to plunge iuto destructiou; to cause to fall or to be plnnged; to bring low; to rsdnce in quantity; to overbear; to crnsh; to diminish; to lower or lessen; to cause to declins or fall; to lower in valne or amount; to redace; to pay; to diminish or annihilate by payment; to waste; to dissipate; to reduce, as a capital ann of money, for the sake of greater profit or interest out of it.

—*n.* That into which anything sinks or descends; — specifically, a drain to carry off filthy water; a jakea; a kind of basin of stono or wood to receive foul water. — Any place where corruption, physical or moral, is gathered or generated.

Sink'er, *n.* That which sinks; a weight placed on some body, as a fish-line, to sink it.

Sink'-hole, *n.* A hole for receiving aud conducting off dirty waters, &c.; a sink.

Sink'ing-fund, *n.* (*Pol. Economy.*) A fund provided from otber funds for the gradnal payment of the debt of a government or a corporation.

Sink'ing Spring, in *Ohio*, a post-village of Highland co., 75 m. E. of Cincinnati.

Sinking Spring, in *Pennsylvania*, a post-village of Berks co., 50 m. E. of Harrisburg.

Sink'ing Valley, in *Pennsylvania*, a valley in Berks co., celebrated for its picturesque beauty.

Sin'less, *a.* [From *sin.*] Free from siu; pure; perfect; innocent.

Sin'lessly, *adv.* In a sinless manner; innocently.

Sin'lessness, *n.* State or quality of being sinless; freedom from sin and guilt.

Sinnamary, Sinnimari, (*seen'na-ma-re',*) in French Guiana, a river which flows into the Atlantic, 78 m. N.W. of Cayenne, after a N. course of 200 m.

Sinnemaho'ning Creek, in *Pennsylvania*, enters the W. branch of the Susquehanna from Clinton co.

Sin'ner, *n.* One who sins; one who has voluntarily violated the divine law; a moral agent who has voluntarily disobeyed any divine precept, or neglected any known duty; an unregenerate person; an offender; a criminal.

Sin'-offering, *n.* (*Script.*) The sacrifice of propitiation for the sin of the people, enjoined in *Lev.* iv., and considered different from the trespass-offering (*ibid* xiv.) thongbt to be appropriate to special cases of nsgligence only.

Sino'pe, [Turk. *Sinub.*] a fortified seaport-town of Asiatic Turkey, on the N. coast of the Black Sea, 75 m. from Samsoun. The place was bombarded by the Russians in 1853, when a Turkish squadron of thirteen ships, lying in the roadstead, was destroyed by the Russian fleet. On tbis occasion 4,000 Turks perished. — Diogenes was born there. *Pop.* 9,000.

Sin'ople, *n.* (*Min.*) A ferruginous jasper, of a bright brick-red color, found in Hungary.

(*Her.*) The French designation for the color *green*; by English heralds called *vert*. The name is said to be derived, through the Crusaders, from tbe tower of *Sinope*, in Asia Minor.

Sin'ta Bayou, in *Alabama*, enters the Tombigbee River near Coffeeville.

Sin'ter, *n.* [Ger., a scale.] (*Min.*) *Calcareous sinter* is a variety of carbonate of lime composed of successive concentric layers. *Silicious sinter*, a variety of common opal.

Sinn, or Zinu River (*see'noo*), in Repnb. of Colombia, rises in the dept. of Cauca, abt. Lat. 7° 30′ N., Lon. 76° 10′ W., and flowa into the Caribbean Sea after a N.N.E. course of 200 m.

Sin'nate, *v. a.* [Lat. *sinuare, sinuatus*, from *sinus*, the hosom, a curved surface, a curve, a bending.] To bend, wind, or curve; to turn; to bend iu and out.

Sin'nate, Sin'nose, *a.* (*Bot.*) Strongly wavy on the margin, with alternate convexities and concavities (Fig. 2370).

Fig. 2370.

Sinua'tion, *n.* A winding or bending in and out.

Sinnos'ity, *n.* [Fr. *sinuosité*, from L. Lat. *sinuositas*, from Lat. *sinus.*] Quality of being sinuous, or of bending or curving in and out; or, a series of bende and turns in arches or otber irregular figures.

Sin'nous, *a.* [Fr. *sinueux*, from Lat. *sinuosus*, from *sinus.*] Bending; winding; crooked; bending in and out; of a serpentine or undulating form.

Sin'nously, *adv.* In a sinuous manner; windingly; crookedly.

Si'nus, *n.*; *pl.* Lat. Sinus; *pl.* Eng. Sinuses. [Lat.] A bay of the sea; a recess in tbe sbore, or an opening into the land.

(*Anat.* and *Surg.*) A blind canal or cavity; a cell, or pipe-like passage, closed at one extremity, — in that respect being the opposite of *fistula*, which is a tube open at both ends. — The depressions which exist in various bones or other hard parts of the body. — The veins of the dura mater of the brain are also called *sinuses*.

(*Bot.*) The nams given to the recesses formed by the lobes of leaves, &c.

Si'on, a town of Switzerland, cap. of the canton of Valais, in a picturesque situation on the right bank of the Rhone, 18 m. N.E. of Martigny by the Simplon Railroad; *pop.* 3,227.

Siout, or **Siut,** (*se'oot,*) a town of Upper Egypt, near the Nile; Lat. 27° 11′ 14″ N., Lon. 31° 14′ E. *Manuf.* Pipe-bowls.

Sioux, (*soo,*) or DACOTAHS, a once powerful family of N. American Indians. Their number is estimated from 10,000 to 35,000; they are well advanced in civilization, and are increasing in population. Their places of residence are on the Upper Mississippi and St. Peter's rivers, and branches of the Missouri. Some of the tribes engage in agriculture; those residing on the banks of the Mississippi and St. Peter's mainly subsist by farming. In 1862, the *S.*, under the lead of "Little Crow," a noted chief, in consequence of their annuity not having been paid to their satisfaction, waged a most cruel and exterminating war upon the whites of Minnesota; and so well concerted were their schemes, that no less than six hundred and forty-four men, women, and children, and ninety-four soldiers, were killed before the massacre was stayed. As an atonement for their great crime in thus murdering the whites, the Federal government allowed only thirty-eight, out of three hundred and three Indians found guilty by a proper tribunal, to be executed. This clemency, though seemingly unjust, was the result of mature deliberation on the part of the authorities at Washington, who found that the Indians had been greatly wronged by some of the whites, not only in withholding their annuities, but in extorting money from them for the most trivial consideration, and in consequence of which the Indians sought revenge. In 1876, they were removed from the Black Hills.

Sioux, in *Iowa,* a W.N.W. co., bordering on South Dakota; *area,* 768 sq. m. *Rivers.* Sioux and Floyd. *Cap.* Orange City. *Pop.* (1895) 21,406.

Sioux City, in *Iowa,* an important city, cap. of Woodbury co., on Missouri river, 100 m. N. by W. of Omaha, Neb. *Pop.* (1895) 27,371.

Sioux Falls, in *South Dakota,* a thriving city, cap. of Minnehaha co. *Pop.* (1895) 9,002.

Sioux River, in *Minnesota,* rises abt. Lat. 45° N., Lon. 97° 20′ W., and falls into the Missouri River, Lat. 42° 30′ N., Lon. 96° 20′ W., after a S.E. course of 300 m.

Sip, *v. a.* [A. S. *sipan.*] To soften by steeping; to take a fluid, or something sopped in fluid, into the mouth in small quantities by the lips; to drink or imbibe in small quantities; to draw into the mouth; to extract; to drink out of.

—*v. n.* To drink a small quantity; to take a fluid with the lips.

—*n.* The taking of a liquor with the lips in small quantities, or a small draught taken with the lips.

Siphanto, (*se-fan'to,*) an island of the Grecian Archipelago, 25 m. S.W. of Syra; *area,* 34 sq. m.; *pop.* 7,000.

Si'phoid, *n.* A vase or apparatus for receiving and giving out gaseous waters.

Si'phon, *n.* [Fr. and Gr.; Lat. *sipho.*] (*Physics.*) A bent tube, open at both ends and with unequal legs (1, Fig. 2371). It is used in transferring liquids in the following manner: The syphon is filled with some liquid, and the two ends being closed, the shorter leg is dipped in the liquid, as represented in 1, Fig. 2371; or the shorter leg having been dipped in the liquid, the air is exhausted by applying the mouth at B. A vacuum is thus produced, the liquid in C rises and fills the tube in consequence of the atmospheric pressure. It will then run out through the syphon as long as the shorter end dips in the liquid. A syphon of the form represented in 2, Fig. 2371 is used where the presence of the liquid in the mouth would be objectionable. A tube, M, is attached to the longer branch, and it is filled by closing

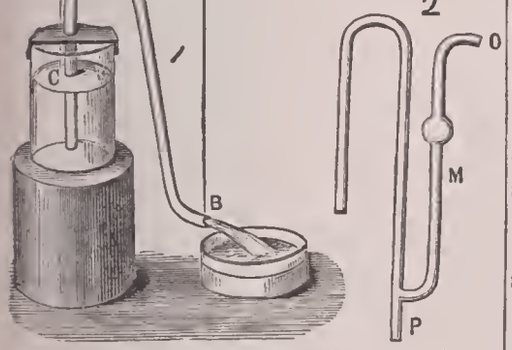


Fig. 2371. — SIPHONS.

the end P, and sucking at O. An enlargement, M, renders the passage of any liquid into the mouth more difficult. To explain this flow of water from the syphon, let us suppose it filled, and the short leg immersed in the liquid. The pressure then acting on C, and tending to raise the liquid in the tube, is the atmospheric pressure minus the height of the column of liquid D C. In like manner, the pressure on the end of the tube B is the weight of the atmosphere, less the pressure of the column of liquid A B. But as this latter column is longer than C D, the force acting at B is less than the force acting at C, and consequently a flow takes place proportional to the difference between these two forces. The flow will therefore be more rapid in proportion as the difference of level between the aperture B and the surface of the liquid in C is greater. Instead of exhausting the siphon of air, it may be inverted and filled with water; if both ends are then stopped, and the shorter limb immersed in the water to be decanted, on removing the plugs the water will flow. In the *Wurtemberg siphon,* the two ends are turned up, so that when once filled it will always remain so, and act at once when one end is immersed in a liquid. — *S.* were in use by the Egyptians full 15 centuries B.C., and their application to drawing liquor from their vases is shown in the drawings preserved in their tombs (Fig. 2372.)

Fig. 2372. — SIPHON USED BY THE EGYPTIANS 1455 B. C.

(*Zoöl.*) The name of the membranous and calcareous tubes which traverse the septa and the interior of the shells divided in several chambers. The term is also applied to the tubular prolongation of the mantle in certain univalve and bivalve mollusks; and by Latreille to the mouth of certain suctorious, crustaceous, and apterous insects.

Siphon'ic, *a.* Relating to, or resembling, a siphon.

Sipho'nia, *n.* (*Bot.*) A genus of plants, order *Euphorbiaceæ.* They are trees containing a milky juice in more or less abundance, though all the species do not yield caoutchouc of good quality. One of them, *Siphonia elastica* (Fig. 2373), is a native of French Guiana, and the remainder of the Amazons and Rio Negro districts of Brazil. They are called *Seringa-trees* by the Brazilians, from the Portuguese word *seringa,* signifying a syringe or clyster-pipe, the caoutchouc having first been used for making those articles. The bulk of the caoutchouc at present exported from Pará is obtained from *S. Brasiliensis,* which is common in the forests of that province; but that brought down to Pará from the Upper Amazons and Rio Negro is derived from *S. lutea* and *S. brevifolia.* These three species are all slender, smooth-stemmed trees, averaging 100 feet in height; the Pará species, however, yields the greatest abundance of caoutchouc.

Fig. 2373. — SIPHONIA ELASTICA.

Si'phuncle, *n.* (*Zoöl.*) Same as SIPHON.

Siphun'culated, *a.* Having a little spout or siphon.

Siphonoph'oræ, *n. pl.* (*Zoöl.*) A sub-order of hydroid acalephs, comprising those species which have no central digestive cavity, but simply isolated tubes.

Sipotu'ba, in Brazil, a river which rises in the prov. of Matto-Grosso, Lat. 13° 50′ S., Lon. 58° W., and falls into the Paraguay after a S.E. course of 200 m.

Sip'per, *n.* One who sips; as, a *sipper* of nectar.

Sip'pican, in *Massachusetts,* a village of Plymouth co., 55 m. S.E. of Boston.

Sip'sey, or NEW RIVER, in *Alabama,* rises in Marion co., and flows S.W., falling into the Tombigbee River in Sumter co., 12 m. N. of Gainesville. — Another, rises in the N. of Walker co., and flows S.E. into Mulberry Fork of the Black Warrior River.

Sipun'culus, *n.* (*Zoöl.*) A genus of worms which burrow in the sands of the sea-shore, and are classed with the *Echinoderms* by Cuvier, and with the *Entozoa* by M. de Blainville. They are much sought after by the fishermen, who use them, like the Common Lob-worm (*Arenicola piscatorum*), as baits for their hooks. They have a long, cylindrical, retractile proboscis, around the extremity of which is a circle of tentacula, and at the base of it the anus. Some of them attach stony particles to their skin, by a glutinous exudation, so as to cover it with a hard crust, resembling that formed by some annelidæ.

Si quis, (*sī kwĭs,*) *n.* [Lat., if any one.] (*Eccl.*) An announcement made by a candidate for the ministry of his purpose to make inquiry as to whether his candidature may be challenged.

Sir, (*ser,*) *n.* [Fr. *sire,* and *sieur,* in *monsieur,* from *seigneur;* Lat. *senior,* an elder, or elderly person. See SENIOR.] A word of respect used in addresses to men, as *madam* is in addresses to women. It is likewise, in England, the titular prefix of a knight or baronet; as, *Sir* Walter Scott.

Sirabal'li, *n.* (*Bot.*) See OREODAPHOSE.

Sire, (*sīr,*) *n.* [Fr., from Lat. *senior.*] A father. (Used in poetry.) — The word of respect used in addressing a king. — The male parent of a beast, particularly used of a horse; — correlative to *dam.*

—*v. a.* To beget.

Si'redon, *n.* (*Zoöl.*) A genus of batrachians, family *Sirenidæ.* They are 6 to 10 inches long, and every way similar in form to young aquatic salamanders. They live mainly in the water. This genus contains the celebrated *Oxolotl,* which is eaten by the Mexicans.

Si'ren, Sy'ren, *n.* [Lat.] (*Myth.*) One of the young maidens who sat on the shores of a certain island or promontory near the S.W. coast of Italy, and sang with bewitching sweetness songs that allured the passing sailor to draw near, but only to meet with death. Homer speaks of them in the plural, but does not specify their number; later writers mention two and three by name, and assign them various genealogies. Their tenure of life was dependent on the successful exercise of their charms. If any seaman could resist the enticements of their magic music, they were doomed, but Ulysses or the Argonauts alone succeeded in doing so. It is related by Homer, in the *Odyssey,* that when the former, in the course of his wanderings, approached their perilous home, he, by the advice of the sorceress Circe, stuffed the ears of his companions with wax, and lashed himself to a mast, until he had sailed out of hearing of the fatal songs. Others say that it was the Argonauts who got safely past, owing to the superior enchantment of Orpheus's singing, whereupon the *S.* threw themselves into the sea and were transformed into rocks. The Latin poets give them wings; and in works of art they are often represented as birds with the faces of virgins, and are provided with musical instruments.

—An enticing woman; a woman of dangerous fascinations.

(*Zoöl.*) See SIRENIDÆ.

—*a.* Pertaining to a siren, or to the dangerous enticements of music; bewitching; fascinating.

Sirene', *n.* (*Acoustics.*) An instrument for determining the velocity of aërial vibration, corresponding to the different pitches of musical sounds.

Si'renidæ, *n. pl.* (*Zoöl.*) The Siren family, comprising batrachians which have permanent external branchiæ that occur in tufts, covering the branchial orifices. They also have lungs like others of their class, and are thus true amphibians. It will be observed that, even in their adult state, these animals represent the embryonic forms of the higher batrachians. — The Genus *Siren* has

Fig. 2374. — SIREN LACERTINA.

an eel-shaped body, with anterior legs, three spiracles, and three tufts; no posterior legs. The Siren, or Mud-eel, *S. lacertina,* of South Carolina, attains the length of 24 inches; color above nearly black, with numerous light spots; abdomen purplish. It lives in mud, and is common in the ditches of rice-fields. Two more species are found in the South.

Sir Francis Drake's Bay, in *California,* 30 m. W.N.W. of San Francisco; Lat. 38° N., Lon. 122° 50′ W.

Sirgoojah, (*ser-go-ja',*) a town of British India, presidency of Bengal, in Gundwana, 75 m. S.W. of Palamow; Lat. 23° 5′ N., Lon. 83° 50′ E.

Sir'ius, *n.* (*Astron.*) The most brilliant of the fixed stars, and the largest in the constellation of *Canis Major,* the Great Dog. It is very frequently called the *Dog Star.* Its name is obtained from *Sirius,* one of the Egyptian appellations of the river Nile, because its heliacal rising gave warning that the overflow of the river was about to commence.

Sir'loin, SUR'LOIN, *n.* [Fr. *surlonge—sur,* on, upon, over, and *longe,* a loin.] A loin of beef.

Siroc'co, *n.* [It.; Sp. *siróco,* or *xaloque;* from Ar. *sharki,* easterly, from *shark,* the east.] A term applied in Italy and the East to a hot, relaxing, and oppressive S.W. wind. It is supposed by some to be identical with the simoom, tempered by its passage across the water.

Siro'na, in *Illinois,* a township of La Salle co.

Sir'rah, *n.* [Said to be corrupted from *sir, ha!*] A word of reproach or contempt, used in addressing vile characters; also, employed familiarly or sportively in addressing males.

Sir'up, Syr'up, *n.* [Fr. *sirop.*] A sweet liquid; the sweet juice of vegetables or fruits, or other juice sweetened, or sugar boiled with vegetable infusions.

Sirruped, (*sĭr'upt,*) *a.* Moistened, or tinged, with sirup or sweet juice.

Sir'upy, *a.* Like sirup, or partaking of its qualities.

Sirven'te, *n.* (*Lit.*) A species of poems which were in common use among the Troubadours; usually satirical, and divided into strophes of a peculiar construction.

Sisal, (*sē'sal,*) in Mexico, a seaport-town of Yucatan, 30 m. N.W. of Merida; Lat. 21° 10′ 6″ N., Lon. 90° 2′ 45″ W.

Sis'kiwit, *n.* [India name.] (*Zoöl.*) A species of stout, broad, and thick salmon (*Salmo siskiwit*, Agassiz), caught in Lake Superior.

Siskiyou (*sis'ke-yoo*), in *California*, a N. co., bordering on Oregon; *area*, 5,680 sq. m. *Rivers.* Klamath, Pitt, Sacramento, Scott, and Shasta. *Surface*, mountainous, the principal peak, Mount Shasta, being 14,000 ft. high; *soil*, fertile in the valleys. *Lakes.* Numerous, Goose Lake being the principal. *Min.* Gold, granite, and limestone. *Cap.* Yreka. *Pop* (1897) 13,250.

Sis'ley's Grove, in *Iowa*, a village of Linn co., 7 m. W. of Cedar Rapids.

Sismondi, CHARLES SIMONDE DE, (*sees-mŏn'de,*) one of the most eminent of modern historians and political economists, was B. at Geneva, 1773. He was the last of a noble family, which, driven from Pisa into France by republican dissensions in the 14th cent., was again (being Protestant) forced into Switzerland by the revocation of the Edict of Nantes. The works by which he is most widely known are his excellent *Histoire des Républiques Italiennes* (10 vols.), *La Littérature du Midi de L'Europe* (4 vols.), and his large and laborious *Histoire des Français* (31 vols.) D. 1842.

Siss', *v. n.* To hiss; to sizzle. (Local.)

Sis'sonville, in *W. Virginia*, a post-village of Kanawha co.

Sissopoli, or **Sizeboli,** (*sis-sop'o-le,*) (anc. *Apollonia,*) a seaport-town of European Turkey, in Roumelia, on the Black Sea, 80 m. N.E. of Adrianople.

Sis'ter, *n.* [A. S. *swaster, suster.*] A female corresponding to a male of the same parentage; a female born of the same parents.—A woman of the same faith; a female fellow-Christian.—A female of the same kind; one of the same kind, or of the same condition; as, a *sister* ship.—A female of the same society or community, as the nuns of a convent.

Sis'ter-block, *n.* A solid piece of wood, with two holes, one above the other, with or without sheaves, to pass a pulley through.

Sis'terhood, *n.* Sisters collectively, or a society of sisters, or a society of females united in one faith or order.

Sis'ter-in-law, *n.* A husband or wife's sister.

Sis'terly, *a.* Like a sister; becoming a sister; affectionate.

Sisteron', a fortified town of France, dept. of Basses-Alpes, on the Durance and Buech, 16 m. W.N.W. of Digne; *pop.* 4,576.

Sis'ters, (The,) two small islands of the Indian Ocean, between Great and Little Andaman Islands; Lat. 11° 10′ N., Lon. 92° 46′ E.

Sis'ter's Creek, in *New York*, enters Lake Erie from Erie co.

Sis'ters of Char'ity. (*Eccl. Hist.*) A religious congregation of females for the assistance of the sick poor, was founded by Vincent de Paul, at Châtillon-les-Dombes, in 1629. In 1633 he established a similar society at Paris, where he was shortly joined by a widow named Le Gras, who formed a staff of nurses, which received the sanction of Cardinal de Retz, under the title of *Daughters of the Poor*, in Jan., 1655, which community was confirmed by the Pope in 1660. From that time, prisons, free schools, hospitals, and almshouses have been placed under their direction in all parts of France. They make simple vows, which are renewed every year. The number of their establishments throughout the world is now about 2,000, under the charge of about 40,000 sisters. The American branch of the congregation was established under a distinct rule at Emmettsburg, Md., in 1809, by Mrs. Eliza Seton, their first mother-superior; but recently many of the American houses have united with the French order. The *S. of C.* have distinguished themselves in every country by their acts of beneficence; and their admirable charity has won for them general veneration, even in heathen countries. See DEACONESSES.

Sis'tersville, in *W. Virginia*, a post-village of Tyler county, on the Ohio River, 35 miles south-west of Wheeling.

Sis'tine, *a.* Belonging to Pope Sixtus V.; as, the *Sistine* Chapel in the Vatican.

Sisto'va, a town of European Turkey, in Bulgaria, on the Danube, 24 m. E.S.E. of Nicopolis; Lat. 43° 38′ N., Lon. 25° 20′ E..

Sisym'brium, *n.* (*Bot.*) A genus of plants, order *Brassicaceæ*. The Hedge Mustard, *S. officinale*, is a common and troublesome weed in fields, roadsides, &c., throughout the U. States.

Sisyphus, (*sis'ÿ-fŭs.*) (*Myth.*) A descendant of Æolus, said by some to have lived at Ephyra, on the Peloponnesus, while others allege that he was a robber, slain by Theseus. His punishment in Tartarus for his crimes committed on earth consisted in rolling a huge stone to the top of a high hill, which constantly recoiled, and thus rendered his labor incessant.

Sisyrin'chium, *n.* (*Bot.*) A genus of plants, order *Dioscoreaceæ*, comprising grass-like plants, with compressed, ancipital scapes. *S. anceps*, the Blue-eyed Grass, is a delicate little plant, with blue flowers, common in low grass-lands in Canada and the U. States.

Sit'. *v. n.* (*imp.* and *pp.* SAT.) [A. S. *sittan;* Gr. *hezomai.*] To rest on the lower extremity of the body; to rest upon the buttocks, as animals; to perch; to rest on the feet, as fowls. — To occupy a seat or place in an official capacity. — To be in a state of rest or idleness; to rest, lie, or bear on, as a weight or burden.—To settle; to rest; to abide. — To cover and warm eggs for hatching, as a fowl. — To be adjusted; to be with respect to fitness or unfitness.— To be placed in order to be painted.— To be in any situation or condition.— To hold a session; to be officially engaged in public business; to exercise authority; to be in any assembly or council as a member; to have a seat.

Sit, *v. a.* To keep the seat upon; to place on or in a seat.

Site, (*sīt,*) *n.* [Lat. *situs*, from *sino, situm*, to put or set down, to let, suffer, allow.] Place on which anything stands or is set; situation; local position; place; spot; a seat or ground-plot.

Sit'fast, *n.* (*Furriery.*) An ulcerated sore or tumor growing on a horse's back under the saddle.

Sit'ka, *n.* (*Zoöl.*) See NUT-HATCH.

Sitka, or **Bara'noff,** one of the Alexander Islands, off the coast of Alaska, in the Pacific, on its W. coast, in Lat. 57° 3′ N., Lon. 135° 18′ W. On it is located the town of Sitka, formerly called New Archangel, the seat of Territorial government. *Pop.* (1897) 2,000.

Sitol'ogy, *n.* [Gr. *sitos*, bread, and *logos*, discourse.] Dietetics, or the doctrine of aliments.

Sit'ter, *n.* One who sits; also, a bird that incubates.

Sit'ting, *a.* Resting on the buttocks, or on the feet, as fowls while hatching; incubating; brooding.

—*n.* The posture of being on a seat; act of placing one's self on a seat; a seat or space in the pew of a church sufficient for one person; the act or time of resting in a posture for a painter to take the likeness; a session; the actual presence or meeting of any body of men; an uninterrupted application to business or study for a time; course of study unintermitted; a time for which one sits, as at play, at work, or on a visit; a resting on eggs for hatching, as fowls.

Sit'uate, Sit'uated, *a.* [L. Lat. *situatus*, from *situo*, to set, to place.] Seated, placed, or standing with respect to any other object.—Placed, or being in any state or condition with regard to men or things.

Situa'tion, (*-shun,*) *n.* [Fr.] State of being situated; position; seat; location in respect to something else; site; station; state; condition, as of difficulty or ease; case; plight; circumstances; temporary state; post; place; office.

Si'num, *n.* (*Bot.*) A genus of the order *Apiaceæ*, consisting of strong-smelling, weedy-looking plants, one of which is grown for culinary purposes, namely, *S. sisarum*, better known by its common name of *Skirret*. This plant, although usually treated as an annual, is a hardy perennial, a native of China, and has been cultivated in Europe since 1548. The roots, for which this plant is cultivated, are composed of small fleshy tubers about the size of the little finger, joined together at the crown.

Siuslaw, in *Oregon*, a post-village of Lane co., 16 m. S.W. of Eugene City.

Siuslaw River, in *Oregon*, rises in Lane co., enters the Pacific Ocean, after a W. course, in which it forms the boundary between Douglas and Lane cos.

Si'va. (*Hind. Myth.*) A title given to the Supreme Being, considered in the character of the avenger or destroyer. Under the name of *Mahadeva*, he is exhibited also as a type of reproduction: to destroy, according to the Vedantas of India, the Sufis of Persia, and even to many European schools of philosophy, being only to generate or reproduce under another form.

Sivas, (*se-vas',*) a town of Asiatic Turkey, cap. of the pashalic of Sivas, on the Kizil Irmak, 60 m. S.S.E. of Tokat; Lat. 39° 20′ N., Lon. 37° E.; *pop.* 25,000.

Sivathe'rium, *n.* [*Siva*, and Gr. *therion*, a wild beast.] (*Pal.*) An extinct genus of Ruminantia found in fossil remains in the tertiary strata of the Sivalik Sub-Himalayan range. It surpassed all known ruminants in size, and had four horns.

Six, (*siks,*) *a.* [A. S. and Fr. *six*; Lat. *sex.*] Twice three.

—*n.* The number of six, or twice three.

Six'fold, *a.* Six times as much or as many; six times told or repeated.

Six'mile Run, in *New Jersey*, a post-village of Somerset co.

Six'pence, *n.* An English silver coin of the value of *six pennies;* half a shilling = $0.12. — The value of six pennies.

Six'penny, *a.* Worth sixpence.

Six'-score, *a.* and *n.* Six times twenty.

Six'teen, *a.* [A. S. *sixtene, sixtyne.*] Six and ten; noting the sum of six and ten.

Six'teenth, *a.* [A. S. *sixteotha.*] The sixth after the tenth; the ordinal of sixteen.

—*n.* The sum of six and ten; — a symbol representing this sum; as, 16, xvi.

Sixth, *a.* [A. S. *sixta.*] The first after the fifth; the ordinal of six.

—*n.* The sixth part.

(*Mus.*) There are four kinds of *sixths*, two *consonant* and two *dissonant*. The *consonant sixths* are, first, the *minor sixth*, composed of three tones and two semitones major; secondly, the *major sixth*, composed of four tones and a major semitone. The *dissonant sixths* are, first, the *diminished sixth*, composed of two tones and three major semitones; secondly, the *superfluous sixth*, composed of four tones, a major semitone, and a minor semitone.

Sixth'ly, *adv.* In the sixth place.

Sixth'-rate, *n.* A British vessel of war bearing a captain.

Six'tieth, *a.* [A. S. *sixteogotha.*] The ordinal of sixty; —noting one of sixty parts into which a thing is divided.

—*n.* One of sixty equal parts.

Six'tus I., Pope, and successor of Alexander I., in 119; martyred 127.

SIXTUS II., was the successor of Stephen I. He is stated to have been an Athenian and pagan philosopher before his conversion to Christianity. He was one of those who suffered martyrdom in the persecution of the Christians by Valerianus, 258.

SIXTUS III., was the successor of Celestin I., in 432. He endeavored to reconcile the disputes existing in the Eastern Church, particularly in the case of Cyril, bishop of Alexandria, and John of Antioch. Some of the epistles which he composed with regard to those controversies are extant, and are included in the collection of Constant. He was also a munificent patron of learning, and is stated to have left 5,000 silver marks to be expended in the embellishment of ecclesiastical structures. D. 440.

SIXTUS IV., Pope, B. 1414, was the son of a fisherman on the coast of Genoa, but became a monk of the order of the Cordeliers. His abilities procured him the chair of divinity at Padua and other universities of Italy. He also became general of his order, and was honored with the cardinalship by Paul II., whom he succeeded in 1471. He is accused with having been a participator in the conspiracy of the Pazzi, the object of which was to destroy the Medici family. He also endeavored to raise a new crusade against the infidels, but without success. D. 1484.

SIXTUS V., (*Felice Peretti.*) one of the most celebrated of the popes of Rome, born near Montalto, in the March of Ancona, 1521. He entered the convent of the Cordeliers at Ascoli, and by his natural good abilities, and his popularity as a preacher, made his way rapidly, notwithstanding a petulant temper and frequent contentions with his associates. He was successively professor of theology, commissary-general of his order at Bologna, and inquisitor at Venice, whence he fled to Rome, and obtained still higher honors and offices. A remarkable change appeared in his character or manners—he showed himself meek and amiable, and ingratiated himself with all who had to do with him. Pius V., who had been his pupil, got him chosen general of the Cordeliers, named him his confessor, and, in 1570, created him cardinal. He was not in favor with Gregory XIII., and it is said that in his retirement he feigned great feebleness, walked leaning on a stick, his head declined, and his voice broken. These signs of old age vanished with surprising suddenness the moment of his election as successor to Gregory, in April, 1585. He threw away his staff, lifted up his head, and made the place ring with his loud *Te Deum*. His first care was to repress brigandage, and make Rome and the States of the Church safe from the violence which had long prevailed. One year of his vigorous government made an immense and beneficial change. Before the end of 1585 *S.* published a bull of excommunication against Henry of Navarre and the Prince of Condé. After the murder of the Duke of Guise and the Cardinal of Lorraine, he cited Henry III. of France to Rome, and on his non-appearance excommunicated him. During the five years of his pontificate, *S* formed and executed many great designs for the improvement and adornment of Rome, at a cost which made him so unpopular with the people, that after his death they destroyed his statue. He caused the famous granite obelisk, which Caligula had brought from Egypt, to be set up on a pedestal; completed a great aqueduct for the supply of Rome with water; rebuilt the library of the Vatican, and established the celebrated printing-office in connection with it; had new editions of the *Septuagint* and the *Vulgate* published at his own expense, and yet left the treasury rich. *S.* confirmed the order of "Feuillants;" established or reformed many congregations for the management of secular or ecclesiastical affairs, and fixed the number of cardinals at seventy. D. 1590.

Six'ty, *a.* [A. S. *sixtig.*] Six times ten.

—*n.* The number of six times ten.

Siz'able, *a.* Of considerable bulk; being of reasonable or suitable size.

Si'zar, *n.* A student of the lowest rank at the University of Cambridge (Eng.), who eats at the public table, after the Fellows, free of expense. The sizars were probably so called from being originally employed in distributing the *size*, or provisions.

Size, (*sīz,*) *n.* [Contracted from *assize*, q. v.] A rated or adjusted quantity or magnitude, according to some standard; comparative magnitude; extent of superfices; dimensions; bulk; largeness; greatness; magnitude.

—*v. a.* To adjust or arrange according to size or bulk; to take the *size* of, as of soldiers.

—[Sp. *sisa.*] A sort of varnish, paint, or glue used by painters, paper-manufacturers, &c.; a thick, tenacious varnish used by gilders; a buffy coat on the surface of coagulated blood.

—*v. a.* To cover with size; to prepare with size.

Sizeable, (*sīz'a-bl,*) *a.* See SIZABLE.

Sized, (*sīzd,*) *a.* Having a particular magnitude or size.

Si'zel, *n.* The clippings of various metals, produced in their manufacture; also the slips of metal out of which blanks for coins have been cut. See SCISSEL.

Size'-roll, *n.* A small piece of parchment added to some part of a record.

Size'-stick, *n.* A measuring stick used by shoemakers.

Siz'iness, *n.* Quality of being sizy; glutinousness; viscousness.

Siz'ing, *n.* A weak glue used in manufactories; also, the act of covering with size.

Sizy, *a.* Having the quality of size; glutinous: thick and viscous; ropy; having the adhesiveness of size.

Siz'zle, *v. n.* To hiss from the action of the fire; to effervesce; to fizzle.

—*n.* A hiss from the action of fire; effervescence.

Skag'er-rack, or **Skagerac,** an arm of the North Sea, or German Ocean, between Norway and the peninsula of Jutland, and communicating with the Cattegat. *Ext.* 150 m. long and 80 broad.

Ska'git River, rises in British Columbia, and flows into Puget Sound from Whatcom co., Washington, after a S.W. course of 100 m.

Skaln (*skān*), *n.* See SKEIN.

Skal'holt, a town of Iceland, 35 m. E. of Reikiavik.

Ska'liez, a town of N.W. Hungary, co. of Neutra, 54 m. N.W. of Neutra. *Manuf.* Linen and woollen goods. *Pop.* 9,000.

Skamma'nia, in *Washington,* a S.W. co., bordering on Oregon; *area,* 1,636 sq. m. *Rivers.* Columbia, Klikitat, Cathlapootle, and White Salmon. *Surface,* traversed by the Cascade Range, of which Mount St. Helen attains an elevation of 13,330 feet; *soil,* fertile in the valleys. *Cap.* Stevenson. *Pop.*(1897) 950.

Skaneateles, (*skan-e-at'les,*) in *New York,* a lake in the S.W. of Onondaga co., about 16 m. long and 2 wide. — A post-village and township of Onondaga co., 18 m. S.W. of Syracuse.

Skate, *n.* [Dan. *schaats.* See SHOOT.] A sort of shoe, or sandal, furnished with a smooth iron, and fastened under the foot, for shooting along, moving rapidly, or sliding on ice.

—*v. n.* To slide or move on skates.

Skate, *n.* [A. S. *sceadda;* Lat. *squatus, squatina;* It. *squadro, squaja.*] (*Zoöl.*) The common name of the cartilaginous fishes composing the genus *Raia,* family RAIDÆ, *q. v.*

Skat'er, *n.* One who skates on ice.

Skat'ing, *n.* The act or art of moving on skates. It is one of the finest exercises and most healthful out-of-door pastimes in winter, when rivers and ponds are frozen, and offer a clear surface of ice. The art consists in poising the body on a sharp ridge of iron beneath the sole of the foot, and advancing on the ice in that position, one foot relieving the other. The skate itself is a well-known apparatus, generally made of wood and iron, with straps and buckles to attach it to the foot. The iron should be about a quarter of an inch thick, and not deeper than three-quarters of an inch, and smooth or flat along its under edge. The edges should be smooth, free from rust, and sharply ground. The best skaters are found in Holland (where men and women skate to market), Germany, and Russia. In the *Edda,* written 800 years ago, *S.* is mentioned. The god Uller is represented as being distinguished for his beauty, arrows, and skates. In speaking of *S.* Klopstock says that man, "like the Homeric gods, strides with winged feet over the sea transmuted into solid ground." Goethe, Herder, and other German poets have also sung its praises.

Skating Rink, *n.* A place or hall for skating, either upon ice, or with rollers upon other hard substances.

Skeet, *n.* (*Naut.*) A scoop used for throwing water on the decks and lower sails.

Skeg, *n.* A kind of wild plum. — A sort of oats.

Skeg'ger, *n.* A little salmon.

Skein, (*skān,*) *n.* A knot, or number of knots, of thread, yarn, or silk. A skein of cotton-yarn contains 80 threads of 54 inches.

Skeletol'ogy, *n.* [Gr. *skeleton,* and *logos,* a discourse.] A treatise on the solid parts of the body.

Skel'eton, *n.* [Gr. *skeleton,* dried up, parched; Fr. *squelette.*] (*Anat.*) The dry osseous framework of an animal body preserved in its natural position. It usually consists of various parts; and when these are connected together by their natural ligaments, it is said to be a natural skeleton; and when they are artificially connected by wires or the like, it is said to be an artificial skeleton. In some of the lowest classes of animals, the *S.* consists only of a single piece; in others, it is external, in the form of a case. In man, however, and all the higher animals, the *S.* is internal, and composed of numerous pieces, adapted to give strength and beauty to the body, and to admit of motion in various directions (Fig. 2375). The *S.* consists of two complete sets of bones, united in the centre or medial line, those on the right side being an exact counterpart of those on the left, 125 bones constituting the perfect set on one side. Though some of these, like those of the spinal column, the breastbone, and *os hyoides,* are single bones, they are capable of an accurate partition into two exactly corresponding halves.

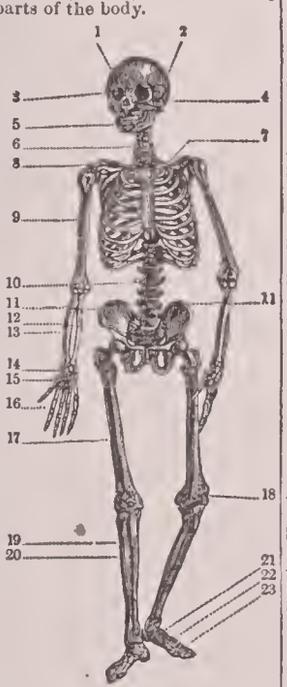


Fig. 2375.— HUMAN SKELETON.

1, Frontal bone; 2, parietal bone; 3, orbit; 4, temporal bone; 5, lower jaw; 6, cervical vertebræ; 7, clavicle; 8, shoulder-blade; 9, humerus; 10, lumbar vertebræ; 11, ilium; 12 ulna; 13, radius; 14, carpus; 15, metacarpus; 16, phalanges; 17, femur; 18, datella; 19, tibia; 20, fibula; 21, tarsus; 22, metatarsus; 23, phalanges.

—The general structure or frame of anything; the heads and outline of a literary performance, particularly of a sermon. — A very thin or lean person; as, a living *skeleton.*

—*a.* Resembling a skeleton; consisting of mere framework; wanting those parts which make up a complete body or form. — Containing mere outlines or heads, as of a literary performance.

Skel'etonize, *v. a.* To prepare a skeleton of; to present in a framed but unfinished state.

Skel'eton-key, *n.* A key used for several varieties of locks.

Skel'ligs, 3 rocky islets off the S.W. coast of Ireland, co. of Kerry, in the Atlantic Ocean, 9 m. S.W. of Brea Head, Valentia Island; Lat. 51° 46′ N., Lon. 10° 32′ W.

Skel'ly, *v. n.* To aquint.

Skelp, *n.* The rolled sheet of wrought-iron from which a gun-barrel is made.

Skep'tic, *n.* See SCEPTIC.

Sker'ries, in the Irish Sea, an islet off the N.W. coast of Anglesey, with a light-house; Lat. 53° 25′ 3″ N., Lon. 4° 36′ 5″ W.

Sker'ries, or **Sker'ry Isles,** three small islands in the extreme E. of the Shetland group, 10 m. S.E. of Fetlar; *pop.* 122.

Sketch, *n.* [Ger. *skizze;* Fr. *esquisse.*] A rough dash or outline of an object; an outline or general delineation of anything; a first rough or incomplete draught of a plan or any design.

—*v. a.* To draw the outline or general figure of; to make a rough draught of; to plan by giving the principal points or ideas; to map; to delineate; to depict; to design; to portray.

Sketch'er, *n.* One who sketches.

Sketch'ily, *adv.* In a sketchy manner.

Sketch'y, *a.* Containing slight sketches or outlines; resembling sketches; unfinished; incomplete.

Skew, (*sku,*) *n.* [Ger. *schief,* from *schieben,* to push, to shove.] Wry; distorted; oblique.

—*v. n.* To walk or to move obliquely; to start aside, as a horse. (Local.)

Skew'back, *n.* (*Arch.*) The sloping abutment, in brickwork and masonry, for the end of the arched head of an aperture.

Skew'-bridge, *n.* (*Engineering.*) A bridge in which the passages under and over the arch intersect each other obliquely. There are cases of frequent occurrence in which various sorts of passages and courses necessarily cross each other obliquely, as well as on different levels, and where it would be difficult or impossible to construct a square bridge which should both have sufficient strength and at the same time leave the lower passage quite clear. In such cases, recourse must be had to a different form of arch, placed obliquely to the abutments, and yet exerting its thrust in the direction of the upper passage. Such a structure is called a *S.-B.,* and is frequently required on lines of railway, which it is important to keep as straight as possible. The difficulty of building *S.-B.* increases with the obliquity of the angle from 90° to 45°, which is supposed to be the most hazardous angle for a semi-circular arch; but beyond that limit, instead of increasing, it rather diminishes to about 25°, which appears to be about the natural limit for a semi-cylindrical arch. Elliptical oblique arches are deficient in stability, more difficult to execute, and more expensive than semi-circular or segmental arches.

Skewer, (*skū'er,*) *n.* [Sw. and Goth. *skifva,* pl. *skifvar.*] A slice, slip, or cutting of wood; a pin of wood or iron for fastening meat to a spit, or for keeping it in form while roasting.

—*v. a.* To fasten with skewers.

Skiatho, (anc. *Sciathus,*) a small island of the Grecian Archipelago, in the Ægean Sea, 10 m. N. of Eubœa; Lat. 39° 12′ N., Lon. 23° 35′ E. *Ext.* 4 m. in length and breadth.

Skibbereen', a town of Ireland, prov. of Munster, co. of Cork, on the Ilen, 40 m. S.W. of Cork; *pop.* 4,000.

Skid, Skeed, *n.* [Allied to Ger. *scheiden,* to cleave.] An iron shoe or socket for checking the revolution of a wheel of a carriage when going down a hill; — otherwise called *brake,* and acting on the same principle as the brake of a railway-car. — In the U. States, a lengthy square piece of timber, along which something is rolled, or by which it is supported.

(*Naut.*) On shipboard, any beam or timber used as a support for some heavy body, to prevent its weight falling on a weak part of the vessel's structure.

Skid-beams. Timbers laid crosswise in a ship's waist, to sustain the larger boats, the launch in particular.

—*v. a.* To check by means of a skid, as wheels in going down hill.

Skiff, *n.* [Fr. *esquif;* Ger. *schiff.*] A small light boat resembling a yawl.

—*v. a* To pass over in a light boat.

Skil'der, *v. n.* To live by begging or pilfering.—*Scott.*

Skil'ful, *a.* Possessing skill; skilled; discriminating; discerning; knowing; well versed in any art; dexterous; able in management; able to perform nicely any manual operation in the arts or professions; well versed in practice; expert; adroit: handy.

Skil'fully, *adv.* With skill; dexterously.

Skil'fulness, *n.* Quality of possessing skill; dexterity; ability to perform well in any art or business.

Skill, *n.* [A. S. *scylan,* to distinguish.] Ability or power to distinguish, discriminate, or discern; knowledge; the familiar knowledge of any art or science, united with readiness and dexterity in the application of it to practical purposes; art; dexterity; expertness; adroitness; activity.

Skilled, (*skild,*) *a.* Having skill; having familiar knowledge, united with readiness and dexterity in the application of it; familiarly acquainted with; expert; skilful; as, a *skilled* mechanic.

Skil'let, *n.* [O. Fr. *escuellette.*] A small vessel of metal, with a long handle, used for heating and boiling water, &c.

Skil'ton, in *Indiana,* a twp. of Warwick co.

Skilts, *n. pl.* Short, loose, tow trowsers. (Local U. S.

Skim', *v. a.* [From *scum,* q. v.] To take off, as the thick, gross matter which separates from any liquid substance and collects on the surface; to take off by skimming. —To pass near the surface; to brush the surface slightly.

—*v. n.* To pass or glide over or along the surface, or near the surface; to pass lightly; to glide along in an even, smooth course, or without flapping; to hasten over superficially, or with slight attention.

Skim'ble-scam'ble, *a.* Rambling; uncollected; wandering; wild. (Low.)

Skim'-colter, *n.* The colter of a plough used for paring land.

Skimk, or **Shikagua River,** in *Iowa,* rises in Hamilton co., and falls into the Mississippi 8 m. S. of Burlington, after a S.E. course of 250 m.

Skimmed, (*skimd,*) *a.* Taken from the surface; having the thick matter taken from the surface; brushed along.

Skim'mer, *n.* That which skims; particularly, a utensil used for skimming liquors.

(*Zoöl.*) See SCISSOR-BILL.

Skim'ming, *n.* Act of taking off the scum, &c., from the surface of a liquid; also, that which is skimmed.

Skim'mingly, *adv.* By gliding along the surface.

Skin', *n.* [A. S. *scin.*] (*Anat.*) That membrane of variable thickness which covers the whole body externally, and extends inwards into all the natural openings, where it changes its properties, becoming soft and moist, and hence known as mucous membrane. The *S.* is generally described as composed of three layers: — the *cuticle,* the *rete mucosum,* and the *cutis vera,* the last being the most internal. The cutis (*dermis*), or true *S.,* consists of two layers, of which the deeper is called the *corium,* and the more superficial, the *papillary layer.* The corium is composed of numerous fibres closely interlaced, and forming a smooth surface for the support of the papillary layer. It varies in thickness, being, as a general rule, thick on the exposed parts and thin on the protected. The papillary layer is soft, and formed by numerous papillæ, which cover its whole surface. It contains the expansions of the sensitive nerves. The *rete mucosum* (mucous network) lies immediately over the cutis, and in some measure diminishes the inequalities of its surface, being thicker between the papillæ and thinner on their summits. It is composed of minute, uncleated cells, and is almost pulpy in consistence. It is very slightly developed in the white races, but is very distinct and thick in those that are darker, the cells, which are filled with a pigment, being that which gives the dark color to their *S.* The *cuticle,* scarfskin, or epidermis, is a disorganized scaly substance, serving to protect from injury the more delicate cutis. It is thickest on the most exposed parts; and on the palms of the hands and soles of the feet it consists of several layers. The *S.* performs various important functions. It is the seat of common sensation, and is furnished with numerous pores or openings, which give passage to the sweat and other exhalations. It is in this way the great regulator of the heat of the body.

Diseases of the S. are of very different kinds, and of very different degrees of importance. Some are dangerous to life, others are attended with no danger; some are attended with fever and rapid in their course, others are chronic and obstinate; some are disfiguring; some contagious; and so on. The different diseases of the *S.* may be classified into eight orders, distinguished from each other solely by the appearances upon the *S.,* as follows: — 1. *Papulæ,* or pimples, little elevations of the cuticle of a red color, and not containing any fluid, as in the earliest stage of small-pox. — 2. *Squamæ,* or scales, small, hard, thickened, opaque, whitish patches of unhealthy cuticle, as in leprosy. — 3. *Exanthemata,* or rashes, superficial red patches varying in figure and size, and irregularly diffused over the surface, as in measles, scarlet-fever, &c. — 4. *Bullæ,* blebs or miniature blisters, as sometimes occur in erysipelas. — 5. *Pustulæ,* or pustules, circumscribed elevations of the cuticle containing pus, and having red inflamed bases, as in the eruption of small-pox when at its height and maturity. — 6. *Vesiculæ,* or vesicles, small elevations of the cuticle, covering a fluid usually at first clear and colorless, but becoming afterwards opaque and whitish, or pearly, as in cow-pox and chicken-pox. — 7. *Tubercula,* tubercles, small, hard, superficial tumors, circumscribed and permanent, or, if they separate at all, it is only partially. — 8. *Maculæ,* spots or patches, arising from excess or deficiency of the coloring matter of the skin, and frequently occurring congenitally, or connected with some slight disorder of the digestive organs or of the general health. Such a classification as this is very useful for the purpose of distinguishing the different appearances, but it is of little further service. They are almost all more or less important manifestations in cutaneous tissues of disordered or diseased conditions of one or more of the vital functions. Besides, a complaint which is papular to-day may be vesicular to-morrow, and pustular the day following. Some arrangement directing the attention more entirely to the relations and constitutional and visceral dependencies of these affections, and leading to rational and successful methods of cure, is still wanted.

—A hide; a pelt; the skin of an animal separated from the body, whether green, dry, or tanned; the bark or husk of a plant; the exterior coat or rind of fruits and plants.

—*v. a.* To strip off the skin or hide of; to flag; to peel. To cover with skin; to cover superficially.

—*v. n.* To be covered with skin.

Skin'-deep, *a.* Superficial; slight; not deep.

Skin'flint, *n.* A very niggardly person.

Skink, *n.* (*Zoöl.*) The common name of the lizards

comprising the family *Scincoidæ*. They have the body cylindrical, and covered with emooth ecalee, variable in shape and size, and disposed in the form of a quincunx. The head is covered with large, thin, angular plates; the neck is of the same size as the thorax; tongue free, flat, and notched, and not retractile into a sheath; and the jaws are furnished with closely set teeth. The body and tail seem to be one continued and uniform piece. The genera and species are quite numerous.

Skin'less, *a.* [From *skin.*] Having no skin, or having a very thin skin; as, *skinless* fruit.

Skin'ner, *n.* One who skins; one who deals in ekins, pelts, or hides; a furrier.

Skin'ner's Eddy, in *Pennsylvania*, a post-village of Wyoming co., 150 m. N.E. of Harrieburg.

Skin'niness, *n.* Quality of being skinny.

Skin'ny, *a.* Consisting of skin, or of skin only; deficient in flesh.

Skinosa, (*ske-no'sa,*) a small island of the Grecian Archipelago, 5 m. S of Naxos.

Skin-wool, *n.* Wool pulled from the dead ekin — not sheared from a living animal.

Skip, *v. n.* [Dan. *kipper*, to leap.] To bound; to epring, as a goat or lamb; to bound lightly and joyfully.

—*v. a.* To pass over or by; to omit; to miss.

—*n.* A light leap; a bound; a spring.

Skip'-jack, *n.* An upstart; a parvenu.

(*Zoöl.*) The common name of ths insects of the family *Elateridæ*. q v

Skip'-kennel, *n.* A lackey; a foot-boy.

Skip'pack, in *Pennsylvania*, a post-village and townehip of Montgomery co., 86 m. E. of Harrisburg.

Skip per, *n.* [Dan.] Ths master of a trading or merchant vessel.

(*Zoöl.*) The common name of the lepidopterous insects composing ths family *Hesperidæ*. They have the body short and thick head large, eyes prominent, antennæ short, with the knob curved like a hook or bent to one side, legs six, and the four hindmost shanks armed with two pairs of spurs. *S.* fly with a jerking motion, and hence their name. They are generally of a rich brown, marked with yellow spots. The species are quite numerous, and expand from one inch and a half to two inches and a hall.

Skip'ping, *a.* Leaping lightly; hounding.

Skip'plugly, *adv.* By leaps.

Skip'ping-rope, *n.* A short cord or rope used by childrsn to skip over.

Skip'ton, a town of England, co. of York, on the Aire, 38 m. W. of York. *Manaf.* Cotton goods. *Pop.* 4,962.

Skir'mish, *n.* [*Fr. escarmouche;* It. *scaramuccia*, a skirmish, contest, *schermo*, a fight, from Old Ger. *scirm, scerm.* defence, protection, a shield, *scirman*, to defend.] A elight fight; a light combat by armies at a distance from each other, or between detachments and small parties; a contest; a contention.

—*v. n.* To fight irregularly, or in small partiss.

Skir'misher, *n.* Ons who skirmishes.

Skir'mishing, *n.* The act of fighting in a loose or slight encounter; guerilla warfare.

Skir'ret, *n.* (*Bot.*) The common name of the genus *Sium*, order *Apiacræ*. Tbe epecies *Sium sisaram* is a native of Cblna and Japan, but which has long been cultivated in gardens in Europe, and occasionally in this country, for tbe aake of its roots, whicb are tuberons and clustered, sometimee 6 inchee long, and of the thickness of ths finger. They are sweet, enccnlent, and nutritious, witb a somewhat aromatic flavor, and when boiled, are a very agreeable article of food. A kind of spiritnous liqnor is somstimes made from them. Good sugar can also be extracted. It is propagated either by seed or by very emall offsets from the roots. It has a stem from 2-3 feet high; the lower leaves pinnate, with oblong serrated leaflets, and a beart-ehaped terminal leaf, ths upper ones ternate with lanceolate leaflets.

Skirt, *n.* [Swed. *skiorta;* Dan. *skjorte;* Icel. *skirta*, an apron. Etymol. uncertain.] The lower and loose part of a garment; tbe part below the waist; as, the *skirts* of a coat or rlding habit. — Tbe edge or eelvage of any part of dress.—A woman's article of apparel resembling a petticoat; as, a linen *skirt.* — Bordei, edge, verge; margin; as, on tbe *skirts* of a country. — In animals, the diaphragm or midriff.

—*v. a.* To border; to form the verge, eelvage, or outer line of; to run along the margin of; as, a city *skirted* hy tbe ocean.

—*v. n.* To be on the border; to llve near the extremlty.

Skirt'ing, *n.* Material for skirte; also, akirte taken collectively.

Skirt'ing, Skirt'ing-board, *n.* (*Arch.*) A narrow board forning a plinth to an external wall; a wash-board.

Skit, *n.* A gibe; a sarcastic reflection; a joke at the expenee of another.

—*v. a.* To gibe; to paes jokee upon. (Prov. Eng.)

Skit'tish, *a.* [Probably from A. S. *scytan*, to shoot.] Easily made to dart forward or to the side; restiff; shy; easily alarmed or confnsed; shunning approach to familiarlty; timorous; as, a *skittish* mule.

—Wanton; volatile; hasty; impetuous; as, *skittish* humor, a *skittish* lass. — Fickle; changeable; inconstant; not to be relled on; as, *skittish* fortune.

Skit'tishly, *adv.* In a ekittish manner; shyly; wantonly; changeably.

Skit'tishness, *n.* Quality of being skittish; shyness; aptness to fly approach; timorousness; fickleness; wantonnese.

Skit'tle-ball, *n.* A disc, or flat, cheese-shaped ball of hard wood, used for throwing at skittlee or nine-pine.

Skittles, (*skit'tlz,*) *n. pl.* (*Games.*) Same as NINEPINS, *q. v.*

Skive, *n.* The iron lap used by diamond-polishers in finishing the facets of ths gem.

Skiv'er, *n.* An inferior quality of leather, made of eplit sheep-skin, tanned by nnmereiou in sumac, and dyed. It is used for hat-linings, pocket-books, book-binding, and other purposes.

Skoko'mish River, in *Washington*, flows S.E. into Hood's Canal from Mason co.

Skolop'site, *n.* (*Min.*) A mineral of a grayish-white or reddish-gray color, coneisting chiefly of silica, alumina, lime, and eoda.

Skomy'wong River, in *Wisconsin*, flows into Wisconsin river from Marathon co.

Skoo'knmchuck, in *Washington*, a post-village of Lewis co., 8 m. N. of Chqnato.

Skope'lo, a small island of the Grecian Archipelago, 15 m. N. of Eubœa; *area*, 32 sq. m.; *pop.* 2,500.

Sko'pin, a town of European Russia, on the Werda, 50 m. S. of Riazan. *Manaf.* Russian leather. *Pop.* 6,000.

Skout, *n.* (*Zoöl.*) The GUILLEMOT, *q. v.*

Skowhe'gun, in *Maine*, a post-village and township of Somerset co., 30 m. N.E. of Augusta.

Skreed, *n.* Floating ice in small detached portions.

Skrim mage, *n.* Same as SCRIMMAGE, *q. v.*

Skrimp'y, *a.* Inclined to scrimp; mean; close-fisted; stingy; parsimonious; as, a *skrimpy* individual. (Colloq.)

Skue, *a.* and *n.* Same as SKEW, *q. v.*

Skue'sight, (*-sit,*) *n.* (*Med.*) Defective vision, in wbich objects can be distinctly perceived when looked at with the eyes askew.

Skulk, Sculk, *v. n.* [Sw. and Goth. *skolka*, to flee secretly or by stealth.] To lurk; to lie close from shame, fear of injury, or detection; to get out of the way in a eneaking, stealthy manner; as, he *skulks* from serving his country.

Skulk, Skulk'er, *n.* One who skulks; one who evadss the performance of duty; a shirk; a sneak; as, no *skulkers* shall sign articles on this ship.

Skulk, *n.* A troop of foxee.

Skulk'ingly, *adv.* In a skulking, sneaking manner.

Skull, (sometimes writteu SCULL,) *n.* [O. Ger. *scuilla*, the skull of man or beast; Icel. *kollr*, the skull, from *skyla*, to hide, conceal; Sw. and Goth. *skalle*, the skull, from *skal*, a pan.] (*Anat.*) The osseous case or covering which, containing the brain, forms the lorehead, and every part of ths head except the face; the cranium (Fig. 2376). The bones of the skull are 8 in number, — the *frontal*, *occipital*, two *parietal*, two *temporal*, the *sphenoid*, and *ethmoid*. These bones are separate in tbe newborn child, but as age advancea they gradually consolidate into a single bone, the joints of nniou being called the *sutures*.

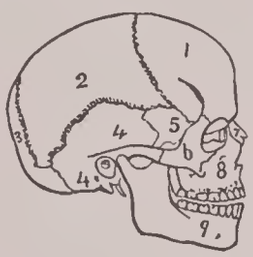


Fig. 2376. — SIDE-VIEW OF HUMAN SKULL AND FACE.

1, Frontal bone; 2, Parietal bone; 3, Occipital bone; 4, Temporal bone (squamous portion); 4', Do. (mastoid portion); 5, Sphenoid bone; 6, Malar bone; 7, Nasal bone; 8, Superior maxillary or jaw bone; 9, Inferior maxillary or jaw bone.

—Figuratively, the hrain, as tbe seat of intelligence; as, he has an empty *skull.* — An oar. See SCULL, the more correct orthography.

Skull'-cap, *n.* A cap fitting cloee to the head after the manner of a Turkish fez; a calotte.

Skull'-fish, *n.* A term given by whalers to an old whale, or one more than two years old.

Skunk, *n.* (*Zoöl.*) The common name of the carnivorous animals comprieing the genus *Mephitis*, family *Mustelidæ*. Eighteen epecies are known, eight of which are found in N. America, and ten in South America. The genus ie apecially distinguished by its exceedingly large anal gland, which exhales a putrid and offensive odor, shed by the animal when annoyed or lrritated. The scent is so powerful, that it endures for many years.

Fig. 2377. — SKUNK, (*Mephitis Americana.*)

—Hence, an opprobrious epithet applied in the U. Statee to a mean, cowardly, disreputable pereon.

Skunk'-bird, *n.* (*Zoöl.*) A name of the boholink.

Skunk'-cabbage, Skunk'-weed, *n.* (*Bot.*) See SYMPLOCARPUS.

Skunk'-head, *n.* (*Zoöl.*) The *Anas Labradora* of Wilson; also called *Pied Duck.*

Skunk'ish, *a.* Resembling, or pertalning to, the skunk; — especially, posseseing the peculiar odor of a skunk.

Skur'ry, *n.* Haste; impetuosity; precipitation; — generally used in the colloquialism *hurry-skurry.*

Skutsch, (*skutch,*) a town of Austria, in Bohemia, 12 m. S.E. of Chrudim; *pop.* 4,000.

Skutterudite, *n.* [From *Skutterud*, in Norway.] (*Min.*) A native arsenide of cobalt found at Skutterud, near Modum, in Norway. It occurs both crystallized and massive, of a color between tin-white and lead-gray, with a metallic lnetre and occaslonally an iridescent tarnish.

Sky, *n.* [A. S. *scuwa, scua*, a shade; Swed., Dan., and Icel. *sky*, a cloud.] The beavens; the aërial reglon which eurrounds the earth; the apparent arch or vault of heaven, that on a clear day is of a blus color, the cauee of which has hitherto not been satisfactorily accounted for, although various theoriee have been propounded thereupou. — The weather; the climate.

"The *sky* is changed t and such a change!" — *Byron.*

Open sky, sky, with no shelter coming between.

(NOTE. *Sky* forms the frequent prefix of self-explaining compound phrases; as, *sky*-colored, *sky*-guided, *sky*-ruling, &c.)

Sky'-blue, *a.* Cerulean; of the color of the sky.

Sky'-color, *n.* The color of the sky; azure; a particular shade of blue.

Skye, (*ski,*) ths largest island of the Hebridee, in the W. of Scotland, co. of Inverness, separated from the mainland by the narrow strait of Loch Alsh. *Ext.* 50 m. long, with a breadth varying from 4 to 23 m. *Area*, 550 sq. m. The surface is mountainous, and the coast deeply indented with inlets. *Climate.* Mild, but variable. Cattle-grazing and fishing are the principal occupations of the inhabitants. A peculiar breed of terrier, known as the *Skye-terrier*, is raised here, and is in good demand. *Pop.* 22,000.

Skyed, (*skid,*) *a.* Encircled hy eky; as, a *skyed* peak. (Used only in poetry.)

Sky'ey, *a.* Resembling the sky; ethereal.

Sky'-high, *a.* Hlgh as tbe sky; — hence, very high; used ae a colloquial vulgarism; as, his wife blew him up *sky-high.*

Sky'ish, *a.* Like tbe sky; ethereal. (R.)

Sky'lark, *n.* (*Zoöl.*) See ALANDA.

Sky'larking, *n.* (*Naut.*) The act of running about the spars and rigging in sport, as practised by reefers, &c.; — hence, practical joking; frolicking; mischievous sporting; carousing, &c.; as, we were out for a night's *sky-larking.*

Sky'light, *n.* (*Arch.*) A window placed in the roof of a building, or ceiling of a room, for tbe admission of light.

Sky'-parlor, *n.* A title hnmorously given to an attic, or nppermost room in a house.

Skyros, or **Scyros,** (*ske'ros,*) an island of the Grecian Archipelago, in the Ægean Sea, 24 m. N.E. of Cape Kili, in Enbœa. *Ext.* 17 m. long; breadth varying from 2 to 7 m. *Area*, 60 sq. m. *Chief town.* St. George. *Pop.* 3,000.

Sky-sail, (Colloq. *skī'sl,*) *n.* (*Naut.*) The sail set above tbe royal, being the highest sail carried by a full-rigged ship. It is seldom used except in light winds and fair weather.

Sky'-scraper, *n.* (*Naut.*) A triangular sky-sail.

Sky'ward, *n.* In the direction of the sky; toward the heavens, or aloft.

Slab, *n.* [W. *llâb*, a flag or thin strip.] A thiu piece of anything having plane surfaces; as, a *slab* of marble, stone, soap, &c. — An exterior strip taken from a leg, or large piece of timber, in sawing it into boarde, planks, scantling, and the like.

Slabs of tin, the smaller maseee into which the smelters cast the metal.

Slabber, (Colloq. *slŏb'ber,*) *v. n.* [Ger. *schlabben, schlabbern.*] To slaver; to drivel; to let the saliva or other liquid run from the mouth carelessly; ae, a *slabbering* infant.

—*v. a.* To wet and soil hy liquids, suffered to fall carelessly from the mouth, or by fluid epilled. — To shed; to spill.

—*n.* Slaver; liquid or moisture exnded and let fall from the mouth in a careless or drivelling manner.

Slabberer, (Colloq. *slŏb'-,*) *n.* One who slabbere; a driveller; an idiot.

Slabbery, (Colloq. *slŏb'-,*) *a.* Resembling elabber; covered with slabber; aleo, alippery; sloppy; slushy; as, *slabbery* gronud.

Slab'biness, *n.* State of being thick, ropy, or slabby.

Slab'by, *a.* (*comp.* SLABBIER; *superl.* SLABBIEST.) Viscous; thick; as, a *slabby* potion.—Sloppy; miry; slushy; slimy; as, a *slabby* road.

Slab'-line, *n.* (*Naut.*) A emall rope leading through a block under the lower yarde, and thence to either loot of the eail, for the purpoee of tricing it up.

Slab'-sided, *a.* Flat-eided; — hence, tall, or long and lank; as, a *slab-sided* man.

Slab'town, in *New Jersey*, a village of Burlington co.

Slabtown, in *Pennsylvania*, a village of Montour co., 15 m. S.E of Danville.

Slabtown, in *S. Carolina*, a post-village of Anderson dist., 130 m. W.N.W. of Columbia.

Slack, *a.* (*comp.* SLACKER; *superl.* SLACKEST.) [A. S. *sleac;* Icel. *slakr;* Ger. *schlaff.*] Not tight or tense; relaxed; not hard drawn or firmly extended; as, a *slack* rope. — Not bolding fast; weak; lax; remiss; as, a *slack* hand. — Not exercising due diligence; not earnest, zealoue, or euger; as, he is *slack* in his attentions. — Abated; diminished; not violent or rapid; slow; as, a *slack* motion.

Slack in stays. (*Naut.*) Said of a ship, when elow in going about or tacking. — *Slack-water*, the luterval hetween the ebb and flow of the tide.

—*adv.* In a slack manner; partially; inadequately; not thoroughly or intensely; as, biscuit *slack*-baked.

—*n.* The part of a rope that hangs loose, having no strain or tension npon it. — In England, small or cobble coal.

Slack, Slacken, (*slăk'n,*) *v. n.* [A. S. *slacian*; Swed. *slakna*] To become less tense, firm, or rigid; to relax in tension, as a rope under certain conditions. — To be remiss or backward; to neglect; as, he was obeerved to *slacken* in his attentions to the lady. — To lose cohesion or the quality of adhesion; as, mortar *slacks* and becomes friable. — To diminish in force or violence; to abate; as, the gale begins to *slacken.* — To become less rapid; to decrease in activity; as, the tide ie *slackening.*

—To flag; to faltsr; to languish; —hsnce, to faii; as, his pace *slackens* visibly.

Slack, Slack'en, *v. a.* To reduces the tension of; to make less firm, rigid, or tight; as, to *slack* a rope, to *slacken* a ligature. —To relux; to remit; to mitigate; to diminish in intensity or severity; to abate; to lower; to relievo; to unbend; as, to *slacken* in exertion, to *slacken* one's pace, &c.—To employ less liberally; to withbold.—To check; to repress, or maks iess quick or active. —To slaks; to deprive of cohesivo properties; as, to *slack* lime.

Slackened, (*slăk'nd,*) *a.* Releaned or remitted.

Slack'ly, *adv.* In a slack manner; not tightly; loosely; negligently; remissly.

Slack'ness, *n.* State of being slack; looseness; the state opposed to *tension;* not tightness or rigidness. Remissness: negligence; insttention; slowness; tardiness; want of tendeucy; weakness; not intenseness.

Slag, *n.* [Ger. *schlacke,* from *slagen,* to lay down, deposit, cast off.] The dross or recrement of a metal; —also, vitrified cinders; the scoria of a volcano.

Slag'gy, *a.* Pertaining to slag; resembling slag.

Slake, *v. a.* [A. S. *leccan,* to wet, to moisten.] To apply water to; to quench; to extinguish; to mix with wster so as to reduco to powder, as quicklime.

—*v. n.* To abate; to go out; to become extinct.

Slaked, (*slākt,*) *a.* Quenched; mixed with wster so as to be reduced to powder.

Slake'less, *a.* Unquenchabis; inextinguishabls; as, *slakeless* thirst.

Slam, *v. a.* [Icel. *lem, lemia,* to strike.] To strike with force and noise; to shut with violence; as, to *slam* a door.

—*n.* A blow; a stroke; a violent driving and dashing agninst; a violent shutting of a door.

Slam'-bang, *adv.* With a slamming or banging noiss. (Used colloquially.)

Slan'der, *n.* [Fr. *esclandre,* from Gr. *skandalon,* a snare laid for an enemy, a stumbling-block, offence, from *skazō,* to limp, to halt.] Defamation; detraction; calumny; a false tale or report maliciously uttered, and tending to injure the reputation of anotber; disgrace; reproacb; disreputableness; ill-name.

(*Law.*) Slander is of two kinds; one, which is actionable, as necessarily imparting some gsnerai damage to the party siandered; the other, actionsble only when some special damage has been actually caused. The former inciudes such words as imputs to a person crimes or misdemeanors that are legally pnnishabie in a court of law; such as tend to injure him in his profession, trade, or calling by which he gains his livelihood, as imputing to him malpractice, incompetence, &c.; such as tend to his exclusion from society, or to disparage him in an office of public trust. In tbe other case, ths words, though untrue and maliciously spoken, are not in themselves actionablo, unless the party aggrieved is abls to prove that hs has sustained some certain actnal loss tberefrom. The words require to be maliciously spoken; and hence, if spoken in a friendly manner, or by way of advice, they are not actionable. There are certain kinds of communications which are regarded as privileged, and therefore not actionable; as when a master is called upon to give the character of a servant, or where a man communicates to another circumstances which it is right that he should know in relation to a matter in which they have a mutual interest. If the defendant be able to prove the words to be true, no action will lie for defamation, whether special damage has ensued or not; for tbe law holds them to be justifiable.

—*v. a.* To defame; to calumniats; to injure by maliciously uttering a faise report respecting one; to asperse; to reproach.

Slan'derer, *n.* Ons who slanders; a defamer; a caiumniator; ons who injures another by maliciously reporting something to his prejudice; a propagator of false reports.

Slan'derous, *a.* Prone or disposed to slander; as, a *slanderous* tongue. —Containing slander or defamation; calumnious; scandalous; defamatory: as, a *slanderous* report, falsely and maliciously circulated.

Slan'derously, *adv.* With slander; calumniously.

Slan'derousness, *n.* State, quality, or conditiou of being slanderous or defamatory.

Slan'ey, a river of Ireland, rises in Wicklow co., prov. of Leiuster, and flows into Wexford Harbor after a S. course of 60 m.

Slang, *n.* [Probably from Fr. *langue;* Lat. *lingua,* the tongue.] Low, vulgar, ineiegant language; a colloquial mode of expression pecullar to, or familiarly used by, certain classes of society; cant; as, the *slang* of the prize-ring, of universlty students, of the turf, &c.

Slang'-whanger, (*-wăng'gr,*) *n.* [*Slang* and *whang,* to belabor.] A blustering dsmagogus; a noisy, factious politician. (A cant term.)

Slang'y, *a.* Characterized by, conveyed in, or partaking of the qualities of, slang; using slang; as, a *slangy* form of speech, a *slangy* individual.

Slant, *n.* [Swed. *slant,* from *slinta,* to slide down.] Sloping; oblique; inclinsd from a direct line, whether horizoutal or perpendicular.

—*v. a.* To deflect from straight llne; to give an oblique or sloping direction to.

—*v. n.* To slope; to have an obliquo direction; to inclins or iean from a right line; as, a *slanting* roof.

—*n* A slope; an inclined plane; as, the *slant* of a hill. —An inuendo; an oblique reflection or sarcasm. — A Swedish copper coin, 196 of which average o· ·rix-dollar.

Slant of wind. (*Naut.*) A transitory breeze ‹ wind, or the period of its duration.

Slant'ingly, *adv.* With a siops or inclination; in a sianting manner; aiso, with inuendo, or oblique hint or rsflection.

Slant'ly, Slant'wise, *adv.* Obliquely; In an inclined direction; aslopo; as, be wore his hat *slantwise.*

Slap, *n.* [Ger. *schlappe;* allied to Lat. *alapa,* a box on the ear.] A blow administered with the open hand, or with some broad instrument; as, a *slap* across the face.

—*v. a.* (*imp.* and *pp.* SLAPPED,) (*slăpt.*) To strike with the open hand, or with something broad; as, to *slap* a child by way of puuishment.

—*adv.* With a sudden and impetuous biow; — henco, promptly; on the spur of tbe moment; instanter; as, he paid the money *slap* down.

Slap'dash, *adv.* At baphazard; at random; impetuously; in a bold, reckless, harum-scarum manner; as, he rode *slapdash* at the fence. — Slap; iustanter; without shilly-shally or hsitation.

—*v. a.* To roughcast; to coat with cemeut or mortsr ln a rough, careless manner; as, to *slapdash* a wall.

Slap'-jack, *n.* In the U. States, a sort of flat caks baked upon a griddle; a kind of pancake; s flap-jack.

Slap'per, *n.* The person wbo, or that which, slaps. — A persou or thing of nnusually lsrgo size; a monster; a whopper. (Colloq. and vulgar.)

Slap'per, Slap'ping, *a.* A vulgarism sxpressive of great sizo or dimeusions; very large or big; strapping; as, a *slapping* woman.

Slash, *v. a.* [Icel. *slasa,* to strike, to wound.] To cut by striking vlolently and at random; to cut in long cuts; to scoro; as, to *slash* flesh. — To slash; to whip; as, "to *slash* the vig'rous steeds." (*King.*) (R.) — To crack, as a whip. (R.)

—*v. n.* To striks violently and at random with a sword, cutlass, or other cutting instrument; to lay about one right and left with blows.

—*n.* A iong cut or score; a cut mads at rsndom or indiscriminately; ss, hc received s *slash* across the cheek. —A large slit or open cut made in the trunk-hose, sleeves, &c., of certain costumes of ths 16th und 17th centuries, made to exhibit a lining of bright color between the openings.

Slash Cottage, in *Virginia,* a villags of Hanover co., 20 m N. of Richmond.

Slashed, (*slăsht,*) *p. a.* Marked, scored, or cut, with a slash, or slashes; deeply gashed or incised;—particularly, having long, narrow openings, as an article of dress, to exhibit cloth or lining of a sbowier color beneath; as, a *slashed* doublet.

(*Bot.*) Laciniate.

Slashes, *n. pl.* An American term for a surface in woods, which has been slashed or cut ovsr.

Slash'y, *a.* Same as SLUSHY, *q. v.*

Slat, *n.* A rung; a flat step, or narrow piece of timbsr employed to hold togetber larger pieces, or to support something; as, the *slats* of a cart or iadder. — A biow; a slap; as, a *slat* in the face.

—*v. a.* To slap; to beat; to push down with forcs. (Prov. Eng. and colloq. Amer.)

—To split; to crack; as, to *slat* bricks.

Slatch, (*slăch,*) *n.* (*Naut.*) Tho time of duration of a slant wind. — An intervsl of fair weather. — The slsck of a rope.

Slate, *n.* [Swed. *slita.*] (*Geol.* and *Min.*) A very remarkabls form of clay rock, frequently fossiliferous aud not confined to one geological period. Consistiug essentially of clay, ths particles of *S.* are so mechanically arranged that the rock splits with perfect facility luto

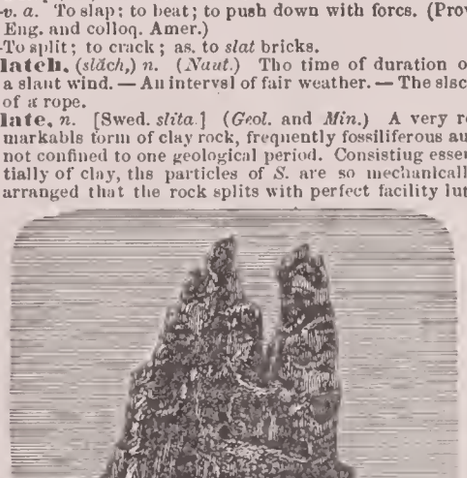


Fig. 2378

SLATE QUARRIES AT PENRHYN, (North Wales.)

almost indefinitely thin layers in one direction only, and in all others either breaks with a jagged edge, or in well-defined joints at some distance from each other. Mineralogically, *S.* is nothing more than a pure clay; nor does there seem any reason to suppose that any approach is made in it towards crystalline structure. As, however, no other rock shows this tendency to split indefinitely, the case is one of great interest. Practically, slate is very valuable, owing to its peculiar facility of splitting, and the perfectly smooth natural face which it presents. Its hardness and compactness preserve it from all weathering by mere exposure, though, when ground down, it easily passes back lnto fins clay. *S.* is always, and properly, regarded as a metamorphic rock. It has certainly undergone much change, though it is not quite certain what the change n.ay have been. For a long time, *S.* wss used almost exclusively for roofing. For this purpose the slates are cut into sizes vsrying from a few square inches to two squsre feet, though some sre much lsrger. Tbis is done with very simple tools and extreme rapidity. The rest ls in siabs or thick slates, often very large. Tbe use of *S.* and siabs has increased considerably of late years. Slabs are now used in house fittings; as in strong rooms, powder magazines, lsrders, partitions, baths, stables, floors, drsins, &c. For all these, aud many liks purposes, its perfect resistance to the stmospbere, to sll chemicai influences, and to the passage of heat, render it invaluable. It is very iargely used also for enamelling; the surfacs of snamelled slate being made to represent marble of all kinds with wouderful accuracy, and resisting almost ali wear. Thus, for mantel-pieces, billiard-tsbles, ornamental sisbs, and furniture, it bas no equal, its cheapness being such as to drive other matcrial out of the market. Quarries of grest magnitude ars worked in Cornwall, Wsles, Scotland, snd Ireland. The product of ths Welsb quarries was formerly largely exported to ths U. States, but this business has received a serious chsck since tbe opening of vslnable quarries in Vermont, Nsw York, Psnnsylvania, Maryland, and other States.

Adhesive slate, a kind of greenish-gray siate, quickly sbsorbent of water, snd remarksble for its adhesivenesa. — *Bituminous slate,* s soft speciss of sectile slate-clay, impregnated witb bitumen. (*Buchanan.*) — *Hornblende slate,* a slaty rock, consisting of hornblende and fsldspar, with some chlorite;—principally used for flagging.

Slate, *v. n.* To cover with slate, or thin laminæ or plates of schistose stone; as, to *slate* a roof. — To fling or hurl slates or brick-ends at; as, to *slate* a policeman. — To set down npon a slate, ss a student's naius for future punishment.

—*v. a.* To set loose, as a dog, at any person or thing.

Slate'-axe, *n.* An implement used by slaters for chipping and trimming slates for roofs.

Slate Creek, in *Oregon,* a vllage of Josephins co., 16 m. N.E. of Kerbyvills.

Slate'-colored, *a.* Bluish-gray; of a hue resembling that of slate.

Slate'-pencil, *n.* A pencil of soft slate, nssd for writing on slates in school, &c.

Slat'er, *n.* One who sets or lays slates in order, or whose business is to slate bulldings.

Slate River, in *Virginia,* falls into Jsmes River from Buckingham co.

Slat'ersville, in *Rhode Island,* a post-village of Providence co., 13 m. N.N.W. of Providence; *pop.* abt. 1,800.

Slat'ing, *n.* Act of coverlng or roofing with slates. — The cover or roof thus put on. — Slate; matsrials for slating.

Slat'ington, in *Pennsylvania,* a post-borough of Lehigb co., 16 m. N.N.W. of Allentown. *Pop.* (1897) 2,950.

Slat'ter, *v. n.* [Ger. *schlottern,* to fit negligently.] To be dirty, careless, or slovenly in dress. — To be negligent, awkward, or careless.

Slat'tern, *n.* [Icel. *sladda,* to go squalidly.] A woman who is negligent of her dress or house, or who is untidy in her appearance or habits; oue who is not neat, clean, nice, or orderly.

(NOTE. The term *slottern,* in this sense, is synouymous with that ot *sloven,* applied to a man.)

—*a.* After the manner of, or resembling, a slsttern; sinttish; untidy; slatternly.

—*v. a.* To dissipato, squander, or waste recklessly; — preceding *away.* (R.)

Slat'ternliness, *n.* Stats or quality of being slatternly; lack of cleanliness or neatness.

Slat'ternly, *a.* Like a slattern; untidy; sluttish; dirty; negligent of orderly appearance or habits; as, a *slatternly* girl; — synonymous with *slovenly,* as spplied to the male sex.

—*adv.* Awkwardly; carelessly; negligently; untidily.

Slat'ting, *n.* Slate taken in the collective sense.

Slaty, (*slāt'y,*) *a.* Resembling slate; characterized by the nature or properties of sluts; composed of thin, parallel laminæ or plates, readily susceptible of cleavage; as, a *slaty* texture.

Slaughter, (*slaw'ter,*) *n.* [A. S. *slæg.;* Ger. *schlachter,* a butcher.] A killing in numbers; carnage; great destruction of human life by violent means; massacre; as, the enemy was defeated with immense *slaughter.* — A killing of oxen or other beasts for market; butchery.

—*v. a.* To slay in battle; to kill on an extensive scsis; to make great destruction of human life; as, no qnarter being given, every man was *slaughtered.* — To kill for the market; to butcher; as, to *slaughter* oxen or other beasts, he *slaughters* two bullocks a week.

Slaugh'terer, *n.* Ons engaged in slaugbtering; — specifically, a butcher.

Slaugh'ter-house, *n.* A piacs where beasts are slaughtered for market.

Slaugh'terman, *n.* A person employed in killing or slaughtering.

Slaugh'terous, *a.* Murderous; destructivs; disposed to carnage; as, a *slaughterous* intent.

Slaugh'terously, *adv.* In a manner conducive to slaughter; murderously; destructively; sanguinarily.

Slaugh'ter's Creek, in *Texas,* enters the Colorado River from Travis co.

Slave, *n.* [Du. *slaaf;* Ger. *sklave;* Fr. *esclave;* said to be from the *Sclavi,* who were reduced to servitude by the Germans.] A person wbo is wholly subject to the will, and at the mercy of, another; a bondman; a bondservant; a serf; a thrall. — One who has lost the power of self-resistance; one blind to auy controlling influence.

one who surrenders himself to any power whatever; as, a *slave* to avarice, ambition, lust, &c. — A drudge; a hack; a mean person; one who labors or drudges like a slave; one who is overworked and underpaid.

(*Law.*) One over whose life, liberty, and property another has unlimited control. The *Jus vitæ* and *necis* is included in pure and absolute slavery. Every limitation placed by law upon this absolute control modifies, and to that extent changes, the condition of the slave. In every slaveholding State of the U. States, the life and limbs of a slave were protected from violence inflicted by the master or a third person.

(NOTE. *Slave* often occurs in the construction of sufficiently self-explanatory compound terms; as, *slave*-captain, *slave*-dealer, *slave*-market, *slave*-owner, *slave*-ship, &c.)

Slave, *v. a.* To enslave; to make a slave of. (R.)

—*v. n.* To labor after the manner of a slave; to drudge; to toil; to fag; to work laboriously for scanty compensation; as, he *slaves* hard for a livelihood. — To deal in slaves.

Slave, Sclave, *n.* [Etymol. uncertain.] An individual of the Sclavonic race.

Slave'-born, *a.* Born in slavery, or compulsory servitude.

Slave'-catcher, *n.* One employed in the tracking and capture of a fugitive slave, or slaves.

Slave'-catching, *n.* The business of pursuing and capturing fugitive slaves, to restore them to their masters.

Slave'-coast, *n.* The name given to that part of the W. coast of Africa from which slaves are shipped and exported.

Slave'-coffle, *n.* Same as COFFLE, *q. v.*

Slave'-driver, *n.* An overseer of slaves while at their work; — hence, by analogy, a hard taskmaster.

Slave'holder, *n.* An owner of slaves; one who holds property in slaves.

Slave'holding, *a.* Retaining persons in compulsory servitude.

Slave'-hunt, *n.* A quest after persons to take into slavery. — A pursuit of fugitive slaves, with intent to restore them to their masters.

Slaveocracy, (*-ok'ra-se,*) *n.* [Eng. *slave*, and Gr. *kratein*, to exercise power over.] Formerly, in the U. States, the community of persons, exercising political influence, who represented, promoted, or defended the system of slavery as a social institution.

Slaver, (*slāv'er,*) *n.* (*Naut.*) A ship or vessel employed in the slave-trade; as, to chase a *slaver*. — Also, a slave-trader; a person engaged in the buying and selling of slaves.

—(*slăv'er.*) Saliva dripping or drivelling from the mouth; as, the *slaver* of a mad dog.

—*v. n.* To suffer the spittle or saliva to exude from the mouth. — To be smeared over with saliva.

—*v. a.* To besmear with drivel; to overspread with saliva issuing from the mouth.

Slav'erer, *n.* A driveller; an idiot.

Slav'eringly, *adv.* With slaver or drivel.

Slavery, (*slāv'-,*) *n.* State or condition of a slave; bondage; compulsory servitude; serfdom; state of absolute subjection of one person to the will of another. — Hence, analogically, drudgery; menial or laborious offices performed to eke out a livelihood.

(*Hist.*) Repugnant as such a state of things may appear to nature and reason, there can be no doubt that *S.* prevailed to a great extent among all the great nations of antiquity. The Latin name *servus*, which is usually translated *servant*, properly signifies a *slave*, and is derived from *servare*, to preserve; the *servi*, or slaves, being such persons as were taken in war, and their lives preserved, on condition of their becoming the absolute property of their masters. In like manner, the Hebrew word in the Old Testament, which in our version is translated *servant*, properly signifies *slave*; and from the curse which Noah denounces upon Ham and Canaan, immediately after the Deluge, we have reason to believe that the state existed even in antediluvian times. *S.* was authorized by the Jewish law, which lays down many directions as to how slaves are to be treated. Foreign slaves might be obtained by capture, purchase, or by being born in the house; and over these the masters had entire authority to sell, exchange, judge, punish, or even to put them to death. A Hebrew might also fall into *S.* in various ways: if reduced to poverty, he might sell himself for a slave; a father might sell his children for slaves, or creditors might sell their debtors; but in such cases the slave was not to be treated as a slave, but as a hired servant, and was to be restored to freedom at the year of jubilee. In Egypt, Chaldea, Arabia, and all over the East, slavery existed to a very great extent, and a large traffic in slaves was carried on. Among the Greeks, even as early as the time of Homer, we find *S.* a recognized institution; and none of the Greek philosophers seem to have regarded it as other than a regular and natural state of things. Aristotle lays it down that a complete household comprises both slaves and freemen, and defends the institution on the ground of diversity of races; and even Plato, in his perfect state, only desires that no Greeks should be made slaves by Greeks. At Athens, as well as in the other states of Greece, there was a regular slave-market, called the *kuklos*, because the slaves stood round in a circle. The number of slaves in all the Greek states was very great, far exceeding the number of free men. According to a census made during the archonship of Demetrius Phalereus, there were in Attica 21,000 free citizens, 10,000 strangers, and 400,000 slaves. Even those who doubt the accuracy of these figures, admit that there must have been three or four slaves to one of the free population. At Athens, even the poorest citizen had a slave to take care of his household; and Plato remarks that some had fifty, or even more. At Athens, and in Greece generally, slaves are said to have been more humanely treated than in Rome, where they could be tortured, and even put to death, at the discretion of their masters. Afterwards, a spirit of greater humanity began to prevail, and a succession of edicts were enacted by Claudius, Hadrian, and Antoninus Pius, by which the jurisdiction of life and death was taken away from the masters, and referred to the magistrate, and the *ergastula*, or dungeons of cruelty, were abolished. Hume, in his *Essay on the Populousness of Ancient Nations*, says that some great men among the Romans possessed to the number of 10,000 slaves; and Blair, in his *Inquiry into the State of S. among the Romans*, assigns as many as three slaves to every free person in Italy in the time of the Emperor Claudius. Slaves were not only employed in the usual domestic offices, and in the labors of the field, but also as mechanics, artisans, and in every branch of industry, some of them even filling offices of honor and trust, as factors or agents for their masters in the management of business. The spread of Christianity did much to ameliorate the condition of the slave, though the possession of them was for a long time not regarded as contrary to Christian principles; and down to the age of Theodosius, wealthy persons continued to keep as many as two or three thousand of them. Justinian did much to promote the ultimate extinction of slavery; but the number of slaves was again increased by the invasion of the barbarians; and finally the slaves became merged in the villeins and serfs of the Middle Ages. The personal servitude which grew out of the abuses of the feudal system, and to which the Germans had been accustomed, even in their primitive settlements, was exceedingly grievous, but it is not supposed to have equalled, in severity or degradation, the domestic *S.* of the ancients, or among the European colonies on the other side of the Atlantic. The feudal villein of the lowest order was indeed subjected to the most ignoble services; but in the eye of the law, in England, he was regarded as a villein only to his own master — to all other persons he was a free man — and he was even protected against excessive injuries at the hands of his master, who might be made answerable at the king's suit. That Africa was free from the blot which stained more advanced countries, even at a very early period, it is impossible to suppose, and is fully confirmed by what glimpses we obtain of its early history. There is no truth, therefore, in the statement that Europeans were the first to introduce that trade; for it has been proved that a great trade in slaves was carried on from the coast of Guinea by the Arabs some hundreds of years before the Portuguese embarked in the traffic. The Portuguese began to transport negroes from their possessions in Africa to Spanish America in 1501. In 1517 the Emperor Charles V. legalized the slave-trade, and granted a patent to certain persons to carry it on. The French under Louis XIII., and the English under Queen Elizabeth, formally permitted this trade. The most important markets for slaves in Africa were Bonny and Calabar, on the coast of Guinea, and they still remain among the principal. Here the slaves who came from the interior were exchanged for rum, brandy, toys, iron, salt, &c.; and the number of those beings who have thus been torn from their country during three centuries is calculated to amount to more than 40,000,000. The sufferings of the slaves during the passage were horrible, it being estimated that from 15 to 20 per cent. perished on it. Almost from the very time that this traffic was established, there were persons who more or less powerfully declared against it; but the honor of having systematically and successfully taken up the cause of the slave belongs emphatically to the Quakers, and the movement began more particularly about 1727. In 1751 the Quakers entirely abolished it among themselves; and in 1772 Granville Sharp obtained a decision of the English judges, in the famous case of the negro Somerset, that a slave as soon as he sets his foot upon English ground becomes free. In 1783 a petition for the abolition of the slave-trade was addressed to Parliament by the Quakers, and supported by Sir Cecil Wray; and in 1787 a society for the suppression of the slave-trade was established in London, and numbered among its members Wilberforce, Sharp, Dillwyn, and Thomas Clarkson, then a young graduate of Cambridge, to whose enthusiasm and energy the cause is probably more indebted than to the labors of any other man. It was not, however, till 1807 that a bill for preventing the further importation of slaves into the W. Indies passed both houses successively, and received the royal assent. *S.* was abolished in the British colonies in 1834. Long before that time, several of the N. American States had decreed the extinction of *S.* Vermont abolished it in 1777, before she had joined the Union. Pennsylvania in 1780, Rhode Island and Connecticut shortly after, New York in 1797, and New Jersey, in 1804, provided for the gradual emancipation of their slaves. In Massachusetts the Supreme Court declared that *S.* was abolished by the act of adopting the State Constitution of 1780. In 1820, the U. S. passed a law declaring the slave-trade to be piracy, but no conviction was obtained under the statute until Nov., 1861, when Nathaniel Gordon, master of a vessel called the *Erie*, was convicted and hanged at New York. The first slaves introduced into the territory of the American colonies were sold from a Dutch vessel, which landed 20 at Jamestown, Va., in 1620. The importation of slaves was received with great disfavor by the colonists. Laws were passed by the colony of Virginia restraining the practice; but their wishes were disregarded by the King, who, on the 10th day of December, 1770, issued an instruction, under his own hand, commanding the governor, "under pain of the highest displeasure, to assent to no law by which the importation of slaves should be in any respect prohibited or obstructed." In April, 1772, this rigorous order was solemnly debated in the Assembly of Virginia. A memorial to the King himself was prepared, declaring the importation of slaves from the coast of Africa "a trade of great inhumanity, and dangerous to the very existence of his majesty's American dominions," and praying that the interests of the few of his subjects in Great Britain who might "reap emolument from this sort of traffic" might be disregarded when placed in competition with the interests of the entire colonies. Their petition was of no avail; and with the further development of the country the institution of slavery, regarded at first as a moral and political evil, came to be recognized in the S. States as a social necessity. Washington, Jefferson, Madison, Franklin, Jay, Hamilton, and many others among the founders of our republic, regarded *S.* as inconsistent with the principles of the Declaration of Independence, and if they consented to give the system certain advantages, it was with the hope that they would be temporary. The Pennsylvania Abolition Society was founded in 1775, B. Franklin being elected president, and B. Rush secretary. Similar associations were founded in other States. In 1819–20, however, the opponents to *S.* were defeated in their resistance to the admission of Missouri into the Union as a slave State. On Jan. 1, 1831, William Lloyd Garrison began to publish in Boston *The Liberator*, in which he asserted that immediate liberation was the right of every slave and the duty of every master. Anti-slavery societies were organized on this basis in Boston, 1832, and in Philadelphia, 1833, which strongly influenced public opinion throughout the country. In 1840, a portion of the members of the American Anti-Slavery Society seceded, and formed the *American and Foreign Anti-Slavery Society*, and the political *Liberty Party*. This party was mostly absorbed in 1848 by the *Free-Soil Party*. This latter was in its turn absorbed by the *Republican Party*, which, in 1856, first became the exponent of the doctrine of *S.* restriction. In 1855, the American Abolition Society was founded in Boston to promote the views of those who held that the National Government had constitutional power to abolish *S.* in every part of the Union. Finally, the attempt to extend *S.* on one side, and to limit it on the other, conduced to the gigantic War of Secession, whose fruit was the total abolition of *S.* in the American Union, which is consecrated by the 13th Amendment to the Constitution. *S.* was abolished in the French colonies in 1848, and serfdom was abolished in Russia in 1861. *S.* was abolished in Brazil in 1871, and in the Spanish dependencies of Cuba and Porto Rico shortly after. Slavery still exists in North Africa, Arabia, and Turkey, and the active efforts to suppress the slave-trade in interior Africa have as yet proved ineffectual.

Slave'-trade, *n.* The general term applied to the traffic in slaves, formerly extensively carried on by civilized nations between the W. coast of Africa, the continent of America, and the W. Indies.

Slavic, Sclavic, (*slāv'ik,*) *a.* Same as SLAVONIC, *q. v.*

Slavish, (*slāv'ish,*) *a.* Pertaining, or relating, to slaves, or to compulsory servitude; servile; meanly dependent; as, *slavish* homage.

—Such as becomes a slave; laborious; toilsome; consisting in drudgery; as, editorship is a *slavish* occupation.

Slav'ishly, *adv.* In a slavish manner; servilely; abjectly; meanly; basely; obsequiously. — In the manner of a slave, drudge, or overworked and underpaid person.

Slav'ishness, *n.* State or quality of being slavish; servility; abject meanness.

Slavism, (*-izm,*) *n.* The individuality of the Sclavonic race.

Slavo'nia or **Sclavo'nia,** a prov. of Austro-Hungary, forming, with Croatia, a kingdom united with that of Hungary, bounded N. and E. by Hungary, W. by Croatia, and S. by Turkey; area, inclusive of the recently annexed portions of the former Military Frontier, abt. 6,600 sq. m.; pop. abt. 600,000, belonging to the Illyrio-Servian branch of the Slavs, and chiefly to the Greek church. Principal towns, Eszék (the cap.), Peterwardin, Carlovitz, Semlin, Mitrovitz, and Brod. The chief manuf. glass. *Pop.* (1897) 2,450,400.

Slavo'nian, Sclavo'nian, *n.* (*Geog.*) A Slave, or Sclave; a native or inhabitant of Slavonia, or Sclavonia.

Slavo'nian, Sclavo'nian, Slavon'ic, Sclavon'ic, *a.* (*Geog.*) Pertaining or relating to Slavonia, or to its inhabitants. — Belonging or having reference to the ancient *Sclavi*, a nation inhabiting the country between the rivers Save and Drave; as, the *Slavonic* languages.

Slavon'ic Languages, *n. pl.* (*Philol.*) A name applied to the dialects of Lithuania, Russia, and Poland, founded on the speech of the ancient *Sclavi*.

Slaw, *n.* [Du. *slaa*, salad.] (*Cookery.*) Sliced cabbage prepared raw or cooked, as a salad; as, cold *slaw*.

Slay, *v. a.* (*imp.* SLEW; *pp.* SLAIN.) [A. S. *slean*, *slagan*; Ger. *schlagen*, to beat, strike.] To kill; to put to death by a weapon or by violence; to murder; to slaughter; to assassinate; to destroy.

"And thrice he *slew* the *slain*." — *Dryden.*

Slay'er, *n.* One who slays; an assassin; a murderer; a killer; a destroyer of life.

Sleaford, (Ney,) (*sle'fŭrd,*) a town of England, co of Lincoln, on the Slea, 15 m. S.S.E. of Lincoln; *pop.* 4,000.

Sleave, *n.* [Ger. *schleife*, a knot.] The knotted or involved part of silk or thread; — also, silk or thread untwined.

Sleave silk, raw silk in the state in which it is ready for weaving.

Sleave, *v. a.* (*Weaving.*) To sley; to divide or separate, as a mass of threads.

Sleaved, (*slēvd,*) *a.* Raw; not spun or wrought; as, *sleaved* silk.

Slea'ziness, *n.* State, quality, or character of being sleazy.

Slea'zy, *a.* [From Ger. *schleitzen*, to decay.] Lacking firmness or consistence of texture or body; thin; flimsy; flaccid; as, *sleazy* muslin.

Sled, *n.* A sledge or sleigh. — A light seat mounted on runners, employed for sliding on snow or ice.

—*v. a.* To carry, convey, or transport on a sled; as, to *sled* lumber.

Sled'ding, *n.* Act or operation of conveying on a sled. —Means applicable to transportation on a sled, or sleds; as, the snow is good for *sledding*.

Sledge, (*slĕj,*) *n.* [A. S. *slecje*; Icel. *sleggia*; Ger. *schlagel*, a mallet.] A large, heavy hammer, used chiefly by workers in iron;—otherwise called *sledge-hammer*.

—[Dan. *slæde*, a car; Icel. *sledi*; Du. *slede*.] A sort of carriage or vehicle made to move on runners, or on very low wheels; as, specifically, a sled or sleigh, constructed for

Fig. 2379. — RUSSIAN SLEDGE.

sliding over the surface of snow (Fig. 2379), and drawn by horses, dogs, or reindeer.—In England, a hurdle formerly employed to convey traitors to the place of execution.

—*v. a.* To travel or transport in sledges.

Sleek, *a.* [Goth. *slaihts*, smooth to the touch.] Smooth; having an even or equable surface;—whence, glossy; highly polished; as, *sleek* hair, a *sleek* skin. — Not rough or harsh;—hence, specious; plausible; as, a *sleek* manner.

—*v. a.* To make even and smooth; as, to *sleek* the hair. — To render soft, smooth, or glossy;—hence, to make attractive, specious, or plausible.

"The persuasive rhetoric that *sleek'd* his tongue."—*Milton.*

Sleek, *adv.* With readiness, exactness, and dexterity; with handy aptness;—a vulgarism, frequently rendered *slick*; as, to do anything *slick*, i. e., off-hand.

Sleek'ly, *adv.* In a sleek manner.

Sleek'ness, *n.* State or quality of being sleek.

Sleek'-stone, *n.* A smoothing-stone.

Sleek'y, *adv.* Of a silky, or smooth and glossy appearance; as, the *sleeky* skin of a race-horse.

Sleep, *v. n.* (*imp.* and *pp.* SLEPT.) [A. S. *slápan.*] To glide away into temporary unconsciousness; to take rest by a relaxation or suspension of the voluntary action of the powers of the body and mind, and a lethargy of the organs of sensation: to slumber; to repose. — Hence, by analogy, to be inattentive, heedless, or unconcerned; to live without care or thought; to relax in vigilance or energy; as, he *sleeps* through life. — Also, to be dead; to rest in the grave for a time. — Hence, to rest; to be in repose; to lie quiet, or be still; to be inactive or motionless; not to be noticed or agitated; as, the matter *sleeps* for the present.

—*v. a.* To give the means of sleep to; to supply with conveniences for sleeping; as, that hotel can *sleep* a hundred guests. (R.)

—*n.* That natural state or condition of unconsciousness in animals which alternates with a period of activity. In this state, the involuntary functions, such as those of nutrition, secretion, &c., go on as usual, but the voluntary powers are quiescent. All action in the living economy produces waste of tissue; and, accordingly, rest is necessary in order that the deficiency may be made up. Hence it is that we feel refreshed after *S.*; the muscles possess greater strength, the nerves have attained a higher sensibility, and the powers of the mind are more active. The poet well speaks of "tired nature's sweet restorer, balmy *sleep*." Many hypotheses have been advanced by physiologists to account for the phenomena of *S.*, but all more or less unsatisfactory. According to some, it arises from mere exhaustion of the sensorial powers, the brain ceasing to act because it is fatigued and cannot act further until restored by rest. In many cases, however, we find excessive fatigue, either of mind or body, to be an effectual preventive of *S.* Others, again, refer *S.* to changes in the cerebral circulation, regarding it as arising from congestion or a retarded movement of the blood in the cerebral vessels, especially the veins, or, according to some, from a diminished flow of arterial blood to the brain. It is not improbable that several of these causes may be at work in producing *S.*, the nervous power being enfeebled by its expenditure during the waking state, and the circulation becoming slower, the vessels become, in consequence, congested, and there is a deficient supply of arterial blood, leading to a suspension of the powers of attention and voluntary motion. According to Sir Henry Holland, *S.* is not a single state, but "a succession of states in constant variation; their variation consisting not only in the different degrees in which the same sense or faculty is submitted to it, but also in the different proportions in which these several powers are under its influence at the same time." The approach of *S.* is announced by diminished activity of mind, and loss of the power of attention. The senses become blunted to external impressions, and we feel an unconquerable desire for stillness and repose. Our ideas grow confused, our sensations more obscure, our sight fails us, and, if our ears still perceive sounds, they are indistinct and seem as though distant. The eyelids close, the joints relax, and we instinctively assume an easy position and fall into a *S.* As a general rule, the senses and reasoning faculties sleep first, while the imagination and lighter ones remain longest awake. *S.* is at first deep, then soft and gentle, and becomes gradually less sound as the time for waking approaches. There is usually an intermediate state between sleeping and waking, in which the *S.* is very light, and from which persons can be aroused with the greatest facility. The amount of *S.* required by a person varies according to age, temperament, habit, and previous fatigue. The new-born infant sleeps almost continuously, and very old persons also require a great deal of *S.* Middle life is the period when the system requires the least *S.*; and women usually require less *S.* than men. The average amount of *S.* required by a healthy person is about eight hours: but it varies greatly in different individuals, some persons being able to sustain nature with only four hours, while some sluggish persons spend nearly half their time in *S.* Not one of the least strange of the phenomena of this state, is the power that some persons have of awaking at a particular hour predetermined on.

—Hence, analogically, rest in the grave; as, "the *sleep* that knows not breaking."—*Scott.*

Sleep of plants. One of the phenomena of irritability (*q. v.*) in plants. Light acts on plants as a powerful stimulus, essential to their active and healthy vegetation. When it is withdrawn, the flowers of many plants close, and the greater number show a tendency to it, while leaves more or less decidedly incline to fold themselves up. The leaf stalk also generally hangs down more or less, although in some plants it is more erect during sleep. The sleep of plants, however, is not always nocturnal. The flowers of some open and close at particular hours of the day. Thus, the crocus is a morning flower, and closes soon after mid-day, while some flowers expand only in the evening or during the night. Their hours of vegetative rest are probably as essential to the health of plants as those of sleep are to animals. It was Linnæus who first observed the sleep of plants in watching the progress of some plants of *lotus*, the seeds of which he had sown.

Sleep'-charged, Sleep'-heavy, Sleep'-laden, *a.* Overcome with sleepiness.

Sleep'er, *n.* A person who sleeps; also, a drone, or lethargic, lazy person. A sleeping car, (U. S.)

—An animal that lives through the winter in a torpid, comatose state, as the wood-chuck.

—*pl.* Pieces of timber employed to support others, and laid asleep, or with a bearing along their own length; *sleepers* denote more particularly those timbers which are placed lengthwise on walls to support the joists of a floor. *S.* are also employed on railroads as longitudinal parallel bearings for the rails to rest upon; in this sense, they are usually termed *stringers*; when lying across the road-bed, they take the name of *cross-sleepers*.

(*Naut.*) One of several knees which connect the transoms to the after-timbers on a ship's quarter; one arm of the sleeper lies on the foot-waling, and the other extends up the transoms;—also termed *transom-knees*.

—In glass manufacture, a large iron bar laid at right angles with smaller ones, which, while checking the passage of coals, allows the ashes to go through.

Sleep'ily, *adv.* In a sleepy manner; drowsily; with desire or disposition to sleep; dully; heavily; stupidly; in a lazy or lethargic manner.

Sleep'iness, *n.* State of being sleepy; drowsiness; inclination to sleep.

Sleep'ing, *p. a.* Devoted to sleep; occupied with sleep; as, *sleeping* hours.

—Appointed or furnished for sleeping; as, a railroad *sleeping*-car.

Sleeping partner, a dormant partner. See PARTNER.

—*n.* State of reposing in sleep.—State of being dormant or at rest; hence, freedom from agitation.

Sleep'less, *a.* Having no sleep; without sleep; wakeful; as, he passed a *sleepless* night.

—Restless: in perpetual commotion; as, *sleepless* waters, *sleepless* hate.

Sleep'lessly, *adv.* In a sleepless or wakeful manner.

Sleep'lessness, *n.* State of being sleepless.

Sleep'-waker, *n.* One under the influence of clairvoyance.

Sleep'-waking, *n.* State of a person mesmerized.

Sleep'y, *a.* (*comp.* SLEEPIER; *superl.* SLEEPIEST.) Disposed to, or overcome by, sleep; drowsy; not wakeful; as, to feel *sleepy*.

—Soporiferous: somniferous; tending to promote sleep; as, a *sleepy* draught or drink.—Lethargic; heavy; dull; lazy; inert; sluggish.

Sleet', *n.* [Icel. *sletta.*] (*Meteorol.*) Snow or hail which is in a partially melted condition before it reaches the surface of the earth. In some cases sleet may also be produced by the simultaneous precipitation of snow or hail from a superior, and of rain from an inferior, stratum of the atmosphere.

—To snow, or hail, with an intermingling of rain.

Sleetch, *n.* The thick mud or slush lying at the bottom of rivers.

Sleet'iness, *n.* State of being sleety; a state of weather in which rain falls mixed with hail or snow.

Sleet'y, *a.* Bringing sleet; consisting of sleet; as, a *sleety* shower.

Sleeve', *n.* [A. S. *slyf, slyfa*, from *slefan*, to clothe.] That which is put on, or clothes, the arm; — specifically, the part of a garment that is fitted to cover the arm, as, the *sleeve* of a coat.

Fig. 2380. — LONG KNOTTED SLEEVES, (From a Psalter, 12th century.)

—A knot in silk or thread. See SLEAVE.

(*Mach.*) A tubular part resembling a sleeve in form, and fitted to cover, or hold steady, another part that moves within it. — A long bushing, as in the nave of a wheel.

To laugh in the sleeve, to laugh in a secret or unobserved manner, while apparently keeping a grave or serious countenance before the object, or objects, of risibility.—*To pin* or *hang on the sleeve*, to cause to become dependent on.

—*v. a.* To put in sleeves; to furnish with sleeves; as, to *sleeve* a jacket.

Sleeve'-but'ton, Sleeve'-link, *n.* A button, or couple of buttons or studs linked together, to fasten the sleeve or wristband.

Sleid, (*slād,*) *v. a.* To prepare for use in the weaver's sley.

Sleigh, (*slā,*) *n.* Same as SLEDGE, *q. v.*

Sleigh-bell, a small bell attached to a sleigh or sledge or fastened to the horse which draws it.

Sleighing, (*slā'ing,*) *n.* Act of riding in a sleigh. The state of the snow or ice in winter, in so far as it renders the running of sleighs practicable.

Sleight, (*slīt,*) *n.* [A. S. *slíth*, slippery, changeable.] A sly artifice; a trick or feat so artfully and dexterously performed that the manner of performance eludes observation. — Hence, dexterity; artful or cunning practice.

Sleight of hand, legerdemain; prestidigitation.

Slen'der, *a.* (*comp.* SLENDERER; *superl.* SLENDEREST.) [A. S. *læne*, fragile; Belg. *slinder.*] Thin; slim; small in circumfereuce compared with the length; small in the waist; not thick, gross, or bulky; as, a *slender* figure, a *slender* stalk. — Fragile; feeble; weak; slight; not strong or vigorous; as, a *slender* chance, a *slender* constitution, a *slender* comfort.—Inconsiderable; trivial; mediocre; as, a person of *slender* capacity of mind. — Inadequate; small; meagre; sparing; pitiful; paltry; as, a *slender* pittance. — Not amply supplied; spare; pinched; limited; as, a *slender* stock of provisions.

Slen'derly, *adv.* In a slender manner; without bulk; sparely; meagrely; feebly; inadequately; as, a woman *slenderly* made, he left his family *slenderly* provided for, &c.

Slen'derness, *n.* State or quality of being slender; thinness; slimness; as, the *slenderness* of a lady's waist. Deficiency of body, bulk, or strength; as, the *slenderness* of a cord. — Slightness; flimsiness; as, the *slenderness* of an excuse or argument. — Feebleness; weakness, fragility; as, *slenderness* of bodily constitution. — Inadequacy; insufficiency; paucity; as, *slenderness* of means, income, or estate. — Spareness; meagreness; want of abundance or plenty; as, *slenderness* of aliment.

Slept', *imp.* and *pp.* of SLEEP, *q. v.*

Sles'wick. See SCHLESWIG.

Sleuth', *n.* [Scot.] The track of man or beast, as pursued by the scent.

Sleuth'-hound, *n.* Same as BLOOD-HOUND, *q. v.*

Slew, *imp.* of SLAY, *q. v.*

Slewed, (*slūd,*) *a.* Half-tight with liquor; somewhat inebriated; as, the man is *slewed*. (Colloq.)

Sley', *n.* [A. S. *slæ.*] A weaver's reed.

—*v. a.* Same as SLEAVE, *q. v.*

Slice', *v. a.* (*imp.* and *pp.* SLICED,) (*slīst.*) [Ger. *schleissen*, to cleave, to split; A. S. *slítan*, to slit.] To cut into thin pieces, or to cut off, as a thin, broad piece from; to cut in slices; as, to *slice* an apple. — To cut into parts or sections; to divide; as, to *slice* an estate among one's children.

—*n.* A thin, broad piece sliced or cut off; a shive; as, a *slice* of bread, a *slice* of bacon. — Anything broad and thin, like a slice; as, (1.) A peel or fire-shovel. (2.) A broad, thin piece of plaster. (3.) A spatula. (4.) A broad, thin, hatchet-shaped knife or carver; as, a *fish-slice*.

—*pl.* (*Ship-building.*) Small angular wedges driven, immediately before launching, under the shores by which a ship is sustained on the ways. Being driven in simultaneously all round the vessel by blows of hammers, the mass is raised sufficiently to enable the blocks on which the keel has rested to be removed.

Slic'er, *n.* One who, or that which, slices; — specifically, a lapidary's circular saw.

Slich', Slick', Schlich', *n.* [Du. *slijk*; Ger. *schlich.*] (*Metal.*) The ore of a metal; — especially of gold, comminuted and made ready for further working.

Slick', *a.* Sleek; smooth; glossy; as, *slick* stones.

—*adv.* See SLEEK.

—*v. a.* To make sleek or smooth.

Slick'ing, *n.* A narrow vein of ore.

Slick'ness, *n.* State or quality of being slick; smoothness; sleekness.

Slid, *imp* and *pp.* of SLIDE, *q. v.*

Slidden, (*slid'dn,*) *pp.* of SLIDE, *q. v.*

Slide, *v. n.* (*imp.* SLID; *pp.* SLID, SLIDDEN.) [A. S. *slidan, sliderian;* allied to GLIDE, *q. v.*] To move by slipping or gliding; to move along a surface without stepping, bounding, or rolling; as, a glacier *slides* into a crevasse. — Particularly, to move over ice or frozen snow, with an easy, uninterrupted course. — To pass inadvertently. — To pass smoothly along without agitation, difficulty, or obstruction; to pass in silent, unobserved progression; to pass silently and gradually from one state to another; as, a canal-boat *slides* through the water, he *slid* into the vacant place. — To slip; to fall; as, he *slid* into error.

—*v. a.* To push along by slipping; as, to *slide* along a plank. — To pass or put imperceptibly; as, to *slide* in a word to alter the sense of a question.

—*n.* Act of sliding; as, to take a *slide.* — A smooth and easy passage; as, a *slide* of the voice, a *slide* into a fortune. — The descent of a detached piece of earth or rock down a declivity; a land-slip. — A timber-shoot on a hillside.

(*Geol.*) A vein of clay intersecting a lode, and producing a vertical dislocation.

(*Mus.*) A grace used in the German school, consisting of two small notes moving by degrees.

(*Mach.*) In steam-engines, a contraction for SLIDE-VALVE, *q. v.*

Slid'er, *n.* One who, or that which, slides. — The part of a machine or instrument that slides.

Slide'-rest, *n.* (*Mach.*) In turnery, a guide employed to carry forward the cutting-tool of a lathe to the axis of the revolving object.

Slid'er-pump, *n.* A kind of pump in which the piston revolves continuously, ejecting the water through a pipe by means of a slide regulated by a spring, which prevents it from passing in any other direction.

Slide'-valve, *n.* (*Mach.*) In locomotive engines, the valve placed in the steam-chest to work over the steam-ports. It regulates the admission of steam to the cylinder from the boiler, and, also, the escape of the steam from the cylinder to the atmosphere.

Slid'ing, *n.* Act of sliding; lapse; falling.

Slid'ing-keel, *n.* (Sometimes called CENTRE-BOARD.) (*Naut.*) A narrow, oblong board let down at pleasure through the bottom of a small vessel, to serve as a deepening of the keel throughout a portion of her length. Its use is, like that of the lee-board, to sustain the vessel against the lateral force of the wind, and to enable it to bear more sail.

Slid'ing-rule, *n.* A rule constructed with logarithmic lines, formed upon a slip of wood, brass or ivory, inserted in a groove, in a rule made to slide longitudinally therein, so that by means of another scale upon the rule itself, the contents of a surface or solid may be known.

Slid'ing-scale, *n.* (*Pol. Econ.*) A theory to regulate prices by varying the rate of taxation on imports in proportion to the price at which a home product of the same or a similar kind is offered for sale. — A sliding-rule.

Slid'ing-ways, *n. pl.* (*Ship-building.*) Two narrow inclined planes built strongly on the shipway, and intended to form the tracks by which the cradle sustaining the vessel glides into the water.

Slieve Beg, (*sleev*) in Ireland, a mountain of the co. Down, 2½ m. W.S.W. of Newcastle, 2,384 feet high.

Slieve Car, in Ireland, a mountain of the co. Mayo, prov. of Connaught, between Lough Conn and Blacksod Bay, 2,368 feet high.

Slieve Don'ard, in Ireland, a mountain of the co. Down, prov. of Ulster, 2 m. S.W. of Newcastle, 2,796 ft. high.

Slight, (*slīt,*) *a.* (*comp.* SLIGHTER; *superl.* SLIGHTEST.) [Dan. *slet.*] Plain; superficial; cursory; not thorough; not deep; faint; weak; inconsiderable; not forcible; not strong or firm; not calculated to endure; negligent; not vehement; not done with effort; as, a *slight* structure, impression, remark, inspection, pain, effort, and the like. — Slim; slender; not heavy or corpulent; as, a person of *slight* figure. — Thin; flimsy; not stout, strong, or thick; as, a fabric of *slight* texture.

—*n.* A partial degree of contempt manifested negatively by neglect or indifference; disregard; inattention; disdain; as, to receive a *slight* from an old acquaintance.

—*v. a.* To disregard or taboo from the consideration that a person or thing is trivial, or of little value or importance, or unworthy of notice; as, to *slight* the offices of religion.

To slight over, to perform hastily or superficially; to run over, or treat negligently or indifferently; as, to *slight over* an irksome task.

Slight'er, *n.* One who slights, or treats with neglect or indifference.

Slight'ingly, *adv.* In a slighting manner; with neglect or indifference; without attention or respect; as, he spoke of him *slightingly.*

Slight'ly, *adv.* In a slight manner: superficially; weakly; with inconsiderable force or effect; in a small degree; negligently; with moderate contempt; without regard.

Slight'ness, *n.* State or quality of being slight; superficialness; weakness; deficiency of force, strength, or substance; as, the *slightness* of an accident, the *slightness* of an excuse or impression. — Negligence; lack of vigor or vehemence which commands attention; as, the *slightness* of a sermon or literary composition.

Slight'y, *a.* Slight; flimsy; unsubstantial; superficial. — Trivial; inconsiderable; unmomentous.

Sli'go, a seaport-town of Ireland, cap. of a co. of same name, pleasantly situate at the mouth of the river which flows from Lough Gill to Sligo Bay, 69 m. from Londonderry. It has various charitable institutions, market-houses, news-rooms, and a theatre. It is the entrepôt of an extensive country, and is, therefore, a place of considerable trade. *Pop.* 12,420.

Sli'go, in *Ohio,* a village of Clinton co., 6 m. N.E. of Wilmington.

Sligo, in *Tennessee,* a village of De Kalb co., 70 m. S.E. of Nashville.

Sli'ly, *adv.* [From *sly.*] In a sly manner; insidiously; with artful or dexterous craft or secrecy.

Slim, *a.* (*comp.* SLIMMER; *superl.* SLIMMEST.) [Du. *slim,* wry, oblique; Ger. *schlimm,* wrong, bad.] Slender; of small diameter or thickness in proportion to the height; as, a *slim* young girl. — Weak; slight; flimsy; trivial; unsubstantial; as, a *slim* argument, a *slim* excuse.

Slime, *n.* [A. S. *slim;* Du. *slyn;* Ger. *schleim.*] Viscous mud; soft, humid earth or clay, possessing an adhesive quality.

(*Mining.*) Mud or earthy particles mixed with metallic ores.

Slime'-pit, *n.* A pit or deposit of slime or viscous mire.

Sliminess, (*slīm'-,*) *n.* Quality of being slimy; viscosity.

Slimness, (*slīm'-,*) *n.* State or quality of being slim; slenderness.

Slimy, (*slīm'y,*) *a.* (*comp.* SLIMIER; *superl.* SLIMIEST.) Consisting of, or abounding with, slime; as, *slimy* ground. — Covered with slime; as, a *slimy* frog. — Viscous; glutinous; resembling or partaking of the quality of slime.

Sli'ness, *n.* A different orthography of SLYNESS, *q. v.*

Sling, *n.* [Du. *slinger;* Ger. *schlinge,* a snare, a springe, a noose.] A contrivance for casting stones (Fig. 2381),

Fig 2381. — EGYPTIAN SLINGERS AND SLING.

consisting of a leathern strap and two strings. — A throw; a stroke.

(*Surg.*) A kind of suspensory bandage put round the neck, in which a wounded arm or hand is supported.

(*Drinks.*) A beverage composed of equal parts of spirit and water sweetened; as, gin *sling.*

—*pl.* (*Naut.*) On shipboard, combinations of rope for hoisting horses, cattle, casks, or goods, in or out of the vessel. — Also, ropes or chains by which the yards are suspended in their places to the relief of the lifts.

—*v. a.* (*imp.* and *pp.* SLUNG.) [A. S. *slingan;* Du. *slingen;* Ger. *schlingen.*] To throw or hurl with a sling; as, to *sling* stones. — To pitch; to throw; to cast. — To hang so as to swing, as, to *sling* panniers across a mule.

(*Naut.*) To hang in ropes, or suspend, as a cask, bale, package, piece of ordnance, and the like, so as to attach to a tackle and hoist or lower.

Sling'-cart, *n.* (*Mil.*) In artillery service, a two-wheeled carriage for transporting ordnance through short distances. A *sling-wagon* has four wheels, and is used for longer distances.

Sling'er, *n.* One who slings, or uses the sling.

Slink, *v. n.* (*imp.* and *pp.* SLUNK.) (SLANK, *old* and *rare.*) [A. S. *slincan.*] To sneak off or away; to creep away stealthily; to steal away meanly; as, he *slunk* out of sight like a beaten cur. — To miscarry, as a beast; to cast young prematurely; as, a mare *slinks* her foal.

—*v. a.* To abort or miscarry of, as the female of a beast.

—*a.* Cast or dropped prematurely; as, a *slink* lamb.

—*n.* The produce of a beast delivered prematurely; especially, a calf brought forth before the proper time. — A sneak; a prying, eavesdropping, knavish fellow; — used as provincial English.

Slink'y, *a.* Lank; thin; lean; meagre; scraggy; scrawny.

Slip, *v. n.* (*imp.* and *pp.* SLIPPED,) (*slīpt.*) [A. S. *slipan;* Ger. *schlüpfen.*] To slide; to glide; to move along a surface without bounding, rolling, stepping, or bumping. — To slide; not to tread or pass the feet firmly; as, when you walk be careful lest you *slip.* — To move or start out of place; as, an ill-set bone *slips* out again. — To sneak; to slink; to levant; to decamp; to depart or withdraw secretly; — preceding *away;* as, let him *slip away* without observation. — To err; to go astray; to fall into fault or error; as, he *slips* in his speech. — To glide; to pass imperceptibly or unexpectedly; as, jelly *slips* down one's throat. — To creep into by oversight or inadvertence; as, some errors may *slip* into the book, notwithstanding every precaution. — To escape insensibly; to be lost; as, you have allowed it to *slip* your memory. — *To let slip,* to loose from the slip or leash, as a hound.

—*v. a.* To convey or transmit privately; as, to *slip* a love-letter into a lady's hand. — To lose by negligence; to forfeit by omission of performance; as, do not let *slip* an opportunity of writing to me. — To part twigs from the branches or stem of a tree; to cut; to take off; as, the scions may now be *slipped.* — To leave slily; to escape from secretly; as, the fellow *slipped* me after all. — To free; to let loose; as, to *slip* a greyhound. — To throw off, or disengage one's self from; as, my horse *slipped* his bridle, and ran away. — To miscarry; to undergo abortion of, as a beast; as, to *slip* a calf or foal.

To slip a cable. (*Naut.*) To veer out a cable, and let go the end of it; — hence, to let it go altogether along with the anchor attached, as in a sudden gale, or when the ship is in imminent jeopardy.

To slip on, to throw or put on hastily or negligently; as, to *slip on* a coat.

Slip, *n.* Act of slipping; as, his foot made a *slip.* — An inadvertent fault, error, or omission; as, a *slip* of the tongue, a *slip* of memory. — A scion or twig severed from the parent stock; a cutting; as, the *slip* of a rose-tree. — A kind of jetty or pier forming an inclined plane from a quay to the surface of a river or harbor, constructed for the landing of passengers, goods, &c., from steamers, packet-boats, &c., in all states of the tide. — A long, narrow piece; as, a *slip* of paper or parchment. — A leash, noose, or string by which a dog is held; — so styled from its being made to *slip* or fly loose by action of the hand at will; as, a greyhound in the *slip.* — A secret or unexpected desertion; a stealing suddenly away; a stealthy escape; as, to give one's creditors the *slip.* — Anything easily slipped on or fitted to another thing, or to a person; as, (1.) A loose negligée worn by females; a wrapper. (2.) A kind of flounce or overskirt partly covering a woman's dress; as, a satin *slip.* (3.) An external case or covering; as, a pillow-*slip.* — Among potters, the clayey cream, size, or cement used for attaching pieces to crockery-ware, such as handles to jugs, &c. — A narrow alley or passage between buildings. — In the U. States, a narrow, doorless pew in churches.

(*Ship-building.*) In a dockyard, an inclined plane having an inclination to the horizon of about 1 in 19, laid upon a most solid foundation, and serving as the base upon which a ship is built, and from which, by its slope, the vessel is launched into the water when finished. *Repairing slips* are now furnished with carriages, on many wheels and rails, which are run under ships as they float at high tide, so that when the ebbing water has grounded the vessels on the trucks, they can be hauled up by steam-power high and dry for examination and repairs.

(*Print.*) A portion of printed matter struck off by itself; a proof from a column of type when set up and in the galley.

(*Geol.*) A mass of strata separated aslant.

(*Engineering.*) The motion of the centre of resistance of the float of a paddle-wheel, or of any propeller through the water horizontally. This, being deducted from the speed of the propeller, will give the rate of speed made by the vessel.

Slip'-board, *n.* A board sliding in grooves.

Slip'coat-cheese, *n.* A rich variety of new-made cheese, resembling butter, but white; — sometimes called *cream-cheese.*

Slip'-knot, (*-not,*) *n.* A knot which slips along the line or rope around which it is made.

Slip'-link, *n.* (*Mach.*) A connecting link so constructed as to allow some play of the parts, to avoid concussion.

Slip'-on, *n.* In Scotland, a kind of over-coat, worn after the manner of a wrapper across the shoulders.

Slip'per, *n.* [A. S., from *slipan,* to slip.] A kind of light shoe, which may be slipped on with ease and worn in undress.

—A kind of child's pinafore. — One who, or that which, slips; as, a *slipper* of crockery-ware, a *slipper* of greyhounds from the leash, &c. — A kind of iron slide or socket for the wheel of a wagon.

Slip'pered, (*-perd,*) *a.* Wearing slippers.

Slip'periness, *n.* State or quality of being slippery; smoothness; glibness; as, the *slipperiness* of ice; lubricity of character; want of footing; uncertainty; as, the *slipperiness* of the law.

Slip'pery, *a.* Apt to slip, or cause to slip; smooth; glib; having the quality opposed to adhesiveness; as, frozen water is *slippery.* — Not affording firm footing or confidence; as, a *slippery* expectation. — Apt or liable to slip; not standing firm; as, a *slippery* position. — Changeable; unstable; uncertain; mutable; as, the *slippery* turns of fortune.

—Not easily held or retained; liable to slip away; as, a *slippery* prisoner. — Not certain in its effect; as, a *slippery* trick.

Slip'pery Ford, in *California,* a post-villaga of El Dorado co., 45 m. N.E. of Placerville.

Slip'pery Rock, in *Pennsylvania,* a post-township of Butler co., 44 m. N.W. of Pittsburg. — A township of Lawrence co.

Slip'pery Rock Creek, in *Pennsylvania,* flows into the Beaver River from Lawrence co.

Slip'piness, *n.* A rare rendering of SLIPPERINESS, *q. v.*

Slip'-rope, *n.* (*Naut.*) A rope by which a cable is secured preparatory to slipping it.

Slip'shod, *a.* [*slip* and *shod.*] Wearing shoes like slippers, without pulling up the quarters; as, a *slipshod* woman. — Hence, shuffling; loose, careless, or negligent in manner, style, &c., as, a *slipshod* demeanor, a *slipshod* style of writing, &c.

Slip'-shoe, *n.* Another name for slipper.

Slip'slop, *a.* [*slop* reduplicated.] Bad liquor.

Slit, *v. a.* (*imp.* SLIT; *pp.* SLIT, or SLITTED.) [A. S. *slītan;* Du. *slyten;* Ger. *schleissen.*] To rend; to split; to cut in two pieces; as, to *slit* a quill. — To cut lengthwise; to cut into long pieces or strips; as, to *slit* a board. — To cut or score, or make a long fissure in or upon; as, to *slit* the ears or nose.

—*n.* A long cut, or a narrow opening; as, a *slit* in the nose. — A cleft or crack in the breasts of cattle.

Slith'er, *v. a.* [Ger. *schlittern.*] To slide; to glide.
Slit'ter, *n.* One who, or that which, slite.
Slit'ting-mill, *n.* A mill where iron bars, plates, &c., are slit into long, narrow strips, as nail-rods and the like. — A machine employed by lapidaries for slicing stones, commonly by means of a revolving wheel (see SLICER) supplied with diamond-powder.
Slit'ting-roller, *n.* (*Much.*) One of a pair of rollers fitted with alternate ribs entering between each other, and cutting, as iron, &c., in the manner of a pair of shears.
Sliv'er, *v. a.* [A. S. *slifan*, to split, cleave.] To cut or divide lengthwise; as, to *sliver* a piece of deal.
—*n.* A long piece cut or rent off, or a piece cut or divided lengthwise.
—A light ribbon, or twist of cotton, wool, &c., to be formed into a thread.
Sloak'au, *n.* (*Bot.*) Same as LAVER, *q. v.*
Sloam, *n.* (*Geol.*) A layer of clay between seams of coal.
Sloansville, (*slōns'vill,*) in *New York*, a post-village of Schoharie co., 35 m. N.W. of Albany.
Sloat, *n.* Same as SLAT, *q. v.*
Sloats'burg, in *New York*, a post-village of Rockland co., 36 m. N. of New York.
Slobodsk, or **Slobod'skoi,** a town of European Russia, govt. of Viatka, on the Viatka River, 16 m. N.E. of Viatka; *pop.* 6,000.
Slock'ing-stone, *n.* A rich piece of ore exhibited as a bait for persons to engage in a mining enterprise.
Slo'cum, in *Pennsylvania*, a post-township of Luzerne co. *Pop.* (1897) 460.
Sloe, *n.* (*Bot.*) See PRUNUS.
Slo'gan, *n.* [Gael. and Scot.] Among the Scots Highlanders, the war-cry, or gathering-word, of a clan.
Slo'nim, a town of Russian Poland, govt. of Grodno, 72 m. S.E. of Grodno; *pop.* 7,500.
Sloo, *n.* Same as SLOUGH, *q. v.*
Sloop, *n.* [Du. *slœp*; L. Sax. *sluup, slupe*; Ger. *schaluppe*; Fr. *chaloupe.*] (*Naut.*) A vessel with one mast like a cutter, the main sail of which is attached to a gaff above, to a boom below, and to the mast on its foremost edge.

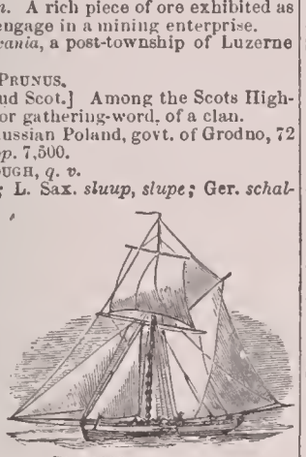


Fig. 2382. — A SLOOP.

Sloop of war. (*Nav.*) A vessel of war below the size of a corvette, and above that of a brig. It is either ship-, brig-, or schooner-rigged, and carries an armament varying from 18 to 32 guns
Slootsk, or **Slutsk,** a town of Russian Poland, govt. of Minsk, 63 m. S.W. of Minsk; *pop.* 8,000.
Slop, *v. a.* [Etymol. uncertain.] To spill; to cause to overthrow, as a liquid, by the motion of the vessel containing it. — To soil by letting water or other liquid fall upon.
—*v. n.* To overflow or be spilled, as a liquid; — generally before *over.*
—*n.* Water carelessly spilled or thrown about on a table or floor; a puddle. — Mean liquor; mean liquid food.
—*pl.* Dirty water; refuse liquid matter of kitchens, bedrooms, &c.; also, coarse liquid food, spoon-meat, &c.
Slop-basin, or *Slop-bowl,* a basin or bowl for containing slops; — particularly, for receiving the dregs of teacups at the table.
Slops, *n. pl.* [A. S. *to-slupan*, to slip, roll, or tumble down.] Pantaloons, or trowsers, made so as to slip on easily; — hence, ready-made clothes, bedding, &c., more especially such as are suited to seafaring persons.
Slope, *n.* [Probably from *slip.*] A surface which is inclined, so that anything placed on it is apt to slip or slide down; a declivity, also an acclivity—any declivity being necessarily an acclivity also; as, the *slope* of a hill. — A line or direction inclining from a horizontal line; properly, a direction downward.
—*a.* and *adv.* Same as ASLOPE, *q. v.*
—*v. a.* To form with a slope; to form to declivity or obliquity; to incline; to direct obliquely; as, to *slope* the ground in a pleasure-garden.
—*v. n.* To be declivous or inclined; to take an oblique direction; as, a *sloping* way. — To decamp; to levant; to take one's self off suddenly or stealthily.
Slope'ness, *n.* State of being aslope or inclined; declivity. (R.)
Slop'ing, *p. a.* Oblique; declivous; inclining, or inclined, from a horizontal or other right line or plane.
Slop'piness, *n.* State of being sloppy.
Slop'py, *a.* Wet, so as to spatter; plashy; miry; muddy; as, the ground is *sloppy* under foot.
Slop'-seller, *n.* A vender of ready-made clothes, especially for sea-rig.
Slop'-shop, *n.* A place where slope are exposed for sale.
Slop'-work, *n.* The manufacture of slops, or cheap ready-made clothing, bedding, &c.
Slop'y, *a.* Declivous; sloping; inclined.
Slosh, Slosh'y, *n.* and *a.* Same as SLUSH and SLUSHY.
Slot, *n.* [Du *slot*, a lock; Icel and Dan. *slot*, a strong hold.] A bar or bolt; a slat or sloat. — A narrow piece of timber which fastens, connects, or holds together larger pieces.
(*Mach.*) A mortise in a plate of metal, or an aperture through the same, for the reception of some part of a machine.
Slot, *v. a.* To shut or close with violence; to slam; to bang; as, to *slot* a door.
Slote, *n.* A trap-door in the stage of a theatre.
Sloth, (*slōth,*) *n.* [A. S. *slœwth*, from *sluu*, slow.] Tardiness; slowness; as, "this dilatory *sloth* of Rome." (*Shaks.*) — Indisposition toward action, exertion, or labor; sluggishness; laziness; idleness.
(*Zoöl.*) See AI, and BRADYPODA.
Sloth'ful, *a.* Addicted to sloth; idle; lazy; indolent; sluggish; inactive; inert; as, *slothful* ease.
Sloth'fully, *adv.* Sluggishly; idly; inactively.
Sloth'fulness, *n.* State or quality of being slothful; indulgence of sloth; inactivity; sluggishness; laziness.
Slot'-hound, *n.* A hound which tracks a deer by the slot; a sleuth-hound; a blood-hound.
Slot'ted, *a.* Having a slot.
Slot'ting-machine, *n.* A machine in which a tool moves vertically, in the manner of a mortising chisel, so as to cut out slots or mortises, or to pare round the edge of any object requiring to be made fair and smooth round the edge.
Slouch, *n.* [Swed. and Goth. *sloka*, to hang down.] A hanging down; a depression of the head, or of some part of the body; an ungainly, awkward gait; as, "he hath a sort of *slouch* in his walk." (*Swift.*) — An awkward, clumsy, clownish fellow.
—*v. n.* To hang down; to have a downcast, sheepish, clownish look, gait, or demeanor.
—*v. a.* To cause to hang down; to depress.
Slough, (*slou,*) *n.* [A. S. *slog*; Gael. *sloc, slochd*, a pit; W. *ysluch*, a slough.] A piece of deep mud, mire, or slush; a hole full of mire, chiefly in a road.
—(*slūf.*) [Ger. *schluuch*, a skin.] The cast-off skin of a serpent or other reptile.
(*Med.*) The dead part of flesh or skin that separates from the living parts in a wound or ulcer during mortification.
—*v. n.* (*Surg.*) To separate from the living parts. (To *come off*, to *fall off*, to *peel off*, to *slough off*, are all adopted to express the action of separation of dead from living structure.)
Sloughy, (*slou'y,*) *a.* Miry; sluehy; full of sloughs, as a road.
—(*slūf'y.*) Resembling, or partaking of the nature of, a slough; noting the condition of a wound, or of mortification when the dead tissue is about to separate from the living.
Slo'vaks, the name of the Slavic inhabitants of N. Hungary, who, in the 9th cent., formed the nucleus of the great Moravian kingdom, but who, after the bloody battle of Presburg (A. D. 907), were gradually subjugated by the Magyars, to whom even yet they entertain no friendly feeling. Their number is reckoned at 2,750,000, of whom 800,000 belong to the Protestant, and the rest to the Catholic Church. The S., whose character probably comes nearest to that of the old Slavic type, travel in great numbers over Germany and Poland as pedlers (Fig. 2383). Their language is a dialect of the Bohemian.

Fig. 2383. — A SLOVAK.

Sloven, (*slūv'n,*) *n.* [Du. *slof*, slow, *sloffen*, to trail one's feet along.] Literally, a slow or sluggish man; — specifically, a man or boy habitually negligent of neatness and order; one who is careless of his dress or negligent of cleanliness. See SLATTERN.
Slovenliness, (*slūv'n-,*) *n.* State or quality of being slovenly.
Slovenly, (*slūv-,*) *a.* Careless or negligent of dress, or of neatness or cleanliness of appearance; as, a *slovenly* man. — Loose; irregular; disorderly, not exact, precise, or neat; as, a *slovenly* dress, a *slovenly* piece of work.
—*adv.* In a careless, negligent, inelegant manner.
Slow, (*slō.*) *a.* (*comp.* SLOWER; *superl.* SLOWEST.) [A. S. *slaw.*] Inactive; tardy; dilatory; acting with circumspection or deliberation; not hasty; not precipitate; as, the Lord is merciful, and *low* to anger. — Moving a small distance in a certain time; not quick or alert in motion; not swift or rapid; as, a *slow* walker, a *slow* rate of speed. — Long in taking place; not happening in a short time; as, the change is *slow*, but sure. — Not ready, prompt, or quick; as, a person *slow* of speech. — Behind in time; noting a time later than the true time; as, my watch is *slow*. — Heavy in wit; intellectually dull; wanting quickness, briskness, or liveliness of understanding; as, a person of *slow* perception or comprehension, they are a *slow* sort of people, &c. — Wearisome; tricte; vapid; dull; as, life is *slow* to some people.
(NOTE. *Slow*, used in the formation of self-explaining compounds, gives *slow*-spirited, *slow*-paced, *slow*-sighted, and the like.)
Slow, *v. a.* To lessen the speed of; to retard; as, to *slow* a railroad-train.
Slow'ly, *adv.* In a slow manner; with moderate motion; not rapidly; not soon; not in a little time; not hastily or rashly; not readily or promptly; tardily; with slow progress; as, he *slowly* recovered, money comes in *slowly.*
Slow'ness, *n.* State or quality of being slow; dilatoriness; tardiness; want of speed or celerity; moderate progression; dulness to admit conviction or impression: want of readiness or promptness; dulness of intellect; deliberation; coolness; caution in deciding.
Slows, *n.* (*Med.*) Another name for the MILK-SICKNESS, *q. v.*
Slub, Slub'bing, *n.* A roll of wool slightly twisted.
—*v. a.* (*imp.* and *pp.* SLUBBED,) (*slūbd.*) To draw out and slightly twist, as wool.
Slub'ber, *v. a.* [Du. *slobberen*; Icel. *slupra.*] To do anything lazily, imperfectly, or rudely. — To stain; to daub; to smear; to smudge; — also, to cover carelessly.
Slub'bing-machine, *n.* The machine used in the formation of slubs.
Sludge, (*slūj,*) *n.* (See SLOUGH.) Mire; soft mud; slush. — Some floating pieces of ice and snow.
Sludge'-hole, *n.* (*Mach.*) The mud-hole of the boiler of a steam-engine.
Sludger, (*slūj'r,*) *n.* A borer for use in sludge, a bog, or quicksand.
Sludg'y, *a.* Slushy; muddy; miry.
Slue, Slew, *v. a.* (*imp.* and *pp.* SLUED,) (*slūd.*) (*Naut.*) To turn, as a cylindrical piece of timber, as a spar, boom, &c., about its axis, without moving it out of its place; as, to *slue* the main-yard. — To twist or turn about; — usually with *round*; as, he *slued round*, and took to his heels.
—*v. n.* To turn about or aside from the course; — generally before *round.*
Slug, *n.* [Du. *slek*, slug, slug-snail; allied to *slow.*] A slow, lazy, sluggish fellow; a sluggard.
(*Mil.*) A cylindrical or oval piece of metal used for the charge of a gun, probably so named from its resemblance in shape to a *slug* or snail.
(*Zoöl.*) See LIMAX
—*v. a.* To load with a slug or slugs; as, to *slug* a fowling-piece.
Slug'gard, *n.* [*Slug*, and term. *ard.*] A drone; a person constitutionally or habitually slow, lazy, idle, inert, or inactive.
—*a.* Sluggish; lazy; as, *sluggard* sleep.
Slug'gish, *a.* Slow; lazy; idle; slothful; habitually or naturally given to indolence or laziness; dull in action; as, a *sluggish* man, a *sluggish* temperament. — Having little motion; slow; as, a *sluggish* stream. — Lacking power to move; inert; inactive; — said either of a person or thing.
—Vapid; dull; spiritless; tame; inane; simple; as, a *sluggish* fancy.
Slug'gishness, *n.* State or quality of being sluggish; natural or habitual indolence or laziness; sloth; dulness; as, *sluggishness* of the understanding. — Inertness; absence of power of motion; — applied to inanimate matter. — Slowness of motion; as, the *sluggishness* of a river.
Slugs, *n. pl.* (*Mining.*) Half-roasted ore.
Sluice, (*slūs,*) *n.* [Du. *sluis*. a flood-gate; Ger. *schleuse*; Fr. *écluse.*] (*Hydraul.*) A frame of timber, stone, or other solid substance, serving to retain and raise the water of a river or canal, and when necessary, to give it vent. — Hence, an opening; a source of supply: that from which anything flows; as, the eyes are the lachrymal *sluices* of sensibility. — The stream of water issuing through a flood-gate. — Hence, any stream, or that which is considered as flowing in a stream.
—*v. a.* To open, as a flood-gate or sluice; to wet abundantly; to overwhelm; as, to *sluice* grass-lands.
Sluicy, (*slūs'sy,*) *a.* Falling in streams, as from a sluice or flood-gate; as, *sluicy* rain.
Slum, *n.* [Etymol unknown.] Any portion of a city or large town, inhabited by a squalid or vicious population; any low neighborhood, or refuge of the criminal and the destitute; as, the *slums* of New York.
Slum'ber, *v. n.* [A. S. *slumerian.*] To sleep lightly; to doze or drowse. — To sleep; — used chiefly in the poetic and more elevated sense. — To be in a state of negligence, indifference, supineness, idleness, or inactivity; as, "the *slumbering* ages." — *H. Taylor.*
—*v. a.* To lay to sleep. — To stupefy; to stun; as, to *slumber* one's conscience.
—*n.* Light sleep; sleep not deep or sound; repose; rest; as, at last, she fell into a gentle *slumber.*
Slum'berer, *n.* One who slumbers.
Slum'berless, *a.* Without slumber; sleepless.
Slum'berous, *a.* Somniferous: soporiferous; inviting or exciting slumber; as, a *slumberous* shade.
Slump, *v. n.* [Scot., a swamp.] To fall or sink suddenly through or in, when walking on an apparently hard surface, as on ice, frozen ground, &c.
—*n.* In Scotland, the sound made by a person or thing falling into a hole, or into a boggy, miry place.
Slump'y, *a.* Covered with a crust only; swampy; boggy.
Slung, *imp.* and *pp.* of SLING, *q. v.*
Slung'-shot, *n.* A small metal attached to a thong, and used for striking, as an offensive weapon.
Slunk, (*slungk,*) *imp* and *pp.* of SLINK, *q. v.*
Slur, *v. a.* [Icel. *slor*, the refuse of fishes.] To soil; to sully; to pollute; to contaminate; to disgrace. — To

pass slightly; to cloak; to conceal; as, he *slurs* the gist of the argument. — To perform carelessly, imperfectly, or inattentively; as, the writing was *slurred* with inaccuracies. — To cheat; to trick; to chisel; as, to *slur* one out of the game. (R.)

Slur, *v. a.* (*Print.*) To mackle; to blur or double, as an imprint from type.

(*Mus.*) To sing or perform in a smooth, gliding style; to connect smoothly in performing a musical composition, as several notes.

—*n.* A black mark or stain; hence, a stigma; a slight reproach or disgrace; also, an inuendo; an imputation; as, to cast a *slur* upon a person's good name. — An imposition or practical joke played upon one.

(*Mus.*) An arch ⁀ connecting two or more notes not on the same degree, indicating to the performer that in playing they are to be united as much as possible.

Slush, Slosh, *n.* (See SLOUGH.) Soft mud; sludge; puddle. — A puddle of snow and water. — A mixture or combination of greasy substances, employed in lubrication. — The refuse grease and fat, collected in cooking, on shipboard.

(*Mach.*) A composition of lime and white lead, used in painting the bright parts of machinery, as a preventative to oxidation.

—*v. a.* To daub with slush or grease; as, to *slush* a spar.

(*Mach.*) To paint with a composition of white lead and lime, as the bright parts of machinery.

Slush'y, Slosh'y, *a.* Consisting of, containing, or resembling slush.

Slut, *n.* [Du. *slet*, a slut.] A woman who is sluggish, slovenly, and negligent of cleanliness and tidiness of dress; a slattern; — hence, a term of reproach or slight contempt for a woman.

"I buy good meat for *sluts* to spoil." — *King.*

—A bitch; a female dog.

Slut'tish, *a.* Pertaining to, or characteristic of, a slut or slattern; nutidy; not neat or cleanly; dirty; disorderly; as, a *sluttish* appearance.—Meretricious; showy; as *sluttish* tricks. (R.)

Slut'tishness, *n.* Qualities or practice of a slut; negligence of dress; want of cleanliness of person, or of furniture, and in domestic affairs generally.

Sly, *a.* (*comp.* SLYER; *superl.* SLYEST.) [Icel. *slœgr*, cunning.] Artful; cunning; crafty; subtle; wily; underhand; insidious; — in a bad sense; as, a *sly* intrigue.

—Dexterous in performing things secretly, and escaping observation and detection; knowing; astute; skilful; shrewd; — in a good sense; as, *sly* circumspection. — Done with artful secrecy; as, a *sly* trick.

On the sly, in a sly or underhand manner; under the rose; as, to kiss a pretty girl *on the sly*.

Sly'-boots, *n.* A sly, roguish, or innocently-mischievous person; — used as a humorous colloquialism.

Sly'ly, Sli'ly, *a.* In a sly manner; artfully; insidiously; secretly.

Sly'ness, Sli'ness, *n.* State or quality of being sly; artfulness; craftiness; wiliness; cunning.

Smack, *v. n.* [A. S. *smæccan.*] To make a sharp noise by the separation of the lips, as after tasting anything with relish. — To kiss with sonorous violence; to buss; as, he gave her a *smacking* salute. — To have a taste, or be tinctured with any particular flavor or quality; as, this wine *smacks* of age. — To possess or exhibit natural evidence of the presence or influence, as of any distinctive character or virtue; as, his observations *smack* of pedantry.

—*v. a.* To kiss with a sharp, sonorous noise; to buss; to osculate unnecessarily loud. — To make a noise, as with the lips, by separating them in the act of tasting; as, he *smacked* his lips over a bumper of '34 claret.—To crack; to make a sharp sound by striking; as, to *smack* a whip.

—*n.* [A. S. *smæc;* Ger. *schmack.*] A noise made by the separation of the lips in eating or drinking with relish. —The quick, sharp sound made by cracking a whip. — A sonorous noise made by the lips in kissing; a buss.— Pleasing taste; favor; savor; distinguishing quality; as, the *smack* of truffles in a *paté de foie gras.* — Hence, characteristic influence or ruling feature; as, the *smack* of experience. — A quick, smart blow, as with the flat of the hand; a slap; as, she gave him a *smack* on the face. — A taste; a drop; a minute quantity.

Smack-smooth, in a heedless, reckless, free-and-easy manner, careless of results.

—[Du. *smakschip.*] (*Naut.*) A small vessel, usually sloop-rigged, used chiefly in the coasting trade and fisheries.

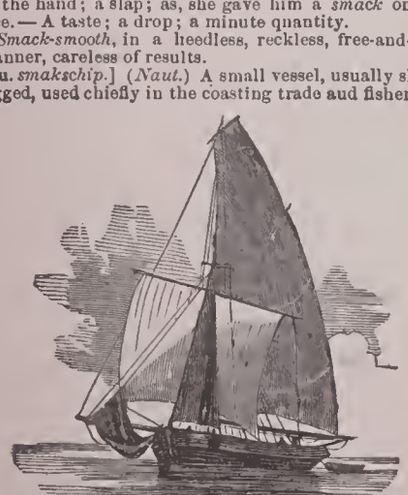


Fig. 2384. — A SMACK.

Smack'ing, *n.* A smack; a sharp, quick noise, as of a kiss.

—*a.* Making a sharp, lively sound; as, a *smacking* wind.

Smack'over, in *Arkansas*, a township of Ouachita co.

Small, (*smawl,*) *a.* (*comp.* SMALLER; *superl.* SMALLEST.) [A. S. *smal, smæl;* Ger. *schmal.*] Slender; minute in bulk; not large in dimensions; little in degree or quantity; diminutive; little in amount. — Petty; being of small moment, consequence, weight, or importance; trivial; insignificant; as, a *small* matter. — Exhibiting little worth, genius, or ability; not lofty-souled, large-minded, or intellectual; — occasionally, in a reproachful sense, little; mean; paltry; despicable; as, a man of *small* mental calibre, a *small* poet or politician, his conduct was of the *smallest*, &c. — Short; trifling; not prolonged or extended in time or duration; as, a *small* sketch, a *small* attempt.—Weak; slender; thin; gentle; soft; not loud, resonant, or sonorous; as, her voice is but *small.* — Having little strength; thin; innoxious; as, *small* ale or beer.

—The small or slender part of a thing; as, the *small* of the leg, of the foot, or of the back.

Small beer, a kind of thin-bodied, weak beer; — sometimes called *table-beer;* — hence (used adjectively), wishy-watery; spiritless; vapid; weak and maudlin; as, a *small-beer* poet, *small-beer* philosophy.

Small craft. (*Naut.*) A small vessel; or, used generically, vessels of small size, or below the ordinary size of square-rigged or sea-going ships, as coastera.—*Small stuff*, spun-yarn, marline, ambroline, and the smaller kinds of cordage used on shipboard.

Small talk, chit-chat; light, common-place conversation.

Small wares. (*Com.*) Various small articles, principally of textile manufacture, as tapes, fringes, thread, braid, and the like; — known in the U. States under the American term *notions.*

Small'age, *n.* (*Bot.*) *Apium graveolens.* See CELERY.

Small'-arms, *n.* (*Mil.*) Muskets, rifles, pistols, revolvers, &c., in distinction from cannon or ordnance.

Small'-clothes, *n. pl.* Same as BREECHES, *q. v.*

Small'-coal, *n.* Coal about the size of a small nut in size, separated from the larger pieces by screening; cobble-coal.

Small'ish, *a.* Somewhat small.

Small'ness, *n.* State or quality of being small; littleness of size, extent, volume, degree, force, strength, amount, value, weight, &c.; inconsiderableness in moment or importance; as, the *smallness* of a child, or of a bird or insect, the *smallness* of an affair, concern, or obligation, *smallness* of trouble or thanks, *smallness* of mind or memory, *smallness* of salary or compensation. — Fineness; softness; melodiousness; as, the *smallness* of a voice; also, in a depreciatory sense, thinness; reediness.

Small'-pox, *n.* [Lat. *variolo.*] (*Med.*) An eruptive febrile disease, which, happily, is not now nearly so prevalent as it once was. It seems very doubtful whether this disease was at all known to the ancients; and, according to some Arabic historians, it came first from Ethiopia into Arabia about A. D. 572. The wars which were carried on in the East, and particularly the Crusades in the 12th and 13th centuries, introduced it into Europe, first into Spain and France, and then into other countries. This disease commonly commences with the usual febrile symptoms; as rigors, pain in the back and loins, great prostration of strength, followed by heat and dryness of the skin, a hard and frequent pulse, loss of appetite, pain in the epigastrum, with nausea, vomiting, headache, and sometimes delirium or convulsions. About the third day, an eruption of small, hard, red-colored pimples makes its appearance about the face and neck, and gradually extends over the trunk and extremities. The pimples gradually ripen into pustules, which, on the eighth day, generally begin to break, and crusts or scabs form on these last, falling off in four or five days more. The severity of the disease varies much in different instances, but is almost always in direct relation to the quantity of the eruption. When the pustules are numerous, they run together, and form an irregular outline; when fewer, they are distinct, and of a regularly circumscribed circular form. The former is technically called *variola confluens*, the other *variola discreta;* the former being never free from danger, the latter seldom or ever dangerous. The most important difference between the two forms is in the secondary fever, which sets in about the eighth day of the eruption, or just when the maturation of the pustules is complete. It is slightly marked in the distinct *S.*, but generally very intense and perilous in most instances of the confluent; being the period at which death oftenest occurs. Both kinds are accompanied by sore throat, salivation, and frequently diarrhœa. A peculiar disagreeable odor also usually proceeds from the body of the patient. Like measles and scarletina, this disease frequently gives rise to others of a troublesome or dangerous nature; as glandular swellings, abscesses, pleurisy, loss of sight, consumption, &c. *S.* is the effect of specific contagion, communicated by contact, or through the air. There is no disease of which the contagion is so sure, and which operates at a greater distance, than that of *S.*; but it rarely attacks the same individual more than once. It is not a little remarkable that a small quantity of the matter taken from a pustule and inserted beneath the skin of a healthy individual, gives rise to a much milder form of the disease than would arise in the natural way, *i. e.*, by inhaling the contagious poison; and to this fact are we indebted for the great means of guarding against this disease. (See INOCULATION, and VACCINATION.) The treatment required in *S.* does not differ particularly from that of ordinary fever; the bowels requiring to be kept moderately open, free ventilation established and the skin, if necessary, kept cool by sponging it with tepid vinegar and water. Small doses of mercury are often serviceable in moderating the febrile symptoms. The strength requires to be attended to, and, if much reduced, quinine, wine, and nourishing diet are to be employed. Blood-letting is almost always attended with very great danger, and not to be had recourse to if it can possibly be avoided. The complications of this disease require to be carefully watched, and if the throat be much affected, a blister should be applied to the neck, and gargles of infusion of roses used.

Smalls', *n. pl.* A colloquialism for small-clothes or breeches.

Smally, (*smawl'y,*) *adv.* In a small degree; with minuteness. (R.)

Small'wood, in *Illinois*, a township of Jasper co.

Smalt, *n.* [Ger. *schmalte.*] (*Paint.*) See COBALT.

Smal'tine, *n.* (*Min.*) One of the most important ores of cobalt, being (with cobaltine) that from which most of the smalta of commerce is manufactured; whence the name. It is an arsenide of cobalt, composed of 72 per cent. of arsenic, 25 cobalt, 2 iron, and 0·5 nickel.

Smarag'dine, *a.* Made of emerald; resembling emerald.

Smaragd', *n.* [Gr. *smaragdos.*] (*Min.*) The emerald.

Smarag'dite, *n.* (*Min.*) A peculiar laminated form of angite, or hornblende, of a bright emerald-green color.

Smart, *n.* [Du.; Ger. *schmerz*, pain, ache.] Pain, as from a cut; quick, acute, lively pain; a pricking, local pain, as the pain from stinging by nettles; as, the *smart* caused by flagellation.— Severe, pungent grief or pain of mind; as, the *smart* of conscience. — A cant word for a young fellow who affects an air of briskness, readiness, and vivacious assurance.

—*v. n.* [A. S. *smeortan;* Du. *smarten.*] To feel an active, pungent pain; especially, some local pain from some piercing, stinging, or irritating application. — To feel a pungent pain of mind; to experience acute pain; as, to *smart* under undeserved reproaches. — To be punished; to bear penalties of the evil consequences of anything.

"No creature *smarts* so little as a fool." — *Pope.*

—*a.* (*comp.* SMARTER; *superl.* SMARTEST.) Pungent; pricking; causing an acute local pain or irritation; as, a *smart* cut from a whip, a *smart* quality or taste.—Keen; poignant; severe; as, *smart* sufferings. — Quick; vigorous; active; sharp; severe; as, to have a *smart* encounter with the enemy. — Brisk; fresh; as, a *smart* breeze. — Acute and pertinent; witty; vivacious; quick in suggestion, expedient, or retort; characterized by pungency, force, or shrewdness; as, a *smart* saying, a *smart* epigram, a *smart* reply. — Active; efficient; brilliant; able to accomplish speedy results; as, a *smart* man of business. — Showy; dashy; spruce; modish; having pretensions to taste or fashion; as, to be dressed *smart.*

(NOTE. *Smart* is frequently used in this country in the sense properly expressed by the word *clever;* as, a *smart* young fellow. This is a solecism. The term *smart*, when applied to persons, is, among good speakers, almost entirely used in reference to dress; as, a *smart* appearance.)

Smart'ly, *adv.* In a smart manner; with keen or acute pain; briskly; sharply; wittily; vigorously; actively; showily; sprucely.

Smart'-money, *n.* Money paid by a person by way of indemnity, to release himself from some embarrassing dilemma, awkward engagement, or humiliating or painful position; hush-money.

(*Mil.*) Money paid to soldiers or sailors in the English service, as partial compensation for wounds or injuries received.

(*Law.*) Damages much in excess of full compensation for actual injury done; vindictive damages.

Smart'ness, *n.* Quality of being smart or pungent; poignancy; or, the quality of being quick or vigorous; as, the *smartness* of a stroke, *smartness* of pain or suffering; quality of being lively, witty, keen, or vivacious; readiness; acuteness; wittiness; comprehensive force; as, the *smartness* of a repartee.

Smarts'ville, in *California*, a post-village of Yuba co., 18 m. E. of Marysville.

Smart'-weed, *n.* (*Bot.*) Same as Water-pepper. See POLYGONIUM.

Smash, *a.* To break in pieces by violence; to dash to pieces; to crush; to shatter; as, to *smash* a dish.

—*n.* [Ger. *schmiss*, a stroke, a blow.] A breaking to pieces; utter destruction.

—Hence, bankruptcy; insolvency; ruin; as, to go to *smash.* (Colloquially used.)

Smash'er, *n.* One who, or that which, smashes. — A cant term for one who passes counterfeit coin or bad currency. — A colloquialism for anything unusually large or wonderful.

Smatch, *n.* Taste; tincture; savor; twang; as, some languages have a guttural *smatch*, this wine has an oily *smatch.*

Smat'ter, *v. n.* [For *smacker*, from *smack*, a taste, a savor; Icel. *smekkr*, a taste.] To talk superficially or ignorantly; as, he *smatters* of things he knows absolutely nothing about. — To have a slight taste; to have a slight, superficial, or imperfect knowledge; to smack; as, by a *smattering* of big words, and his own effrontery, he manages to be considered by some a wiseacre.

—*n.* A smattering; slight, flimsy, superficial knowledge; as, a *smatter* of judicial astrology.

Smat'terer, *n.* A scioliat; one who has only a slight, superficial knowledge.

Smat'tering, *n.* Sciolism; a slight, superficial knowledge; as, he possesses a *smattering* of several languages.

Smear, *v. a.* [A. S. *smyrian;* Du. *besmeren.*] To overspread with grease, or anything unctuous, viscous, or adhesive; to daub; to besmear; as, to *smear* a vessel's bottom with pitch.—To soil; to contaminate; to pollute.

—*n.* Ointment; unguent; a fat, greasy, oily substance. (R.)—A spot made by an unctuous, oleaginous, or viscous substance, or as if by such a substance; a blot or blotch; a dab or daub; a stain; a patch; as, a *smear* of paint.

Smec'tite, *n.* [Fr., from Gr. *smēchein,* to wipe off.] (*Min.*) A greenish kind of halloyside.

Smeg'matic, *n.* [Gr. *smēgma,* soap.] Detergent; cleansing; soapy.

Smeir, *n.* A kind of semi-glaze on earthenware, made by adding common salt to pottery glazes.

Smell, *v. a.* (*imp.* and *pp.* SMELLED, SMELT.) [Ger. *schmelen,* to smoke, to reek; Dn. *smullig,* greasy, from the odor emitted by ointment when spread.] To perceive by the nose, or by the olfactory nerves; to have a sensation excited in certain organs of the nose by particular qualities of a body which are transmitted in fine particles, often from a distance; as, to *smell* a perfume, to *smell* a stench.

To smell a rat. To entertain strong suspicion. (Colloq. and R.)—*To smell out.* To discover by natural sagacity; as, the dog *smelt out* his master.

—*n.* (*Physiol.*) The power or faculty of perceiving odors. For this purpose, the animal is provided with a special nerve, called the *olfactory nerve,* in which alone this faculty resides. In man, the filaments of this nerve are distributed in minute arrangements in the mucous membrane covering the interior and upper cavities of the nose. (See NOSE.) The branches are distributed principally in close plexuses, but the mode of termination of the filaments is not yet satisfactorily determined. Besides the sense of smell, the nasal cavities are endowed with common sensibility by the nasal branches of the first and second divisions of the fifth nerve, as is proved by those cases in which the sense of smell is lost, while the party still remains susceptible of sensations of cold, heat, itching, tickling, &c. The olfactory nerve is susceptible of any infinite variety of states, dependent on the nature of the external stimulus by which it is brought into a state of activity. All animals do not perceive the same odors in an equal degree. Carnivorous animals, for instance, have the power of detecting by the smell the special peculiarities of animal matters, and of tracking other animals by the scent, but apparently are not sensible to the odors of plants and flowers; while, on the other hand, herbivorous animals are peculiarly sensitive to the latter, and have little sensibility to animal odors. Man is inferior to many animals in respect to acuteness of smell, but his sphere of susceptibility to various odors is more uniform and extended. Odors in the case of animals living in the air arise from substances suspended in a state of extremely fine division in the atmosphere, or gaseous exhalations, often of so subtle a nature that they can be discovered by no other agent than the sense of smell itself. The odorous matters also require to be transmitted in a current through the nostrils, which is effected by the respiratory organs; and hence our perception of them is increased by repeated quick inspirations, as in sniffing. They are in all cases dissolved in the mucus of the mucous membrane before they affect the olfactory nerve; and hence this membrane must not be either too moist or too dry. The cause of the difference in the effect of different odors is unknown. Great differences in this respect exist among different individuals, many odors which are generally thought agreeable being to some persons intolerable; and different persons describe differently the sensations which arise from the same odorous substances. Further, the acuteness of this sense differs greatly in different individuals, and there seems to be in some persons insensibility to certain odors, and in the case of sight, to certain colors. Linnæus has divided odors into seven different classes:—*Aromatic,* as the carnation; *fragrant,* as the lily; *ambrosial,* as musk; *alliaceous,* as garlic; *fœtid,* as the rag-wort, valerian; *virulent,* as Indian pink; *nauseous,* as the gourd.

Smell'er, *n.* One who smells.—The nose, as being the organ of the olfactory sense;—used generally in the plural.

Smell'ing, *n.* The sense of smell; the sense by which odors are perceived; the act of one who smells.

Smell'ing-bottle, *n.* A small bottle filled with something pungent and aromatic for titillation of the nose and revival of the spirits; a vinaigrette.

Smell'ing-salts, *n. pl.* See HARTSHORN.

Smell'less, *a.* Lacking odor; destitute of smell.

Smelt, *imp.* and *pp.* of SMELL, *q. v.*

—*n.* [A. S.] (*Zoöl.*) A small and delicate fresh-water European fish, of the family *Salmonidæ;* the *Salmo eperlanus* of Linnæus.

—*v. a.* [Du. *smelten;* Ger. *schmelzen;* A. S. *meltan,* to melt.] To melt or fuse, as ore, for the purpose of separating the metal from extraneous substances; as, to *smelt* iron, lead, tin, or copper.

Smelt'er, *n.* One who melts ore.

Smelt'ery, Smelt'-works, *n.* A building or place for smelting ores.

Smelt'ing, *n.* Act or operation of melting or fusing ores for the purpose of extracting the metal; the process of separating metals from the earthy and other substances with which they are combined in the state of ore. See IRON (MANUFACTURE OF).

Smelt'zer, in *Wisconsin,* a township of Grant co.

Smeth'port, or SMITHPORT, in *Pennsylvania,* a post-borough, cap. of McKean co., 196 m. N.W. of Harrisburg.

Smew, *n.* (*Zoöl.*) A bird of the family *Anatidæ* (*Mergus albellus,* Linn.), very nearly allied to the goosanders and mergansers, but having a shorter bill. It abounds on the N. coast of Asia and in some parts of Europe.

Smick'er, *v. n.* [Dan. *smigre,* to flatter.] To smirk; to ogle amorously; to look languishingly or wantonly.

—*a.* Amorous; wanton. (R.)

Smick'ering, *n.* An amorous look.

Smicks'burg, in *Pennsylvania,* a post-borough of Indiana co., 174 m. W.N.W. of Harrisburg.

Smid'dum-tails, *n. pl.* (*Mining.*) The sludge or slimy portion deposited in washing ore.

Smift, *n.* A fuss used in blasting, or in firing a train of powder.

Smila'ceæ, *n. pl.* (*Bot.*) The Sarsaparilla family, an order of plants, class *Diclyogens.* DIAG. Bisexual or polygamous hexapetaloideous flowers, several consolidated carpels, and axile placentæ. They are herbaceous plants or under-shrubs, with a tendency to climb, and sometimes having fleshy tubers. The species are distributed over various parts of the world, both in tropical and temperate climates, being most abundant in tropical America. See SMILAX.

Smila'cine, (-sīn,) *n.* (*Chem.*) A crystalline principle obtained from sarsaparilla root.

Smi'lax, *n.* [Gr.] (*Bot.*) Sarsaparilla, the typical genus of the order *Smilaceæ.* The roots of several species or varieties constitute the Sarsaparilla of the materia medica. Sarsaparilla is regarded as an alterative in venereal and skin diseases, rheumatism, &c. The kind most valued is that known as Jamaica Sarsaparilla, obtained from the species *S. officinalis* (Fig. 2385). It is not the produce of Jamaica, but of Central America and the northern parts of S. America. Other kinds distinguished in commerce are "Lima," "Lean Vera Cruz," "Gouty Vera Cruz," "Lisbon," or "Brazilian," and "Honduras." Among the European species is *S aspera,* the roots of which form Italian Sarsaparilla.

Fig. 2385.—SARSAPARILLA, (*Smilax officinalis.*)

Smile, *v. n.* [M. H. Ger. *smielen;* Sw. and Goth. *smila;* allied to Sansk. *smi,* to smile.] To contract the features of the face in such a manner as to indicate pleasure, satisfaction, or affection and kindness;—the opposite of *frown;* as, "Patience on a monument, *smiling* at grief." (*Shaks.*)—To express slight disdain or contempt by a smiling look, implying sarcasm or pity; to smirk ironically; to sneer; as, one cannot but *smile* at such empty pretensions.—To look pleasant, gay, or joyous, or to present that aspect which excites to pleasurable emotions; as, *smiling* plenty.—To be propitious; to favor; to countenance; as, may fortune *smile* on our endeavors.

—*v. a.* To express or interpret by a smile; as, to *smile* approval.

—*n.* Act of smiling; a peculiar contraction of the physiognomy, which naturally expresses pleasure, satisfaction, approbation, moderate joy, or love and kindness;—correlative to *frown;* as, "the *smiles* of joy, the tears of woe." (*Moore.*)—Gay or jocund appearance; as, "the *smiles* of nature, and the charms of art." (*Addison.*)—Propitiousness; favor; countenance; as, the *smiles* of fortune.—An expression of the countenance resembling a benevolent smile, but indicative of opposite or malevolent feelings, as contempt, disdain, &c.; as, a scornful *smile.*

Smile'less, *a.* Without a smile.

Smil'ingly, *adv.* In a smiling manner; with a look of pleasure or satisfaction.

Smil'ingness, *n.* State of being smiling.

Smirch, *v. a.* [From *smear.*] To sully; to soil; to cloud; as, to *smirch* one's face with soot.

Smirk, *v. n.* [A. S. *smercian.*] To smile wantonly, affectedly, or pertly; to look affectedly soft, amorous, or kind; as, a *smirking* fop.

—*n.* An affected smile; as, the *smirk* of a coquette.

Smirk, Smirk'y, *a.* Jaunty; nice; spruce; dapper; affected.

Smit, *pp.* of SMITE, *q. v.* (R.)

Smite, *v. a.* (*imp.* SMOTE; *pp.* SMITTEN, rarely SMIT.) [A. S. *smitan;* Ger. *schmeiden,* to forge iron.] To strike, drive, or force against, as the fist or hand, a stone, hammer, or weapon; as, to *smite* one on the face.—To kill: to slay by a blow; to destroy the life of by beating, or by weapons of any kind.—To blast; to destroy the life of, as by a stroke or by something sent.—To destroy or overthrow in battle.—To afflict; to chasten; to punish; as, we are *smitten* for our wickedness.—To strike or affect with passion, as love, hate, or fear.—*To smite off,* to cut off.—*To smite out,* to strike out, as a tooth.

—*v. n.* To strike; to clash together, as the knees.

Smit'er, *n.* One who smites or strikes.

Smith, *n.* [A. S. from *smitan,* to smite; Ger. *schmid;* Icel. *smidr,* a workman.] One who forges with the hammer; a worker in metals; as, a black*smith,* gold*smith,* ship*smith,* and the like.—One who makes or effects anything.

Smith, ADAM, a celebrated political economist, b. at Kirkaldy, Scotland, 1723. He studied at Oxford, and was appointed Professor of Moral Philosophy at Glasgow University in 1752. Towards the close of 1763, he accepted an invitation to travel with the Duke of Buccleuch, and having resigned his chair, made a long tour in France, becoming acquainted at Paris with some of the most eminent philosophers and economists. Returning in 1766, he spent the next ten years in retirement at Kirkaldy, engaged in the composition of his great work, the *Inquiry into the Nature and Causes of the Wealth of Nations,* which first appeared in 1776. It has a high rank among the successful books of the world—overthrowing the grave errors which it attacked, and establishing their opposite truths. Its main principle is that *labor,* not money or land, is the real source of wealth. The means of making labor most fruitful, the division of labor, what wealth consists in, the mischiefs of legislative interference with industry and commerce, the necessity of freedom of trade, are admirably discussed and expounded. The book may be regarded as the basis of modern political economy, and one of its great objects has been accomplished in England in the establishment of *free trade.* In 1788, *S* settled at Edinburgh, where he had the appointment of a Commissioner of Customs for Scotland. He was the friend of David Hume, of whose last days and death he wrote an account, with a warm panegyric on his character, which was published with Hume's autobiography. He was also author of a *Theory of Moral Sentiments,* which appeared in 1759, and the doctrine of which is that sympathy is the foundation of morals. *S.* was chosen Lord-Rector of the University of Glasgow in 1787, and D. 1790.

Fig. 2386.—ADAM SMITH.

Smith, JOHN, the founder of Virginia, b. at Willoughby, in Lincolnshire, England, about 1579. Of a daring spirit, longing for a larger and more adventurous life, he early served in the Netherlands as a soldier in the cause of liberty. He then travelled in France, visited Egypt and Italy, and, about 1602, greatly distinguished himself in the wars of Hungary against the Turks, gaining the favor of Sigismund Bathori, Prince of Transylvania. Wounded and taken prisoner by the Turks, he was sold as a slave, was harshly treated in the Crimea, and made his escape. Rumors of war in Morocco attracted him thither, and thence he returned to England about 1606. He entered with enthusiasm into the project of colonizing the New World, and with Gosnold, Winkfield, Hunt, and others, set out in December, 1606, with a squadron of 3 small vessels for Virginia, under the authority of a charter granted by James I. Amidst the unhappy dissensions, difficulties, and distress of the first years of the great enterprise, Smith rendered the most important services by his irrepressible hopefulness, his practicable wisdom, and his vigorous government. But for his wisdom and noble exertions the project would probably have been abandoned. He made important geographical explorations and discoveries. In 1607, ascending the Chickahominy, and penetrating into the interior of the country, *S.* and his comrades were captured by the Indians, and he only, by his rare self-possession, escaped with life. He remained a prisoner for some weeks, carefully observed the country, got some knowledge of the language of the natives, and when at last they were going to put him to death, he was saved by the affectionate pleading of Pocahontas, the daughter of the chief Powhatan, a girl of ten or twelve years old. Reconducted to Jamestown, *S.* had need for all his energy to cheer the desponding colonists. In the summer of 1608 he explored in an open boat the Bay of the Chesapeake and its tributary rivers, a navigation of nearly 3,000 miles. He also penetrated inland, established friendly relations with the Indians, and prepared a map of the country. On his return from this great expedition, he was made president of the colonial council. In 1609 he was severely injured by an accidental explosion of gunpowder, and without reward for his splendid services, except in his own conscience and the applause of the world, returned to England. He revisited Virginia in 1614, was captured by the French in the following year, and on his return

Fig. 2387.—JOHN SMITH.

to London after three months, heard of the arrival of his Indian friend Pocahontas, *q. v.* *S.* made known her services, and she was presented to Queen Elizabeth, and loaded with marks of honor and gratitude. *S.* published in 1608 *A True Relation of such Occurrences and Accidents of Note as hath Happened in Virginia since the First Planting of that Colony*, &c. D. 1631.

Smith, JOSEPH, the founder of Mormonism. See MORMONS.

Smith, EDMUND KIRBY, a general of the Confederate army, son of the late Judge L. Smith, B. in St. Augustine, Florida, entered West Point in 1841, and graduated in 1845. At the close of the Mexican war, in which he served, he was sent to West Point, and remained there for three years as Assistant Instructor of Mathematics. After some other services he attained the rank of major of cavalry, which grade he resigned at the outbreak of the Civil War, and joined the Confederates. He was appointed major of artillery, shortly afterwards lieut-col. of Van Dorn's cavalry, adjutant-general to Gen. J. Johnston, and in that capacity obtained the rank of brigadier-general. He was assigned to a brigade of Gen. Johnston's corps, and by a timely arrival, in conjunction with Kershaw, changed the current of the first battle of Bull Run, at which he was severely wounded and obliged to retire from the field. Shortly after he was made a major-general, and married a daughter of Col. McDaniel, who had attended him through his illness. On his recovery he invaded Tennessee, and threatened Louisville and Cincinnati, but was obliged, in conjunction with Bragg, to retreat to Murfreesboro', and was sent, early in 1863, by Jefferson Davis to relieve Holmes in command of the Trans-Mississippi Department. He was made a general, and for a long time his head-quarters were at Shreveport. He was in command of the Confederate troops in the campaign in which occurred the battles of Mansfield and Pleasant Hill, the damming of Red River, and the retreat of Gen. Banks. In May, 1865, he surrendered to Gen. Canby, and left the country. At the time of his death (March, 1893) *S.* was professor of Mathematics at the University of the South.

Smith, WILLIAM, a modern English philologist, born in London, 1814. An article on *Language*, furnished by him to the "Penny Cyclopædia," was one of his first successes in that career which he subsequently worthily pursued. In 1842 he commenced the *Dictionary of Greek and Roman Antiquities*, fulfilling the duties of editor himself. In the same capacity he subsequently published *The Dictionary of Greek and Roman Biography and Mythology*, and the *Dictionary of Greek and Roman Geography*. In 1850, he was appointed Professor of the Greek and Latin Languages and Literature in the New College. Three years later he became classical examiner in the University of London. In 1854 he commenced the publication of a new edition of Gibbons's *Decline and Fall of the Roman Empire*, with notes by M. Guizot, Dean Milman, and himself. He also produced several abridged editions of his larger classical dictionaries, a *Latin-English Dictionary*, based upon Forcellini and Freund; and a *Dictionary of the Bible*.

Smith, GEORGE, a distinguished Assyrian scholar, B. 1825, author of *Explorations in Assyria, Chaldean Account of Genesis, Ancient History of Assyria*, &c. D. 1876.

Smith, GERRITT, an Am. philanthropist, B. in Utica, N. Y., 1797. He was a large landed proprietor. In 1848, he distributed 200,000 acres, in lots of 50 acres each; in 1852, elected to Congress, but resigned ere his time was out. He was an earnest opponent of slavery. He published *The Religion of Reason* (1864); *Theologies* (1867), &c. Died Dec. 28, 1874.

Smith, in *Ark.*, a twp. of Dallas co.—In *Ind.*, a twp. of Green co.—A twp. of Posey co.—A twp. of Whitley co.—In *Miss.*, a S. central co.; *area*, 620 sq. m. It is watered by Leaf River. *Surface*, undulating, and mostly covered with pine forests; *soil*, sandy. *Cap.* Raleigh.—In *Ohio*, a twp. of Belmont co.—A twp. of Mahoning co.—In *Penna.*, a twp. of Washington co.—In *Tenn.*, a N. co.; *area*, 360 sq. m. It is traversed by the Cumberland River. *Surface*, diversified; *soil*, excellent. *Cap.* Carthage.—In *Texas*, a N. E. co.; *area*, 990 sq. m. *Rivers.* Sabine, Neches, and the Angelina. *Surface*, level; *soil*, fertile. *Cap.* Tyler.

Smith'borough, in *N. Y.*, a post-vill. of Tioga co.

Smith'dale, in *Miss.*, a post-village of Amite co.

Smith'ereens, *n. pl.* An Irish rendering of SMITHERS. *q. v.*

Smith'ers, *n. pl.* Fragments; shivers; splinters; as, to break a thing into *smithers*.

Smith'ery, *n.* A smith's workshop; a smithy or stithy. — Work performed by a smith.

Smith'field, in *Indiana*, a township of De Kalb co.—A v. of Delaware co.—A v. of Wayne co.

Smithfield, in *Iowa*, a township of Fayette county.

Smithfield, in *Maine*, a post-township of Somerset co., 25 m. N. of Augusta.

Smithfield, in *Minnesota*, a post-village of Wabashaw co., 12 m. N. of Wabashaw.

Smithfield, in *New York*, a township of Madison county.

Smithfield, in *North Carolina*, a post-village, cap. of Johnson co., 27 m. S.E. of Raleigh.

Smithfield, in *Ohio*, a post-village and township of Jefferson co., 14 m. S.W. of Steubenville. *Staple produce*, wool.

Smithfield, in *Pennsylvania*, a village and township of Bradford co., 10 m. N.W. of Towanda.—A post-village of Fayette co., 190 m. S.W. of Harrisburg.—A township of Monroe co.

Smithfield, in *Rhode Island*, a post-township of Providence co., 12 m. N. of Providence.

Smith'field, in *Utah*, a post-village of Cache co., 6 m. N. of Logan.

Smithfield, in *Virginia*, a post-town, the former cap. of Isle of Wight co., 80 m. S.E. of Richmond.

Smithfield, in *W. Virginia*, a village of Monongalia co., 10 m. N.W. of Morgantown.

Smith'ing, *n.* Act, art, or process of working a mass of iron into a particular form or shape.

Smith Island, in the Antarctic Ocean, the most W. of the S. Shetland group; Lat. 63° 2′ S., Lon. 62° 47′ W.

Smith'land, in *Indiana*, a post-village of Shelby co., 8 m. S.W. of Shelbyville.

Smithland, in *Iowa*, a post-town of Woodbury co., 34 m. S.E. of Sioux City.

Smithland, in *Kentucky*, a post-village, cap. of Livingston co., on the Ohio river, 215 m. W.S.W. of Frankfort.

Smithland, in *Pennsylvania*, a village of Clarion co., 15 m. S. of Clarion.

Smith'port, in *Louisiana*, a village of De Soto parish, 12 m. N.E. of Mansfield.

Smith's Bar, or SMITHVILLE, in *California*, a village of Placer co., 24 m. N.E. of Sacramento.

Smiths'burg, in *Maryland*, a post-town of Washington co., 106 m. N.W. of Annapolis.

Smith's Creek, in *Michigan*, a post-village of St. Clair co., 11 m. S.W. of Port Huron.

Smith's Creek, in *N. Carolina*, flows into the Roanoke River from Warren co.

Smith's Falls, in prov. of Ontario, a town of Lanark co., 32 m. N.W. of Brockville.

Smith's Ferry, in *Massachusetts*, a village of Hampshire co., 80 m. W. of Boston.

Smith's Island, in *Pennsylvania*, a small island in the Delaware River, opposite Philadelphia.

Smith's Island, in *N. Carolina*, an island of New Hanover co., at the mouth of Cape Fear River. Cape Fear is at the S. extremity.

Smith's Landing, in *New Jersey*, a post-village of Atlantic co., 4 m. S. of Absecom.

Smith's Mills, in *New York*, a post-village of Chautauqua co., 12 m. E. of Dunkirk.

Smithso'nian, *a.* Pertaining to, or derived from, *Smithson*, an English gentleman, who gave by legacy a large sum of money to the U. States, for the foundation and support of an establishment for the diffusion of learning; as, the *Smithsonian* Institute.

Smithso'nian Institution, a literary, scientific, and philosophical institution, organized at Washington, D.C., by Act of Congress in 1846, pursuant to the will of James Smithson, an Englishman (natural son of Hugh Percy, third Duke of Northumberland), who, dying at Genoa, 1829, after a life devoted to scientific pursuits, bequeathed to the U. States of America property amounting to $515,169, to be applied to the "increase and effusion of knowledge among men." The management of the Institute is in the hands of regents appointed by the Federal govt., and a spacious structure, containing a museum, library, cabinets of natural history, and lecture-rooms, has been the result of their able administration of the testator's wishes. The library, carefully collected, is unsurpassed in this country as a resource for scientific reference, while in its museum are collected the rich acquisitions of national exploring expeditions. Some part of its income is devoted to scientific researches, and the production of works too costly for publication by private individuals. Departments of Astronomy, Ethnology, Meteorology, and Terrestrial Magnetism, have been established; and among the publications hitherto issued are the *Smithsonian Contributions to Knowledge*, 4to., distributed gratis to libraries; *Annual Reports*, and *Miscellaneous Collections*. The periodical courses of lectures, held in the Institute by eminent scientists and savans, form a prominent social feature of the national capital. The board of regents, at an early session after their appointment, selected Prof. JOSEPH HENRY, *q. v.*, as their secretary, an office which he held until his death.

Fig. 2388.—SMITHSONIAN INSTITUTION, (Washington.)

Smith's Point, in the Chesapeake Bay, the most S. point of land at the mouth of the Potomac, on which is a light-house, with a fixed light 85 feet high.

Smith's Ranch, in *California*, a post-village of Sonoma co., 17 m. S.W. of Santa Rosa.

Smith's River, in *California*, flows W. into the Pacific Ocean from Del Norte co.

Smith's River, in *New Hampshire*, flows into the Connecticut River from Grafton co.

Smith's River, in *Virginia*, rises in Patrick co., and flows into Dan River near Leaksville, Rockingham co., N. Carolina.

Smith's Sound, a body of water N.W. of Baffin's Bay, terminating in the N.E. by a gulf 110 m. in its greatest breadth.

Smith'ton, in *Missouri*, a post-village of Worth co., 58 m. N.N.E. of St. Joseph.

Smithton, in *W. Virginia*, a post-village of Doddridge co., 58 m. E. of Parkersburg.

Smith'town, in *New York*, a post-village and township of Suffolk county, 45 miles N.E. of New York.

Smith'town Bay, in *New York*, an inlet of Long Island Sound, in Suffolk co.

Smith'town Branch, in *New York*, a post-village of Suffolk co.

Smith'ville, in *Arkansas*, a post-village, former cap. of Lawrence co., 125 m. N.N.E. of Little Rock.

Smithville, in *Indiana*, a post-village of Monroe co., 8 m. S.E. of Bloomington.

Smithville, in *Missouri*, a post-town of Clay co., 15 m. N.W. of Liberty.

Smithville, in *North Carolina*, a village, former cap. of Brunswick co., on Cape Fear river, 2 m. from its mouth in the Atlantic.

Smithville, in *New York*, a township of Chenango county. A post-village of Jefferson county, 5 m. S. of Ellisburg.

Smithville, in *Ohio*, a post-village of Wayne co., 92 m. N.E. of Columbus.

Smithville, in *Pennsylvania*, a post-village of Lancaster co., 46 m. E.S.E. of Harrisburg.

Smithville, in *S. Carolina*, a village of Abbeville dist., 94 m. W. of Columbia.

Smithville, in *Tennessee*, a post-village, cap. of De Kalb co., 65 m. E. of Nashville.

Smithville, in *Virginia*, a village of Powhatan co., 39 m. W. of Richmond.

Smith'ville Flats, in *New York*, a post-village of Chenango co., 125 m. S.W. of Albany.

Smith'y, (formerly SMIDDY,) *n.* [A. S. *smiththe.*] The workshop of a smith, particularly a blacksmith; a smithery; a stithy; as, a village *smithy*.

Smitt, *n.* [L. Ger. *schmitte.*] Ruddle, or fine red clay or ochre, used for marking sheep.

Smit'ten, *pp.* of SMITE. Struck; killed. — Affected with some emotion or passion, excited by something impressive; — especially, affected by amorous feelings; enamored; as, he was *smitten* with her attractions.

Smock, *n.* [A. S. *smoc.*] A shift; a chemise; a womau's under-garment. — A smock-frock; a blouse.

Smock'-faced, (*-fāst,*) *a.* Pale-faced; maidenly; having a feminine countenance or complexion; as, "*smock-faced* beaux." — *Fenton.*

Smock'-frock, *n.* A blouse; a coarse linen frock or shirt worn over the coat by farm-laborers, chiefly in England; a gabardine.

Smock'-mill, *n.* A wind-mill, of which the sails are borne on a rotating cap, which turns round to meet the wind, in distinction from a *post-mill*, whose whole building turns on a post.

Smock'-race, *n.* In England, a race run by women for the prize of a fine smock.

Smok'able, *a.* That may be smoked; fitted, or ready, to be smoked.

Smoke, *n.* [A. S. *smoca.*] (*Chem.*) The exhalations, visible vapor, or substance that escapes, or is expelled, in the process of combustion, from the substance burning. Under the articles COMBUSTION, FLAME, and FUEL, the principle of combustion is fully explained. Those fuels which consist of fixed carbon, as anthracite and the coke of bituminous coal, evolve no *S.*, for the first movement of the carbon into the air is when it combines with the oxygen to form the invisible carbonic oxide, from which it is not again set free. In nearly every process of combustion, whether the object be the attainment of light or heat, the formation of smoke should be guarded against as a waste of fuel. In great cities, where bituminous coal is consumed on a large scale for manufacturing purposes, the atmosphere is constantly charged with clouds of *S.*, which is diffused over everything. In Pittsburg, for instance, so great is the nuisance, that white articles of external dress are almost discarded in consequence of their becoming immediately soiled. Several plans, at once efficient and economical, have been supplied to manufacturers. The object of these plans has been either to prevent the production of *S.* by effecting complete combustion in the furnace, or to consume the *S.* after it has been evolved from one fire by causing it to pass over another, supported by smokeless fuel. It has been ascertained that the great mass of *S.* is sent forth from fuel freshly thrown on a fire, and that when the fire becomes hotter, the *S.* diminishes. This is owing to the sweeping off of the carbon before it could be fairly exposed to the further action of the heat and air. This leads to the method which adds the fuel gradually, and spreads it over the front portion of the grate, so that the *S.* shall have to pass over the fire behind, and thus be consumed as it mixes with the excess of air carried along with it; hence, this method of preventing *S.*, by consuming it in the furnace, has been adopted very generally. Other inventions are based on supplying fuel to the fires from beneath, so that the products of combustion must pass through the incandescent coals above before escaping.

—Vapor; watery exhalations; — so called because resembling smoke.

(NOTE. *Smoke* used as a prefix to other words, forms various compound terms, self-explaining in their character; as, *smoke*-consuming, *smoke*-dried, *smoke*-wreath, &c.)

—*v. n.* To emit or expel smoke; to throw off volatile matter in the form of vapor or exhalation; as, a chimney *smokes*. — Hence, scripturally, to burn; to be kin-

died; to rage. — To raise a dust or smoke by rapidity of motion; as, the horses *smoked* along the field. — To suffer; to be punished or chastised; as, he shall *smoke* for doing this. — To imbibe and exhale the vapor of burning tobacco; as, he both drinks and *smokes*.

Smoke, *v. a.* To apply smoke to; to hang in smoke; to scent, dry, or medicate by smoke; as, to *smoke* infected articles, to *smoke* meats for preservation.

—To subject to the operation or action of smoke, for the purpose of annoying or driving out; — frequently with *out*; as, to *smoke* a badger *out* of his hole. — To sneer at; to ridicule to the face; as, to *smoke* a pedagogue. — To cause to emit the fumes of tobacco; to inhale the smoke of tobacco through; as, to *smoke* a pipe or cigar.

Smoke'-arch, *n.* (*Mach.*) The smoke-box of a locomotive.

Smoke'-ball, *n.* (*Mil.*) Same as STINK-POT, *q. v.*

Smoke'-black, *n.* Lamp-black prepared by the combustion of resinous substances in large pans under a dome or chimney in which cloths are suspended, to which the soot becomes attached.

Smoke'-board, *n.* A board suspended before a fireplace to under the smoke from coming out into the room.

Smoke'-box, *n.* (*Mach.*) The end of a steam-boiler on which the chimney or smoke-stack is placed. Locomotives with inside cylinders have them placed in this box, which keeps both them and the steam-pipes at a high temperature.

Smoke-box door, the door in front of the smoke-box, by which access is gained to the cylinders or steam-pipes, and other parts placed in this box.

Smoke'-dry, *v. a.* To dry by smoke.

Smoke'-jack, *n.* See JACK.

Smok'er, *n.* One who dries by smoke; as, a *smoker* of meats. — One who uses tobacco by inhaling its smoke from a pipe or cigar; as, a confirmed *smoker*.

Smoke'-sail, *n.* (*Naut.*) A small sail hoisted before the funnel of a ship's galley, to allow the smoke to rise before it is blown away by the wind.

Smoke's Creek, in *New York*, flows into Lake Erie from Erie co.

Smoke'-stack, *n.* The chimney or funnel of a steamer or locomotive.

Smok'ing, *n.* Act of emitting smoke, as from a chimney. — Act of applying smoke to; as, the *smoking* of beef or hams, the *smoking* of an animal out of its hole. — Act or practice of inhaling tobacco-smoke from a pipe or cigar. See TOBACCO.

Smok'ing-cap, *n.* A fez, or skull-cap, worn by men in a tabagie or smoking-room.

Smok'ily, *a.* In a smoky manner.

Smok'iness, *n.* State of being smoky.

Smok'y, *a.* (*comp.* SMOKIER; *superl.* SMOKIEST.) Emitting smoke; fumid; as, a *smoky* fire. — Thick; filled with smoke, or with a vapory exhalation resembling it; as, a *smoky* atmosphere. — Having the appearance or characteristic qualities of smoke; as, a *smoky* fog. — Subject to be filled with smoke from the various avenues to a fire; as, a *smoky* house. — Tarnished with smoke; noisome with smoke; sooty; as, a *smoky* ceiling.

Smok'y Hill Fork, a branch of the Kansas River, rises in E. Colorado, and joins the Republican Fork near Fort Riley, Kansas, to form the Kansas River, after an E. course of 400 m.

Smok'y Hol'low, in *New York*, a village of Columbia co., 36 m. S.S.E. of Albany.

Smo'len, an island of Norway, in the Atlantic, 4 m. W.S.W. of Hittern. Lat. 63° 20′ N., Lon. 8° 5′ E. *Ext.* 15 m. long and 10 broad.

Smolensk', a town of Russia in Europe, cap. of a government of same name, on the Dnieper, 230 m. S.W. of Moscow: Lat. 54° 50′ N., Lon. 31° 56′ 36″ E. It is the see of an archbishop, and has three cathedrals, numerous churches, monasteries, and an episcopal palace. It has, besides, numerous schools, a college, hospitals, a house of correction, and assembly-rooms. *Manuf.* Linens, leather, carpets, and soap. *S.* was the scene of an obstinate conflict between the French and Russians, Aug. 16–17, 1812, in which victory is claimed on both sides. The day following, Aug. 18, the French returning to the attack, found the city deserted and in ruins. *Pop.* (1897) 37,300.

Smol'lett, TOBIAS, a British author, b. in Dumbartonshire, 1721, was educated for the medical profession, and commenced practice in London, 1746, though his entire time was devoted to literature. He produced in rapid succession *The Regicide*, a tragedy; *The Tears of Scotland*, a poem; some satires, called *Advice and Reproof*; and in 1748, his novel of *Roderick Random*. This work, which made him universally popular, was followed by *Peregrine Pickle*, *Count Fathom*, *Sir Launcelot Greaves*, and *Humphrey Clinker*; and, on the death of his friend and countryman, Hume, he carried on the *History of England* from the period at which Hume had left it. D. 1771. As a poet, *S.* has small claims on our consideration; as a novelist, he is only second to Fielding, though his gross indecency too often makes his works unreadable to refined and educated minds; but, as a historian, he is entitled to a large share of praise, not only for his industry and perspicuity, but for the liberality that distinguishes his political writings, and the absence of any national or party bias in his expressed opinions.

Smolt, *n.* (*Zoöl.*) A salmon, from 4 to 6 inches long, and a little more than a year old, that has acquired its silver scales.

Smooth, *a.* (*comp.* SMOOTHER; *superl.* SMOOTHEST.) [A. S. *smethe*, smooth.] Having a plain, even, or level surface, or a surface so even that no roughness or asperities are perceptible; not rough; as, *smooth* paper, a *smooth* table. — Evenly spread; glossy; sleek; as, *smooth* hair, a *smooth* skin. — Moving equally; gently flowing; not ruffled, undulated, or obstructed; as, *smooth* waters. — That flows without stops, obstruction, or hesitation; voluble; even; not harsh; as, *smooth* language, *smooth* verse. — Bland; assuasive; mild; flattering; deceptive; as, a *smooth* tongue, a *smooth* discourse.

(NOTE. *Smooth* is frequently used in the construction of such self-explaining compounds as *smooth*-faced, *smooth*-chinned, *smooth*-grained, *smooth*-leaved, &c.)

Smooth, *n.* That which is smooth; the smooth part of anything; as, in the rough or the *smooth*. — In the U. States, a meadow; a grass-field.

—*v. a.* [A. S. *smethian*, to soothe, to soften.] To make smooth; to make plain or even on the surface; to level; to flatten; as, to *smooth* linen with an iron, to *smooth* a board with a plane. — Hence, (1.) To free from impediment or obstruction; as, money *smooths* one's way through life. (2.) To make flowing; to smooth from harshness; as, to *smooth* poetic numbers. (3.) To calm; to assuage; to mollify; to allay; as, to *smooth* a ruffled temper. (4.) To soften; to palliate; to lighten; as, to *smooth* a fault. (5.) To ease; to rectify; to regulate; as, to *smooth* a difficulty.

—*v. n.* To play the flatterer; to employ blandishments; as, "I cannot . . . *smooth*, deceive, and coy."—*Shaks.*

Smooth'er, *n.* One who, or that which, smooths.

Smooth'ing-iron, *n.* Same as FLAT-IRON.

Smooth'ing-plane, *n.* A small, fine plane, used for smoothing and finishing work.

Smooth'ly, *a.* In a smooth manner; evenly; not roughly or harshly; with even flow or motion; without obstruction or difficulty; readily; easily; with soft, bland, insinuating language.

Smooth'ness, *n.* State, quality, or condition of being smooth; evenness of surface; freedom from ruggedness or asperity; as, *smoothness* of the skin, the *smoothness* of a board, &c. — Softness or mildness to the palate; as, the *smoothness* of a liquor. — Fluency of words; softness or harmony of numbers; blandness of address; mildness or gentleness of speech; as, the *smoothness* of a verse, the *smoothness* of a compliment, *smoothness* of manner.

Smooth'-spoken, Smooth'-tongued, *a.* Plausible; insinuating; flattering; with specious words; as, a *smooth-spoken* villain.

Smorzando, Smorza'to, (*smōrd-zan'do,*) *p. a.* [It.] (*Mus.*) Dying away; becoming fainter and softer by degrees, as sound.

Smote, *imp.* of SMITE, *q. v.*

Smoth'er, *v. a.* [A. S. *smoran, asmoran.*] To suffocate or extinguish life by closely covering, and by the exclusion of air; to destroy the life of by suffocation; as, to *smother* a child. — To choke; to deprive of air by a thick covering, as of smoke, &c.; as, to *smother* a fire. — Hence, to suppress; to stifle; to repress the action of; to prevent publicity; as, to *smother* a complaint or remonstrance, *smothered* rage, &c.

—*v. n.* To be suffocated, choked, or stifled. — To be suppressed or concealed. — To smoulder, as a fire.

—*n.* Smoke; thick dust.

Smouch, *v. a.* and *n.* Same as SMUDGE, *q. v.*

Smould'er, *v. n.* To burn and smoke without flame or vent.

—*n.* Smothered smoke.

Smould'eringness, *n.* The state of smouldering.

Smudge, *v. a.* To smear; to smutch; to soil.

—*n.* A stain; a blot; a smear.

-In the U. States, a slow fire, by the smoke of which to drive away mosquitoes, &c.

Smug, *a.* [A. S. *smicere;* Ger. *schmuck.*] Nice; spruce; dressed with affectation of stylishness, but without elegance.—Affectedly smart; as, a *smug* clerk.

—*v. a.* To adorn; to spruce.

Smuggle, (*smug'gl,*) *v. a.* [A. S. *smugan, smuan,* to creep; Du. *smokelen.*] To import or export secretly and in defiance of law, or secretly to import or export, as dutiable goods, without paying the duties imposed by law. — To convey or introduce clandestinely.

—*v. n.* To import or export goods without paying the customs.

Smug'gled, *a.* Imported or exported clandestinely and contrary to law; as, *smuggled* goods.

Smug'gler, *n.* One who smuggles; a contrabandist. — A vessel employed in smuggling.

Smug'gling, *n.* The offence of clandestinely importing or exporting prohibited goods, or other goods without paying the customs.

Smug'ly, *adv.* Neatly; sprucely. (R.)

Smug'ness, *n.* Spruceness; neatness; affected elegance.

Smut, *n.* [A. S. *smitta;* Ger. *schmutz*, fat, dirt.] A spot made with soot, coal, or other dirty substance. — Filthy language; obscenity.

(*Agric.*) A disease in grain. See UREDO.

—*v. a.* To blacken; to tarnish; to stain or mark with smut. — To taint with mildew.

—*v. n.* To gather smut; to be converted into smut.

Smutch, (*smŭch,*) *v. a.* To blacken with smoke.

—*n.* A smut; a foul spot. (Low.)

Smut'-mill, *n.* (*Agric.*) A machine for winnowing grain from smut.

Smut'tily, *adv.* Blackly; smokily; foully; in a smutty manner.—With obscene language; as, to speak *smuttily*.

Smut'tiness, *n.* State of being smutty; soil from smoke, soot, coal, or smut. — Ribaldry of language; obscenity; indecency in speech or writing.

Smut'ty, *a.* Soiled with smut, coal, soot, or the like; as, a *smutty* face. — Tainted with mildew; as, *smutty* wheat.—Obscene; not modest or pure; as, a *smutty* joke.

Smyrna, (*smĭr'nah,*) one of the most ancient cities now existing in Asia Minor, and one of the most wealthy and important of all the towns of Asiatic Turkey. *S.* is situated at the bottom of a deep and capacious bay on the N.W. coast of Asia Minor, in the prov. of Natolia, 210 m. S.S.W. from Constantinople; Lat. 38° 25′ 36″ N., Lon. 27° 6′ 45″ E. The whole front of the city is lined with quays, and ships of large tonnage can come up into the heart of the town. The trade carried on, both in import and export, is immense. The town is wretchedly built, and consists of narrow, dirty streets, both crooked and gloomy. The exports consist of cottou, coffee, mohair, drugs, galls, resins, and all kinds of dried fruits, especially figs. The district round the city, extending for several miles, is governed by a pasha. *S.*, according to Herodotus, was first colonized by the Æolians, B. C. 688. It was one of the seven churches mentioned in *Rev.* i. Polycarp, a disciple of the apostle John, who suffered martyrdom here about 166, is said to have been the first bishop. A massacre of several thousand Greek inhabitants by the Mohammedans took place June 15, 1821, and another massacre of more than 1,000 Christians occurred Nov. 2, 1826, and following days. A fire, which destroyed 12,000 houses, took place in July, 1841; and an earthquake caused much damage in 1846. Great fires occurred in 1860 and 1882. The first stone of the Roman Catholic Cathedral of St. John was laid Dec. 27, 1862. *Pop.* 160,000. The Gulf of *S.* is an inlet of the Ægean Sea, extending 45 m. inland, and having 22 m. of breadth at its entrance. It contains several small islands. Its waters are deep, and it affords good anchorage.

Smyr'na, in *Delaware*, a post-town of Kent co., 36 m. S. of Wilmington. *Pop.* (1897) 2,750.

Smyrna, in *Indiana*, a post-village of Decatur co., 40 miles N. of Madison.—A township of Jefferson county. —A village of Vanderburg county, 5 miles N.E. of Evansville.

Smyrna, in *Maine*, a post-township of Aroostook co., 110 m. N.E. of Bangor.

Smyrna, in *Michigan*, a post-village of Ionia co., 25 m. N.E. of Grand Rapids.

Smyrna, in *New York*, a post-village and township of Chenango co., 100 m. W. of Albany.

Smyrna, in *Ohio*, a post-village of Harrison co., 40 m. W.S.W. of Steubenville.

Smyrna, in *Tennessee*, a post-village of Rutherford co., 20 m. S.E. of Nashville.

Smyrniot, (*smĭr'nĭ-ot,*) *a.* (*Geog.*) Belonging, or pertaining, to Smyrna.

—*n.* (*Geog.*) A native or inhabitant of Smyrna.

Smy'ser's Depot, in *Pennsylvania*, a village of York co., 10 m. S. of York.

Smyth, in *Virginia*, a S.S.W. co.; *area*, 625 sq. m. *Rivers.* The N., Middle, and S. Forks of the Holston River. *Surface*, mountainous; *soil*, fertile in the valleys and along the rivers. *Min.* Salt and gypsum. *Cap.* Marion.

Smyth'field, in *Pennsylvania*, a village of Somerset co., 158 m. S.W. of Harrisburg.

Snack'wine, in *Illinois*, a post-village and township of Putnam co., 23 m. S.W. of La Salle.

Snack, *n.* [O. Eng. *snack*, to snatch.] A slight, hurried repast; an improvised luncheon; as, to take a *snack*. (Local Eng.)

To go snacks, to take a fair share or part; as, they *went snacks* in the transaction.

Snaffle, (*snaf'fl,*) *n.* [Du. *sneb, snavel;* Ger. *schnabel*, a bill, a beak, a muzzle.] A bridle consisting of a slender bit-mouth without branches. — A snaffle-bit.

—*v. a.* To bridle; to manage with a snaffle or bridle, as a horse.

Snaffle-bit, *n.* A slender bit, with a joint in the middle.

Snag, *n.* [Icel. *snagi*, a small stake or peg.] A jag or sharp protuberance; a short branch, or a sharp or rough branch; a shoot; a knot. — A tooth; a tooth projecting beyond the rest; — applied in contempt.

—The trunk of a large tree firmly imbedded in the bottom of a river at one end, and rising nearly or quite to the surface at the other end, thus presenting a dangerous obstruction to navigation; — they are common in the Mississippi and other western rivers of this country. See SAWYER.

Snag-boat, a vessel fitted with an apparatus for removing snags, or other obstructions to navigation, in rivers.

—*v. a.* (*imp.* and *pp.* SNAGGED,) (*snăgd.*) To injure or wreck utterly by fouling a snag; as, to *snag* a steamboat. 'Amer.)

Snag'ged, *a.* Full of snags, or sharp protuberances; snaggy.

Snag'gy, *a.* Full of snags; shooting into sharp points; abounding with knots; as, a *snaggy* tree, or branch of a tree.

Snail, *n.* [A. S. *snegel, snægel.*] (*Zoöl.*) The common name of gasteropodous molluscs comprising the numerous family HELICIDÆ, *q. v.*, feed chiefly on vegetable substances, although they are very indiscriminate in their appetite, and even devour the dead of their own kind. The mischief which they do to garden-crops is too well known; and gardeners lay down cabbage-leaves and the like to attract them, in order that they may be destroyed — any greasy substance increasing the attractiveness of the bait.—*S.* delight in warm, moist weather; in dry weather, their chief time of activity is during the night, and they hide themselves by day; but after rain, they come forth at any hour in quest of food. At the approach of winter, or in very dry weather, they close the mouth of the shell with a membrane (*epiphragm*), formed by the drying of the mucous substance which they secrete, and become inactive and torpid. *S.* retreat into crevices for the winter, or into holes which they make in the earth, and which are roofed over with earth,

dead leaves, &c., agglutinated by secreted mucus.—*S.* are hermaphrodite; but mutual impregnation takes place. When they are about to copulate, they excite each other by pricking, or even piercing, with a sharp calcareous glass-like style, affixed to a peculiar muscular sac which serves for its protusion, and which is produced by recent secretion, not being found in them on dissection, except at the season of reproductiou. The Great Vine Snail, or Edible Snail (*Helix pomatia*) (Fig. 2389), a European species, was considered by the ancient Romans one of their table luxuries. In some countries, as Switzerland and parts of France, they still form a considerable article of commerce. They are fed by thousands in places called *escargutoires*, which are made on purpose for them. They are used, boiled in milk, for diseases of the lungs, and are sent to this country as a delicacy.

Fig. 2389. - EDIBLE SNAIL, (*Helix pomatia.*)

(*Bot.*) See MEDICAGE.

—*n.* A drone; a slow-moving person. — A metallic spiral, forming part of the striking works of a timo-piece.

Snail'-like, *a.* Resembling a snail.

Snail-paced, (*snāl'pāst,*) *a.* Moving slow, after the manner of a snail.

Snake, *n.* [A. S. *snaca*, a snake, from *snican*, to creep.] (*Zoöl.*) Same as SERPENT, *q. v.*

—*v. a.* To drag or draw, as a snake from a hole; — with *out.* (Amer.)

(*Naut.*) To worm.

Snake'-bird, *n.* (*Zoöl.*) See PLOTIDÆ.

Snake'-fence, *n.* In the U. States, a common log-fence erected in a zigzag line.

Snake'-head, *n.* (*Bot.*) *Chelona glabra*, the only American species of the genus *Chelona*, order *Scrophalariaceæ*. It is a plant of brooks and wet places, with flowers shaped much like the head of a snake, the mouth opened and tongue extended. Stem mostly simple, 2 feet high, erect; flowers large, contracted at the mouth, with short, gaping lips; filaments hairy; style long, erect, bending downward.

(*Railroads.*) One end of one of the strap-rails upon which the wheels of cars run, sometimes used in the construction of railroads.

Snake'-moss, *n.* (*Bot.*) Club-moss. See LYCOPODIUM.

Snake'-nut, *n.* (*Bot.*) See OPHIOCARYON.

Snake'-root, *n.* (*Bot.*) See ARISTOLOCHIA.

Snake'-weed, *n.* (*Bot.*) The great Bistort, *Polygonum bistorta*. The root is *twice bent* on itself; hence the name.

Snake'-wood, *n.* A beautiful fancy wood obtained from *Brasimum guianensis*. Owing to the peculiar markings upon it, it is sometimes called *Letter-wood*.

Snak'ish, *a.* Having the qualities of a snake; snaky.

Snā'ky, *a.* Pertaining to, or resembling, a snake; serpentine.—Having, or abounding in, snakes; as, a *snaky* swamp. — Covered or adorned with serpents; as, a *snaky* wand. — Sly; cunning; insinuating; deceitful; as, *snaky* wiles.

Snap, *v. a.* (*imp.* and *pp.* SNAPPED,) (*snăpt.*) [Ger. *schnappen*; Du. *snappen.*] To break at once or suddenly, as with the teeth; to break short, as any brittle substance; as, to *snap* a pipe-stump. — To strike with a sharp sound; as, to *snap* one's fingers together.—To catch at; to bite or seize suddenly, as with the teeth; as, the dog *snapped* at a bone. — To break upon suddenly, with sharp, angry words; as, you need not *snap* at me. — To crack; as, to *snap* a whip.

To snap off, to break suddenly; to bite off suddenly.—*To snap one up, to snap one up short*, to interrupt with sharp, acrimonious words; to cut one short in one's speech; as, his wife *snapped him up short.*

—*v. n.* To break short; to part into two pieces suddenly; as, a needle *snaps.* — To attempt to seize suddenly; to make an attempt to bite; as, a terrier *snaps* at one's legs, a fish *snaps* at the bait, an office-seeker *snaps* at a place. — To utter acrimonious language; as, she *snaps* at him whenever she has the chance.

—*n.* An attempt to seize or bite; a quick, eager bite; as, the alligator took his leg off at a *snap.* — A crack of a whip, or a like sound. — A sudden breaking or sundering of any substance. — A greedy fellow; as, a cunning *snap.* — A small catch or fastening; as, the *snap* of a bracelet.

—*pl.* A crisp kind of gingerbread nut. — In the U. States, a sudden and severe interval; as, a *snap* of cold weather; —equivalent to the English word *spell;* as, a *spell* of frost.

Snap'-dragon, *n.* (*Bot.*) See ANTIRRHINUM.

—A Christmas pastime, in which raisins or sweetmeats are snatched from a bowl of flaming brandy, and then eaten; — hence, the article eaten at snap-dragon.

Snap'-lock, *n.* A lock closing with a snap.

Snap'per, *n.* The person who, or thing which, snaps.

Snap'ping-turtle, *n.* (*Zoöl.*) The common name of the *Chelydroidæ*, a family of reptiles, comprising turtles which have the body high in front, low behind, head large, neck large and long, both jaws strongly hooked, the tail long and powerful, and the sternum small. They are aquatic, but are very frequently found upon the land near the water. They are exceedingly powerful and voracious, devouring smaller reptiles, fishes, young ducks, and other animals. When molested, they take the defensive, raise themselves upon their legs and tail, open wide the mouth, and forcibly throwing the body forward, snap the jaws upon the assailant with fearful power. They are fully a match for anything which they are likely to meet with except man. The eggs are numerous and spherical. Three genera are known, each with a single species, and two of these are American, the most remarkable of which is *Chelydra serpentina*, Fig. 2242.

Snap'pish, Snap'py, *a.* Apt to snap; eager to seize or bite; as, a *snappish* dog. — Sharp in reply; peevish; apt to speak acrimoniously or tartly; as, a *snappish* old bachelor.

Snap'pishly, *adv.* Peevishly; sharply; acrimoniously; tartly.

Snap'pishness, *n.* Quality of being snappish; peevishness; tartness.

Snare, (*snair,*) *n.* [Du. *snaar*, a string.] A string or cord; a noose; — particularly, a string or line with a noose for catching animals, especially birds, by the leg; a trap; a wile; — hence, by analogy, that by which one is inveigled or entangled and brought into trouble; as, woman is the greatest *snare* man has to fear. — The gut drawn across the lower head of a drum.

Snare-drum. (*Mus.*) The smaller, common military drum, in distinction from the *bass-drum.*

—*v. a.* [Swed. *snaerja.*] To insnare; to catch with a snare; to inveigle; to entangle; to lure or bring into unforeseen and sudden difficulty, evil, or danger.

Snar'er, *n.* One who sets or lays snares, or entangles.

Snarl, *v. n.* [Ger. *schnarren*, to grumble.] To utter a sound like that of an angry dog; to growl, as a surly dog; as, a *snarling* wolf. — To speak peevishly or roughly; to talk in rude, sharp, murmuring terms.

"Kissing to-day, to-morrow *snarling.*"—*Prior.*

—To form, as hollow vases out of sheet-metal, by the repercussion of a snarling-iron when struck by a mallet.

—*v. a.* [From *snare.*] To involve; to entangle; to complicate; as, to *snarl* a skein of thread.

—*n.* A peevish contention or altercation. (Prov. Eng., colloq. U. S.)

Snarl'er, *n.* One who snarls; a surly, growling animal; a captious, snappish, quarrelsome fellow. — One who uses a snarling-iron.

Snarl'ing-iron, (*-i-urn,*) *n.* A long-beaked tool used in the process of snarling.

Snatch, *v. a.* [Intensitive of *catch;* A. S. *gelæccan.*] To seize hastily, abruptly, or without permission or ceremony; as, to *snatch* a kiss. — To seize and transport away.

"O nature! . . . *snatch* me to heaven."—*Thomson.*

—*v. n.* To catch at; to attempt to seize snddenly; as, he *snatches* the first thing to his hand.

—*n.* A sudden catch or seizing.—A catching at, or attempt to seize suddenly. — A short spell or fit of vigorous action; a broken or interrupted action. — A short fit or turn; as, a *snatch* at reading.—A small portion or fragment; a hasty repast; a snack. See SNACK. — A quip; a quibble; a shuffling or evasive answer.

Snatch'-block, *n.* (*Naut.*) A kind of block used in ships, having an opening on one side to receive the bight of a rope.

Snatch'er, *n.* One who snatches or takes away suddenly; as, a body-*snatcher.*

Snath, Snead, Sneeth, *n.* [A. S. *snæd.*] The handle of a scythe.

Sneak, (*snēēk,*) *v. a.* [A. S. *snican.*] To creep, slip, or steal away privately; to withdraw meanly, as if afraid or ashamed to be seen; as, the would-be thief *sneaked* off, he *sneaked* away from the company. — To act or behave with meanness or despicable servility; to couch; to truckle; to lick-spittle; to play the toady; as, a *sneaking* fellow.

—*n.* A mean, despicable, shuffling, sneaking fellow; a shirk.

Sneak'iness, *n.* Same as SNEAKINGNESS, *q. v.*

Sneak'ing, *p. a.* Characterized by absence of openness, manly pluck, or courage; mean; servile; dastardly; despicable; contemptibly cowardly; as, a *sneaking* sycophant, a *sneaking* tattler. — Covetous; niggardly; close-fisted; meanly parsimonious.

Sneak'ingly, *adv.* In a sneaking, underhand manner; meanly; without openness or courage.

Sneak'ingness, Sneak'iness, *n.* Quality of being sneaking; meanness; absence of manly spirit or courage; niggardliness.

Sneeds'ville, in *Tennessee*, a post-village, cap. of Hancock co., 275 m. N.E. of Nashville.

Sneek, or **Snits,** a town of the Netherlands, prov. of Friesland, 13 m. S.S.W. of Leeuwarden; *pop.* 8,000.

Sneer, *v. n.* [Allied to *snore*, and perhaps to Lat. *nares*, the nostrils.] To manifest contempt or scorn by turning up the nose, or by a supercilious cast of countenance; as, a *sneering* look. — To insinnate contempt or disdain by covert expression; to scoff; to gibe; to jeer; as, a *sneering* manner, a *sneering* remark. — To exhibit awkward mirth; to snigger.

—*v. a.* To utter with grimace or ludicrous contortions of the face. — To express contempt of, as by turning up the nose at; to deride; to flout; to jeer at; as, he was *sneered* at as a fool.

—*n.* A look of contempt, or a turning up of the nose to manifest contempt or derisive scorn; a look of disdain or contemptuous ridicule; as, a solemn *sneer.* (*Byron.*) — An expression of ludicrous scorn.

"Neither wisdom nor majesty could secure them from a *sneer.*" *Watts.*

Sneer'er, *n.* One who sneers; a derider; a scoffer.

Sneer'ingly, *adv.* In a sneering manner; with a look of contempt or scorn.

Sneeze, *v. a.* [A. S. *niesan*, from *naese*, the nose.] To emit or expel air, chiefly through the nose, audibly and violently, by a kind of involuntary spasmodic force, occasioned by irritation of the inner nasal membrane.

Not to be sneezed at, not to be treated lightly or with indifference; not to be despised or rejected; as, a proffer *not to be sneezed at.* (Colloq.)

Sneeze, *n.* A sudden and violent ejection or expulsion of air, chiefly through the nose, with an audible sound.

Sneeze'-weed, Sneeze'-wort, *n.* (*Bot.*) See HELENIUM.

Sneez'ing, *n.* (*Physiol.*) The act of sneezing. It is preceded by a deep inspiration that fills the lungs; the air-passages are then closed at the fauces, a sudden and violent contraction of the muscles of expiration takes place, and the passages by the mouth and the nasal canal are suddenly opened simultaneously, or the nasal canal alone. It is always occasioned by some irritation affecting the inner membrane of the nose, or, at least, it is always felt there, though it may exist in some other part, and may be produced by very different causes. The irritation must possess a certain degree of acuteness; for every one must have felt that when this is not the case, the disposition to sneeze suddenly passes off, though the act had been desired, and had seemed on the point of being accomplished. In several respects it resembles coughing. Various superstitious notions and customs have been associated with the act of sneezing. The custom of blessing people when they sneeze is mentioned by various ancient authors, and is so ancient that Aristotle professes ignorance of the origin of it. Among the Greeks, it was generally regarded as a good omen. Sneezing has been known to cause death; and it is reported that in the time of Gregory the Great an epidemic distemper prevailed in Italy, which carried off by sneezing all who were seized by it. It is, however, rarely dangerous, and is frequently regarded as a favorable symptom.

Snell, *n.* A short line of gut, horse-hair, &c., which connects a fish-hook to a louger line.

Snel'ling, in *California*, a post-village, former cap. of Merced co., 35 m. S. of Sonora.

Snet, *n.* Among hunters, the fat of a deer.

Sniatin, (*snē'a-tin.*) a town of Austria, in Galicia, on the Pruth, 24 m. S.W. of Kolomea; *pop.* 7,500.

Snib, *v. a.* Same as SNUB, *q. v.*

Sni'bar, or **Sniabar,** in *Missouri*, a post-village and township of La Fayette county, 20 miles S.S.W. of Lexington.

Snick, *n.* See SNEEK.

Snick'er, *v. n.* and *a.* Same as SNIGGER, *q. v.*

Snick'ersville, in *Virginia*, a post-village of Loudon co., 165 m. N.W. of Richmond.

Snī'der Rifle, *n.* (*Arm.*) The breech-loading rifle that was substituted in 1866 in the British army for the muzzle-loading Enfield rifle, and so called from the name of its American inventor, Mr. Jacob Snider, who died in 1866. The *S. R.* was the first breech-loading rifle used in the British army, its adoption being temporary only, in order to utilize the many muzzle-loaders previously in use. The method of conversion was as follows: About two inches of the Enfield barrel were cut away at the breech, and a solid breech stopper A (Fig. 2390), working sideways on a hinge, was placed in the opening thus made. Through this stopper passed a piston, one end of which, B, when the breech was closed, received the blow from the hammer, while the other communicated it to the center of the cartridge,

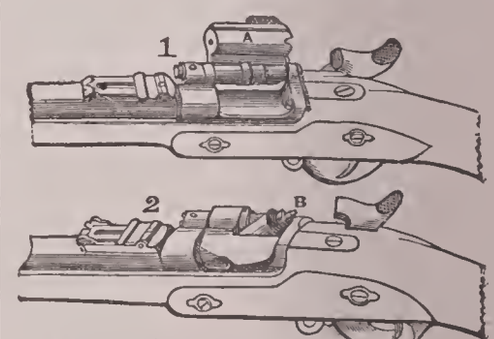


Fig. 2390.—SNIDER-CONVERTED ENFIELD RIFLE. (1, open; 2, closed.)

thus firing the latter. There was an arrangement for withdrawing the old cartridge-case after each discharge, by means of sliding back the stopper on the bar on which it hinged, when a mere tilting action of the hand threw out the old case, and the new one could be inserted, which was ignited by a blow on the center, like the cartridge of the Prussian needle-gun. With this cartridge there was no escape of gas, and the accuracy of the arm was about 33 per cent. greater than that of the muzzle-loading Enfield rifle. By this conversion the military authorities prepared themselves for any possible emergency, while steps were immediately taken to obtain a new breech-loader. The proposals made brought out a number of inventions, of which that known as the Martini-Henry rifle was adopted in 1869, it combining the Martini breech action with the Henry barrel. This has since given way to a form of the magazine rifle.

Sni'der's, in *Kentucky*, a village of Washington co., 25 m. E.S.E. of Independence.

Sniff, *v. n.* [Du. *snuiven;* Ger. *schnüffeln.* See SNUFF.] To draw air audibly up the nose; to snuff.

—*v. a.* To draw in with the breath through the nose; as, to *sniff* the sea-breeze. — To perceive as if by smelling; to snuff; to scent; as, to *sniff* an intrigue.

—*n.* That which is taken by sniffing; as, a *sniff* of perfume; also, perception by sniffing; as, a *sniff* of danger.

Sniffle, *v. n.* Same as SNUFFLE, *q. v.*

Sniff, *v. n.* [From *sniff.*] To sniff; to snuff; to smell; as, a dog *sniffing* another dog.

Sniff'ing-valve, *n.* (*Mach.*) A small valve opening from the cylinder or condenser of a steam-engine into the atmosphere, to allow the escape of air during the downward stroke of the piston; — so termed from the snifting sound made by its action.

Snig, Snigg, *n.* [Allied to *snake.*] (*Zoöl.*) A kind of eel. See ANGUILLA.

Snig'ger, Snick'er, *v. a.* To laugh in a half-suppressed manner; to laugh in a silly, semi-idiotic manner.
—*n.* A half-suppressed, broken laugh; a vacant, silly laugh.

Snig'gle, *v. a.* To angle for eels by thrusting the bait into their holes — To snigger.

Snip, *v. a.* (*imp.* and *pp.* SNIPPED) (*snĭpt.*) [Du. *snippen*, to cut in small pieces; Ger. *schnippeln*, to cut in bits.] To nip; to cut into small pieces; to clip; to cut off the nip or neb, or to cut off at once with shears or scissors; as, to *snip* dead leaves from a plant. — To pilfer; to take bit by bit.
—*n.* A single cut with shears or scissors; a clip; as, to make a *snip* in cloth. — A bit cut off; a small shred; as, a *snip* of plaster. — A share or snack; an equal portion. (Vulgar.) — A cant term for a tailor; as, he stole the *snip's* shears.

Snipe, *n.* [A. S. *snīle.*] (*Zoöl.*) The common name of the birds composing the family *Scolopacidæ*. There are many genuses, of which the genus *Gallinago* may be taken as the type. The Common Snipe of Europe (*G. media*), is about 17 inches in entire length, the hill almost 3 inches. The general color of the upper parts is a blackish-brown, finely mixed with pale-brown and a rich buff-color; three pale-brown streaks along the head; the neck and breast pale-rust color mottled with black; the belly white. The tail consists of 14 feathers. The *S.*, when flushed, changes its course several times in a zig-zag manner in the air, and then darts off very swiftly, so that young sportsmen find it a very difficult bird to shoot. The *S.* makes a very inartificial nest of a little dry herbage, in a depression of the ground, or sometimes in a tuft of grass or rushes. The eggs are four in number, pale-yellowish or greenish-white, the larger end spotted with brown. This species of *S.* is plentiful in all the moory and marshy places throughout Europe, also in some parts of Asia, and it is found in the north of Africa. The *S.* is capable of being tamed, and becomes very familiar, but is difficult to keep, from the prodigious quantity of worms and other such food which it requires. — The Common American *S.* (*G. Wilsonii*) is about equal in size to the Common *S.* of Europe, and much resembles it also in plumage. The tail has 16 feathers. This species is abundant in summer in the northern parts of the U. S. and in Canada, in the more southern States in winter. It is in much request for the table, and is often caught in snares. — The *S.* is a very fat bird, but its fat does not cloy, and very rarely disagrees even with the weakest stomachs. It is much esteemed as a delicious and well-flavored dish.

Fig. 2391. — WILSON'S SNIPE, (From *Tenney's Zoölogy.*)

Snipe'-bill, *n.* An American localism for a bolt which fastens the body of a cart to the axle.

Snipe'-fish, *n.* (*Zoöl.*) See CENTRISCUS.

Snip'per, *n.* One who snips or clips.

Snip'per-snap'per, *n.* Same as WHIPPER-SNAPPER, *q. v.*

Snip'-snap, *n.* [A reduplication of *snap.*] A tart dialogue with quick rejoinders; as, "*snip-snap* short." *Pope.*
—*a.* Quick; short; smart.

Sniv'el, *n.* [A. S. *snafel*; dimin. of *sniff.*] Snot; mucus running from the nose.
—*v. n.* (*imp.* and *pp.* SNIVELLED,) (*snĭv'ld.*) To run at the nose; to discharge mucus through the nostrils. — To cry or whine as children; as, a *snivelling* utterance.

Sniv'eller, *n.* One who cries with snivelling. — One who manifests maudlin weakness by weeping; a driveller.

Sniv'elling, *n.* A crying, as of children, with sniffling or whining.

Snob, *n.* [Prov. Eng *snob*, snot.] A vulgar person who affects a sort of spurious gentility, and apes the manners, dress, and habits of well-bred people; — also, a toady; a vulgar hanger-on or lick-spittle; a low, pretentious puppy who tries to pass himself off as a gentleman; the counterpart of NOB, *q. v.*; as, that fellow is what he is — a pitiful, unmitigated *snob.* — In the great English universities, the students' term for a townsman, as opposed to a *gownsman* or *collegian.* — A journeyman shoemaker. — A mechanic who works for lower wages during a strike, as distinguished from a NOB, *q. v.*

Snob'bery, *n.* Quality of being snobbish, or of making vulgar pretensions to gentility.

Snob'bish, *a.* Belonging to, resembling, or characteristic of, a snob; as, *snobbish* vulgarity.

Snob'bishly, *a.* In a snobbish manner; with vulgar pretentiousness.

Snob'bishness, *n.* Quality of being snobbish; character, habits, or manners of a snob.

Snob'bism, *n.* Characteristic qualities of a snob; parvenuism; spurious or pretentious gentility; snobbishness; shoddyism.

Snob'ocracy, *n.* Snobs taken as a collective body; codfish aristocracy.

Snoho'mish, in *Washington*, a N.W. co., bordering on Admiralty Inlet; *area*, 1,720 sq. m. *Rivers.* Skikomish, Snohomish, and Stcilaquamish. The Cascade Range traverses the E. border. *Cap.* Snohomish. *Pop.* (1897) 13,900.

Snood, *n.* A Scotticism for the fillet which binds the hair of a young unmarried woman. — A snell.
—*v. a.* To bind up the hair, as with a snood.

Snood'ed, *a.* Wearing a snood; as, *snooded* locks.

Snook, *n.* (*Zoöl.*) Same as GAR-FISH (*q. v.*).

Snooze, *n.* [Scot. *snooze*, to sleep.] A nap; a short sleep; a siesta; as, I must take a *snooze.* (*Colloq.*)
—*v. n.* To doze; to nap; to drowse; to sleep; as, he *snoozes* away the afternoon. (*Colloq.*)

Snoqual'mie River, in *Washington*, rises in King co., and flowing generally N. enters Puget Sound in Snohomish co.

Snore, *v. n.* [A. S. *snara*, snoring; Du. *snorken*; Ger. *schnarchen*; Icel. *snörva.*] To breathe through the nose with a rough, hoarse noise, as in sleep.
—*n.* Respiring with a rough, harsh noise in sleep.

Snor'er, *n.* One who snores.

Snort, *v. a.* [Another form of *snore.*] To expel the air with violence through the nostrils, so as to make a loud sharp noise. — To make a guffaw; to give a horse laugh. (Colloq.)

Snort'er, *n.* One who, or that which, snorts.

Snort'ing, *n.* Act of forcing the air through the nose with noisy violence.

Snot, *n.* [A. S. *snote*; Du. and Dan. *snot.*] Mucus secreted in, or discharged from, the nose; snivel.
—*v. a.* To blow or clear from snivel, as the nose. (Vulgar.)

Snot'-rag, *n.* A vulgarism for a pocket-handkerchief.

Snot'ter, *n.* (*Naut.*) A rope going over a yard-arm, used to bend a tripping-line to, in sending down top-gallant and royal yards, in vessels of war.

Snot'tily, *adv.* In a snotty manner.

Snot'tiness, *n.* State or quality of being snotty; hence, meanness.

Snot'ty, *a.* Foul with snot; — hence, mean; filthy.

Snout, *n.* [Du. *snuit*; L. Sax. and Sw. *snut*; W. *ysnid*, a snout.] The nose or muzzle; the long, projecting nose of certain beasts; as, a hog's *snout.* — The nose of man; — used by way of contempt. — The nozzle or end of a hollow pipe or tube.
—*v. a.* To furnish with a nozzle or point.

Snow, *n.* [A. S. *snaw.*] (*Meteorol.*) *S.* is water solidified in stellate crystals, variously modified, and floating in the atmosphere. These crystals arise from the congelation of the minute vesicles which constitute the clouds, when the temperature of the latter is below zero. They are more regular when formed in a calm atmosphere. Their form may be investigated by collecting them on a black surface, and viewing them through a strong lens. The regularity, and at the same time variety, of their forms are truly beautiful. Fig. 2392 shows some of the forms as seen through a microscope. These crystals are united together in such a manner as to reflect light to the eye in great abundance from all, thus producing a sensation of whiteness. The presence of air in *S.* renders it opaque, otherwise it would be transparent, like ice and other crystallized bodies. Regular crystals of *S.* are only found where the air is still and the temperature very cold; they do not, therefore, often occur in temperate regions. In the Polar regions, *S.* has been seen of red, orange, and salmon color. This phenomenon occurs both in the fixed and floating ice, and seems to result in some cases from vegetable, and in others from animal matter suspended in the water, and deposited upon the surrounding ice. In some cases snow storms have been known to present a luminous appearance, covering every object with a sheet of fire. In general, the electricity of *S.* is positive, and by chemical analysis it has been found that snow-water contains a greater proportion of oxygen than rain or river-water — a fact which accounts for its superior activity in causing iron to rust, &c. In the economy of nature, *S.* answers many valuable purposes. By its gradual melting in high regions, it serves to supply streams of running water, which a sudden increase in the form of rain would convert into destructive torrents or standing pools. In many countries, *S.* tempers the burning heat of summer by cooling the winds which pass over it. On the other hand, in colder climates, *S.* serves as a defence against the severity of winter, where it protects plants against the frost, and serves as a shelter to animals, which bury themselves in it. The elevation at which mountains are covered with perpetual *S.* is called the *snow-line*, or plane of perpetual *S.* The *S.*-line on the northern side of the Himalayan Mountains is about 17,000 feet; on Chimborazo, 15,802 feet. The altitude of perpetual *S.* under the equator was fixed by Humboldt at 15,748 feet; towards the poles it is considerably lower. The *S.*-line of the Alps, under 46° north latitude, is only 8,860 feet, and that of the Pyrenees about 8,850 feet. At the North Cape, in Lat. 71°, it is only 2,240 feet. The position of the snow-line in all mountains, however, depends so much on variable causes, such as the form of the summits, the comparative altitude, and other physical features of the surrounding country, the particular exposure of the mountains, &c., that no general rule can be laid down for determining the altitude of perpetual snow.

Fig. 2392.

(NOTE. *Snow* is frequently employed in the construction of compound terms, most of which are self-explaining; as, *snow*-bound, *snow*-capped, *snow*-flake, *snow*-water, *snow*-wreath, &c.)

Snow, *v. n.* [A. S. *sniwan.*] To fall in snow; — used chiefly in the impersonal sense; as, it *snows* to-day.
—*v. a.* To scatter like snow; as, "Till age *snow* white hairs on thee." — *Donne.*

Snow'-ball, *n.* A round mass of snow pressed or rolled together.
—*v. a.* To pelt with snow-balls.
—*v. n.* To hurl or fling snow-balls.

Snow'-ball, Snow'-ball-tree, *n.* (*Bot.*) See VIBURNUM.

Snow'-berry, *n.* (*Bot.*) See SYMPHORICARPUS.

Snow'-bird, *n.* (*Zoöl.*) The common name of the genus of birds *Junco*, from *Fringillidæ*, distinguished by their bill small and conical, the wings reaching the basal fourth of the exposed portion of the tail, and the tail slightly emarginate. The common *S.-B.*, or Black Snow-bird, *Junco hyemalis*, of the U. States east of the Missouri, is 6¼ inches long; grayish or dark ashy-black, deepest before; the middle of the breast and belly, the under tail-coverts, and the first and second external tail-feathers white, and the third tail-feather white margined with black. These birds appear in flocks in winter, and are very tame. They are fond of grass-seeds and berries; the flesh is delicate and juicy, and is often sold in the New Orleans market.

Snow'-blindness, *n.* A kind of ophthalmia, caused by the reflection of light from the snow, which gives a partial blindness to the sight.

Snow'-broth, *n.* Snow and water mixed; — hence, very cold liquor.

Snow'-bunting, *n.* (*Zoöl.*) A bird of the genus *Plectrophanes* (*P. nivalis*), common in summer in Arctic America, and in winter in the U. States. It is distinguished from the True Buntings by the long and nearly straight claw of the hind-toe, in this resembling the larks. There is also an approach to larks in habits; there is a similar ease and celerity in running along the ground, and the song is very different from that of any of the True Buntings. The *S.-B.* is generally very fat, and is highly esteemed for the table.

Fig. 2393. — SNOW-BUNTING.

Snowd, Snowd'ing, *n.* A thin cord made of hemp, suspended to deep-sea fishing-lines, and having a fish-hook attached.

Snow'den, in *Pennsylvania*, a township of Alleghany co., 11 m. S. of Pittsburg.

Snow'don, a mountain-range in Caernarvonshire, N. Wales, stretches in a N.E. by N. direction from a point 5 m. N. of Criccieth, near the head of Cardigan Bay, to near Conway; but is broken up by valleys and river-courses into four mountain groups, whose chief peaks are Carnedd-Llewelyn, 3,460 ft.; Moel-Siahod, 2,878 ft.; and *Moel-y-Wyddfa* ("the Conspicuous Peak"), the highest mountain in S. Britain, 3,571 ft. above sea-level.

Snow'-drift, *n.* A bank of snow accumulated by the wind.

Snow'-drop, *n.* (*Bot.*) See GALANTHUS.

Snow'-drop-tree, *n.* (*Bot.*) Same as HALESIA, *q. v.*

Snow'-gnat, (*-năt,*) *n.* The common name of the insects composing the gen. *Chione*, fam. *Tibulariæ.* They are very small, wingless, look like spiders, and are found in great numbers in the last of winter upon the snow.

Snow Hill, in *Alabama*, a post-village of Wilcox co., 55 m. S.W. of Montgomery.

Snow Hill, in *Maryland*, a post-town and port of entry, cap. of Worcester county, 100 m. S.E. of Annapolis.

Snow Hill, in *North Carolina*, a post-village, cap. of Greene co., 70 m. S.E. of Raleigh.

Snow Hill, in *Ohio*, a village of Clinton co., 74 m. S.S.W. of Columbus.

Snow Island, in the S. Atlantic Ocean, one of the S. Shetland group S.W. of Liviugston Islaud, 25 m. long.

Snow'-plough, (*-plow,*) *n.* A machine operating like a plough for clearing away ths snow from roads, railways, &c.

Snow'-slip, *n.* A large body of snow which slips down the side of a mountain; an avalanche.

Snow'-shoe, *n.* A light shoe or racket worn by persons travelling on snow, to prevent their feet from sinking therein.

Snow'-shoe, in *Pennsylvania*, a post-village and township of Centre co., 17 m. N.W. of Bellefonte.

Snow'-storm, *n.* A storm accompauied with falling snow.

Snow'-white, *a.* White as snow; very white; as, a *snow-white* buil.

Snow'y, *a.* White like snow; as, a *snowy* dove, a *snowy* breast.—Abounding or covered with snow; as, *snowy* plaius.—White; pure; unstained; unblemished; as, a *snowy* reputation.

Snub, *n.* [See SNIP.] A cutting short;—hence, a check, reprimand, or rebuff; as, he met with a *snub* for his pains.

—*v. a.* To nip; to clip or break the end of; as, waves *snubbed* by the winds.—To reprimand; to check; to stop, rebuke, or rebuff with a tart, sarcastic, or severe retort or remark; as, she *snubbed* him for his assurauce.—To give the cold shoulder to; to cut; to ostracise; to treat with merited conteupt, contumely, or negiect, as a snob, or an intrusive or pretentious person; to slight premeditatedly; as, to *snub* a forward or familiar fellow.

To snub a rope or *cable.* (*Naut.*) To give It a sudden check while running ont.

Snub'-nose, *n.* A short, flat, stumpy nose.

Snub'-post, *n.* (*Naut.*) A post on a quay or wharf, round wbich to wind a rope to check the motion of a vessel.

Snuff, *n.* [Ger. *schnüffeln*, to sniff, to smell; Du. *snuiven* to snuff; Swed. *snufwa.*] The nose, or end, of the wick of a candle that is burned black or charred. Pulverized tobacco, or other powder, taken, or prepared to be taken, into ths nose. See TOBACCO.

Up to snuff, knowing; shrewd; astute; not readily imposed upon. (Colloqnial.)

—*v. a.* To draw up or inhale through the nose; to draw in with the breath through the nose; as, to *snuff* the air.—To scent; to smell; to perceive by the nose.—To take snuff; as, he does not *snuff.*

—*v. n.* To inhale air with violence or with noise through the nose; to snort; as, a hound *snuffs* the scent.—To turn up the nose and inhale air, as an expression of contempt;—hence, to take umbrage or offence.

"Ye said, what a weariness is it, and ye have *snuffed* at it." *Mal.* i. 13.

Snuff-box, *n.* A small box for carrying snuff about the person.

Snuff-dipping, *n.* A practice common among the lower class of women in the Southern States, of collecting a quantity of snuff upon a sort of brush made by separating the fibres of one end of a small piece of wood, and rubbing the teeth and gums with it

Snuff'er, *n.* One who snuffs; a snuff-taker.

—*pl.* A table instrument for cropping the snuff of a candle.

Snuffingly, *adv.* With snuffing; in a snuffing manner.

Snuffle, (*snŭf'fl.*) *v. n.* [From *snuff:* Du. *snuffelen:* L. Ger. *schnüffeln.*] To speak through the nose; to breathe hard through the nose, or through the nose when obstructed; as, "*snuffling*, broken-winded tones." *Hudibras.*

—*n.* A sort of sibilant sound made by the passage of air through the nostrils; as, to speak with a *snuffle.*—An affected nasal twang; as, the real Puritan *snuffle;*—hence, cant; sanctimonious intonation of the voice.

Snuffler, *n.* One who snuffles, or speaks with a nasal twang.

Snuffles, *n. pl.* Obstruction of the nasal air-passages by mucus.

Snuffletown, In *New Jersey*, a village of Sussex co., 15 m. N.E. of Newton.

Snuffy, *a.* Soiled with snuff; as, a *sn. of* handkerchief.—Addicted to the use of snuff; as, a *snuffy* old lady.

—A Scotticism for sulky; irate; annoyed.

Snug, Snug'gle, *v. n.* To lie close for comfort or warmth; to move or wriggle about to get a close, easy position; to be sheltered: as, "the loving couple lay *snugging* together."—*L'Estrange.*

—*a.* (*comp.* SNUGGER; *superl.* SNUGGEST.) [A. S. *snican;* Dan. *sniger.*] Cozy; closely cuddled or pressed; as, a child *snug* in a cot.—Concealed: sheltered; not exposed to notice; as, he lay *snug* in hiding.—Compact, cozy, convenient, and comfortable; as, a *snug* property, a *snug* office under government.

Snug'gery, *n.* A snug, cozy, comfortable place; a tabagie; a sanctum.

Snug'ly, *adv.* In a snug manner; closely; safely; warmly; cozily; as, *snugly* tucked in bed.

Snug'ness, *n.* State or condition of being snug; coziness.

Sny'der, in *Pennsylvania*, an E. central co., formerly the S. part of Union co., bounded E. by the Susquehanna river; *area*, about 325 sq. m. The surface is hilly, and the soil fertile. Iron ore and coal are found in great abundance. *Cap.* Middlebury. *Pop.* (1897) 18,320.

—A township of Blair co.—A township of Jefferson co.

Sny'dersville, in *Pennsylvania*, a post-village of Monroe co., 112 m. N.E. of Harrisburg.

Sny'dertown, in *New Jersey*, a village of Hunterdon county.

Snydertown, in *Pennsylvania*, a village of Columbia co.—A post-borough of Northumberland co., 8 m. E. of Sunbury.

Sny'ing, *n.* (*Naut.*) A circular plank placed edgewise, to work into a vessel's bow.

So, *interj.* Steady; stand still;—a word spoksn to cows, as when heiug milked.

(*Naut.*) Hold hard! avast! stop!—a command to cease hauling upon anything, as a rope or stay, when it has reached the proper position.

—*adv.* [A. S. *swa;* Dan. *zoo;* Ger. and Icel. *so;* Dan. *sua;* Lat. *sic;* Gr. *hōs.*] In that or the self-same manner or degree; as expressed, implied in any way, or as supposed to be known.

"We think our fathers fools, *so* wise we 're grown."—*Pope.*

—Thus; in like manner; in the way that; for like or with equal reason;—employed in a correlative sense, after *as*, to indicate comparison or resemblance;—occasionally, also, preceded by *inasmuch as.*

"According to the multifariousness of this immutability, *so* are the possibilties of being."—*Norris.*

—To such degree; in such manner;—employed correlatively, and preceding *as* or *that;* as, as I was *so* lucky *as* to meet with him, it matters not to me *so that* you are satisfied.—Exceedingly; very; in a superior degree;—that is, in such a degree as may be considered nearly inexpressibie; as, he knows it *so* well, she does *so* admire herself.—In the same manner or degree; in this way; in this or that state or condition; under these circumstances;—with reflexive relevancy to something privily asserted, expressed, or implied;—employed, also, as a predicate, with the verb *to be:* as, do I deserve *to be* treated *so?*—For this cause or reason; therefore; on these terms; on this ground or account;—used in both an adverbial and a coujunctional sense.

"*So* may kind rains their vital moisture yield."—*Pope.*

—Be it so; it is well; thus be it;—conveying assent.

"If it be my desire, *so;* if it be not, *so.*"—*Shaks.*

—Well; thus it is; the fact heing so; such being the state;—employed expletively; as, so you are come at last!

—Is it the fact? do you really mean it?—with an elevation of tone; as, is that *so?* (Used colloquially.)

So forth, more of the same or a similar kind; in the like stram; as, we shall be glad to see you, and *so forth.*—*So much as* (frequently, *as much as*), that much; whatever may be the amount, degree, or quality; as, *so much as* the measure will contain.—*So, so,* well, well.—Passably; middling; tolerably well; as, our friend feels only *so, so,* to-day.—*So that,* in order that, with the effect that; as, come early, *so that* we may go together.—*So then,* therefore; thus then it is; the result is; as, *so then* he made a clean breast of it.

—*conj.* Provided that; on condition that; in case that; in like manner; answering to as, nnd noting comparlson or resemblance; therefore; for this reason;—noting a wish, desire, or petition.

Soak, (*sōk,*) *v. a.* [A. S *socian*, to soak, to macerate.] To cause to suck in or imbibe wet or moisture; to cause or suffer to lie in a fluid till the substance has imbibed what it can contain; to subject to maceration in water or other fluid; to steep; as, to *soak* bread.—To wet thoroughly; to drench; to saturate; as, his clothes were *soaked* with rain.—To penetrate by wetting thoroughly;—often before *through;* as, the blood *soaked* its way *through* the bandage.—To draw in by the pores, as the skin.

—*v. n.* To he soaked; to lie steeped iu water or other fluid; as, put this cloth to *soak.*—To penetrate into pores or interstices; as, the rain *soaks* through the ceiling.—To drench; to swill; to drink intemperately or inordinately; as, he *soaks* liquor like a sponge. (Vnig.)

Soak'age, *n.* Act of soaking, or state of being soaked.

Soak'er, *n.* One who soaks, or macerates in a liquid.—A hard drinker. (Vulgar.)

Soak'ing, *n.* That wets or drenches thoroughly; as, a *soaking* rain.

Soak'y, *a.* Moist on the surface; steeped in water; soggy.

Soap, (*sope,*) *n.* [A. S. *sape;* Lat. *sapo;* Fr. *savon.*] (*Chem.*) Strictly speaking, a *S.* may be defined as a salt consisting of a fatty acid in combination with a metallic base. In common parlance, however, it is applied to the soluble salts formed by the union of the fatty acids with the alkalies. If oil and water be shaken together, mechanical union will take place; but on allowing the mixtnre to rest, the oil will gradually separate and float on the surface of the water. If a small quantity of caustic soda or potash be added to the mixture, and it be then agitated, union will take place between the three bodies, a milky fluid being formed. If a sufficient quantity of alkali has been added, and the solution he boiled, it gradnally becomes clear, giving rise to a soapy fluid, which froths strongly on agitatiou, presenting all the properties of a solution of *S.* If to a portion of this clear liquid a strong solution of common salt is added, a peculiar curdling is produced. The liquid separates into a clear fluid, containing glycerine, while the curdy portion rises to the surface. This substance is the fatty acid of the oil, in combination with the alkali used and a certain proportion of water, and if pressed and dried, exhibits the properties of ordinary *S.* Ordinary *S.* is freely soluble in both hot and cold water; but if any of the earths, such as lime, be present, an insoluble compound is immediately formed; or, in common language, the *S.* curdles, from the water being hard. Ordinary *S.* are of two kinds,—*soft* and *hard.* Soft *S.* is a combination of some latty or oily substance with potash, and contains an excess of alkali; hence it is used for cleansing purposes where very highly detergent powers are required. The hard *S.* are combinations of the fatty acids with soda, the principal varieties being *yellow S.*, made from tallow and palm-oil, and containing a certain proportion of resin to give it lathering properties; *curd S.*, which is made from tallow, only a small portion of olive-oil or lard being added, to give it softness; *mottled S.*, which is prepared from tallow, palm-oil, nnd kitchen-stuff, and contains a portion of insoluble iron *S.*, giviug it a marbled appearance. *Marseille* and *Carlisle S.* are made of olive-oil and soda, a small qnantity of sulphate of iron and sulphuretted lye being added to them while in a pasty condition. The object of marbling *S.* with an insoluble matter is to show that they contain but little moisture, since, if too large a proportion of water were present, the coloring matter would sink to the bottom and remain there, instead of being diffused through the mass. The manufacture of the different *S.* is very similar, differing only in minor details. An alkaline lye is first prepared in large iron boilers, called *coppers*, heated by steam, by boiling in them a mixture of soda, ash, lime, and water. After boiling for some time, the steam is turned off, and the lye is allowed to cool, carbonate of lime being deposited. The clear lye is then drawn off, weakened by the addition of water, nnd added to the tallow, fat, or oil, in the proportion of 150 gallons of weak lye to one ton of fat. When ebullition takes place, stronger lyes are added by degrees until the *S.* feels no longer greasy. Common salt is then added, which separates the glycerine and other impurities derived from the grease. These are drawn off and thrown away, stronger lyes being added, and the boiling continued until the whole of the soap separates. It is then transferred to frames to cool, a small portion of the lye contained in the *S.* gradually separating and accumulating in the lower part of the frame. This portion is poured off and added to the next charge. When perfectly hard, which occurs in three or four days, the *S.* is cut up into bars with wires. *Curd S.* is generally remelted, and forcibly stirred or *crushed* to break up the grain. It is the purest commercial *S. Fancy S.* are made from pure curd *S.*, scented with various perfumes, and colored with a variety of tints to suit the prevailing fashion. *Honey S.* contains no honey. It is made of good yellow *S.*, sceuted with oil of citronella. *Real old Brown Windsor S.* is curd *S.* which has turned brown by age. It is now, however, made artificially, by mixing caramel with white *S. Transparent S.* is made by dissolving white *S.* in spirit and evaporating. *Glycerine S.* is prepared by heating the fat with alkali and a little water to about 400° F. for two or three hours, and running the mass at once into moulds. It is, of course, a mixture of soap and glycerine. Besides being used for ordinary domestic purposes, *S.* is employed in various manufactures as a detergent for cleansing silk, wool, and the different fabrics made from them.

Soap, *v. a.* (*imp.* and *pp.* SOAPED,) (*sōpt.*) [A. S. *sapian;* Ger. *seifen.*] To rub or wash over with soap.—To ply with flattery or adulatory language; as, to *soap* a patron.

Soap'berry-tree, *n.* (*Bot.*) See SAPINDACEÆ.

Soap'-boil'er, *n.* A manufacturer of soap; a soapmaker.

Soap'-boil'ing, *n.* The business of making soap.

Soap'-bub'ble, *n.* A globular film of soap-suds formed by inflation.

Soap'-cerate, (*-sē'rat.*) *n.* (*Med.*) A compound of lead, soap, white wax, and olive oil;—used as a sedative in external inflammation.

Soap Creek, in *Iowa*, flows into the Des Moines River from Wapello co.—A twp. of Davis co.

Soap'stone, or **Ste'atite,** *n.* (*Min.*) A hydrated silicate of magnesia, with a smooth greasy feel like that of soap, and so soft as to yield to the nail. It is a massive variety of talc, which, when pure and compact, is much used as a refractory material for lining furnaces, being infusible in any ordinary furnace heat. It is easily turned in the lathe, or cut with knives and saws, and is made into culinary vessels. When very strongly heated, *S.* loses the small portion of combined water which it contains, and becomes harder and susceptible of polish. In this state it is made into jets for gas-burners, which have the advantage of not being liable to rust or corrosion. When reduced to powder, it is used like plumbago as a lubricator and to diminish friction, as well as to give a surface to some kinds of paper-hangings.

Soap'-suds, *n. pl.* Water holding a solution of soap; suds.

Soap'-wort, (*-wurt.*) *n.* See SAPONARIA.

Soap'y, *a.* Resembling, or partaking of the properties of, soap;—hence, soft and smooth; as, a *soapy* lather.—Smeared or covered with soap.—Grossly adulatory; as, a *soapy* compliment, a *soapy* sycophant.

Soar, *v. n.* [Fr. *essor*, soaring up.] To rise into the air; to fly aloft; to mount upon the wing, or as on wings; as, a *soaring* eagle.—To tower in thought or imagination; to reach the sublime, as a poet or an orator; to rise high in ambition or heroism; as, a *soaring* genius.

—*n.* A towering flight; as, the *soar* of the condor.

Soar'-falcon, *n.* A falcon of the first year.

Soa're, Soaremen'te, *a.* [It., sweet, sweetly.] (*Mus.*) A term denoting to the player that the music to which it is prefixed is to be executed with sweetness.

Soar'ing, *n.* Act of mounting on the wing, or of towering in thought or mind.

Sob, *v. n.* (*imp.* and *pp.* SOBBED,) (*sŏbd.*) To sigh with a sudden heaving of the breast or a convulsive motion; to sigh with deep sorrow, or with tears.

—*n.* A convulsive sigh or catching of the breath in sorrow; a spasmodic act of respiration obstructed by mental affliction; as, she gave vent to her *sobs.*—Hence, any mournful and subdued cry or sound; as, the *sob* of a rising gale.

Sob'bing, *n.* The act, or the sound, of one who sobs.

So'ber, *a.* (*comp.* SOBERER; *superl.* SOBEREST.) [Fr. *sobre;* It. *sobrio;* Lat. *sobrius.*] Free from drunkenness; practising temperance or moderation in the use of alcoholic liquors; habitually temperate in the use of strong

drinks; as, a *sober* man, a *sober* habit of life. — Not intoxicated or overpowered by spirituous liquors; as, a man may be physically drunk while intellectually *sober*. — Not mad or insane; not wild, visionary, or heated with chimerical or crotchetty notions; having the regular exercise of cool, dispassionate reason; self-constrained; self-possessed; self-controlled. — Calm; cool; collected; regular; uot springing from, or attended with, impulsiveness or passion; as, *sober* sense is his distinguishing quality. — Grave; circumspect; scdate; staid; serious; somhre; solemn; as, a *sober* costume, "The *sober* follies of the wise and great."—*Pope*.

So'ber, *v. a.* To make soher; to free from intoxication; as, he drank largely of hock and seltzer to *sober* himself. — To become soher; — frequently preceding *down;* as, matrimony *sobers* a man *down*.

So'berize, *v. a.* and *n.* To sober; to make or become sober. (R.)

So'berly, *a.* In a sober manner; without intemperance; without enthusiasm; gravity; seriousness; freedom from heat and passion; calmncss; coolness.

So'ber-mind'ed, *a.* Ilaving a disposition or temper naturally or habitually soher, calm, temperate, and dispassionate.

So'ber-mind'edness, *n.* State of heing soher-minded.

So'berness, *n.* State or quality of being soher; freedom from intoxication; temperance; sobriety; seriousness; abstinence from heat or passion; calmness; coolness.

Sobi'eski. JOHN. See JOHN III. (of Poland.)

Sob'oles, *n.* [Lat., a shoot.] (*Bot.*) A shoot which runs under the surfacc of the ground, sending out new plants at certain distances; also, a sucker, as of a tree or plant.

Sobolif'erous, *a.* [Lat. *soboles*, a shoot, and *ferre*, to bear.] (*Bot.*) Yielding shoots from nuder or near the surface of the ground.

Sobralia, (*so-brai'le-ă,*) *n.* (*Bot.*) A genus of plants, order *Orchidaceæ*. One species is said to yield in Panama a kiud of vanilla, which is called *chica*.

Sobri'ety, *n.* [Fr. *sobriété*, from Lat. *sobrietas*.] State or quality of heing habitually soher, or temperate in the use of alcoholic liquors; as, few men are patterns of *sobriety*. — Habitual freedom or abstinence from euthusiasm, inordinate passion, or over-heated imagination; calmness; coolness; steadiness; self-possession; as, the *sobriety* of age. — Seriousness; sedateness; gravity, unaccompanied with sadness, melancholy, or religious hypochondria; as, *sobriety* of language or demeanor.

Sobriquet, (often written SOUBRIQUET,) (*sō-bre-kā',*) *n.* [Fr.] A pseudonym; a nom-de-plume; a fanciful appellation; an assumed name; a nickname.

Soc, *n.* (*Eng. Law.*) In England, an exclusive privilege formerly claimed by millers of grinding all the corn used within the manor or township in which the mill stands.

So-called, *a.* So named, termed, or styled; called hy such a name.

Sociability, (*sō'sha-,*) *n.* [Fr. *sociabilité.*] Quality of heing sociable; disposition to associate and converse with others, or the practice of familiar social intercourse.

Sociable, (*sō'sha-bl,*) *a.* [Fr.; Lat. *sociabilis.*] That may be conjoined or united in ono body or company; as, *sociable* parts. — Social; ready or disposed to unite in a general interest; ready and inclined to join in company or society, or frequent meeting for conversational intercourse; as, a *sociable* nature. — Hence, companionable; friendly; familiar; inclined to converse when in company; conversible; free, or disposed to freedom, in social intercourse; talking pleasantly or familiarly; not taciturn, reserved, or self-absorbed; as, a *sociable* individual. — Affording opportunities for conversation and friendly intimacy; as, a *sociable* party.

— *n.* An at-home; a re-union; a social party assembled for music, conversation, &c.

Sociableness, (*sō'sha-,*) *n.* Quality of being sociable; sociability.

Sociably, (*sō-sha-blĭ,*) *a.* In a sociable manner; with free intercourse; couversibly; familiarly, as a companion.

Social, (*sō'shal,*) *a.* [Fr.; Lat. *socialis*, from *socius*, a companion; Hind. *sukha*, a friend, companion.] Pertaining or having reference to society; relating to persons living in society, or to the puhlic as an aggregate body; as, *social* interests, pleasnres, duties, benefits, institutions, &c. — Ready or disposed to mix in converse or friendly intercourse; companionable; as, a *social* disposition. — Consisting in union or mutual converse; as, *social* intimacy, *social* commnnication.

(*Bot.*) Naturally growing in company.

Social Cir'cle, in *Georgia*, a post-village of Walton co., 120 m. W. of Augusta.

So'cialism, *n.* (*Pol. Philosophy.*) *Socialism* and *communism* are two modern words which, in point of meaning, are not separated by any accurate distinction, and are frequently used the one for tho other. There is, however, a slight difference in common usage, which the following remarks may elucidate. 1. It is held by some theorists that the notion of *property* has no foundation either in right or expediency; that as, in point of fact, the possession of property was originally merely the usurpation of superior strength, so, in a really equitable state of society, this usurpation would altogether disappear; that, in Proudhon's epigrammatic phrase, *property is robbery*. This doctrine of the absolute community of goods is ordinarily designated as *communism*. 2. But between this extreme and that which regards the right of individual property and the use of it as not to he interfered with at all except in certain extreme cases recognized by ordinary legislation, there is a wide interval. There are many intermediate theories, according to which the use of property ought to he restricted or interfered with, or property itself, when heyond a certain amount, divided, for the common good, or rather that of tho majority. These theories commouly pass under the general name of *Socialism*, and in this sense not only the theories of philosophers, but many existiug or proposed laws and usages, may be regarded as socialistic in their tendencies. Such are: agrarian laws, limiting the quantity of land to be held hy an iudividual; laws fixiug the maxiumm of rent, or the minimum of wages; laws interfering in other ways between the capitalist and the laborer (for shortening the duratiou of labor, and the like); the usages of trades' unions, &c. *S.* in this sense had a large part in the institutions, and still larger iu the theories, of classical antiquity. Iu modern times, the first disciples of progress who openly denounced the right of property as the fundamental error of society were Babeuf and his followers, who attempted an insurrection against the Directory in 1797. In his paper, the *Tribun du Peuple*, Babeuf advocated the divisiou of property, without endeavoring to establish any very definite substitute. Robert Owen, *q. v.* (B. 1771, D. 1858), stands in point of date next to Babeuf among the leading advocates of communistic socialism. He attempted to put his ideas in practice, but his community of *New Harmony*, founded in Indiana, proved a total failure. The Count of St. Simon, *q. v.*, though an older man than Owen, came forward much later as a leader baviug influence on mankind. His theory partook of the religious as well as the political aspect of Socialism. Property was to he in common, but the enjoyment of it hy individuals was to be regulated hy a governmental power embracing the highest intelligence and wisdom of the commuuity. Charles Fourier, while advocating community of property, demanded a thorough disciplinary training of the human race in all the duties of life. Since the middle of the 19th century *S.* has taken a decided step forward, under the instigation of tho teachings of the German thinkers, Rodbertus, Lassalle, and especially Karl Marx, the high priest of this new dispensatiou. The crudo theories of the earlier writers were replaced by these men with a scientific exposition of the subject, and the few early socialists bave been succeeded by a host sufficiently numerous to give them a powerful influence over modern political movements. Throughout all the countries of western Europe *S.* has become a power, and particularly so in Germany, where it has a strong parliamentary representation. It has made itself felt in various measures of old-age insurance, government railways and telegraphs, municipal control of franchises, &c. In the U. S. its influence is little less marked, the People's party, a new and growiug political organization, being distinctly socialistic in its aims. Anarchism holds similar views as regards property, hut is the reverse of *S.* in its proposed method of obtaining its end, advocating the overthrow of government, wblle *S.* advocates the assumption of all functions, industrial as well as political, by government.

Socialist (*sō'shal-ĭst*), *n.* An advocate of the politico-philosophical doctriues of Socialism.

Socialist'ic, *a.* Pertaiuing or relating to, or resemhling, Socialism.

Socialize, (*sō'shal-,*) *v. a.* To make social. — To subject, or govern by, the principles of socialism; as, to *socialize* society.

So'cially, *a.* In a social way or manner.

So'cialness, *n.* Quality of being social.

So'cial Science, *n.* The study of the various facts and principles which relate to the social improvement of the community. *S. S.* occupies a position intermediate between political cconomy and political philosophy. It does uot discuss or expound tho exact theories of the former, nor does it examine the problems of the latter; hut it deals with the effect of existing social forces, and their result on the general well-being of the community. The progress of *S. S.* has resulted in the adoptiou of many important social reforms. Among these may be enumerated the general development of a sound theory of sanitary science, and the extensive use of precautions against ordinary, epidemic, and endemic disease; the reconstitution of hospital charities; the regulation of prisons aud work-houses on sounder and truer principles thau those which had hitherto heen accepted; the establishment of reformatories and penitentiaries for youthful offenders and reclaimed prostitutes; the extension of education, particularly of middle class and industrial education; and many other important results. Great, however, as have been the effects of these investigations, it cannot he doubted that much remains to he done, and that many problems await their solution at the hands of such persons as bave already effected much, and at those of their successors in these hranches of practical philanthropy.

So'cial War. (*Rom. Hist.*) M. Livius Drusus proposed a law for investing the Italian allies with the privileges of Roman citizons; hut it was strongly opposed by the senators, the knights, and the people, and Drusus was assassiuated B. C. 91. The Marsi, who took the lead (whence the name *Marsian* or *Marsic*, also given to that war), the Peligni, the Samnites, the Lucani, and almost every nation in Italy, except the Latins, Tuscans, and Umhrians, revolted and estahlished a republic in opposition to that of Rome. In the first campaign the Romans met with some severe losses. Nola was taken by the Samnites; the consul, P. Rutilins, and his lieutenant, Q. Cæpio, were defeated and slain, and many cities were captured. On the other hand, Sylla and Marius obtained a great victory over the Marsi, and L. Cæsar defeated the Samnites. In the second campaign, B. C. 90, the Romans defeated the Marsi, and induced them, together with the Vestiui, Peligni, aud Marrucini, to make a separate peace. Sylla, the Roman general, destroyed the town of Stalinæ, defeated a large army near Nola, reduced the Hirpini to subjection, and defeated the Samians. The Romans were induced, hearing that Mithridates VI., King of Pontus, intended to aid the allies, to adopt measures of conciliation, and one state after another submitted and received the gift of Roman citizenship. After the close of this campaign, the war dwindled away, until it was brought to a conclusion, B. C. 88, by the remainder of the Italian states receiving the concessions they required. During this war, called *S. W.*, 300,000 men were slain.

Society, (*so-sī'-,*) *n.* [Fr. *société;* Sp. *sociedad;* Lat. *societas*, from *socius*, a companion, a fellow, a comradc.] A number of persons united, either for a temporary or permauent purpose; any number of persons associated for a particular object, as for mutual entertainment, profit, or utility; a fraternity; a club, clique, or coterie; a company; a partnership; a union on equal terms; as, "Marriage is a human *society*." (*Milton.*) — Fellowship; association; companionship; social relationship; as, I wish no better *society* than yours. — The union of a number of rational beings; particularly, any community or hody of individnals who are united together by any common bond of affinity or intercourse; those who recognize each other as belouging to the same social status as themselves, and as such to be qualified for acquaintance, association, or friendship; specifically, the more cultivated and elevated portion of any community in its social aspects, intcrests, and influences; those who give and receive formal entertainments mutually; as, he is seldom seen in *society* (*i. e.*, good society), she is an ornament to *society*, he is partial to low *society*, &c. — Connection; implication; participation. (R.)

Literary, Scientific, and *Artistic Societies.* Associations formed for the promotion of literature or science are sometimes called *academies;* and under this or their own special names will be found notice of the chief European societies. In the U. States, associations corresponding to the Euglish societies of the highest degree, or to the Frauch and German academies, are still few in numher. The most ancient and most celebrated are the *American Philosophical Society* (founded in Philadelphia in 1743), the *American Academy of Arts and Sciences* (founded in Boston, 1780), the *Connecticut Academy of Arts and Sciences* (founded in 1799), the *Academy of Natural Sciences* (founded in Philadelphia, 1818), the *Pennsylvania Academy of Fine Arts* (founded in 1807). Later examples include the *National Academy of Design* at New York, the *Medical Academy* of New York, the *American Genealogical Society* of Boston, the *American Antiquarian Society* of Worcester, the *Geographical and Statistical Society* and the *New York Historical Society* of New York, the *American Oriental Society* of New Haven, the *American Ethnological Society* of New York, and the *Boston Society of Natural History. Historical societies* have heen organized in almost every State, and in many counties. The above-named are only a few of the societies which have now gained prominence in the U. S., and of which a far longer list might be presented, did it seem necessary. See plate of SOCIETY EMBLEMS and PAST OFFICERS' JEWELS.

Soci'ety Hill, in *Alabama*, a post-village of Macon co., 167 m. S.E. of Tuscaloosa.

Society Hill, in *S. Carolina*, a post-village of Darlington dist., 100 m. E.N.E. of Columbia.

Soci'ety Islands, a group of islands in the S. Pacific Ocean, extending between Lat. 16° and 18° S., and Lon. 148° and 155° W.; *area*, 1179 sq m. The group is formed of two clusters of islands, about 70 m. apart, and, in former times, politically distinct; both are now under French rule. Exclusivo of islets, the group is formed of 13 islands — Tahiti or Otaheite, Maitia, Eimeo, Maiaoiti, Tetuaroa, Huaheine, Raiatea, Otaha, Borabora, Marua, Tuba, Lord Howe's Island, aud Scilly Island. All the islands closely resemble each other in appearance. They are mountainous in the interior, with tracts of low-lying and extraordinarily fertile land occupying the shores all round from the base of the mountains to the sea. Thoy are surrounded by coral reefs, are abundantly watered by streams, and enjoy a temperate and agreeable climate. Almost every tropical vegetable and fruit known is growu here. The inhabitants helong to the Malay race, are affable, ingenious, and hospitable, but volatile and sensual. Tahiti, the principal island, is said to have been visited as early as 1606. Captain Cook reached it in 1769, aud discovered many of the other islands of the archipelago, to which he gave the namo of *S. I.*, in honor of the Royal Society of London. A quarrel hetweeu the Protestant and Roman Catholic missiouaries, who thought it hetter to enter upon ground already occupied by Protestants thau to take up new ground for themselves, occasioned the interference of France in favor of the latter, and the island of Tahiti was taken possession of in the name of Louis Philippe, hy a strong French force in 1844. All the possessions of the native ruler — who, however, still enjoys nominal authority — were afterwards placed under the protection of France, and in 1880 the *S. I.* were definitively annexed, and became a French colonial possession. *Pop.* 11,172.

Socin'ianism, *n.* (*Eccl. Hist.*) The tenets of the Socinians

Socin'ians, *n. pl.* (*Eccl. Hist.*) A sect of Christians, named after their founder, Faustus Socinus, a native of Sienna, horn in 1539, and died 1604. The Socinians maintain that the Father alone is truly and properly God; that Jesus Christ was a mere man, who had not existence hefore he was conceived by the Virgin Mary, and that the Holy Ghost is no distinct person. They

own that the name of God is given in Scripture to Jesus Christ, but contend that it is only a deputed title, investing him, however, with an absolute sovereignty over all created beings, and rendering him an object of worship to men and angels. They deny the doctrines of satisfaction and imputed righteousness, and regard original sin and predestination as scholastic chimeras. They likewise maintain the sleep of the soul after death, and they say that it will be raised again with the body at the resurrection. In the present day, the term *Socinian* is commonly applied to such as hold the Unitarian doctrines, which are similar, but not exactly the same. See UNITARIANISM.

Sociol'ogy, *n.* [Lat. *socius*, and Gr. *logos*, discourse.] A word somewhat barbarously coined by the school of M. Comte (Positivism) to express the science which has to do with man in his social capacity, including politics, political economy, and similar subjects.

Sock, *n.* [A. S. *soc;* Lat. *soccus*, a light shoe.] A covering for the foot; especially, the shoe worn by an actor of the ancient comedy;—hence, comedy, as distinguished from tragedy, which latter art is typified by the *buskin.* —A short knit or woven stocking for the foot; as, a pair of *socks.*

—A warm, inner sole for a shoe; as, a felt *sock.*

—[Fr. *soc;* L. Lat. *soccus.*] A ploughshare.

Sockdol'ager, Socdol'oger, Sockdol'oger, (*-jer,*) *n.* [Corrupted from *dozology.*] That which gives the finishing stroke to anything;—hence, that which is final and admits of no appeal, redress, or escape. (Colloq. U. S.)—A kind of fish-hook, having two hooks, self-acting by means of a spring, and which close upon a fish the moment it bites. (Am.)

Sock'et, *n.* [Dim. of *sock.*] Any hollow thing or place which receives and holds something else; as, the *sockets* of the eye-balls.—Especially, the hollow tube in which a candle is fixed in the candlestick; as, the light burned down to the *socket.*

Sock'et-bolt, *n.* (*Mach.*) A bolt that passes through a tbimble that is fixed between the parts connected by the bolt.

Sock'et-chisel, (*-chiz'l,*) *n.* A strong chisel used for mortising.

Sock'less, *a.* Without socks or shoes.

Socle, (*sŏ'kl,*) *n.* [Fr., from Lat. *soccus.*] (*Arch.*) A square member whose breadth is greater than its height;—used instead of a pedestal for the reception of a column. It differs from a pedestal in being without base or cornice.—Also, a plain face or plinth at the lower part of a wall.

Soconusco, (*so-ko-noos'ko,*) a town of Guatemala, cap. of the prov. of Soconusco, abt. 60 m. S.W. of Ciudad Real, in Mexico.

Socor'ro, an island of the Pacific Ocean, Lat. 18° 43′ 14″ N., Lon. 110° 54′ 15″ W., 24 m. long and 9 broad.

Socorro, in *New Mexico*, a S.W. co., adjoining Arizona; *area*, 15,476 sq. m. *River.* Rio Grande. *Surface*, mountainous in the center and W., where it is traversed by the Sierra Madre. *Cap.* Socorro. *Pop.* (1897) 10,540.

—A thriving town, cap. of the above co., on the Rio Grande, 135 miles S. S.W. of Santa Fé. *Pop.* (1897) 4,260.

Socorro, a town of the Republic of Colombia, dept. of Boyaca, 65 m. S. S.W. of Pamplona. *Pop.* about 13,000.

Socorro, or SOCORRA, in *Texas*, a post-township of El Paso co., on the Rio Grande, 15 m. S.E. of El Paso.

Soc'otra, an island of the Indian Ocean, 230 m. from the S. coast of Arabia, and 120 m. E. of Cape Gardafui, in Africa, its chief town, Tamariuda, being in Lat. 12° 39′ 2″ N., Lon. 54° 6′ 29″ E.; *area*, 1,000 sq. m. Date-trees and cotton are cultivated; but the productions for which *S.* is particularly famous are aloes and the gum of the dragon's blood-tree, both of which are said to be the finest in the world. Annexed to Gt. Britain 1886.

Soc'otrine, *a.* Pertaining to, or obtained from, Socotra; as, *Socotrine* aloes.

Socrates, the great Athenian philosopher, was the son of Sophroniscus and Phænarete, and was B. near Athens B. C. 469. He was brought up to his father's calling, that of a sculptor, and for a time gained his living by it. He was, however, naturally an eager student, and by means of the best teachers and the best works accessible to him, got the best education his country and his age could give him. He was one of the disciples of the great Anaxagoras, and of his successor Archelaus, and soon gave himself up entirely to philosophy. He led an active social life, married—unhappily for himself, a Xanthippe—served his country as a soldier, distinguishing himself by his courage and extraordinary endurance at the siege of Potidæa, at the battle of Delium, and at Amphipolis. At Potidæa he saved the life of his pupil Alcibiades, and at Delium the life of his pupil Xenophon. His robust constitution made him indifferent to the extremes of temperature; he could dress alike and go barefoot all the year round. He appears to have scarcely ever held any political office, and seems to have inclined rather to the aristocratic than the democratic party. Critias, one of the Thirty Tyrants, had been his pupil; Theramenes was his friend; so was Charmides. Yet he fearlessly rebuked Critias for his vices, and thereby made him his enemy; and he with equal courage and disregard of consequences denounced the proceedings of the Thirty, and in one important case refused to obey their command. On the trial of the six generals after the battle of Arginusæ he firmly opposed the injustice of the sentence. But it was as a teacher that *S.* made himself the foremost man of Athens and perhaps of the ancient world. He wrote no book, he did not establish a school, nor constitute a system of philosophy. But he almost lived abroad, and mixed with men familiarly, and in the street or any place of public resort, where listeners gathered round him, he talked and questioned and discussed, not for pay, but from the love of truth and a sense of duty. He was persuaded that he had a high religious mission to fulfil, and that a divine voice (afterwards spoken of as his *Dæmon* or *Genius,*) habitually interfered to restrain him from certain actions; and instead of encouraging profitless speculations upon nature or the rhetorical charlatanry of the Sophists, he turned the thoughts of men to themselves, their actions, and their duties. *S.* was distinguished chiefly by his theory of virtue. Virtue, he said, consisted in knowledge. To do right was the only road to happiness; and as every man sought to be happy, vice could arise only from ignorance or mistake as to the means; hence the proper corrective was an enlarged teaching of the consequences of actions. Yet even on these things he did not dogmatize; instead of asserting and imparting, he questioned, and suggested, and showed, and led the way to real knowledge. He ruthlessly compelled ignorance and pretence to own themselves, and thus drew on himself the hatred of many. So early as B. C. 424 he was attacked by Aristophanes, in his comedy of the *Clouds*, as the arch-sophist, the enemy of religion, and corrupter of youth; substantially the same charges as those on which he was prosecuted twenty years later. He was made to appear not only hateful, but ridiculous—a result the more easy to be attained because of his singularly ugly physiognomy, so easily rendered by the comic mask. He was persecuted during the tyranny of the Thirty, and after their fall he was impeached by Anytus, one of their leading opponents, with whom were associated Melitus, a tragic poet, and Lycon, an orator. He was charged with not believing in the gods which the state worshipped; with introducing new divinities; and with corrupting the youth. Death was proposed as the penalty. *S.* refused to make use of a speech prepared for his defence by Lysias, and defended himself in a tone of confident innocence and worthiness, which aggravated the ill-will of his judges. He was condemned by a majority of six only; but his additional speech in mitigation of the sentence raised the majority against him to eighty. Thirty days elapsed between his sentence and its execution, in pursuance of the law that no criminal must be put to death during the voyage of the sacred ship, the *Theoris*, to Delos with the annual offerings. During that period *S.* had the society of his friends, and conversed with them as usual; the last conversation being on the immortality of the soul. He refused the offer of some of his friends to procure means of escape for him; drank the hemlock cup with perfect composure, and so D. in the 70th year of his age, B. C. 399. *S.* opened a new æra in philosophy, and without founding a system he originated, by rousing men to reflection and leading them toward self-knowledge, a vast movement of intellect, which produced, first Platonism and the Aristotelian logic, and then all the systems, even conflicting ones, which rose into more or less importance during ten successive centuries. So true, on a wider scale than he meant, was his own conception of his method as an "intellectual obstetricism." By his religious spirit, his belief in God and in immortality, his aim to reunite religion and morality, and his own noble and beautiful life, the mirror of the truths he taught, he exerted so strong and wholesome an influence that the historian of the Christian religion, Neander, does not hesitate to adopt the saying of the Florentine philosopher, Marsilio Ficino, that *S.*, like John the Baptist, was a forerunner of Christ. Our primary authorities for the life and teaching of this extraordinary man are Xenophon's *Memorabilia and Apology of S.*, and Plato's *Dialogues*, in which he forms the great central figure.

Socrat'ic, Socrat'ical, *a.* Pertaining or relating to Socrates, or to his doctrines or method of teaching.

Socrat'ically, *adv.* After the manner or method of Socrates.

Soc'ratist, *n.* A disciple or follower of Socrates.

Sod, *n.* [Du. *zode.*] That stratum of earth on the surface which is filled with the roots of grass; turf; sward; also, a piece of turf.

—*a.* Made of sod; as, a *sod* fence.

—*v. a.* To turf; to cover with sod; as, to *sod* a garden-plot.

Sod, *imp.* and *pp.* of SEETHE for SODDEN. See SEETHE.

So'da, *n.* [Ger., Sp., and It. *soda, sode;* Fr. *soude.*] (*Chem.*) The protoxide of the alkaline metal sodium. It may be procured in an anhydrous state by burning the metal in dry air or oxygen. It is of a white color, greedily abstracting water from the air, which cannot be expelled by heat. In this state it forms hydrate of *S.*, or caustic *S.* It is so familiar in its properties to hydrate of potash, that it need not be fully described here.

Carbonates of S. There are three of these, the ordinary *monocarbonate*, or common washing-soda, Na_2CO_3, which in its crystalline form contains ten equivalents of water; the *sesquicarbonate*, $Na_2CO_3 + 2NaHCO_3 + 3Aq$, which occurs in the mineral kingdom as *trona* and *urao;* and the *bicarbonate*, $NaHCO_3$, which is prepared by passing carbonic acid through a concentrated solution of the carbonate until saturation takes place. It is also prepared by exposing the crystallized monocarbonate to the action of a current of carbonic acid; but in this method of making it, only the outside portions of the converted crystals should be used, the inner parts being only partially changed. It is ground and dried at a very gentle heat, care being taken to avoid a high temperature, which would cause the formation of the sesquicarbonate. Bicarbonate of *S.* crystallizes in prisms. It occurs in commerce as a white crystalline powder, which is gradually converted into the sesquicarbonate by exposure to the air. It is much used in medicine, having a much less unpleasant taste than either the mono- or sesquicarbonate, from which it is readily distinguished by giving no precipitate with the magnesia salts. The properties of the monocarbonate are described under *Manufacture of Soda.*

Hyposulphite of S. This important salt is now manufactured in tons for photographic purposes and as an *antichlore*, to extract the last traces of chlorine from paper pulp. It is prepared by fusing equal weights of carbonate of *S.* and flower of sulphur, and transmitting sulphurous acid through the solution of impure sulphide of sodium thus formed. The liquid is evaporated, and hyposulphite of *S.* crystallizes from the solution in bold prisms.

Manufacture of S. The preparation of carbonate of *S.* from common salt may be divided into three principal operations: 1, the production of *salt-cake*, or crude sulphate of *S.;* 2, the transformation of the sulphate of *S.* into black-ash or impure carbonate mixed with sulphide of sodium, by roasting with chalk and coal; 3, the extraction of *S. ash*, or dry carbonate, by lixivation with water and evaporation to dryness. The first process is performed by placing about 6 cwt. of ordinary salt in a strong iron pan, and mixing it with an equal weight of oil of vitriol. The mixture is then removed to a reverberatory furnace, and the flame allowed to play on its surface until the whole of the hydrochloric acid is driven off, and the chloride of sodium transformed into a dry mass of sulphate of *S.*, or salt-cake, as it is termed. The hydrochloric acid produced is condensed, and used either for the production of chlorine in the manufacture of bleaching powder, or for extracting the copper from the iron pyrites used in making the *black-ash*, or impure carbonate of *S.* is effected by mingling the sulphate of *S.* or salt-cake, formed in the first process, with chalk and powdered coal in the proportions of three parts of sulphate of *S.*, three of chalk, and two of coal. The mixture is thrown into a reverberatory furnace in quantities of two hundred-weight and a half at a time, and frequently stirred until melted. Towards the conclusion of the operation, a violent effervescence takes place, carbonic oxide escaping in large quantities, and burning with a green or yellow flame; the products being carbonic oxide, which burns; sulphide of lime, which remains behind; and carbonate of soda, with which it is mixed. This intermediate action is the foundation of the whole process. In practice, an excess of coal and chalk is employed, as much of the coal burns away, and an excess of lime is required in order to prevent the formation of any of the soluble sulphides of calcium. The amount of carbonate of *S.* contained in black-ash is about 20 per cent. It is extracted from the mass by breaking it into small fragments, and digesting it with warm water for several hours in large vats provided with false bottoms, the last and weakest washings being used to act on fresh portions of black-ash. When the lixivium is sufficiently concentrated, it is transferred to evaporating pans. The residue left behind is known as *S.* waste, and consists of a mixture of oxysulphide of calcium and unburnt coal. The efforts of numerous chemists have been fruitlessly employed for the last 50 years in endeavoring to utilize this waste product, which collects gradually near all *S.*-works, and ultimately forms large mountains. The solution of crude carbonate of *S.* is generally of a dark-green color, from the accidental admixture of iron or manganese, and contains certain proportions of hydrate and sulphate of soda, which are converted into carbonate by mixing the evaporated salts with small coal and sawdust, and in heating in a reverberatory furnace. The resulting salt, which is the soda-ash of commerce, is then once more dissolved in water, the solution evaporated to crystallization, when large rhomboidal crystals of ordinary washing-*S.* are obtained. These consist of carbonate of *S.*, with ten equivalents of water.

Nitrate of S. This salt occurs (like nitrate of potash) as an incrustration on the earth in certain hot districts, more especially in Chili and Peru, where it is found in layers of considerable thickness. It crystallizes in large rhombohedral masses—whence its commercial name of *cubic nitre.* Exposed to the air, it deliquesces, and therefore cannot be substituted for nitre in the manufacture of gunpowder. It is largely used in the manufacture of nitric acid, being cheaper than nitrate of potash, and yielding a larger per centage of acid. It was exported in large quantities during the Russian war (the trade in sulphate being interdicted, that article being contraband of war), for the manufacture of nitre by double decomposition with carbonate or sulphate of potash.

Phosphates of S. With phosphoric acid, *S.* forms a large number of crystallizable salts, the most important of which is the rhombic phosphate. It forms large transparent efflorescent rhombic prisms, which have a cooling saline taste, and are very soluble in water. It is used medicinally as a purgative, and is employed in analysis.

Sulphate of S. Purified sulphate of *S.*, popularly known as *Glauber's salt*, is used medicinally as a purgative. In its crude state, it is manufactured in enormous quantities from common salt and sulphuric acid, forming *salt-cake*, one of the steps in the *S.* manufacture (*q. v.*) In its anhydrous condition, it sometimes forms an incrustation on the surface of the soil, in which state it is known to mineralogists as *Chenardite.* It is also a large product in the manufacture of nitric acid from nitrate of *S.*

Sulphite of S. This salt is made on a large scale by passing sulphurous acid over moist *S.* crystals. By careful evaporation, it may be obtained in transparent, five- or six-sided prisms, which, when exposed to the air, become covered with an opaque crust of sulphate of *S.* It

has been lately much employed as an antichlore for the preservation of wines, and in refiuing beet-root sugar.

So'da-al'um, *n.* (*Min.*) A hydrated sulphate of soda and alumina. It occurs native in fibrous crusts, with a glossy internal aspect, about the Solfatara, near Naples.

So'da-ash, *n.* (*Chem.*) See SODA (MANUF. OF).

So'da Lake, in the N.W. of *Louisiana*, between Caddo and Cross lakes, 15 m. long and 6 wide, the surplus waters of which flow into the Red River at Shreveport.

So'dalite, *n.* [From *soda*, and Gr. *lithos*, stone.] (*Min.*) A silicate of alumina and soda with chloride of sodium. It generally occurs crystallized in rhombic dodecahedrons, also massive, and is of various colors.

Sodal'ity, *n.* [Lat. *sodalitas*, from *sodalis*, a comrade.] A fellowship, fraternity, or cameraderie.

So'da-salts, *n. pl.* (*Chem.*) Salts having a base of soda.

So'da Springs, in *Idaho*, a village of Oneida co., 220 m. S E. of Boisée City.

So'da-waste, *n.* (*Chem.*) See SODA (MANUF. OF).

So'da-water, *n.* (*Chem.*) A well-known beverage, which, as usually prepared, is a supersaturated solution of carbonic acid gas in water. *Soda-water*, properly called, consists of one, two, or three drachms of carbonate of soda, dissolved in a pint of water highly impregnated with carbonic acid. This is often a valuable remedy; but it would sometimes be attended by mischievous results, if indulged in to the extent which some persons pursue the use of soda-water. The mere aqueous solution of carbonic acid, which is made by forcing the gas into water by a condensing pump, and under a pressure of six or eight atmospheres, is an agreeable and, generally speaking, harmless diluent.

Sod'den, *pp.* of SEETHE, *q. v.*

Sod'den-witted, *a.* Thick-skulled; heavy; obtuse; stupid.

Sod'dy, *a.* Consisting of, or covered with, sod; turfy.

Sod'er, *v. a.* Same as SOLDER, *q. v.*

Sod'ero, an island of Sweden in the Aland Strait. *Ext.* 7 m. long, and 3 broad.

So'dium, *n.* (*Chem.*) The alkaline metal of which soda is the oxide. It was discovered in 1807 by Sir Humphrey Davy. It occurs in large quantities in nature, chiefly in combination with chlorine, as sea-salt. It is also found united with oxygen in certain common minerals, such as albite, analcime, labradorite, and kryolite. It also occurs in the form of nitrate, carbonate, biborate, and sulphate. It is found in the ashes of plants, especially those which grow near the sea, such as the *Salsola Soda*, formerly the great source of sodium and its compounds, now principally obtained from sea and rock-salt. Sodium has lately become an article of commerce, in consequence of the demand which has arisen for it for the manufacture of aluminium. M. Deville recommends the following method of manufacturing this valuable metal:— Dried carbonate of soda 717 parts, powdered charcoal 175 parts, and finely-powdered chalk 108 parts, are mixed intimately, and kneaded into a stiff paste with oil, and calcined in a covered iron pot. The mass is then introduced into a retort, and distilled with the same precautions as those used in the manufacture of potassium (*q. v.*). This mixture generally yields one-third its weight of sodium. Sodium is a yellowish-white lustrous metal, resembling silver more closely than potassium. It is soft, and may be readily cut with a knife or moulded with the fingers. Exposed to the air, it tarnishes immediately, becoming covered with a film of soda; it is therefore preserved in petroleum or some other hydrocarbon. Heated in the air or oxygen, it burns with a bright-yellow flame, and is converted into soda. Thrown upon water, it decomposes it rapidly, but without eliminating sufficient heat to kindle the hydrogen formed. It is much used in chemical operations for the reduction of the elements having a great affinity for oxygen, such as boron, silicon, calcium, barium, magnesium, &c.; and in the arts for the reduction of aluminium. Its amalgam with mercury, from not requiring to be kept under naphtha, is frequently used for this and other purposes, when a strong deoxidizing agent is required. Mercury is placed in a strong glass flask, and heated to about 300°; the sodium is then dropped in in pieces the size of a pea. When the whole of the sodium is added, the amalgam is poured out in a flat dish until cold, when it is broken up in small pieces, and kept in a stoppered bottle. *Equiv.* 23; *sp. gr.* 0·972; *fusing-point*, 194° F.; *symbol*, Na (natrium).

Bromide and Iodide of S. These two salts occur sparingly in sea-water and in the ashes of sea-plants, and are the principal commercial sources of iodine and bromine. Like the corresponding salts of potassium, they crystallize in anhydrous cubes, which deliquesce on exposure to the air.

Chloride of S. This important substance constitutes the rock-salt of commerce, or common table-salt. See ROCK-SALT.

Sod'om. (*Script.*) One of the cities of the plain, and for some time the dwelling-place of Lot. Its crimes and vices (the nature of which is recalled in the word *Sodomy*) were so enormous, that God destroyed it by fire from heaven, with three neighboring cities, Gomorrah, Zeboim, and Admah, which were as wicked as itself. The plain of Siddim, in which they stood, was pleasant and fruitful, like an earthly paradise; but it was first burned, and afterwards mostly overflowed by the waters of the Dead Sea or Lake of Sodom.— Modern writers on sacred topography, however, are not agreed as to the precise site to be assigned to those cities, no trace of which now remains; the majority holding that they stood on the S. shore of the Dead Sea, near the salt hill of Usdum; while others, again, maintain that the *cities of the plain* stood in the circle or plain of the Jordan, E. from Bethel and Ai, near where the river discharges itself into the Dead Sea.

Sod'om, in *Georgia*, a village of Burke co.

Sodom, in *New Jersey*, a village of Warren co., 12 m. from Belvidere.

Sod'omite, *n.* An inhabitant of Sodom; — hence, one guilty of sodomy.

Sodomit'ical, *a.* Pertaining, or relating, to sodomy.

Sod'omy, *n.* Unnatural copulation; buggery.

So'dorus, or SANORUS, in *Illinois*, a post-vill. of Champaign co., 33 m. N.E. of Decatur.

So'dus, in *Michigan*, a post-township of Berrien co., 5 m. N.W. of Berrien.

Sodus, in *New York*, a post-village and township of Wayne county, 36 miles north-east of Rochester.

Sodus Bay, in *New York*, an inlet of Lake Ontario in Wayne co., 5 m. long and 3 broad, 35 m. N.E. of Rochester.

Sodus Centre, in *New York*, a post-village of Wayno co., 190 m. N.W. of Albany.

Sodus Point, in *New York*, a post-village of Wayne co., on Lake Ontario, 30 m. W.S.W. of Oswego.

So'est, a town of Prussian Westphalia, on the Söster-bach, an affluent of the Lippe, 13 m. N.N.E. of Arnsberg, and 33 m. S.E. of Munster. *Manuf.* Linen, woollens, hosiery, leather, paper, and oil. *Pop.* 9,500.

Soev'er. *So* and *ever*, found in compounds, as in *whosoever*, *whatsoever*, *wheresoever*, *whensoever*, *howsoever*, and noting any out of all possible persons, things, times, places, ways, &c.

So'fa, *n.* [Fr., It., Sp., and Ar.; Hind. *sooffu*, a bench.] A long seat, generally with a stuffed or cushioned bottom, used as an elegant or useful piece of household furniture; a kind of divan.

Sofa'la, a tract of country on the E. coast of Africa, included in the territory known as Mozambique, bet. abt. Lat. 18° to 24° S., and from the seaboard to the Lupata mountains. The climate is very unhealthy. The Portuguese possessions in *S.* occupy an area of abt. 10,000 sq. m., and have a pop. of 287,000. — SOFALA, a town in the above country, and formerly the cap. of a native kingdom, is situate in Lat. 20° S., Lon. 35° E., at the mouth of the river Sofala, which has a course of 200 m., and is navigable only for small craft.

Soffioni, *n. pl.* [It.] See BORACIC ACID.

Soffit, *n.* [It. *soffita.*] (*Arch.*) A small ceiling, formed into panels, as over windows, in-goings of doors, staircases, &c.

Fig. 2394. — *SS*, SOFFIT.

So'fi, *n.; pl.* SOFIS. [Pers. *sûfi*, *sôfi.*] In Persia, a dervish. *S.* was also the surname borne by the ancestors of the Persian monarchs of the race preceding that which now occupies the throne; and Shah Ismael Sofi, the first monarch of that race, also bore it; — hence, by European writers of the 16th and 17th centuries, the word *sofi*, or *sophy*, was used erroneously as a title of the Shah of Persia.

Sofism, (*sō'fizm.*) **Su'fism,** *n.* The religious tenets held by the Sofis or Sufis. They are those of a sect which is said to be gaining ground extensively in Oriental countries, especially among the educated classes of Mohammedans. These tenets, like those of the Quietists and other Christian sects of mystics, are founded on a notion of the union of the human soul with the divinity by contemplation and the subjugation of the appetites. The principles of *S.* appear also to have a remarkable affinity, in some respects, with those pantheistic notions which are prominent in the system of the Brahmins, and seem to form the very foundation of the still more extended religion of Buddhism. See BABISM.

Soft, *a.* (*comp.* SOFTER; *superl.* SOFTEST.) [A. S. *soft*; Ger. *sanft*, soft, mild.] Readily yielding to pressure; easily cut or separated by an edged instrument; impressible; yielding. — The opposite of *hard*; as, *soft* earth, a *soft* bed, *soft* wood, &c. — Easily worked; ductile; malleable; as, a *soft* metal. — Smooth to the touch; fine; delicate; not rugged, rough, or harsh; as, a *soft* skin, *soft* velvet. — Hence, by analogy, pleasant to perceive; agreeable to the feelings; as, *soft* air. — Mild to the eyes; not strong or glaring; not agitating by violence of contrast or intensity of coloring; as, a *soft* light, a *soft* tint. — Smooth or melodious to the ear; flowing; harmonious; not loud, rough, harsh, or grating; not dissonant or vehement; gentle; as, a *soft* voice, a *soft* whisper, *soft* music, *soft* rhythm. — Easily yielding to persuasion or motives; flexible; pliant; susceptible of influence or passion; facile; impressible; compliant; tractable; gentle; delicate; elegantly tender; feminine; as, a *soft* form, a *soft* temper. — Effeminate; weak; easy; not bold, courageous, or manly; as, a *soft* spirit. — Not tinged with salts; not hard; as, *soft* water. — Easy; quiet; tranquil; undisturbed; as, a *soft* slumber. — Weak; impressible; thin-skinned; as, every man has his *soft* place, which a woman finds out. — Uniformly easy in motion or action; gentle; quiet. — Mild; placid; courteous; complaisant; not rude, rough, or irritating; as, a *soft* manner, *soft* in speech.

(*Pron.*) Not pronounced with a sudden or forcibly emphatic utterance, but forming a partial combination of sound with a following letter; — expressed of certain consonants, as *c*, when *soft*, is pronounced like *s*, as in *cent*; or *g* like *j*, as in *gin*.

—*adv.* Softly; gently; quietly.

Soft, *interj.* Be soft; hold; stop; not so **fast**; as, "But *soft*, my muse! the world is wide." — *Sir J. Suckling.*

Soften, (*sōf'n.*) *v. a.* To make soft or more soft; as, (1.) To make less hard, as matter. — (2.) To mollify; to assuage; to make less fierce and intractable; to make more susceptible of humane or fine feelings; to make less harsh or severe; as, to *soften* a stern temper. — (3.) To palliate; to seek to lessen the apparent enormity of; as, to *soften* one's transgressions. — (4.) To alleviate; to mitigate; to compose; as, music *softens* pain. — (5.) To make calm, placid, or agreeable. — (6.) To render less harsh, rude, offensive, violent, or vehement; as, to *soften* one's address or manner. — (7.) To make less prominent or glaring; as, to *soften* the lights in a picture. — (8.) To enervate; to make tender, delicate, or effeminate; as, a savage *softened* by intercourse with civilization. — To make less harsh, strident, or grating, or of a diametrically opposite quality; as, to *soften* the voice.

—*v. n.* To become soft or softer; to become less hard or rigid; as, (1.) To become more pliable and susceptible to pressure; as, wax *softens* in heat. — (3.) To become less rude, barbarous, harsh, or cruel; as, a tyrant *softens* under love. — (4.) To become less stern, or obdurate; to become open to compassion or tender feelings; as, his heart *softens* at the pitiable sight. — (5.) To become mild or temperate; as, the climate *softens*. — (6.) To become less harsh, severe, imperious, or rigorous; as, the law sometimes *softens* in this country toward an offender who has political influence.

Softener, (*sōf'n-er,*) *n.* One who, or that which, softens.

Soft'-grass, *n.* (*Bot.*) See HOLCUS.

Soft'-head'ed, *a.* Silly; possessing a weak intellect.

Soft'-heart'ed, *a.* Possessing softness or tenderness of heart; impressible to the softer emotions; open to compassion, pity, or other kindly affection; gentle; benevolent.

Soft'-heart'edness, *n.* Quality of being soft-hearted.

Soft'ish, *a.* Somewhat soft.

Soft'ly, *adv.* In a soft manner; without hardness.

Soft'ness, *n.* [A.S.] Quality of being soft; — correlative to *hardness*; susceptibility of feeling or passion; mildness; kindness; civility; gentleness; as, *softness* of disposition. — Effeminacy; weakness; vicious delicacy; timorousness; pusillanimity; excessive susceptibility of fear or alarm. — Smoothness to the ear; as, *softness* of the voice. — Gentleness; candor; easiness to be affected; mildness of temper; meekness; simplicity. — Mild temperature; as, *softness* of the air. — Smoothness or delicacy of surface or texture, as perceived by the touch; as, *softness* of the skin, or of silk.

Soft'-spoken, *a.* Having a mild, gentle voice; — hence, gentle; affable; complaisant; courteous; as, a *soft-spoken* woman.

Sog'gy, *a.* (*comp.* SOGGIER; *superl.* SOGGIEST.) [Icel. *soggr*, damp.] Dank; wet; soft with moisture; as, *soggy* timber. — Steaming with damp; as, *soggy* vegetation.

So-ho! *interj.* Ho! holla! — A sportsman's halloo; a word used in calling from a distant place.

Soi-disant, (*swah-de-zŏng',*) *a.* [Fr.] Self-styled; pretended; calling himself; would-be; as, a *soi-disant* king.

Soignies, (*swahn'ye,*) a town of Belgium, prov. of Hainault, on the Senne, 10 m. N.N.E. of Mons; *pop.* 6,500.

Soil, *v. a.* [A. S. *selan*; Icel. *solo*, to strain; Fr. *souiller.*] To sully; to defile; to foul; to dirty; to tarnish; to stain; to pollute; as, to *soil* one's clothes by contact with dust. — To bespatter; to begrim; to besmear; to bedaub; to cover with something extraneous or foreign; as, plants *soiled* with mildew. — To dung; to manure; as, to *soil* the ground.

—*v. a.* [Fr. *soûler*; Lat. *satullare.*] To feed, as cattle or horses, in the stable or an inclosure with green fodder, instead of sending them out to grass; — hence, to purge by dieting with green food; as, to *soil* a horse.

—*n.* [Ger. *süle.*] Filth; any foul matter covering another substance; dirt; foulness. — A stain, blot, or tarnish; as, "A lady's honor, nice as ermines, will not bear a *soil*." — *Dryden.*

—[Fr. *sol*; Lat. *solum.*] Earthy and other substances in a state of mixture with organized matter fit for the growth of plants. The surface of the earth in every country on which plants have grown and decayed is properly denominated *soil*; while the earth at a foot or more beneath the surface, commonly called *subsoil*, is comparatively without organized matter, and is therefore properly denominated earth, clay, sand, gravel, lime, &c.

—**Land**; country: as, he died on foreign *soil*. — Dung; manure; compost; as, night *soil*.

—[Fr. *souille*, from L. Lat. *soullare*, to foul, from *sus*, a hog.] A miry or dank place which forms a refuge for a wild bear or other hunted animal. — *To take soil*, to run into the mire or water; — hence, to take refuge or cover.

Soil'less, *a.* Without soil; as, a *soilless* desert.

Soil'ure, (*-yūr,*) *n.* Stain; tarnish; pollution; as, the *soilure* of a woman's chastity. (R.)

Soiree, (*swah-rā',*) *n.* [Fr., from *soir*, evening.] An evening party or entertainment; a conversazione. — A term often applied to the meetings of certain societies at which tea and other refreshments are introduced; the opposite of *matinée.*

Soissons, (*swoi'sawng,*) a fortified town of France, dept. of Aisne, on the Aisne, 17 m. S.W. of Laon. *Manuf* Coarse linen, hosiery, thread, ropes, and leather. *Pop.* 10,208. — *S. Noviodunam*, and afterwards *Augusta Suessionum*, was the last Roman stronghold in Gaul that withstood the arms of Clovis, who here overthrew Syagrius, the Roman commander, in 486, and made it the seat of the Frankish monarchy, which it long continued to be.

Soja, (*so'zd,*) *n.* (*Bot.*) A genus of plants, order *Fabaceæ*. The legumes of *S. hispida* form the principal ingredient of the sauce called *soy*, which is imported from India in large quantities.

Sojourn, (*sō'jĕrn,*) *v. n.* [Fr. *séjourner;* It. *soggiornare*, from L. Lat. *sejournare*—*sub*, under, and *diurnus*, daily.] To continue, tarry, or abide in a place for a day, or for days, or as a temporary resident, or as a stranger, not considering the place as his permanent habitation; as, to *sojourn* on the continent of Europe.

—*n.* (Pron. in poetry *sō-jern'.*) A temporary residence, as that of a traveller in a foreign land; as, a *sojourn* in Japan.

Sojourn'er, *n.* A temporary resident; a stranger or traveller who dwells or stays in a place for a time.

Sojourn'ing, *n.* Act of residing in a place for a time; also, the period of abode.

Sojourn'ment, *n.* Temporary abode or residence, as that of a stranger or traveller.

Sok, a river of Russia, rises in the govt. of Orenburg, and after a S.W. course of 130 m. flows into the Volga, 15m. S. of Samara.

Sol, *n.* [Lat.] The sun.

(*Her.*) The tincture of gold (*or*) in the heraldic blazonry of sovereign princes.

—In Switzerland, a copper coin and money of account.

(*Mus.*) The French and Italian name for the note in the gamut corresponding to our G, or the fifth tone of the diatonic scale.

Solace, (*sŏl'as,*) *v. a.* [O. Fr., from Lat. *solor, solatus.*] To lift up the spirits of; to cheer, comfort, console, or encourage in solitude, in grief, or under calamity; to comfort or to relieve in affliction; to console;—used in application to persons; as, I *solace* myself with the hope of better days to come.—To soothe; to allay; to assuage; as, to *solace* distress.

—*n.* [Sp. *solaz*, comfort, consolation; from Lat. *solatium*—*solor.*] That which comforts or alleviates grief or anxiety;—also, that which relieves in distress; consolation; cheer; mitigation; relief; diversion; amusement; as, tobacco is man's truest *solace*.

Sol'acement, *n.* Act of solacing, or state of being solaced.

Solana'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Solanales*. DIAG. 5 free stamens, axile placentæ, and a terete embryo.—They are herbaceous plants or shrubs, inhabiting all parts of the world excepting the Arctic regions. They are chiefly known from *Scrophulariaceæ* by their curved or spiral embryo, the plaited æstivation of their flowers, and by the flowers being usually regular, with the same number of stamens as lobes. The first of these characters, however, is not of universal importance; the plaited corolla and symmetrical flowers are better marks of distinction. This order contains Nightshade, Henbane, Mandrake, Tobacco, Stramonium, the Potato, and the Tomato, the leaves of all which are narcotic and exciting, but in different degrees, from *Atropa belladonna*, which causes vertigo, convulsions, and vomiting, tobacco, which will frequently produce the first and last of these symptoms, henbane, and stramonium, down to some of the *Solanum* tribes, the leaves of which are so inert as to be used as kitchen herbs. Even in the potato plant, the narcotic acrid principle is found in the stem and leaves, and in the rind of the tuber; but the principal part of the latter consists of starch, and the small quantity of deleterious matter being volatile and near the surface, is readily driven off by the heat used in cooking.

Solana'ïes, *n. pl.* (*Bot.*) An alliance of plants, subclass *Perigynous exogens*. DIAG. Dichlamydeous, monopetalous, symmetrical flowers, axile placentæ, 2- to 3-celled fruit, large embryo, lying in a small quantity of albumen. The alliance includes 7 orders,—OLEACEÆ, SOLANACEÆ, ASCLEPIADACEÆ, CORDIACEÆ, CONVOLVULACEÆ, CUSCUTACEÆ, and POLEMONIACEÆ, *q. v.*

Solan'der, *n.* (*Fur.*) Same as SALLENDERS, *q. v.*

Solan-goose, Soland-goose, *n.* (*Zoöl.*) Same as GANNET, *q. v.*

Sola'nia, Solani'na, Sol'anine, *n.* [Fr. *solanine*, from Lat. *solanum*, nightshade.] (*Chem.*) The active principle of the *Solanum dulcamara*, or Woody Nightshade, and other species of *Solanum;* it is the ingredient which renders greened potatoes deleterious, being formed in the tubers by the action of light. It is a white alkaloid substance, insoluble in water, but soluble in alcohol, and is highly poisonous, one grain dissolved in dilute sulphuric acid having been found sufficient to kill a rabbit in six hours. Its combinations with the acids are bitter.

Sola'no, *n.* [Sp., from Lat. *solanus.*] A modified form of the SIROCCO (*q. v.*), experienced in the Mediterranean and on the E. coast of Spain.

Sola'no, a town of Spain, prov. of Ciudad-Real, 103 m. S.E. of Madrid. *Manuf.* Linen and woollen goods. *Pop.* 4,500.

Solano, in *California*, a N. central co.; *area*, 900 sq. m. *Rivers.* Sacramento and Suisun. *Surface*, mountainous in the W., with several extensive and fertile valleys. *Min.* Gold. There are several valuable mineral springs. *Cap.* Fairfield.

Sol'anoid, *n.* [Lat. *solanum*, the generic term for the potato, and Gr. *eidos*, form.] (*Med.*) Resembling a potato;—said of a particular kind of cancer.

Solanum, (*so-lai'num,*) *n.* (*Bot.*) The typical genus of the order *Solanaceæ*. The tuber of *S. tuberosum* is the common potato, so largely used as food in temperate climates. The potato-plant is supposed to be a native of S. America. It appears probable that it was first brought into Spain from the mountainous parts of South America, in the neighborhood of Quito, early in the 16th century. Although it now constitutes so large a portion of the food of civilized man, it was scarcely known until the 17th cent., and was not extensively cultivated before the middle of the 18th. The varieties of the potato are very numerous, differing in their time of ripening, quality, color, form, size, &c. New varieties are readily procured by sowing the seeds, which, with care, will produce good tubers the third year. Potatoes thus reared are now thought to be less liable to the potato rot. Starch is largely obtained from potatoes, and is used for food under the names of English *arrow-root, nutritious farinæ*, &c. It is also employed in the preparations of *dextrine*, or *starch-gum*, which is much used in the arts. A decoction of the stem and leaves of the potato-plant has been used as an alterative in cutaneous diseases, and an extract of the herb has been also employed as a narcotic and antispasmodic. The medicinal properties of the plant are chiefly due to the presence of an alkaloid, called *solanine*, which has powerful narcotic properties. This has been detected in all parts of the plant; but, in the tuber only traces of it are found, and these are entirely removed by the process of boiling and preparing potatoes for the table. Another interesting species of *S.* is *S. nigrum*, the Black Nightshade, or Morel, which possesses alterative and narcotic properties. The fruit is said to be edible; but if this be the case, its use for food requires caution, as it contains solanine. The fruits of several other species are, however, eaten in various parts of the world; as those of *S. melongena* and *ovigerum*, called Egg Apples, or Mad Apples, those of *S. quitense*, called Quito oranges, and those of the Australian species *S. lacmiatum*, commonly known as Kangaroo apples. The species of *S. marginatum* has astringent properties, and is employed in Abyssinia in the process of tanning. *S. pseudo-quina*, a Brazilian species, is used medicinally in S. America as a febrifuge. *S. dulcamara*, the Bittersweet, is a well-known shrubby climber, with blue flowers and red berries, found from New England to Arkansas. Its root being chewed, gives at first a sensation of bitterness, then of sweetness; its bright red berries are poisonous. *S. carolinense*, the Horse-nettle, found on roadsides, &c., in the Middle States, is a rough weed, 1-2 feet high, flowers white, berries yellowish.

Solar, *a.* [Fr. *solaire*, from Lat. *solaris—sol*, the sun.] Pertaining to the sun; as, the *solar* system.—Diffused by, or proceeding from, the sun; as, *solar* influence, *solar* light, *solar* rays.—Produced by the agency of the sun; as, *solar* salt.

Solar Cycle, *n.* (*Chronol.*) A term applied to one of those artificial periods made use of in chronological researches. It comprehends a period of 28 years, compounded of 7 and 4, the number of days in a week, and the number of years in the interval of two leap-years. This cycle will remain undisturbed until the end of the present century; but in consequence of the year 1900 not being reckoned as a leap-year, the whole cycle will then be overthrown. It may, however, be reconstructed after 2000, that year being reckoned as leap-year; it will then last until 2100.

Solar Motor. (*Mech.*) A mechanism for the utilization of the heat energy of the sun's rays. This energy is so great that a lens 3 or 4 feet in diameter yields heat sufficient to melt iron in a few seconds. Machines adapted to utilize this great heat, placed in cloudless regions like the Sahara, and the energy yielded converted into electricity and carried by wire to distant places, might prove a source of immense power. Various efforts have been made to produce a satisfactory S. M., notably by John Ericsson, but the difficulty of building a concave mirror of very large size, for the purpose of concentrating the solar rays, was long an obstacle. This has been overcome by building up the mirror of small pieces of glass, accurately adjusted. The most successful effort was made in 1901 at Pasadena, Southern California. Here a mechanism arranged to turn automatically, following the sun's motion, yielded heat enough to operate a 10 horse-power pumping engine, from an hour after sunrise to an hour before sunset. The reflector is a zone 33½ feet in larger and 15 in smaller diameter, and is made up of 1788 small mirrors. The invention may develop into a source of power of immense value.

Solar Parallax, the difference of the directions in which the sun is seen from the surface and the center of the earth, or at points separated by a radius of the earth. Attempts to deduce the distance of the sun from the earth by measuring its parallax were made by the ancient astronomers Aristarchus and Ptolemy, but they were necessarily futile, the distance deduced being the small one of 1,210 radii of the earth. The efforts made in recent times to this end have been by a study of the parallax of the planets Mars and Venus, while it is now recognized that the asteroids, from their minute size, are still better suited to the purpose. (See PARALLAX.) Other methods of determining the sun's distance have been devised by modern scientists, one of which consists in determining the velocity of light, in connection with the fact that the time in which light passes from the sun to the earth is accurately known. Another method is based on the theory of gravitation, and the effect of the sun's attraction on the moon's motion.

Solar Spec'trum, *n.* (*Physics.*) See SPECTRUM.

Solar Sys'tem. (*Astron.*) There exists in the popular mind much misconception of what is meant by this oft-used term solar system. It comprises the sun and all the bodies, by whatever name they may be called, which periodically revolve around the sun as a center. Visible to us are 7 distinct orders, or systems of revolving worlds. They are the zodiacal light, whatever that may be, the planetary, the satellitic, the meteoric, the cometary, the stellar, and the nebular systems. All but the latter two belong to our solar system. The limits of the planetary system, as far as known, are Mercury, the nearest to the sun, and Neptune, the most distant. It, however, would not greatly surprise the astronomical world to hear that a trans-Neptune planet had been discovered, although there is at the present time no perturbative evidence of its existence, as there was in the case of Neptune. This limit does not include the hypothetical intra-Mercurial planets, discovered during the total solar eclipse, in 1878, by Watson and Swift. Its cometary extent is not known, and never will be, as several comets have computed periods of over a million years, and even their aphelia reach only a step toward even the nearest star. The sun's far-reaching power, of course, extends to half way to the stars, and it is not an unreasonable supposition to suppose that there are comets whose aphelia extend that far, and if so, their periodic times must be several million years. The bodies as far as known that are denizens of our solar system are the sun (the center), the planets Mercury, Venus, earth with one satellite, Mars with 2 satellites, 428 asteroids, Jupiter and 5 satellites, Saturn with 5 rings and 8 satellites, Uranus with 4, and Neptune with 1, also Halley's, Pons', and Olber's comets of long period, and about 25 of short period, ranging from 3·3 years (Encke's) to 13·78 years, commonly, but unjustly, called Tuttle's comet. It was discovered by Méchain, in 1790. To the list must be added 200 or more meteoric rings, which, while the earth is passing through them, produce the star showers (*q. v.*). The next return of Halley's comet is calculated for about 1912; Pons', 1955; Olber's, 1960. Every member of the solar system, be it planet, satellite, meteoroid or comet, moves in an orbit called an ellipse, of greater or lesser eccentricity. The ancients were loath to believe that the Creator would cause or permit the planets to move in any orbit but that most beautiful and symmetrical of curves, the circle, which they considered symbolical of Divine perfection. As soon, however, as they banished this delusion and substituted the ellipse, they found that at all times computation and observation of their places agreed, while before they agreed and disagreed periodically. There is not a heavenly body known to man that moves in a circle. The planets and satellites revolve in elliptic orbits, while the comets move some in elliptic and others in parabolic and hyperbolic orbits. Those moving in either of the latter 2 can never return, as the 2 branches of their paths do not meet to form a closed curve as does the ellipse. For adopting the ellipse instead of the circle for planetary revolution the world is indebted to the genius of Kepler, who by the first of his 3 laws brought harmony out of confusion. The 3 laws of Kepler, as enunciated by him, are: (1) the planets move in ellipses, having the sun in one of the foci; (2) the radius vector of each planet describes equal areas in equal times; (3) the squares of their periodic times are proportional to the cubes of their mean distances from the sun. As all heavenly bodies hang suspended on nothing throughout all space, each being attracted by all the others, it results that they must move, and, while the motions of the planets are easily noticeable in a few hours, and even minutes, it requires to detect motion in the stars long-continued observation with instruments of great delicacy and power to ascertain that they have any motion at all, so far away are they. (See STARS.)

Sold, *imp.* and *pp.* of SELL, *q. v.*

Sold note. (*Com.*) A memorandum of sale, given by the broker who effects to the buyer.

Solder, (colloq. *sŏd'er,*) *v. a.* [Fr. *souder;* from Lat. *solido, solidatus*, to make solid.] To unite and make solid and firm, as metallic substances; to unite the surfaces of by the intervention of a more fusible metal or metallic cement; to join by the application of metallic cement.—A metallic composition or cement for uniting the surfaces of metals.—*Plumber's S.* is an alloy of three parts of lead and one of tin; it is more fusible than lead, and then readily adheres to clean surfaces of that metal when it is fused.—*Fine S.* is a mixture of two parts of tin and one of lead; it fuses at 360°.

Sol'dering, *n.* The process of uniting the edges or surfaces of similar or dissimilar metals and alloys by partial fusion. In general, alloys or solders of various and greater degrees of fusibility than the metals to be joined are placed between them, and the solder, when fused, unites the three parts into a solid mass; less frequently, the surfaces and edges are simply melted together with an additional portion of the same metal.

Soldier, (*sōl'jer,*) *n.* [Fr. *soldat;* It. *soldato*, from Lat. *soldus*, or *solidus*, military pay.] One who is engaged in military service as an officer or private; a man engaged to serve in the army, or as one of an organized body of combatants.—Particularly, a private in military service, or one in the ranks, in distinction from an *officer;* a man enrolled for service when on duty or embodied for military discipline; as, a *soldier* of a regiment of infantry of the line.—Emphatically, a brave warrior; a man of distinguished valor or prowess, or of superior military experience and skill; as, Washington was every inch a *soldier*.

Sol'dier, in *Kansas*, a twp. of Shawnee co.

Sol'dier-crab, *n.* (*Zoöl.*) See PAGURIDÆ.

Soldiering, (*sōl'jer-,*) *n.* Occupation of a soldier; state of a soldier.

Soldier-like, Soldierly, (*sōl'jer-,*) *a.* Like or becoming a real soldier; martial; brave; valiant; honorable; as, *soldier-like* discipline.

Soldier River, (*sōld'yŭr,*) in *Iowa*, rises in Cherokee co., and flowing S.W., enters the Missouri River in Harrison co.

Soldiership, (*sōl'jer-,*) *n.* State or quality of a soldier; military qualities or character; martial skill or acquirements; conduct befitting a soldier.

Soldiery, (*sōl'jer-ȳ,*) *n.* The body of military; soldiers collectively considered; as, disaffected *soldiery.*

Sol'din, a town of Prussia, prov. of Brandenburg, 70 m. N.E. of Berlin. *Manuf.* Woollen goods. *Pop.* 5,500.

Sole, *n.* [Fr.; Lat. *solea,* a covering for the soles of the feet, from *solum,* the ground.] The bottom of the foot; also, but rarely, the foot itself; as, he is a good fellow from the crown of his head to the *sole* of his foot. — The bottom of a boot or shoo, or the piece of leather which constitutes the bottom. — That part of anything which forms the bottom, and on which it stands upon the ground.

(*Fortif.*) The bottom of an embrasure.

(*Agric.*) The blade or bottom of the body of a plough; also, the bottom of a furrow.

(*Mining.*) The seat or bottom of a mine; — applied to horizontal veins or lodes.

(*Fur.*) The horny substance under a horse's foot, serving as protection for the more tender parts.

(*Naut.*) A piece of timber attached to the lower part of the rudder, in order to bring it on a level with the false keel.

(*Zoöl.*) A genus of flat fishes, family *Pleuronectidæ.* The common sole, *Solea vulgaris,* found from the seas of Scandinavia to the Mediterranean, is one of the best and most delicate fishes for the table, and is caught in immense numbers by trawl nets. The genus is represented in N. America by *A. mollis,* the N. York Sole, from Nantucket to Carolina. It is from 6 to 8 inches long, dark-brown, marked transversely with irregular black bands, and scales small.

—*v. a.* To furnish with a sole, as a shoe.

—*a.* [Lat. *solus;* Fr. *seul;* probably from *sine aliis,* being without others.] Single; individual; only; alone; solitary; as, he was the *sole* survivor.

(*Law.*) Alone; single;—used in contradistinction to *joint* or *married.* So, a feme *sole* is a single woman, a *sole* corporation is one composed of only one natural person.

Solecism, (*sōl'e-sĭzm,*) *n.* [Fr. *solecisme;* Gr. *soloikismos,* from *Soli,* a town of Cilicia, the inhabitants of which, who had been transported from Attica, were charged with corrupting the language of their parent state.] (*Gram.* and *Rhet.*) A violation of the idiomatic rules of grammar or construction in writing or speaking a language; incongruity of words; want of correspondence or consistency; any word or expression which does not accord with the established usage of writing or speaking; as, "A *barbarism* may be in one word, a *solecism* must be of more."—*Johnson.*

—Hence, by analogy, any unfitness, discrepancy, absurdity, or impropriety; as, a *solecism* in politeness or etiquette.

Solecist, (*sōl'e-sĭst,*) *n.* [Gr. *soloikistēs.*] One who commits a solecism.

Solecist'ic, Solecist'ical, *a.* Pertaining or having reference to, or involving, a solecism.

Solecize, (*sōl'e-sīz,*) *v. n.* [Gr. *soloikizein.*] To commit solecism. (R.)

Sole'ly, *a.* Singly; alone; only; without another; as, he depends *solely* on his own exertions.

Solemn, (*sŏl'em,*) *a.* [Fr. *solennel;* Lat. *solennis,* or *solemnis,* from the old *sollus,* all, every, and *annus,* year.] Marked with religious gravity, pomp, or sanctity; attended with sacred rites; ritual; ceremonial; formal; as, a *solemn* feast or fast, a day of *solemn* thanksgiving or prayer. — Marked by devoutness or reverential feeling toward God; sober; serious; grave; devotional; affecting with seriousness; impressing or adapted to impress, seriousness, gravity, or reverence; as, *solemn* thoughts, *solemn* language, *solemn* silence. — Affectedly grave, serious, or sanctimonious; as, a *solemn* prig.

Sol'emness, *n.* State or quality of being solemn; gravity; reverential manner or character; as, the *solemness* of an oath.

Solem'nity, *n.* [Fr. *solemnité;* Lat. *solemnitas.*] A rite or ceremony annually performed, or at stated times, with religious reverence; a religious ceremony; a ritual performance attended with religious ceremonies; as, the *solemnity* of a sacrament. — A ceremony adapted to convey or impress a sense of awe; as, the *solemnities* of the day of judgment. — Steady seriousness; gravity; as, *solemnity* of manner or language. — Hence, affected gravity or seriousness; as, buffoonery with *solemnity* of accent. — Awe or reverence excited or inspired by outward circumstances; appearance calculated to impress with reverential or solemn feelings; as, the *solemnity* of a great public funeral, the *solemnity* of an ancient cathedral.

(*Law.*) A solemn or formal observance; the formality which is necessary to make valid the doing of anything.

Solemnization, (*-zā'shun,*) *n.* [Fr. *solemnisation.*] Act of solemnizing; celebration; as, the *solemnization* of nuptials.

Sol'emnize, *v. a.* [Fr. *solemniser.*] To dignify, honor, or make illustrious by solemn or stately ceremonies;—hence, to make famous; to celebrate; as, to *solemnize* a feast. — To perform with ritual ceremonies and reverence, or according to legal formalities; as, to *solemnize* the rite of matrimony. — To perform religiously once a year; as, to *solemnize* an anniversary. — To make grave, serious, or reverential; as, to *solemnize* the mind before taking the holy sacrament.

Sol'emnizer, *n.* One who performs a solemn rite or religious office.

Solemnly, (*sŏl'em-ly,*) *adv.* In a solemn manner; with gravity and religious reverence; with official formalities and by due authority; with formal state, gravity, and ceremoniousness, or with affected gravity; with religious seriousness.

So'len, *n.* [Gr. *solēn,* a kind of shell-fish.] (*Anat.*) The vertebral canal, containing the spinal cord

(*Surg.*) Same as Cranle, *q. v.*

(*Zoöl.*) The typical genus of the Solenidæ, *q. v.*

Sole'ness, *n.* Singleness. (R.)

Sole'nidæ, *n. pl.* (*Zoöl.*) A family of molluscs, distinguished by the great length of their respiratory tubes. The *Solen,* or *Razor-shell,* is a well-known example. It has an elongated shell, the hinge being furnished with distinct teeth, and the ligament altogether external. The animal burrows in the sand sometimes to the depth of nearly two feet, into which it sinks rapidly on the approach of danger; and as it very rarely quits its hole, its movements are nearly limited to an ascent or descent in it. This it accomplishes by means of its foot, which it attenuates into a point when it is about to bore, and afterwards contracts into a rounded form, so as to fix it by its enlargement when it desires to rise. It is found on both sides of the Atlantic; and in places where it abounds it is used for food and as bait for fish.

So'lenite, *n.* (*Pal.*) A fossilized solen.

So'lent, (The,) a part of the Atlantic Ocean between the mainland of England and the Isle of Wight, 18 m. long and 3 broad.

Soles'bury, in *Pennsylvania,* a township of Bucks co.; *pop.* abt. 5,000.

Solesmes, (*so'laim,*) a town of France, dept. Du Nord, 9 m. N. of Cambrai. *Manuf.* Cotton goods. *Pop.* 5,700.

Soleure, (*so'lur,*) or Solothurn, (*so-lo-toorn',*) a canton of Switzerland, in the N.W. of the confederation, between Lat. 47° and 47° 30′ N., and the 7th and 8th deg. of E. Lon., having N. Basle, E. and S.E. Aargau and Lucerne, and on its other side the canton of Berne; *area,* 255 sq. m. Though of a very irregular shape, it may be divided into two nearly equal portions; the N. W. covered with ranges of the Jura Mountains, and the S.E. comprised in the valleys of the Aar and Emmen. Some of the summits in the former rise to about 4,000 feet above the level of the sea; but, though rugged, this part of the canton has a large extent of fine upland pastures. In the other, or lower portion of the canton, the ground is fertile and well cultivated; so that, on the whole, *S.* is regarded as one of the most productive portions of Switzerland. — Soleure, the cap., on the Aar, near the foot of the Jura Mountains, and 18 m. N. by E. of Berne.

Sol-fa, (*sōl-fä',*) *v. n.* (*imp.* and *pp.* sol-faed; *ppr.* sol-faing.) (*Mus.*) To run over the notes of the gamut, ascending or descending; as, *do, re, mi, fa, sol, la, si, do;* or the same in converse order.

Solfana'ria, *n.* [From It. *solfa,* sulphur.] A sulphur mine.

Solfata'ra, *n.* [From It. *solfa;* Lat. *sulfur,* sulphur.] (*Geol.*) A volcanic rent from which sulphur and sulphurous or other acid vapors and gases are erupted with much steam.

Solfata'ra, a lake of Italy, on the Campagna di Roma, near Tivoli, about 500 feet broad, and containing several floating islands. Near it are the ruined baths of Agrippa.

Solfeggiare, (*sōl-fed-jä'rā,*) *v. a.* [It.] (*Mus.*) Same as Sol-fa, *q. v.*

Solfeggio, (*-fĕd'jo,*) *n.* [It.; Fr. *solfege,* from *solfa,* the gamut.] (*Mus.*) The system of arranging the scale by the names *do* (*ut*), *re, mi, fa, sol, la, si,* by which musical students are taught to sing, these notes being represented to the eye by lines and spaces, to which the syllables in question are applied.

Solferino, (*sol-fe-re'no,*) a village of N. Italy, prov. of Brescia, 20 m. N.W. of Mantua. Here the Emperor of the French and the King of Sardinia gained a victory over the Emperor of Austria, June 24, 1859. Hostilities were suspended by the armistice of Villa Franca.

So'li, *n. pl.* of Solo, *q. v.*

Solicit, (*-lĭs'ĭt,*) *v. a.* To ask from earnestly; to entreat; to importune; to make petition or requisition to. — To try to obtain; to seek to acquire; as, to *solicit* a favor, to *solicit* patronage.—To awaken; to summon; to invite or excite to action; to induce; as, he was *solicited* to become a candidate for Congress. — To disturb; to disquiet; — a Latinism infrequently used.

"But anxious fears *solicit* my weak breast."—*Dryden.*

Soliciting, Requesting with earnestness; asking.

Solicitant, (*-lĭs'-,*) *n.* One who solicits; a petitioner.

Solicitation, (*-tā'shun,*) *n.* [Fr. *sollicitation;* Lat. *sollicitatio.*] Act of soliciting; urgent or earnest request or petition; importunity; a seeking to obtain something from another with some degree of zeal and eagerness; supplication; as, his *solicitations* were granted. — Invitation; excitement; inducement; as, constant *solicitation* of the senses.

Solicitor, (*-lĭs'-,*) *n.* [Fr. *solliciteur.*] One who solicits or asks with earnestness or eagerness; one who asks or entreats for another; as, Cupid is Love's *solicitor.*

(*Law.*) A person employed to follow and take charge of suits depending in courts of chancery. A solicitor, like an attorney, will be required to act with perfect good faith towards his clients. It is said that to institute a suit he must have a special authority, although a general authority will be sufficient to defend one.

Solic'itor-gen'eral, *n.* In England, an officer of the crown, who is associated with the attorney-general in managing the legal business of the crown and government.

Solicitous, (*-lĭs'ĭt-ŭs,*) *a.* [Lat. *sollicitus.*] Inclined to solicit; eager or anxious to obtain, as something desirable; wishful to eschew or avoid, as anything evil or calamitous; careful; concerned; — preceding *for* or *about;* as, she was very *solicitous about* her reputation.

Solic'itously, *adv.* In a solicitous manner; studiously; with care or concern.

Solic'itousness, *n.* Solicitude.

Solic'itress, *a.* A female solicitor.

Solicitude, (*so-lĭs'e-tūd,*) *n.* [Fr. *sollicitude;* Lat. *sollicitudo.*] State of being solicitous; uneasiness of mind; carefulness; concern; anxiety; care; trouble.

Sol'id, *a.* [Fr. *solide;* Lat. *solidus.*] Hard; firm; compact; having the property of resisting impression and penetration; — in contradistinction to *fluid* and *liquid;* as, a *solid* mass. — Dense; full of matter; not hollow or spongy; as, a *solid* orb in distinction from a *hollow* one. — Cubic; having length, breadth, and thickness; as, a *solid* foot is equal to 1,728 *solid* inches. — Having firmness, compactness, or strength; as, a *solid* wall. — Healthy; sound; robust; strong; not weakly; as, a *solid* constitution of body. (R.) — Having reality, soundness, or validity; substantial; weighty; not light, trifling, or superficial; firm; wealthy; not empty or fallacious; as, a *solid* man, a *solid* purpose.

(*Bot.*) Not spongy or hollow within, as a stem; of a fleshy, uniform substance, as a root.

(*Metaph.*) That cannot be penetrated; opposing or excluding any other material, particle, or atom from any given spatial surface; — used in application to the supposed ultimate particles of matter.

Solid angle. (*Geom.*) An angle formed by the meeting in one point of three or more plane angles, which are not in the same plane. This is Euclid's definition. A solid angle may be measured by the area of spherical polygon which it determines on a sphere of unit radius, whose centre is at its vertex.—*Solid measure,* a measure for volumes, wherein its units are severally a cube of fixed line or magnitude, as a cubic foot, yard, &c.; thus, a *solid* foot contains 1,728 inches. — *Solid navel.* (*Arch.*) A navel which receives the ends of the stairs, in distinction from a *hollow navel.* — *Solid problem.* (*Geom.*) A problem admitting of geometrical construction only by the intersection of a circle and a conic section, or of two conic sections.—*Solid square.* (*Mil.*) A body of troops in which the ranks and files are equal.

—*n.* A firm, compact body or substance; a body that offers a sensible resistance to impression and penetration; a substance not *liquid* or *fluid.*

(*Geom.*) A magnitude which has three dimensions — length, breadth, and thickness. The boundaries of solids are *surfaces,* which have only two dimensions — length and breadth; the boundaries of surfaces, again, are *lines* which have but one dimension, length. Lastly, the extremities of lines are *points* which are destitute of all dimensions, and possess position merely.

Solida'go, *n.* (*Bot.*) The Golden-rods. A genus of plants, order *Asteraceæ.* They are perennial herbs, very abundant in the U. S.; stem erect, branching near the top; leaves alternate; heads small, with 1-15 small rays; flowers generally yellow, expanding in the autumnal months.

Solidar'ity, *n.* [Fr. *solidarité,* from *solide.*] Fellowship; community; consolidation or identification of interests and responsibilities; — a term borrowed from the French Communists.

Solidifica'tion, *n.* [Fr.] Act of making solid, as in the freezing of water.

Solid'ify, *v. a.* (*imp.* and *pp.* solidified.) [Fr. *solidifier;* Lat. *solidus,* and *facio,* to make.] To make solid, firm, dense, or compact.

—*v. n.* To harden; to become dense or solid.

Sol'idism, (*-ĭzm,*) *n.* (*Med.*) In pathology, the doctrine that refers all diseases to an affection of the solid parts of the body. It rests on the view that the solids alone are endowed with vital properties, and can receive the impressions of agents tending to produce disease.

Sol'idist, *n.* (*Med.*) An advocate, or believer, in solidism.

Solid'ity, *n.* [Fr. *solidité;* Lat. *soliditas.*] State of being solid; density; consistency; compactness; that quality of bodies which resists impression and penetration; — opposed to *fluidity;* fulness of matter; — as in contradistinction to *hollowness;* strength; soundness; antithetical to *weakness* or *instability.* — Moral firmness, as opposed to what is *weak* or *fallacious;* strength; soundness; validity; certainty; truth; reality; as, the *solidity* of principles, arguments, or opinions.

(*Geom.*) Volume; the solid contents of a body.

Sol'idly, *adv.* In a solid manner; firmly; densely; compactly; truly; on firm grounds.

Sol'idness, *n.* Quality of being solid, or of being firm, dense, or compact; — said of material bodies. — Strength; soundness; validity; stability; — as of opinions, arguments, and the like.

Solidun'gular, *a.* (*Zoöl.*) Having hoofs that are not cloven, as a horse.

Solifid'ian, *n.* [Lat. *solus,* alone, and *fides,* faith.] (*Eccl.*) A term sometimes applied to those who maintain that men are justified by faith only without reference to works.

—*a.* Entertaining the tenets of Solifidians; pertaining, or having reference, to the Solifidians.

Solifid'ianism, *n.* The doctrinal tenets of Solifidians.

Sol'iform, *a.* [Lat. *sol,* the sun, and *forma,* form.] Resembling the sun in form, aspect, or characteristics. (R.)

Solikamsk', a town of European Russia, govt. of Perm, 102 m. N. of Perm; *pop.* 4,500.

Soliloquize, (*-kwīz,*) *v. n.* To utter a soliloquy.

Soliloquy, (*so-lĭl'o-kwe,*) *n.* [Fr. *soliloque,* from Lat. *solus,* alone, only, and *loquor,* to speak.] A speaking or talking to one's self alone; a talking or discourse of a person alone, or not addressed to another person, even when others are present.—A written composition, reciting what is supposed a person speaks to himself, as "The whole poem is a *soliloquy.*"

Sol'inan. See Solyman.

Solip'edous, *a.* With hoofs not cloven, as a *solipedous* beast.

Sol'ipeds, *n. pl.* [Fr. *solipède*, from Lat. *solus*, alone, and *pes, pedis*, a foot.] (*Zoöl.*) A tribe of mammals, including those with only a single hoof on each foot, as the horse, ass, &c. — Also called *Solidungulates.*

Solis, Antonio de, (*so'lees,*) a Spanish historian and dramatic poet, b. at Placentia, 1610. He became secretary to Philip IV., and afterwards entered into holy orders. He wrote many comedies and poems, but his great work is the *History of the Conquest of Mexico.* D. 1686.

Solis, Juan Diaz de, an ancient Spanish navigator, who, with Pinzon, discovered Yucatan in 1507, explored the Bay of Rio Janeiro in 1512, and learning from the natives that a great river (Paraguaya) existed further along the coast, he set sail for Spain, and obtained the King's permission to make conquests upon its banks. He returned to Rio Janeiro, and proceeding in a S.W. route, landed near a river between Realdonado and Montevideo; but was there killed by the Indians, in 1515.

Solitaire', *n.* [Fr., solitary.] A solitary; a recluse; a hermit. (R.) — An ornament for the neck; as, a diamond *solitaire.* — A single jewel in a setting, as of a stone in a ring. — A game wherein one person is the sole player; — specifically, that in which a board, perforated with holes, is used, and a set of pegs one less in number than that of the holes.

(*Zoöl.*) An extinct species of Dodo.

Sol'itarily, *adv.* [From *solitary.*] In a solitary manner; in solitude; alone; without company.

Sol'itariness, *n.* State of being solitary or alone; forbearance of company; retirement or habitual seclusion; as, you subject yourself to *solitariness.* — Solitude; loneliness; destitution of society, or of animated beings; — said referentially of places; as, the *solitariness* of a mountain glen.

Soli'tary, *a.* [Fr. *solitaire;* Lat. *solitarius* — *solus*, alone, only, single.] Being alone; living alone; destitute of company; being by one's self; as, a *solitary* individual. — Lonely; retired; secluded; remote from society or the haunts of men; as, to lead a *solitary* life, a *solitary* place. — Gloomy; still; dismal; oppressive; as, "Let that night be *solitary.*" (*Job* iii. 7.) — Single; sole; individual; as, a *solitary* instance of lack of patriotism.

(*Bot.*) Separate; being one only in a place; as, a *solitary* stipule.

—*n.* A hermit; a recluse; one who lives alone or in solitude; a solitaire; as, a *solitary's* cell.

Sol'itude, *n.* [Fr.; Lat. *solitudo*, from *solus*, alone.] A state of being alone; loneliness; a lonely life; seclusion from the world.

"*Solitude* sometimes is best society."—*Milton.*

— Lack of company; remoteness from society or the companionship of men; — said of places; as, "He makes a *solitude*, and calls it — peace." (*Byron.*) — A desert; a wilderness; a lonely place; as, "deep *solitudes*, and awful cells." —*Pope.*

Sollv'agant, Sollv'agous, (*-gŭs,*) *a.* [Lat. *solus*, alone, and *vagans* — *vagus*, wandering.] Wandering alone. (R.)

Solle'cito. [It., anxious.] (*Mus.*) A term denoting that the movement to which it is affixed is to be performed in a mournful manner. It also means that the music is to be performed carefully.

Soller, (*sol'lair,*) a seaport-town of Spain, in the island of Majorca, 14 m. N. of Palma; *pop.* 7,000.

Solmization, (*-zā'shun,*) *n.* [Fr. *solmisation.*] (*Mus.*) Act of sol-faing.

So'lo, *n.;* Eng. *pl.* Solos; Lat. *pl.* Soli. [It., from Lat. *solus*, alone, only, single.] (*Mus.*) A tune, air, or strain, to be played by a single instrument, or sung by a single voice.

So'lofra, a town of S. Italy, prov. of Principato-Ulteriore, 7 m. E. of Avellino; *pop.* 6,500.

Solo'la, in Central America, a town of Guatemala, 85 m. N.W. of Guatemala; *pop.* abt. 6,000.

Sol'omon, the most celebrated of all the Kings of Israel, the son of David, and named by God, through the prophet Nathan, *Jedidiah*, or "Beloved of the Lord." About 1015 B.C., by order of David, he was anointed and proclaimed King, and on the death of David soon after ascended the throne. Having punished the enemies of his father and married the King of Egypt's daughter, he formed a strict alliance with Pharaoh. The chief features of Solomon's reign will be found in the *Books of Kings* and *Chronicles.* His great prosperity and power led, however, to his corruption, and awoke the anger of the Almighty, who threatened to destroy, by disunion and strife, the greatness he had given to the kingdom of Israel. The coming ruin was early foresbadowed by the rebellion and conspiracies which broke out around his throne; and Solomon, conscious of his sins, poured out his contrition in the *Book of Ecclesiastes.* The other works under his name are the *Song of Solomon*, the *Psalms*, from lxxii. to cxxvii., and the *Proverbs.*

Sol'omon Islands, a chain of islands in the Malay or Indian Archipelago, between New Britain on the N. W. and the Queen Charlotte Islands on the S.E.; Lat. 4° 50′ – 11° 50′ S. *Area*, 10,000 sq. m. The natives are partly Negrilloes, partly Malays, and are still in the condition of savages. *Pop.* Unascertained.

Sol'omon's Fork, a river of *Kansas*, rises in the N W. part of the State, and flows into the Smoky Hill Fork on the E. border of Saline co., after a S.W. course of 200 m.

Solo'mon's Seal, *n.* (*Bot.*) See Polygonatum.

So'lon, one of the seven sages of Greece, and the celebrated legislator of Athens, b. at Salamis, in the 7th cent. B.C. After having enhanced the glory of his country by recovering Salamis, he was chosen archon B.C. 594, and having received full power to do whatever he judged needful, he set himself to the task of improving the condition of his countrymen. He abolished most of the cruel laws of Draco, and formed a new constitution, founded on the principle of making property, not birth, the title to the honors and offices of the state. He made many special laws also relating to trade and commerce, marriage, disposition of property by will, &c., caused them to be engraved on wooden cylinders, and is said to have bound the Athenians by an oath not to make any changes in his code for ten years. He then left the country, to avoid being obliged to make any alteration in them, and visited Egypt, Cyprus, and Lydia. The beautiful story of his visit to the court of Crœsus, so celebrated in ancient times, is now numbered with other beautiful myths which can only be admired, not believed. On his return, after an absence of ten years, he found the state torn by party violence, and his kinsman Pisistratus aiming at the sovereignty, which he soon seized. *S.* then withdrew from public life, and is supposed to have D. at the age of 80, about B.C. 558.

So'lon, in *Iowa*, a post-town of Johnson co., 12 m. N.E. of Iowa City.

Solon, in *Maine*, a post-village and township of Somerset co., 45 m. N. of Augusta.

Solon, in *Michigan*, a township of Kent county.

Solon, in *New York*, a post-township of Cortland co., 25 m. S.E. of Syracuse.

Solon, in *Ohio*, a post-township of Cuyahoga county.

Solon Mills, in *Illinois*, a post-village of McHenry co., 55 m. N.N.W. of Chicago.

So'lor, an island of the Eastern Archipelago, off the E. extremity of Flores; Lat. 8° 47′ S., Lon. 123° 8′ E. *Ext.* 30 m. long and 15 broad.

Solothurn', a canton of Switzerland. See Soleure.

Solstice, (*sol'tis,*) *n.* [Fr.; Lat. *solstitium* — *sol*, the sun, and *sisto*, to stand.] (*Astron.*) The time when the sun is in one of the solstitial points — that is, when it is at its greatest distance from the equator — and is so called because he then appears to stand still, and not to change his distance from the equator for some time. There are two solstices in each year, — the summer and the winter *S.* The former is when the sun seems to enter the tropic of Cancer, which is on June 22d, the longest day; the latter *S.* is when the sun enters the first degree, or seems to describe the tropic of Capricorn, which is on December 22d, the shortest day. This is only to be understood of the northern hemisphere as in the southern — the sun's entrance into Capricorn makes the summer *S.*, and into Cancer the winter *S.*

Solstitial, (*-stish'al,*) *a.* Pertaining, or relating, to a solstice; as, the equinoctial and *solstitial* points. — Happening at a solstice — usually at the summer solstice or mid-summer; as, *solstitial* heat.

Solts, a town of Hungary, 48 m. S. of Pesth, in a marshy district on a branch of the Danube; *pop.* 7,430.

Solubil'ity, Sol'ubleness, *n.* [Fr. *solubilité.*] Quality of being soluble; susceptibility of being dissolved in a fluid; — said of a body; solubleness.

(*Bot.*) Susceptibility of being easily separated into parts, as of certain legumes.

Sol'uble, *a.* [Fr., from Lat. *solubilis* — *solvo*, to loosen, dissolve.] Dissolvable; capable of solution; susceptible of being dissolved in a fluid; as, a *soluble* substance.

So'lus, *a.* [Lat.] Alone; — principally used in stage directions.

Solute', *a.* [Lat. *solutus* — *solvere*, to dissolve.] Soluble; dissolvable; as, a *solute* salt. — Relaxed; — hence, jocund; lively; merry; as, a *solute* brow.

(*Bot.*) Loose: slack; not adhering; — correlative to *adnate;* as, a *solute* stipule.

—*v. a.* [Lat. *solvere, solutum.*] To dissolve. — To absolve.

Solution, (*-loo'shun,*) *n.* [Fr.; Lat. *solutio*, from *solvo.*] A loosing or taking apart; a dissolving; act of separating the part of any body; breach; disruption; as, *solution* of continuity. — *Bacon.*

(*Chem.*) If a liquid be poured on a solid, it often happens that their mutual attention is sufficiently powerful to overcome the cohesion of the solid; its particles, thus become disunited, combine with those of the liquid, and entirely disappear; this constitutes the chemical process of *S.* Certain liquids are also soluble in other liquids, gases in other gases, and gases in liquids. In the case of the *S.* of a solid in a liquid, the latter is usually called the *solvent*, but sometimes the *menstruum.* Particular *S.* have also particular names; thus, a *S.* of sugar is called a *syrup*, and *S.* of a solid in alcohol a *tincture.* A liquid is said to be saturated when it can no longer dissolve further portions of a solid, that is, when the force of cohesion is exactly equal to that of adhesion. In most cases, however, an increase of temperature, by diminishing the cohesion, increases the solvent powers of the liquid. The uses of solution are many; through its means a body can be purified by filtration or crystallization, so that one substance can be separated from another, either by crystallization or the use of such fluids in succession as have a solvent power over any of the substances present.

(*Med.*) A crisis; termination of a disease, sometimes attended by critical signs.

(*Math.*) The construction of a proposed problem, or the expression of its conditions by an equation which gives the value of the unknown quantity.

Solu'tive, *a.* [Fr. *solutif.*] Loosening; slackening; laxative; having a tendency to dissolve; as, a *solutive* medicine.

Solvabil'ity, *n.* [Fr. *solvabilité.*] State or quality of being solvable; ability to discharge all just debts.

Solv'able, *a.* [Fr., from Lat. *solvere.*] That may be solved, resolved, or explained; as, a *solvable* problem. — That can be paid; as, a *solvable* debt or obligation.

Solv'ableness, *n.* Solvability.

Solve, *v. a.* [Lat. *solvo.*] To loosen or separate, as the parts of anything; to diffuse. — To give an explanation of; to unite, as an intellectual knot or entanglement; to explain; to clear; to resolve; to unfold; as, to *solve* a difficulty or an enigma. — To do away with; to dissipate; as, to *solve* a doubt.

Solvency, (*sŏlv'en-sy,*) *n.* [From Lat. *solvens.*] State of being solvent; ability to pay all just debts or claims; as, the *solvency* of a merchant or trader.

Solv'end, *n.* [Lat. *solvendus-um.*] (*Chem.*) See Solution.

Solv'ent, *a.* [Lat. *solvens.*] Having the power of loosening or dissolving; as, a *solvent* liquid. — Competent to pay all just debts or claims; as, a *solvent* banker. — Having enough to satisfy all just debts or legal demands; as, the concern is *solvent.*

—*n.* That which solves or dissolves; — specifically, a fluid that dissolves any substance, or in which a solution is effected; — also called *menstruum.*

Solv'er, *n.* One who solves, elucidates, or explains.

Sol'way Frith, a navigable arm of the sea, extending E. from the Irish Sea, and forming a part of the boundary of England and Scotland. It runs 40 m. inland, and is 24 m. wide at its widest part.

Sol'way Moss. (*Eng. Hist.*) The Scotch, to the number of 10,000, were routed at this place, in Cumberland, by a small body of English horse, not more than 300 in number, under Dacre and Musgrave, Nov. 25, 1542, and more than 1,000 prisoners were taken.

Sol'yman I., or Suleiman (*the Noble*), Emperor of Turkey, was proclaimed emperor after the defeat and capture of his father, Bajazet, by Timour, 1402. He was dethroned by his brother, Mousa, during a revolt of his subjects, and soon after killed, 1410.

Solyman II., surnamed the *Magnificent*, b. 1493, succeeded his father, Selim I., in 1520. Having concluded a truce with Ismael, sophi of Persia, and quelled a rebellion in Syria, he turned his arms against Europe. In 1521, he took Belgrade; and in the following year Rhodes fell into his hands, after an obstinate defence. In 1529, he made himself master of Buda, and then laid siege to Vienna, whence he was obliged to retreat, with the loss of 120,000 men. In 1534, he marched into the East, and took Tauris from the Persians, but was soon afterwards defeated by the Shah. His forces were also repulsed before Malta; but he took the Isle of Chios in 1566. He was a poet, legislator, and warrior of eminent greatness for an Oriental. He encouraged arts and literature, made roads, bridges, erected noble mosques and public buildings, and superintended the compilation of an administrative code. D. at Szigeth, Hungary, 1566.

Solyman III., became sultan upon the deposition of his brother, Mahomet IV., in 1687. His life had been spent up to his 49th year, in the seraglio, where he had devoted himself to the study of the Koran. Under his weak rule, the Turks were defeated in Hungary and in Servia. D. at Constantinople, 1691.

Sonate'ria, *n.* (*Zoöl.*) The Eider, a genus of birds, family *Anatidæ.* The Eider-duck, *S. mollissima*, of the Atlantic and Arctic coasts, is 26 inches long, the wing about 11; prevailing color white; under parts, rump, tail, quills, and stripe above the eye, black. It is an

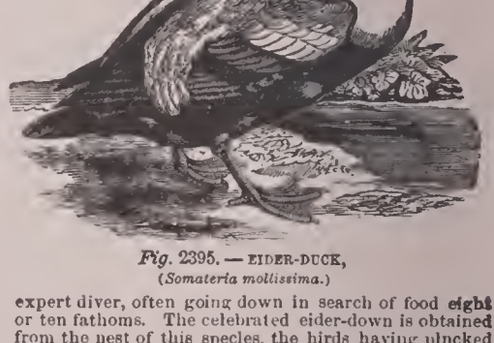


Fig. 2395. — EIDER-DUCK,
(*Somateria mollissima.*)

expert diver, often going down in search of food eight or ten fathoms. The celebrated eider-down is obtained from the nest of this species, the birds having plucked it from their breasts to place around their eggs.

Somatol'ogy, (*-jy,*) *n.* [From Gr. *sōma, sōmatos*, the body, and *logos*, speech.] The doctrine of the general properties of bodies or material substances.

Somatot'omy, *n.* [Gr. *sōma, sōmatos*, the body, and *tomē*, a cutting.] Anatomy.

Sombre, (*som'b'r,*) *a.* [Fr., from Lat. *umbra*, a shade or shadow by prefixing *s;* L. Lat. *sumbra.*] Shady; dark; dull; dusky; cloudy; gloomy; grave; as, a *sombre* costume.

Som'brely, Som'bronsly, *adv.* In a sombre manner; gloomily; gravely.

Som'breness, Som'brousness, *n.* State of being sombre; shadiness; gloominess; darkness; as, *sombreness* of countenance.

Som'brerite, *n.* (*Min.*) A new mineral (a phosphate of alumina and lime), remarkable for the large amount of phosphoric acid which it contains. It forms a large portion of some small islands in the West Indies, especially of Sombrero Islands, about 60 miles from St.

Thomas. — *S* has been used for the preparation of phosphorous and phosphoric acid, and also for the manufacture of artificial manure (superphosphate of lime) for agricultural purposes.

Sombrero, (*som-brā'ro,*) *n.* [Sp., from *sombra*, shade.] A hat; — especially, a broad-brimmed hat.

Sombre'ro, one of the British W. Indies Islands, between Anguilla and the Virgin Islands; Lat. 18° 35′ N., Lon. 63° 27′ W.

Som'brous, *a.* Sombre; gloomy; downcast.

Some, (*sŭm.*) [A. S. *sum.*] A termination of sundry adjectives having primarily the sense of *same* or *like*, and in usage denoting a considerable degree of the thing of quality; as, frolic*some*, full of frolic, lone*some*, very lonely, blithe*some*, game*some*, mettle*some*, hand*some*, ful*some*, &c.

—*a.* [A. S. *sum, sum.*] Noting a number of persons or things, greater or less, but indeterminate; as, let me help you to *some* wine, he told it to *some* people; — also employed pronominally; as, she has *some*.

—Noting a certain quantity of a thing, but indeterminate; indicating a person or thing, but not known, or not specific or definite; as, *some* one says you intend to get married, that event must occur at *some* period. — A portion. — Noting indeterminately that a thing is not very great; moderate; partial; a tittle; not much; as, he found himself in *some* degree compromised. — About: not far from; near; more or less; as, a crowd of *some* thirty persons, a distance of *some* hundred miles. —Considerable in extent, number, or quantity; as, *some* miles away. — Certain; those belonging to one part or portion; — as distinguished from *others;* as, *some* folks are simple enough for anything, while others are not. — A part; a portion; a share; employed in the pronominal sense, and in certain cases preceding *of;* as, he gave me *some of* his money.

(Note. Among illiterate people, the word *some* is often used adverbially in the U. States, instead of *somewhat;* as, he is *some* sick, it freezes *some*, &c.)

Somebody, (*sŭm'-,*) *n.* [*Some* and *body.*] A person unknown or uncertain; a person indeterminate; as, he is sure to offend *somebody*. — A person of mark, eminence, consideration, or distinction; — opposed to *nobody;* as, he thinks himself *somebody*.

Somehow, (*sŭm'-,*) *adv.* [*Some* and *how.*] One way or another; in some way not yet determined; as, I must go home *somehow*.

Som'erford, in *Ohio*, a village and township of Madison co., 27 m. W. of Columbus.

Som'ers, in *Connecticut*, a post-village and township of Tolland co., 23 m. N.E. of Hartford.

Somers, in *New York*, a post-village and township of Westchester co., 110 m. S. of Albany

Somers, in *Ohio*, a twp. of Preble co.

Somers, in *Wisconsin*, a township of Kenosha county.

Somersault, Somerset, (*sŭm'-,*) *n.* [From Lat. *supra*, over, and *saltus*, a leap.] A leap or bound in which a person turns with his heels over his head and lights on his feet; — also written *summersault* and *summerset*.

Som'erset, a marit. co. of England, having N. and N. W. the British Channel, the Severn, and the co. of Gloucester, E. Wilts, S. Dorset and Devon, and W. Devon; *area*, 1,645 sq. m. The surface is very diversified, but generally fertile. *Rivers.* Lower Avon, Ax, Brue, Parret, and Exe. *Prod.* Wheat, oats, barley, and beans. Cattle are extensively raised. *Min.* Lead, calcimine, and coal. *Manuf.* Woollens, silks, gloves, linens, hosiery, glass, paper, iron-ware, leather, &c. *Chief towns.* Bath, Wells, Bridgewater, Taunton, Frome, Glastonbury, and part of Bristol. *Pop.* (1897) 521,140.

Somerset, in *Indiana*, a post-village of Wabash co., 10 m. S. of Wabash.

Somerset, in *Kentucky*, a city, cap. of Pulaski co., 90 m. S. of Frankfort. *Pop.* (1897) 2,820.

Somerset, in *Maine*, a N.N.W. co., bordering on Lower Canada; *area*, 3,510 sq. m. *Rivers.* Kennebec, Penobscot, and St. John. *Surface*, diversified; *soil*, generally fertile. *Products.* Wheat and oats. *Cap.* Skowhegan. *Pop.* (1897) 33,150.

Somerset, in *Maryland*, a S.E. co., bordering on Delaware; *area*, 365 sq. m. *Rivers.* Nanticoke, Pocomoke, Wicomico, and Manokin. *Surface*, level and partly covered with oak, hickory, chestnut, and other trees; *soil*, generally fertile. *Cap.* Princess Anne. *Pop.* (1897) 25,210.

Somerset, in *Massachusetts*, a post-village and twp. of Bristol co., 50 m. S.W. of Boston.

Somerset, in *Michigan*, a post-township of Hillsdale co.

Somerset, in *Minnesota*, a post-village and township of Steele co., 25 m. S. of Faribault.

Somerset, in *Missouri*, a village and township of Mercer co., 60 m. N.W. of La Clede.

Somerset, in *New Jersey*, a N. central co.; *area*, 370 sq. m. *Rivers.* Lamington, Millstone, Passaic, and Raritan. *Surface*, mountainous in the N.W., but elsewhere level; *soil*, generally fertile. *Min.* Copper and gold. *Cap.* Somerville.

Somerset, in *New York*, a post-township of Niagara co.

Somerset, in *Ohio*, a township of Belmont county. — A post-village of Perry county, 20 miles W. S.W. of Zanesville.

Somerset, in *Pennsylvania*, a S. co., bordering on Maryland; *area*, 1,050 sq. m. *Rivers.* Castleman's River, and Laurel Hill and Stony creeks. *Surface*, diversified; *soil*, adapted to pasturage. *Min.* Coal and iron. *Cap.* Somerset. *Pop* (1897) 40,140. — A post-borough and township, cap. of the above co., 70 m. E.S.E. of Pittsburg, a township of Washington co., 24 m. S. W. of Pittsburg.

Somerset, in *Vermont*, a township of Windham co., 100 m. S.W. of Concord.

Somerset, in *Wisconsin*, a post-village and township of St. Croix co., 11 m. N.N.E. of Hudson.

Somerset, a division of Cape Colony, S. Africa, between Lat. 30° 20′ and 33° 25′ S., Lon. 25° 12′ and 26° 45′ E.; *area*, 4,000 sq. m. *Cap.* Somerset.

Somerset Mills, in *Maine*, a post-village of Somerset co., 22 m. N. of Augusta.

Somerset, (North,) an Island of British N. America, at the entrance of the Gulf of Bootbia, between Lat. 72° and 74° 30′ N., Lon. 91° and 96° W.

Somers Point, in *New Jersey*, a post-village of Atlantic co., 12 m. S.E. of May's Landing.

Somersville, in *California*, a post-village of Contra Costa co., 18 m. E. of Martinez.

Somersworth, in *New Hampshire*, a township of Strafford co., 30 m. E.S.E. of Concord.

Somerton, in *Ohio*, a post-village of Belmont co., 107 m. E. of Columbus.

Somerton, in *Virginia*, a village of Nansemond co., 100 m. S.E. of Richmond.

Somerville, in *Alabama*, a post-village, cap. of Morgan co., 125 m. N.N.E. of Tuscaloosa.

Somerville, in *Connecticut*, a post-village of Tolland co., 22 m. N.E. of Hartford.

Somerville, in *Maine*, a post-township of Lincoln co., 16 m. E. of Augusta.

Somerville, in *Massachusetts*, a city and suburb of Boston, in Middlesex co., 3 m. N.W. of Boston. *Pop.* (1895) 52,200.

Somerville, in *New Jersey*, a post-borough, cap. of Somerset co., 30 m. N.N.E. of Trenton.

Somerville, in *New York*, a post-village of St. Lawrence co., 175 m. N.W. of Albany.

Somerville, in *Ohio*, a post-village of Butler co., 14 m. N.N.W. of Hamilton.

Somerville, in *Tennessee*, a post-town, cap. of Fayette co., 43 m. E. of Memphis.

Somerville, in *Virginia*, a post-village of Fauquier co., 85 m. N.W. of Richmond.

Somer'villite, *n.* (*Min.*) A variety of melilite, of a dull-yellow color, found in the older ejected lavas on Vesuvius, associated with black mica, &c.

Something, (*sŭm'-,*) *n.* A thing unknown, indefinite, or not specified; an indeterminate or unknown event; as, *something* will turn up, there is *something* the matter with him. — A part; a portion more or less; a little: an indefinite quantity, degree, or distance; as, "Still from his little he could *something* spare."—*Pope.*

—*adv.* Somewhat; in some degree; as, there is *something* too much of assurance in him. — At a short distance; not far from; as, "It must be done to-night, and *something* from the palace."—*Shaks.*

Some'time, *adv.* Once; formerly; at a past time indefinitely made reference to; as, the *sometime* President of the so-called Southern Confederacy. — At one time or other yet to come; as, I expect to be back in England *sometime*.

—*a.* Former; quondam; having been formerly; as, "Good *sometime* queen, prepare thee hence for France." *Shaks.*

Some'times, *adv.* At some, or certain times; occasionally; at intervals; now and then; not always; as, he keeps sober *sometimes*.—At one time; —in distinction from *another time;* as, *sometimes* the one and *sometimes* the other.

Somewhat, (*sŭm'hwot,*) *a.* Something, though uncertain what; more or less; a certain quantity or degree, indeterminate; a part, greater or less; as, *somewhat* of his fortune will have been expended in the speculation.

—*adv.* In some degree or quantity; as, I feel *somewhat* indisposed.

Somewhere, (*sŭm'hwair,*) *a.* [*some* and *where.*] In some place unknown or not specified; in one place or another; as, I have put it *somewhere*; — frequently vulgarized into *somewheres*.

Somewhither, (*sŭm-,*) *adv.* To some indeterminate place.

Somidou'ro, in Brazil, a village of the prov. of Minas-Geraes, 12 m. E.S.E. of Mariana; *pop.* 2,500.

Som'ma, a town of S. Italy, at the base of Mount Vesuvius, 9 m. E. of Naples; *pop.* 8,400.

Som'ma Paz, a mountain-range of Venezuela, extending from the Magdalena, in the U. S. of Colombia, to the city of Valencia, E. of Lake Maracaibo.

Somme, (*som,*) a river of France, rising in the dept. of Aisne, and after a N.W. course of 120 m. flows into the English Channel, between Crotsy and St. Valery.

Somme, a maritime dept. in the N. of France, between Lat. 49° 37′ and 50° 20′ N., Lon. 1° 25′ and 30° 10′ E., having N. the dept. of Pas-de-Calais, E. Aisne, S. Oise, and W. Seine-Inférienre and the English Channel; *area*, 2,378 sq. m. It is generally level and fertile. *Rivers.* Somme, Avre, and Celle. *Prod.* Corn, hemp, hops, flax, and vegetables. *Manuf.* Woollen, cotton, and silken goods, thread, leather, hardware, machinery, paper, and beet-root sugar. *Chief towns.* Amiens, the cap., Abbeville, Doullens, Montdidier, and Peronne. *Pop.* 572,640.

Sommeil, (*sŏm-mā'e,*) *n.* [Fr.] Sleep; slumber; repose.

(*Mus.*) An air of the old serious operas of the French; — so called because these airs were calculated to tranquillize the feelings, and lull even to drowsiness.

Som'men, a lake of Sweden, 15 m. E. of Lake Wetter. *Ext.* 25 m. long and 8 broad.

Sommières, (*som'me-air,*) a town of France, dept. of Gard, 14 m. from Nimes; *pop.* 4,000.

Somnambula'tion, *n.* [From Lat. *somnus*, sleep, and *ambulo — ambulatum*, to walk.] Act of walking in sleep.

Somnam'bulator, *n.* A somnambulist.

Somnam'bulic, *a.* Somnambulistic.

Somnam'bulism, *n.* [Lat. *somnus*, sleep, and *ambulo*, to walk about.] (*Physiol.*) Literally, the act or practice of walking in sleep; but, in a wider and more usual sense, that state of sleep or unconsciousness in which the mind retains its power over the limbs, but has no influence over its own thoughts. The controlling power of the will over the current of thought is entirely suspended, all the actions being directly prompted by the ideas which possess the mind. In some cases there is a coherent sequence in the succession of ideas, through which some one dominant impression may be traced, while in other instances it is more or less completely determinable by external suggestions. Among the various curious phenomena connected with this state, not the least remarkable is the peculiar power which suggestions derived from the muscular sense have in determining the current of thought. Thus, if the face, body, or limbs be brought into an attitude that is expressive of any particular emotion, the corresponding mental state is called up in correspondence to it; as, for instance, if the angles of the mouth be gently separated from one another, as in laughter, a hilarious disposition is immediately generated; and this may be made to give place to moroseness by drawing the eyebrows towards each other, and downwards upon the nose, as in frowning. In *S.* proper, the individual gets out of bed, dresses himself, if not prevented; goes out of doors; walks frequently over dangerous places in safety; sometimes escapes by a window, and gets to the roof of a house; after a considerable interval returns, and goes to bed; and all that has passed conveys to his mind merely the impression of a dream. Frequently, during the paroxysm, the individual recollects circumstances which occurred during a previous attack, though there was no remembrance of them during the interval. It is unnecessary to speculate regarding the nature and cause of phenomena so obscure and so little understood. The same observations may apply to clairvoyance, or that state of mesmeric *S.* that in certain cases is said to enable its possessor to see absent objects, to know of things which he has never seen, and other phenomena of a not less extraordinary character. According to the actual state of scientific observation, neither magnetic influence or nervous fluid passes from the operator to the person operated on; in which case clairvoyance would be simply an effect of delusion. Thus, when we see science so far powerless to explain the common phenomena of ordinary *S.*, we see no sound reason for declaring that mesmeric *S.* has no real foundation whatever.

Somnam'bulist, *n.* [Fr. *somnambule.*] One who walks in his sleep; a noctambulist.

Somnambulist'ic, *a.* Pertaining, or relating, to somnambulism.

Som'nial, *a.* Pertaining or having reference to, or involving, sleep.

Som'nlative, *a.* Pertaining or relating to, or causing, dreams. (R.)

Somnif'erous, *a.* Bringing, causing, or inducing sleep; soporific; as, *somniferous* influence.

Somnif'ic, *a.* Causing, influencing, or tending to induce sleep.

Somnil'oquence, (*-kwens,*) *n.* Act of talking in sleep.

Somnil'oquism, (*-kwĭzm,*) *n.* Same as Somniloquy, *q. v.*

Somnil'oquist, (*-kwist,*) *n.* One who talks in his sleep.

Somnil'oquous, (*-kwŭs,*) *a.* Apt to talk in sleep.

Somnil'oquy, (*-kwe,*) *n.* A talking or speaking in sleep.

Somnip'athist, *n.* A person in a state of somnipathy.

Somnip'athy, Somnop'athy, *n.* [From Lat. *somnus*, sleep, and Gr. *pathos*, physical suffering.] Sympathetic sleep, or slumber induced by mesmeric process.

Som'nolence, Som'nolency, *n.* [Fr. *somnolence.*] Sleepiness; drowsiness; disposition or aptness to sleep.

(*Med.*) A state intermediate between sleeping and waking.

Som'nolent, *a.* [Fr.] Sleepy; drowsy.

Som'nolently, *adv.* In a somnolent manner.

Som'nus. (*Myth.*) The son of Erebus and Nox, and one of the infernal deities, who presided over sleep. According to Hesiod, his palace is a dark cave, where the sun never penetrates. At the entrance are a number of poppies and somniferous herbs. The god himself is represented as asleep on a bed of feathers, with black curtains. The Dreams stand by him, and Morpheus, as his principal minister, guards his slumbers from interruption.

Somonauk', in *Illinois*, a post-village of De Kalb co., 55 m. S.W. of Chicago.

Son, (*sŭn,*) *n.* [A. S. *sunu;* Ger. *sohn.*] A male child; the male issue of a parent, father or mother. — A male descendant, however remote; — hence, plurally, descendants in general; as, a *son* of Adam. — Style of address of an old man to a young one, or of a confessor to his penitent; a term of affection; a pupil; an adopted child; as, approach, my *son*. — A native or inhabitant of some specified place or country; as, a *son* of America. — The produce of a thing; as, trees are the *sons* of the forest. — Jesus Christ, the Saviour — styled the *Son* of God, and the *Son* of Man.

Son of Belial, a Hebraism for child of the Devil.

So'nant, *a.* [Lat. *sonans*, from *sonare*, to sound.] Sounding; pertaining, or having reference, to sound.

(*Phon.*) Spoken with intonated or resonant breath; made with sound, instead of breath alone; vocal; not surd; — applied to certain articulations of alphabetical sounds, as the vowels, semi-vowels, and nasals, and of *b, v, z*, &c., compared with *f, p, s*, &c., which are *aspirate*, or *surd*.

Sona'ta, *n.* [It., from *sonare*, to sound.] (*Mus.*) An instrumental composition, usually containing three movements, an allegro, a slow movement, and a rondo. Modern *S.* are generally for one or two instrnments only, as for the piano-forte, or for the piano and violin.

Son'chus, *n.* (*Bot.*) The Sow-thistle, a gen. of plants, order *Asteraceæ*, having en imbricated involucre, swollen at the base, with two rows of unequal scales, which at length bend inwards; a naked receptacle; the fruit transversely wrinkled and without a beak; the pappus hairy end without a stalk. The common Sow-thistle, *S. oleraceus*, is a native of Europe, but naturalized in waste grounds. It is an anuual plant, grows to the height of two or three feet, with somewhat branching stem, and small yellow flowers almost iu umbels. The tender tops and leaves are sometimes used as greens.

Son'derbund, *n.* (*Hist.*) A name given to the league formed in 1846 by the seven Roman Catholic cantons of Switzerland against the Federal Diet, which had decreed the expulsion of the Jesuits. The Diet voted the *S.* illegal, July 20, 1847. Freiburg, their stronghold, was captured Nov. 13, Lucerne Nov. 24, aud the *S.* was dissolved.

Sondershau'sen, a town of Central Germany, cap. of the principality of Schwartzburg-Sondershausen, 14 m. N. of Erfurt; *pop.* 5,500.

Sone, a river of British India, a tributary of the Ganges, which it joins 25 m. W. of Patna, nftcr a N.E. coursc of 465 m.

Song, *n.* [A. S. *sang*; Du. *zang*, *gezang*; Ger. *gesang*.] That which is sung or uttered with musical modulations of the volco, whether of the human voico or that of a bird. — A little poem to be sung or uttered with musical modulations; a ballad; a canticle; a ditty; as, a love *song*, a bacchanalian *song*. — A lay; a hymn; a strain; a poem; as, "The stretchéd metre of some antique *song*." (*Shaks.*) — Poetry; poetical composition; berdic cffusions; poesy. — A bagatelle; a mere trifle; you shall have it for a *song*.

Old song, a trifle; a thing of little or merely nominal valuc or importance; as, "I do not intend to be thus put off with an *old song*." — *Sir T. More's Utopia*.

Song of Solomon. (*Script.*) This beautiful poem, called also the *Canticles* and *Song of Songs*, and attributed to Solomon, has always held a place in the canonical Scriptures, and of course was a part of the Bible In the time of Christ; it was so regarded by the early Christians, and appears in the encient catalogues, manuscripts, and versions. Numerous and very different opinions have bcen held as to the subject and plan of this poem.

Song'-craft, *n.* Art of lyrical compoeition; vocation for making sougs, ballads, or verses.

Song'ful, *a.* Inclined to sing; melodious; full of song; as, *songful* souls.

Song'less, *a.* Without song; lacking the power of song; as, a *songless* bird.

Song'ster, *n.* [*Song*, and A. S. *steora*, a pilot, steersman.] A singer; one who sings; one skilled in vocal harmony; — ssldom applied to men and women, and then only in slight contempt. — A singing-bird; as, "The pretty *songsters* of this spring." — *Howel*.

Song'stress, *n.* A female singer.

Soniferous, *a.* [Lat. *sonus*, sound, and *ferre*, to bear.] Sounding; bringing or producing eound.

Son'-in-law, *n.*; *pl.* SONS-IN-LAW. A man who is the husband of one's daughter.

Son'less, *a.* Without a son.

Son'nebnrg, a town of Prussia, prov. of Braudenburg, 11 m. N.E. of Cüstrin. *Manuf.* Woollen goods. *Pop.* 5,600.

Son'nenberg, a town of Germany, in Saxe-Meiningen, 12 m. N.E. of Coburg. *Manuf.* Toys and musical instruments. *Pop.* 4,000.

Son'net, *n.* [Fr.; It. *sonetto*, from Lat. *sonus*, sound.] (*Poetry.*) A speclcs of poetic composition first brought into notice by Petrarch, and consisting properly of fourteen iambic verses of eleven syllables. It is divided into two chief parte, each consistiug of two divisions, — in the former, each comprising fonr linee (*quadrain*); in the latter, three (*terzina*). The quadrains have two rhymes, each of which is repented four times; and in the common Italian form the rhymes are the first, fourth, fifth, and eighth verses, and the second, third, sixth, and seventh; but several other forms are also adopted. In the two terzine, there are either three rhymes each twice repeated, or two rhymes thrice repeated in all positions. The *S.* generally contains one principal idea pursued through the various anitheses of the different strophes, and adorned with the charm of rhyme. Italy and Spain are the couutries in which the *S.* is most cultivated, the lightness and flexibility of their languages being eminently suited for such compositions.

Sonnetteer', *n.* [It. *sonettiére*.] A composer of sonncts or short poems; a small poet; — generally in a contemptuous sense.

Sono'ma, in *California*, a W. co., bordering on the Pacific Ocean; *area*, 1,600 sq. m. *Rivers.* Russian and Gualala; also, Sonoma, Santa Rosa, and Petaluma creeks. *Surface*, diversified; *soil*, fertilo. *Prod.* Wheat, barley, potatoes, cattle, butter, and wine. *Cap.* Santa Rosa. *Pop.* abt. 30,000. — A post-town, port of entry, and township of the above co., nbt. 50 m. N. of San Franeisco.

Sono'ma Creek, in *California*, enters San Pablo Bay.

Sonoma'ite, *n.* (*Min.*) A hydrous sulphate of aluminum aud magnesium.

Sonom'eter, *n.* [From Lat. *sonus*, a sound, and *metron*, measure.] An apparatus by which the transverse vibretions of strings may be studied. It ie also called *monochord*, because it has generally only one string.

—An instrument, consisting of a small bell fixed upon a table, for testing the efficacy of treatment for deafness.

Sono'ra, in Mexico, a N.W. state, bordering on Arizoua and the Gulf of California; *area*, 123,466 sq. m. *Rivers*, Meyo, Yaqui, Rio Grande ds Bavispe, Oposura, Sonora, Dolores, Guaymas, San Ignacio, Gila, and Colorado. *Surface*, mountainous in the E., nnd flat in ths S. end W.; *soil*, generally fertile. The weelth of the state is not in its agricultural capabilities, but in its mineral treasures, which aro considered inexhaustible. "Hardly a villago or grazing estate," writes a recent traveller, "but can show some vein of gold, silver, lead, or copper;" aud he thinks that, in all probability, "not a fourth of its existing metallic wealth is kuown, while not e moiety of that has been or is being developed." *Cap.* Ures. *Pop.* 147,133. — A river of the above state, flows W.S.W., and enters en inlaud lake in Lat. 29° 30′ N., Lon. 111° W. — A town of thc ebove state, on Sonora River, 35 m. S. of Arispe; *pop.* abt. 9,000.

Sono'ra, in *California*, a pass of the Sierra Nevada, in Alpine co., Lat. 38° 15′ N., said to be 10,000 feet above the sea. — A post-town, cap. of Tuolumne co., 50 m. E. of Stockton.

Sonora, in *Illinois*, a post-township of Hancock co., 12 m. N.W. of Warsaw.

Sonora, or SONOMA, in *Missouri*, a village of Atchison co., 70 m. N.W. of St. Joseph.

Sonora, in *New York*, a post-village of Steuben co., 8 m. S.E. of Bath.

Sonora, in *Ohio*, a post-villege of Muskingum co., 7 m. N.E. of Zanesville.

Sonora, or W. SONORA, in *Ohio*, a post-village of Preble co., 21 m. W.N.W. of Dayton.

Sonorifie, *a.* [From Lat. *sonor*, *sonoris*, and *facere*, to make.] Yielding or producing sound.

Sonor'ity, *n.* A rare synonym for SONOROUSNESS, *q. v.*

Sono'rous, *a.* Sounding; giving sound when struck, as metals.—Giving a clear or loud sound; as, a *sonorous* voice.—Yielding eound; sonent; vocel; chereclerized by sound, as vowels.—High-sounding; characterized by magnificence of sound; as, *sonorous* music, *sonorous* language.

Sono'rously, *adv.* In a sonorous or sonant manner.

Sono'rousness, *n.* Quality of being sonorous; quality of yielding sound when struck, or coming in collision with another body; having or giving a loud or clear sound; magnificence of sound; as, the *sonorousness* of a voice or an instrument.

Son'ship, *n.* State of being a son, or of having the relation of a son.—Filiation; character of a son.

Sonson', a town of the U. S. of Colombia, dept. of Cundinamarca, 75 m. S.S.E. of Antioquia.

Sonsona'te, in Central America, a town of San Salvador, 50 m. W.S.W. of San Salvador; *pop.* abt. 11,000.

Son'tag, HENRIETTA, one of the most distinguished singers of her time, b. at Coblentz, 1805. Sprung from a theatrical family, Henrietta was the favorite prima donna of the Berlin stage before she wes eighteen. She eoon rose to the foremost place among European vocalists. In Paris, where she went in 1828, and afterwards in London, her youth and beanty, her fresh and lovely voice, and the high, finished, exquisite purity of her style, produced univcrsal delight. About 1830, she married Count Rossi, a Peidmontese nobleman, and left tho theatre. Her virtues, her manners, and her accomplishments, made her everywhere acceptable in the highest circles. But she never lost her love for her ert, and continued to make progress as an artist in the midst of all the enjoyments of high life. After a heppy union of nearly twenty years, her husband became involved in the political troubles of 1848, and lost his fortune. Without hesitation she resolved to have recourse to her art for the sake of her husband and her children. She sang for several seasons in Europe, end came to the U. States in 1852. After a brilliant and successful tour through the Union, she accepted a tempting offer from Mexico, where she was cut off by cholera, in 1854, while preparing for her first appearance before the public.

Soo'der, Soo'dra, *n.* Same as SUDRA, *q. v.*

Soo'-fec, *n.* Same as SOFI, *q. v.*

Sooloo' Isles, a group of the E. Archipelago, extending from the N.E. part of Borneo to Mindanao, the most S. of the Phillippiue Islands, between Lat. 4° and 7° N., Lon. 120° and 123° E. They take their name from *Sooloo*, the largest of the group, in Lat. 6° N., Lon. 120° E. They are generally fertile, and produce rice, teak, sago, and a variety of fruits. The iuhab. are of the Malay race, are under the rule of the Sultan of Sooloo, and notorious for piracy. In 1851 Spain sent nn expedition against them, and in 1881, she compelled the Sultan to recognize the protectorate of Spain over the Archipelago. *P.* abt. 120,000.

Soon, *adv.* [A. S. *sona*.] In a short time; shortly; shortly after time specified or supposed; as, *soon* after Christmas.—Early; betimes; before any time specified or supposed; without the usual delay or interval of time; as, why did you come so *soon*? — Readily; willingly; quickly; promptly; — in this sense associated with *would*, or some other term synonymous with *will*; as, I *would* as *soon* die as see my country dishonored.

As soon as, so soon as, immediately upon or after another event; as, *as soon as* you are ready we will start.

Soon'da, a town of British India, presidency of Bombay, 55 m. S.W. of Dharwar; Lat. 14° 34′ N., Lon. 74° 58′ E.

Soor'ma, *n.* A preparation of antimony, used by Hindoo women to anoint their eyelids.

Soo'soo, *n.* (*Zoöl.*) The native name of the Dolphin of the Ganges (*Platanista Gangeticus* or *Soosoo Gangeticus*), a cetacean of the family *Delphinidæ*, supposed to be the *Platanista* of Pliny.

Soot, (*sût* or *sōōt*,) *n.* [A. S.] The well-known chimney deposit, consisting chiefly of fine particles of carbon, mechanically carried up from a coal or wood fire. It also contains much mineral matter (the lighter portion of the ash of the fuel), aud in addition always yields liquid hydrocarbons, condensed doubtless from nnburnt hydrocarbon vapors, together with notable quantities of ammoniacal salts. The letter render soot, especially coal-soot, valuable as a manure.

Soot, *v. a.* To cover or foul with soot.

Soothe, (*sōth*,) *v. a.* [A. S. *gesothian*, to soothe; Lat. *suavis*; Gr. *hēdus*.] To please by speaking sweet words to; to gratify by kind attentions; to please with blandishments or soft words, or by compliance; to flatter.

"Music hath charms to *soothe* the savage breast." — *Congreve*.

—To relieve from or remove, as pain or passion: to essuage; to calm; to mollify; to soften; to tranquilize; to mitigate; as, to *soothe* au angry women.—To please; to gratify; to make glad; as, "*sooth'd* with his future fame." — *Dryden*.

Sooth'er, *n.* One who, or that which soothes, soltens, or aesuages; a flatterer.

Sooth'ingly, *adv.* In a soothing manner.

Sooth'say, *v. n.* To predict; to foretell.

Sooth'sayer, *n.* [A. S. *soth*, truth.] A foreteller of future events; a progusticator; a diviner.

Sooth'saying, *n.* The foretelling of the future by persons without divine aid or authority.

Soot'ish, *a.* Partaking of the qualities or characteristics of soot; sooty.

Sooty, (*sŭt'ty* or *sōōt'y*,) *a.* (*comp.* SOOTIER; *superl.* SOOTIEST.) [A. S. *sotig*.] Producing soot; consisting of soot; foul with soot; black like soot; dark; dusky; grimy; dingy; smutty; fuliginous; as, *sooty* coal.

Sop, *n.* [Du. *sop*, juice; Ger. *sappe*, soup, broth; Fr. *soupe*; Sp. *sopa*.] Anything steeped, dipped, or softened in liquor; — especially, something thus dipped in broth or liquid food, and intended to be eaten. — Anything given to appease or pacify; —so called in allusion to the sop given to Cerberus in mythological story.

"Ill-nature is not cured with a *sop*." — *L'Estrange*.

—*v. a.* (*imp.* and *pp.* SOPPED,) (*sŏpt*.) To steep or dip in liquor; as, to *sop* bread in milk.

Soph, (*sŏf*,) *n.* In the English universities, an abbreviated form of SOPHISTER, *q. v.* — In American colleges, a contraction of SOPHOMORE, *q. v.*

Sophi, Sophy, (*sō'fy*.) See SOFI.

Sope'tran, a town of the U. S. of Colombia, dept. of Cundinamerca, 10 m. S. of Antioquia.

Sophia, (*so-fi'a*,) Empress of Constantinople, niece of Theodora, and wife of Justinian II., with whom she shared in the government of the state After the death of that prince in 578, she conspired against Tibcrius Constantine, who had been raised to the throne by her advice, and, being defeated by him, was compelled to live in privacy.

Sophi'a, half-sister of Peter the Great, and Czarina of Russia, was born in 1667, and in 1682 placed herself at the head of the revolt of the Strelitz. Having succeeded in her ambitious designs, she reigned over the Muscovites under the names of her brothers, Peter and Ivan. The former (Peter the Great), however, finally possessed himself of the sole power; and Sophia died a prisoner in a convent, 1704.

Sophi'a, a city of Bulgaria, on the Bogana, a tributary of the Iscar. *Manuf.* Woollen, silks, leather, &c. *P.* 43,000.

Sophia Dorothea of Zell. SOPHIA DOROTHEA of Prussia. SOPHIA, Electress of Hanover.

Sophism, (*sŏf'izm*,) *n.* [Fr. *sophisme*; from Gr. *sophisma* — *sophos*, clever, wise, skilful.] (*Logic.*) A syllogism which contains some fallacy apt to be overlooked at first sight. Most errors are sophisms, but usually the latter term implies also that the person using it is in some measure conscious, and endeavors to conceal it by subtlety. It is so constructed as to seem to warrent the conclusion, but does not, and is faulty either in form or argument.

Soph'ist, *n.* [Fr. *sophiste*; Gr. *sophistes*.] (*Phil.*) One of a class of philosophers who erose in ancient Greece about the 5th century B. C. They went about discoursing and debating, and taught for hire the youth of rich and noble families. Hence, they came to be regarded as pursuing philosophy more for the sake of gain than from any proper love of it. They cultivated the various arts of persuasion, and in their attacks upon each other, laboring to expose and lay baro the delusions of appearance, they acquired great dexterity in the uses of terms, and frequently attempted to secure victory by the use of specious fallacies. Some of them, indeed, professed to instruct in the art of making all sorts of orations, and how to speak for or ngainst any cause whatever. Hence, they were frequently held up to ridicule by Socrates and Plato; but there can be no doubt that their labors were of service in tending to improve the language. The most distinguished of the sophists were Protagoras of Abdera, Hippias of Elis, Gorgias of Leontium, Prodicus of Ceos, and Erithydemus of Chios.

—A captious or fallacious reasoner.

Sophister, (*sŏf'-*) *n.* In the great English universities, a name given to a student who is advanced beyond the first year of his residence in college.

Sophist'ic, Sophist'ical, *a.* [Fr. *sophistique*; Gr. *sophistikos*.] Pertaining, or having reference, to a sophist or to sophistry; embodying or involving false reasoning; fallaciously subtle; not true or sound; as, a *sophistical* argument.

Sophist'ically, *adv.* In a sophistical manner; fallaciously; not soundly.

Sophist'icalness, *n.* State or quallty of being sophistical or fallacious.

Sophist'icate, *v. a.* [Fr. *sophistiquer*.] To practise sophistry or fallacy; to falsify; to adulterate; to violate; to pervert; to corrupt by something spurious, extraneous, or foreign; as, to *sophisticate* the understanding, to *sophisticate* liquors.

Sophisticate, Sophisticated, *a.* Adulterated; not pure; not genuine; as, *sophisticated* wine.

Sophistication, (*so-fĭst-i-kā'shun,*) *n.* [Fr.] Act of adulterating; a debasing or perverting the purity of a thing by an extraneous admixture; as, *sophistication* of sense.

Sophisticator, *n.* One who sophisticates or adulterates.

Sophistry, *n.* [O. Fr. *sophisterie.*] Subtle and fallacious reasoning; ratiocination sound in appearance only; practice of a sophist.

Sophocles, (*sof'o-klēz,*) a Greek tragic poet, B. in the Attic demus or village of Colonus, B. C. 495, thirty years later than Æschylus. He received a good education, and at an early age gained the prize in music and gymnastics. He was fifteen when the battle of Salamis was fought, and for his remarkable beauty and skill in music, he was chosen to lead the chorus which sang the pæan of victory. As usual on such occasions, he appeared naked, anointed with oil, and holding a lyre in his left hand. His first appearance as a dramatist was in 468, when, under memorable circumstances, he had Æschylus for his rival, and won the victory. Of the next 28 years of his life nothing is recorded; but it is known that he made poetry his business, and that he composed a great many plays during that period. Not one of them, however, is now extant. The *Antigone*, the earliest of his extant tragedies, was brought out in 440, and won the prize. The number of plays attributed to him, without question, was 113, of which 81 were probably produced after the *Antigone*. Seven only are extant, viz., *Antigone, Electra, Trachinian Women, King Œdipus, Ajax, Philoctetes,* and *Œdipus at Colonus.* These exhibit his art in its maturity, and sustain the verdict of ancient and modern critics, that *S.* carried the Greek drama to its highest perfection. He effected a complete change in the constitution of tragedy as Æschylus left it; loosening the connection between the parts of the trilogy and the satyric drama, and making them not one great poem, but four distinct ones; introducing a third actor; and for subjects selecting, not a series of heroic and mythical actions, but for each play one leading fact of real human interest and lasting significance. *S.* lived to be nearly 90, and in his latest years most probably wrote the *Œdipus at Colonus*, so full of sweetness and tender melancholy, and consoling hopes, which was not presented on the stage till five years after the poet's death. D. 406 B. C.

Sophomore, (*sŏf'o-mōr,*) *n.* In American colleges, a student next above a Freshman, or one belonging to the second of the four classes of collegians.

Sophomoric, Sophomorical, *a.* Pertaining or relating to, or after the manner of, a sophomore; — hence, tumid; inflated or high-flown in style or quality.

Sophonisba, (*sof'o-nis-ba.*) See MASINISSA.

Sopor, *n.* [Lat.] (*Med.*) A profound sleep, from which the person can be roused with difficulty. It is a symptom in many of the neuroses.

Soporiferous, *a.* [Lat. *soporifer — sopor*, lethargy, and *fero*, to bear, bring.] Bringing or producing sleep or drowsiness; tending to produce sleep; soporific; narcotic; opiate; somniferous; as, a *soporiferous* potion.

Soporiferously, *adv.* In a soporiferous manner.

Soporiferousness, *n.* State or quality of being soporiferous.

Soporific, *a.* [Lat. *sopor*, and *facio*, to make.] Causing sleep; tending to bring sleep; soporiferous; as, the *soporific* qualities of morphine.

Soporose, Soporous, *a.* [Lat. *soporus*; Fr. *soporeux.*] Inducing sleep; sleepy; somnolent.

Sopper, *n.* One who sops in liquid something to be eaten.

Soppy, *a.* Wet; soaked, steeped, or saturated with moisture; as, the streets are *soppy* after heavy rain.

Sopra. [It., above.] (*Mus.*) A term frequently used for description; as *nella parte di sopra*, in the higher or upper part; *di sopra*, above; *contrapunto sopra il soggetto*, counterpoint above the subject, &c.

Sopranist, *n.* (*Mus.*) A singer in treble.

Soprano, *n.*; Eng. *pl.* SOPRANOS; It. *pl.* SOPRANI. [It., from *sopra.*] (*Mus.*) The highest female vocal organ; the treble; — in distinction from CONTRALTO, *q. v.*

Soquel, in *California*, a post-village and township of Santa Cruz co., 3 m. E. of Santa Cruz.

Sora, a town of S. Italy, prov. of Terra di Lavoro, on the Garigliano, 60 m. N.W. of Naples; *pop.* 8,000.

Sorata, a town of Bolivia, dept. of La Paz, 57 m. N.W. of La Paz, 8,850 feet above the sea; *pop.* abt. 1,500.

Sorau, (*so'rou,*) a town of Prussia, prov. of Brandenburg, 56 m. S.E. of Frankfort. *Manuf.* Woollen and linen goods. *Pop.* 8,000.

Sorb, *n.* [Lat. *sorbus.*] (*Bot.*) The Service-tree and its fruit. See PYRUS.

Sorbefacient, (*-fā'shent,*) *n.* [Lat. *sorbere*, to absorb, and *faciens — facere*, to make.] (*Med.*) A medicine which produces absorption.

—*a.* (*Med.*) Producing absorption.

Sorbet, *n.* Another orthography of SHEABET, *q. v.*

Sorbonne, (The,) (*sor'bon,*) a celebrated college of France, founded at Paris in the 13th century, by Robert de Sorbonne, chaplain to St. Louis. It was originally intended for the support of secular priests who should devote themselves wholly and gratuitously to the work of instruction in theology. The members of the college were all either doctors or bachelors of theology, and the high reputation which they enjoyed during the 14th, 15th, 16th, and 17th centuries caused them to be continually appealed to on questions of theology or morals. During the 18th century the *S.* greatly declined from its ancient reputation, and it was suppressed in 1789. At the reorganization of the University by Napoleon in 1808, the Sorbonne was re-established as the Theological Faculty of that body; but it failed to recover its old prestige, even with the clerical element. In the more recent organization of the University, the Sorbonne has no distinct or special character; but its halls still retain their ancient appellation.

Sorcerer, (*-ser-,*) *n.* [Fr. *sorcier*, from L. Lat. *sortiarius* — from Lat. *sortes*, oracles.] A diviner; an enchanter; a magician; a conjurer; a wizard; as, an Egyptian *sorcerer.*

Sorceress, *n.* A female sorcerer; a witch.

Sorcerous, *a.* Belonging, or relating, to sorcery.

Sorcery, *n.* [Fr. *sorcellerie.*] The black art; magic; enchantment; witchcraft; divination by the assistance of evil spirits; diablerie; as, a witch burned for *sorcery.*

Sordawalite, *n.* (*Min.*) A variety of wichtyne, resembling pit-coal in appearance, found in grayish or bluish-black opaque masses, near Sordawala in Finland, forming thin veins in trap-rock. It is a silicate of alumina, iron, and magnesia, with about three per cent. of phosphoric acid.

Sordes, *n.* [Lat., from *sordere*, to be foul.] Foul matter; dregs; excrement; filthy or rejected matter of whatever kind.

Sordid, *a.* [Fr. *sordide*; Lat. *sordidus — sordeo*, to be foul.] Low; vile; ignoble; mean; base; vulgar; as, a *sordid* nature, a *sordid* soul. — Meanly avaricious or parsimonious; niggardly; covetous; as, the *sordid* lust of gold.

Sordidly, *adv.* In a sordid manner; avariciously; meanly; basely; covetously.

Sordidness, *n.* Quality of being sordid; meanness; avarice; baseness; niggardliness; also, filthiness.

Sordine, Sordet, *n.* [Fr. *sourdine*, from Lat. *surdus*, dull-sounding.] (*Mus.*) A small instrument or damper put into the mouth of a trumpet, or on the bridge of a violin or violoncello, to render the sound fainter.

Sore, *n.* [A. S. *sár*, sorrow, grief, pain.] A wound; a raw; a spot or place in an animal where the skin and flesh are ruptured, bruised, or abraded, so as to feel pain at the slightest pressure. — An ulcer; a boil; a blister on the flesh. — Hence, distress; grief; trouble; sorrow; difficulty; as, despised love is a painful *sore.*

—*a.* (*comp.* SORER; *superl.* SOREST.) Inflamed; painful; tender and susceptible of pain from pressure; as, a *sore* foot. — Tender, as the mind; easily pained, grieved, or vexed; very susceptible of irritation from anything that crosses the inclination or jars upon the feelings; as, his mind is still *sore* about it. — Severe; afflictive; fraught with pain or distress; bitter; trying; as, a *sore* disease, a *sore* infirmity, a *sore* calamity.

—*adv.* In a sore manner; with violent pain or distress; grievously; as, he was wounded *sore.*—Greatly; deeply; violently; severely; as, they were *sore* repulsed.

Sore, *n.* [Fr. *sor, faucon sor*, a falcon of the first year.] A hawk or falcon of the first year. — In venery, a four-year old buck.

Sorediferous, *a.* (*Bot.*) Bearing soredia.

Soredium, *n.*; *pl.* SOREDIA. [Lat., from Gr. *sōros*, a heap.] (*Bot.*) A heap of powdery bodies found in lichens lying upon any part of the surface of the thallus.

Sorel, *n.* [Dim. of *sore*, a buck.] A buck of the third year. (R.)

—A reddish-brown color. See SORREL.

Sorel (AGNES). See AGNES SOREL.

Sorel, or WILLIAM HENRY, in prov. of Quebec, a post-village of Richelieu co., 45 m. N.E. of Montreal. *Pop.* (1897) 6,845.

Sorely, *adv.* [From *sore.*] With violent pain, inflammation, or distress; grievously; greatly; violently; severely; as, to be *sorely* grieved, pained, or tempted.

Soreness, *n.* State or quality of being sore; the tenderness of any part of an animal body, which renders it extremely sensible of pain from pressure; figuratively, tenderness of mind, or susceptibility of mental pain; as, *soreness* of conscience, the *soreness* of wounded vanity, &c.

Soresina, a town of N. Italy, prov. of Cremona, 14 m. N.W. of Cremona; *pop.* 5,000.

Sorex, *n.* (*Zoöl.*) The typical genus of the SORICIDÆ, *q.v.*

Sorghum, *n.* (*Bot.*) See HOLCUS.

Sorgo, *n.* [It., from Lat. *sorghum.*] (*Bot.*) A plant of the genus *Sorghum.*

Sori, *n.*; *pl.* of SORUS, *q.v.*

Soria, (anc. *Numantia,*) a city of Spain, in Old Castile, cap. of a prov. of its own name, on the Douro, 113 m. N.E. of Madrid. Adjacent to the town, on the N., are the ruins of the famous city of Numantia, destroyed by the Romans 132 B.C. *Pop.* 5,632.

Soriano, (*so-re-a'no,*) a town of Central Italy, 7 m. E. of Viterbo; *pop.* 5,400.

Soriano, a town of S. Italy, prov. of Calabria-Ulteriore II., 8 m. S.E. of Monteleone; *pop.* 4,000.

Sorites, *n.* [Gr. *soreetes*, from *soros*, a heap.] (*Logic.*) An abridged form of stating a series of syllogisms, in which the conclusion of each is a premiss of the succeeding one: *e.g.*, A = B, B = C, C = D; therefore A = D. This is a sorites consisting of two distinct syllogisms, which, drawn out at length, would stand thus: A = B, B = C; therefore A = C; and A = C, C = D; therefore A = D.

Soroca'bo, a town of Brazil, 50 m. W.S.W. of São Paulo; *pop.* abt. 12,000.

Sororicide, (*-sīd.*) *n.* [Fr., from Lat. *soror*, sister, and *cædere*, to kill.] The murder, or murderer, of a sister.

Sorosis, *n.* (*Bot.*) A collective fruit, formed of a number of separate flowers, firmly coherent into a fleshy or pulpy mass with the thalamus upon which they are situated. The pine-apple is an example; each hexagonal division represents a flower, while the crown of leaves above consists of empty bracts. The bread-fruit, jack-fruit, and mulberry, are other examples. See ETÆRIO.

Sorosis, *n.* The name assumed in the U.S. by certain women's clubs.

Sorrel, *n.* [Fr. *surelle*; A. S. *sur*, sour.] (*Bot.*) The common name of the genus *Rumex*, q. v.

Mountain-sorrel. (*Bot.*) See OXALIS. — *Wood-sorrel.* (*Bot.*) See OXYRIA. — *Salt of sorrel.* (*Chem.*) Binoxalate of potash.

Sorrel, *a.* Of a yellowish or reddish-brown color; as, a *sorrel* nag.

—*n.* A yellowish or reddish-brown color.

Sorrel-tree, *n.* (*Bot.*) *Andromeda arborea*, a tree of the genus *Andromeda*, order *Ericaceæ*, which grows chiefly on the Alleghany Mountains, from Virginia to Georgia, and attains a height of 50 feet, with a trunk 12–15 inches in diameter. The wood is of little or no use. The leaves are acid, and are sometimes used for dyeing wool black.

Sorrento, (anc. *Surrentum,*) a seaport-town of S. Italy, prov. of Naples, on the Bay of Naples, 7 m. S.W. of Castellamare, and 18 m. S.E. of Naples. It is noted for its beautiful scenery, and as the birth-place of Tasso.

Sorrily, *a.* [From *sorry.*] In a sorry manner; meanly; pitiably; despicably; contemptibly; wretchedly; as, he sings *sorrily.*

Sorriness, *n.* State of being sorry.

Sorrow, (*sŏr'rō,*) *n.* [A. S. *sorg, sorh.*] Mental pain; care; solicitude; grief; affliction; sadness; mourning; woe; uneasiness or pain of mind produced by the loss of any good, real or supposed, or by disappointment in the expectation of good; regret; unhappiness.

—*v. n.* [A. S. *sorgian.*] To feel sorrow or pain of mind; to be sad; to grieve; to mourn, weep, or lament; as, a *sorrowing* mother.

Sorrowful, *a.* Full of sorrow; sad; mournful; sorry; grieving for the loss of some good, or on account of some expected evil; deeply serious; depressed; dejected; distressed; as, a *sorrowful* heart. — Mournful; lamentable; producing sorrow; inducing grief; as, a *sorrowful* event. — Expressing, or accompanied with, grief; as, a *sorrowful* story.

Sorrowfully, *adv.* In a sorrowful manner.

Sorrowfulness, *n.* State of being sorrowful.

Sorrowless, *a.* Free from care or sorrow.

Sorry, *a.* (*comp.* SORRIER; *superl.* SORRIEST.) [A. S. *sarig, sari.*] Having feeling or sorrow; grieved; afflicted; lightly grieved or pained; as, I felt *sorry* for him. — Dismal; melancholy; wretched; as, to be in a *sorry* plight. — Poor; mean; vile; worthless; as, a *sorry* horse, a *sorry* excuse.

Sors, *n.*; *pl.* SORTES. [Lat.] A lot; — also, a species of divination by drawing lots.

Sort, *n.* [Fr. *sorte*; Lat. *sors, sortis*, a lot.] A kind or species; any number or collection of individual persons or things characterized by the same or like qualities or attributes; class; order; as, a *sort* of quadrupeds, a *sort* of flowers, a *sort* of writings. — Form of being or acting; manner; style. — Degree of any quality; as, he, in some *sort*, imitated his manner. — A pair; a set; a suit; a number of things used together.

—*pl.* (*Print.*) Letters, marks, points, spaces, or quadrats, that are either wanting or superfluous in quantity.

Out of sorts, indisposed; out of order; not in usual health or spirits; as, you appear *out of sorts* to-day. — (*Print.*) With some letters of type in the font deficient or exhausted. — *To run upon sorts*, to use or require a greater number of some particular letters, points, marks, &c., than the regular proportion; — said of types.

—*v. a.* [Lat. *sortior*, to cast or draw lots, from *sors, sortis.*] To separate or distribute, as things having like qualities, and place them in distinct classes or divisions; as, to *sort* people according to their tastes or affinities, to *sort* wools of different colors. — To reduce to order from a state of confusion; as, to *sort* nails, to *sort* types. — To conjoin; to put together in distribution; as, "She *sorts* things present with things past." (*Davies.*) — To cull; to select; to choose from a number; as, let him *sort* himself a wife.

—*v. n.* To be joined or combined with others of the same kind or species; to agree; as, metals *sort* with minerals in the earth. — To consort; to conjoin; to associate; as, he *sorts* with persons beneath him in station. — To fit; to suit; to be adapted; as, "Different styles with different subjects *sort*." (*Pope.*) — To fall out; to happen; to come about; to result; to terminate; to issue successfully; as, things did not *sort* according to my expectations. — To harmonize; to come to an agreement or understanding; as, persons of opposite natures often *sort* themselves together.

Sortable, *a.* [Fr.] That may be sorted.

Sorter, *n.* One who sorts.

Sortie, (*sor'tē,*) *n.* (*Mil.*) A sudden attack or onslaught made by the garrison of a besieged place upon the besiegers; a sally.

Sortilege, (*sor'ti-lēj,*) *n.* [Fr., from Lat. *sors, sortis*, a lot, and *legere*, to select.] Act or practice of drawing lots; — also, divination by drawing lots.

Sortilegious, (*-lē'jus,*) *a.* Pertaining, or relating to, or accomplished by, sortilege.

Sorus, *n.*; *pl.* SORI. [Lat., from Gr. *sōros*, heap.] (*Bot.*) A small heap of reproductive granules found growing upon the fronds of polypodiaceous ferns.

So-so, *a.* Passably; indifferently good. See So.

Sospiro, (*-pē'ro,*) *n.* [It., a sigh.] (*Mus.*) Same as REST, *q. v.*

Sostenuto, *p. a.* [It.] (*Mus.*) A term which, affixed to a note, indicates that it is to be held out in an equal and steady manner.

Sot, *n.* [Fr.; Du. *zot*; L. Lat. *sottus.*] An habitual drunkard; a person stupefied or besotted by excessive indulgence in strong liquors.

Sot, *v. a.* To stupefy; to besot; to infatuate; as, "I hate to see a brave, bold fellow *sotted*." — *Dryden.*
—*v. n.* To tope or tipple to a degree of stupidity.

So'to, Ferdinann de. See De Soto.

Sot'tish, *a.* Like a sot or hoggish fellow; destitute of sense; besotted; very stupid or foolish; as, a *sottish* and grossly ignorant understanding. — Dull, deadened, or rendered stupid with intemperance or habitual intoxication.

Sot'tishly, *adv.* In a sottish manner.

Sot'tishness, *n.* State or quality of being sottish; dulness in the exercise of reason; stupidity; obtuseness of intellect; — also, stupidity or imbecility from intemperance.

Sotto voce, (*sŏt'lo-vō'chā.*) [It.] (*Mus.*) With a subdued voice; in an undertone; with moderate inflection of sound.

Sou, (*sōō.*) *n.*; *pl.* Sous, (*sōō.*) [Fr., from O. Fr. *sol.*] The former name of the French copper coin of five centimes, being in value the twentieth part of a franc, or about one cent American.

Soua'ri-nut, *n.* (*Bot.*) See Caryocar.

Soubrette, (*sōō'brĕt,*) *n.* [Fr.] A lady's-maid; a female waiting-maid or attendant; also, a chambermaid.

Souchong, (*soo-shŏng',*) *n.* A kind of black tea.

Sou'cook River, in *New Hampshire*, rises in Belknap co., and flows into the Merrimac 3 m. S.E. of Concord.

Sou'dan, Soodan, Nigritia, or Berr-es-soodan, (*Land of the Blacks,*) an extensive but very indefinite tract of Central Africa, which has for many ages been the peculiar home of the negro race, bounded on the N. by the Sahara, on the W. by Senegambia, on the S. by Upper Guinea, from which it is separated by the Kong Mountains, and on the E. by Kordofan. The Kong Mountains rise to the height of 3,000 ft.; while Mount Atlantika, near the sources of the Tchadda, is 10,000 in height. The Niger (*q. v.*) waters the western regions, and in the east are Lakes Tchad and Fittri. The climate of the west and middle districts resembles that of Senegambia and Guinea; that of Eastern *S.* is still imperfectly known. Agriculture is pursued with considerable skill; cotton, tobacco, and indigo are abundantly cultivated; and wheat, rice, maize, Guinea-corn, and millet are among the ordinary crops. Gold-dust, which abounds in the rivers; iron, made from iron-stone, which prevails in all parts of the country; and ivory and feathers, are the principal exports. Of the numerous kingdoms and states into which the country is divided, the following are the chief: Bambarra, Masina, Gando, Sōkoto, Bornou, Bagirmi, Whydah, and Darfur. The Egyptian powers on the E. have settlements, among which Kassala is noted as an important military station, and for the peculiar beauty of its inhabitants (Fig. 2396). The area is not known, but is generally estimated at 2,250,000 sq. m.; the *pop.* at from 10,000,000 to 50,000,000.

Fig. 2396.
WOMAN OF KASSALA CARRYING WATER.

Soudan (the), a prov. of Egypt, being a part of the above; area and pop. unknown.

Sou'dersburgh, in *Penn.*, a P.-V. of Lancaster co.

Sough, (*sŭf,*) *v. n.* To whistle, sigh, or moan, as the wind.
—*n.* A hollow murmuring or buzzing; as, the *sough* of the forest; — hence, a scandal; a rumor; a flying report.
—[O. Eng. *saugh.*] A small drain or sewer; an adit.

Sought, (*sawt.*) *imp.* and *pp.* of seek, *q. v.*

Souhe'gan River, rises in the N. of *Massachusetts*, and flowing N.E. falls into the Merrimac River in Hillsborough co., New Hampshire.

Soul, (*sōl,*) *n.* [A. S. *sawl, saul;* Ger. *seele.*] The thinking, spiritual, rational, and immortal principle in man, which distinguishes him from the brute creation; that part of man which enables him to think and reason, and which renders him a subject of moral government; — sometimes, the so-called animal soul, or, in other words, the seat of vital function, the sensitive affections, exclusive of the voluntary and rational powers, in distinction from the higher nature, or *spirit* of man; — occasionally, also, the seat of emotion and feeling, as distinguished from *intellect:* — and sometimes, again, the intellect or understanding, pure and simple, in distinction from *feeling;* as, the immortality of the *soul.* — Hence, the vital principle, spirit, or essence; the animating power or part; as, brevity is the *soul* of wit. — Hence, the inspirer, leader, or ruling spirit of any action, enterprise, or undertaking; as, an able statesman is the *soul* of his party. — Courage; fire; ardor; energy or grandeur of mind; fervor; any excellent or sublime manifestation of the emotional or moral nature; as, "The will to do, the *soul* to dare." (*Scott.*) — A human being; a person; an individual; as, she had three hundred *souls* on board when she was lost. — A pure or disembodied spirit.

"Every *soul* in heav'n shall bend the knee."—*Milton.*

(*Phil.*) In its original meaning, the word *soul* denoted simply a present fact, or the impression conveyed to the speaker by certain phenomena which he was contemplating. It has now no reference either to the source of this faculty or life, or to its ultimate duration, whether here or in any other state or existence. The history of language carries us back to a time during which men existed without any consciousness of kinship, marriage, or law, or of their relation to a Being who was their maker. The first formation of the ideas of father, mother, wife, and brethren, the growth of the numerals, of words like *duly, right, love,* of the idea of a creator, ruler, and father of men, seem to mark severally a stage in the revelations made to mankind. How soon these words began to convey ideas similar to those which we now attach to them, it is impossible to say; but it is quite certain that the word *soul* assumed gradually the meaning of a living, thinking, or conscious power; and equally certain, also, that while some held this power to be indestructible, others either denied this conclusion, or rested content without any conclusion on the subject. In other words, the belief in the inherent immortality of the human soul, although by some affirmed to be an innate conviction in the human mind, has not been accepted at all times or in all countries. In the Aristotelian philosophy, the idea of a future or continued existence after death can scarcely be said to have a place. His system of ethics is simply a part of his great theory of politics; and his morality is confined, therefore, essentially to present conditions. The Platonic philosophy, or the Socratic, if we may suppose that on this subject the disciple faithfully represented the master, introduces us to a wholly different phase of thought. The idea of duty, as based on responsibility to an unseen, but absolutely impartial, judge, runs through the great dialogue entitled the *Gorgias.* The belief, if grounded in part on metaphysical arguments, rests chiefly on a profound internal conviction. After death comes the judgment; and as the tree falls, so it lies. As the corpse retains the features seen in life, with any marks or scars which may have been made on the body, so the soul retains its spiritual features, with the wounds or scars which may have been caused by unjust actions. The souls dismissed from the body are brought before Rhadamanthus the judge, who knows not to whom they belong, and whose impartiality cannot therefore be called into question. And the souls of kings, rulers, and statesmen are thus submitted to a trial, at the end of which sentence is passed according to the condition in which they are found. Those which are found unscarred go to the Islands of the blessed; while all who are wounded and distorted from the effects of tyranny, intemperance, sloth, or lying, are dismissed to the prison-house, where they are to receive due punishment. The souls so dismissed are divided into two classes, the *curable* and the *incurable;* for punishment must either be for the reformation of the offender, or as a warning to others. For all, therefore, who have not sinned incurably, the punishment of Hades becomes a purgatorial process; and in this class are placed the souls of private citizens who have never been invested with great power or responsibility. According to the Platonic Socrates, it is impossible for such insignificant persons to commit incurable sins, this terrible privilege being reserved for despots, unjust kings, and iniquitous rulers of whatever kind. Thus, for the vast mass of men, the punishments of the unseen world issue in reformation and final happiness. The Platonic belief was adopted by Cicero, who sums up in his treatise *De Senectute* the metaphysical arguments on which belief in the immortality of the soul has been based. But neither in the time of Cicero, nor at any other period of Roman history, can it be said that there was a general belief in the inherent immortality of the soul. In modern times, while it has become the habit of many to appeal to the universal consent of mankind as evidence for the inherent immortality of man, both this appeal and the metaphysical arguments on which this belief is maintained are confronted by a system of philosophy, sometimes called *materialistic,* which sees in human life the expression of forces dependent on certain material combinations, and which, asserting that consciousness is the result of that combination, affirms that with the dissolution of that combination the conscious life will also be at an end. It would be out of place here to enter into the vast field of observation thus opened. We will only note, before concluding, that while the idea of inherent immortality is generally maintained by Christian theologians, there are some who share the belief of the Anglican archbishop Whately (*Scripture Revelations of a Future State*), that immortality is a gift reserved only for those who shall be found worthy of it, the eternal death spoken of in the New Testament being the final extinction of the sinner, and not his continued existence in a state of endless torment. See Alger's *Future Life* (10th ed. N.Y., 1878), with a Bibliography of 4,977 books on this subject.

(Note. *Soul* is frequently used as a familiar designation for a person, usually in association with some word used adjectively, as, I pity the poor *soul;* well, he was a good *soul,* &c.—*Soul* is also largely employed in the formation of compounds, of sufficiently obvious signification; as, *soul*-consuming, *soul*-dissolving, *soul*-distracting, *soul*-hardened, *soul*-reviving, &c., &c.)

Soula'nea, *n.* (*Bot.*) A genus of plants, order *Polygalaceæ. S. amara,* a native of Molucca, is intensely bitter, and is said to be a valuable febrifuge, and also a valuable remedy in cholera and pleurisy.

Soul'-bell, *n.* The passing-bell.

Souled, (*sōld,*) *a.* Instinct with soul or feeling; as, he is a whole-*souled* fellow.

Soul'ié, Melchior Frénéric, a French novelist and dramatist, b. at Foix, 1800, was educated for the bar, and next admitted as an advocate; but, obtaining little practice, he turned his attention to literature, for which he had always a marked predilection. He produced a small collection of poems, in a volume entitled *Amours Françaises,* which attracted no notice. The young author, left without any resources, was compelled to take service as foreman to an upholsterer. In this situation he remained until 1828, when his drama, entitled *Romeo and Juliet,* having been successful upon the stage, he was enabled to take his place among the *littérateurs* of his day. With the production of *Clotilde* his reputation as a dramatist was fixed. He next commenced contributing romances to the French newspapers, and succeeded so well in this new walk, that in a short time he became the most popular romancist of the day. This position he occupied until 1843, when Dumas and Eugene Sue, following in his steps, somewhat eclipsed his fame. He remained, however, a popular writer unto his death. His best romances are: *Mémoires du Diable; Deux Cadavres;* and *L'Homme de Lettres.* D. 1847.

Soul'less, *a.* Without a soul, or lacking greatness or nobleness of mind; mean; craven; abject; spiritless; as, a *soulless* villain.

Soulouque, or **Faustin I.,** (*soo-look',*) ex-emperor of Hayti, was b. a slave, 1787, but was manumitted while in his childhood. At 14 he assisted in expelling the French from Hayti. He rose through the different grades of the republican army until, in 1849, he declared himself emperor; in which capacity he evinced himself a cruel, violent, and ignorant ruler. He was driven from Hayti in 1859, and, after first seeking an asylum at Jamaica, retired to the S. of France. D. 1867.

Soult, Nicolas Jean de Dieu, Duke of Dalmatia and Marshal of France, born 1769, at St Amand. *S.* entered the ranks of the army in 1785; and in 1791 he attracted the favorable notice of Marshal Lukner, and received a lieutenant's commission. He rose rapidly under Custine, Hoche, and Marçeau, and particularly signalized himself in the victory of Fleurus. In 1799 he acted under Massena in Switzerland, and in 1800 he served under the same commander in the defence of Genoa. *S.* was wounded and taken prisoner in a sally in the early part of this siege, but was set at liberty after Napoleon's victory at Marengo. Napoleon, who heard of *S.*'s bravery and skill, now employed him under his own eye; and *S.*'s promotion went forward till he had reached the highest station. He was the first of the marshals whom Napoleon created in 1804, and he was the first marshal whom Napoleon made a peer. He participated largely in the glories of the campaign of Ulm and Austerlitz; took in the next year a distinguished share in the victory of Jena; and showed consummate firmness, as well as daring, in the desperate struggle at Preuss-Eylau. In 1808 Soult was sent into Spain. He defeated the Spaniards at Reynosa, and subsequently commanded against Sir John Moore, whom he engaged at Corunna. He next occupied the north of Portugal, but being surprised and defeated by Wellington at the Douro, he retreated with great loss and difficulty into Spain. In 1809 he gained the great victory of Ocana over the Spaniards, and subdued all the south-west of Spain, except the city of Cadiz. He lost in 1811 the hard-fought battle of Albuera against Beresford. *S.* was recalled to aid Napoleon after the Russian campaign; but in July of 1813, he was sent back to Spain to stem, if possible, the advance of Wellington. A series of engagements in and near the Pyrenees followed, in which *S.* showed strategetic abilities of very high order, and gained several partial successes, though ultimately he was driven back into France. He now defended his native country against the invaders with indomitable courage, and an inexhaustible fertility of resources. Repeatedly engaged, and almost constantly defeated, he still presented an unbroken front against his assailants, and kept his retreating army ready to dispute every tenable post, and to seize any favorable chance of attack that fortune might offer. The final battle of Toulouse was contested by him with undiminished skill and courage; and though, on the whole, the English were successful, *S.* had the advantage in several points of the battle; 5,000 of his enemies had fallen; and he led his army safely out of the city, ready for further operations when the news arrived of the Emperor's first abdication. In 1815 *S.* joined Napoleon and fought at Waterloo, where he acted as one of the Emperor's major-generals. On the second return of the Bourbons, *S.* was for some time proscribed, but was ultimately restored to all his dignities. After July, 1830, he was much trusted by Louis Philippe, who employed *S.*'s talents in the War Office, and also twice made him president of the council. In 1845 he retired from active duty, was honored with the appointment of *Marshal-General of France,* a dignity which had lain in abeyance since the death of Marshal Turenne, and retired to his residence of Soultberg, where he d. 1851.

Sound, *a.* (*comp.* sounder; *superl.* soundest.) [A. S. *sund.*] Whole; entire; unbroken; not shaky, split, or defective; not bruised, decayed, or imperfect; not carious or mutilated; as, *sound* timber, a *sound* ship, a *sound* apple, a *sound* tooth. — Healthy; robust; hearty; not diseased or distempered; sane; not disordered or deranged; not enfeebled by age or accident; — expressed

of body or mind; as, a *sound* constitution, a *sound* body, a *sound* intellect, *sound* health. — Strong; vigorous; firm. — Founded in truth: solid; weighty; that cannot be overcome or refuted: well founded or substantiated; as, a *sound* argument, *sound* principles, a *sound* excuse or objection. — Heavy; forcibly administered; as, to give a man a *sound* thrashing.

—Free from error or fallacy; orthodox; correct; not false or heterodox; as, *sound* doctrine, *sound* knowledge, *sound* rules. — Profound; fast; undisturbed; unbroken; as, *sound* sleep. — Legal; valid; based upon right, law, or equity; that cannot be overthrown; not defective; as, *sound* justice, a *sound* title or tenure, &c.

(NOTE. *Sound* is occasionally used in the construction of self-explaining compounds; as, *sound*-headed, *sound*-bodied, *sound*-hearted, *sound*-timbered, and the like.)

Sound, *adv.* Soundly; heartily; thoroughly; as, he sleeps *sound*.

—*n.* [Lat. *sonus*; It. *suono*; Fr. and Sp. *son*.] (*Acoustics.*) Sound is a peculiar sensation excited in the organ of hearing by the vibratory motion of bodies, when this motion is transmitted to the ear through an elastic medium. All sounds are not identical; they present differences by which they may be distinguished, compared, and their relations determined. *S.* are distinguished from *noises*. *S.* properly so called, or *musical S.*, is that which produces a continuous sensation, and the musical value of which can be determined; while noise is either a *S.* of too short a duration to be determined, like the report of a cannon, or else it is a confused mixture of many discordant *S.*, like the rolling of thunder or the noise of the waves. Nevertheless, the difference between *S.* and noise is by no means precise; Savart has shown that there are relations of height in the case of noise, as well as in that of *S.*, and there are said to be certain cars sufficiently well organized to determine the musical value of the *S.* produced by a carriage rolling on the pavement. *S.* is always the result of rapid oscillations imparted to the molecules of elastic bodies, when the state of equilibrium of these bodies has been disturbed either by a shock or friction. Such bodies tend to regain their first position of equilibrium, but only reach it after performing, on each side of that position, very rapid vibratory movements, the amplitude of which quickly decreases. A body which produces a *S.* is called a *sonorous* body. As understood in England and Germany, a vibration comprises a motion to *und* fro; in France, on the contrary, a vibration means a movement to or fro. The French vibrations are with us semi-vibrations; an *oscillation*, or *vibration*, is the movement of the vibrating molecules in only one direction; a *double* or *complete vibration* comprises the oscillation both backwards and forwards. Vibrations are very readily observed. If a light powder is sprinkled on a body which is in the act of yielding a musical *S.*, — a bell or jar held horizontally in the hand, for example, — a rapid motion is imparted to the powder, which renders visible the vibrations of the body; and in the same manner, if a stretched cord be smartly pulled and let go, its vibrations are apparent to the eye. The vibrations of elastic bodies can only produce the sensation of *S.* in us by the intervention of a medium interposed between the ear and the sonorous body, and vibrating with it. This medium is usually the air, but all gases, vapors, liquids, and solids also transmit *S.* The following experiment shows that the presence of a ponderable medium is necessary for the propagation of *S.* A small metallic bell, which is continually struck by a small hammer, by means of clockwork, or an ordinary musical-box, is placed under the receiver of the air-pump (Fig. 2397). As long as the receiver is full of air at the ordinary pressure, the *S.* is transmitted; but in proportion as the air is exhausted, the *S.* becomes feebler, and is imperceptible in a vacuum. To insure the success of the experiment, the bell-work or musical box must be placed on wadding; for otherwise the vibrations would be transmitted to the air through the plate of the machine. Although air, from its being the medium most commonly in contact with the membraneous tympanum of the ear, is the most general conductor of *S.*, yet other agents are capable of transmitting *S.* A bell rung under the waters of the Lake of Geneva was heard across the whole extent of the water, a distance of 9 m. With respect to its production in the air, Sir John Herschel has shown that in round numbers *S.* of every intensity travel, at the temperature of 62° Fahr., at the rate of 1,125 ft. per second, equal to 12¾ miles per minute, or 765 an hour. The velocity with which *S.* travels through different bodies varies greatly. Assuming its velocity in air as = 1, the rate at which sound travels through other substances is,—distilled water, 4·5; sea-water, 4·7; tin, 7·5; silver, 9; cast-iron, 10; brass, 10·5; wood, 11 to 17; copper, 12; hammered iron, 17. The intensity of *S.* is much augmented if the vibrations be confined in tubes and cavities of any kind. By means of speaking-pipe, *S.*, however slight, may be transmitted from one part of a building to another, while the stethoscope conveys to the ear the slight but ominous *S.* that are generated in the chest. Biot ascertained that the slightest *S.* can be heard through an iron pipe 3,120 ft. in length. *S.* is reflected like light; reflected *S.* being termed an *echo*. In some localities of Switzerland, the mountaineers so contrive to sing their *Ranz des Vaches* that the echo forms an agreeable accompaniment to the air itself. Some *S.* are different only in intensity or loudness, as the reports of a musket and of a cannon; other *S.* differ in musical pitch, as two notes from the same instrument; while others again are different in character or tone,—what the French call *timbre;* as, for instance, the same note sounded upon a trumpet and upon a flute. We have seen that *S.* is produced by a certain vibratory force being transmitted through air, producing what is termed a wave of *S.* The ear is designed to take cognizance of these pulses of force, waves, or tremas within certain limits. The nature of things prevents a single wave of *S.* from ever coming alone. The more nearly alone a wave comes, the more sharp and sudden the *S.* When several nearly equal waves come at equal distances, the *S.* is called a *musical tone*. The middle G between the bass and treble clef is produced by waves about 8 feet 10 inches apart; waves at half that distance apart produce a tone one octave higher. If the distance apart of the waves of one note bears a simple ratio (½, ⅓, ⅔, ¼, ¾, 2-5, 3-5, 4-5, 3-7, or 4-7) to the distance apart of the waves of another note, the two notes harmonize; otherwise they are discordant. The gravest musical *S.* is produced by about 16, and the sharpest by about 12,000, vibrations in a second; but this statement must be taken with some qualification, for the power of appreciating *S.* differs greatly in different persons. See PHONAUTOGRAPH.

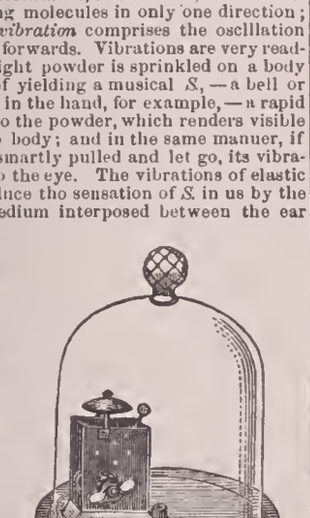


Fig. 2397.

—[Icel. *sund*, a swimming.] The air-bladder of a fish; as, the *sounds* of a cod.

—[A. S., Dan., and Swed. *sund*, a narrow sea.] (*Geog.*) A strait between the mainland and an island; or, a strait connecting two seas, or connecting a sea or lake with the ocean; a frith; a fiord; as, Long Island *Sound*.

—[Fr. *sonde;* Sp. *sonda*, a plummet, and, by analogy, a surgeon's probe.] (*Surg.*) An instrument which surgeons introduce into the bladder, in order to discover whether there is a stone there or not.

Sound, *v. n.* To alter a voice; to make a noise; to make an impulse of the air that shall strike the auditory organs with a perceptible effect; as, hark, how the trumpets *sound*.

—To be imparted or conveyed by sound; to be disseminated, spread, or published; to transmit intelligence through the organ of hearing; as, from you *sounded* the news. — Hence, to import; to mean; to denote; to signify; as, his speech *sounds* as if he be a Yankee.

To sound in damages. (*Law.*) To have the essential nature or quality of damages, as in a case of trespass, &c.

—To use the line and plummet in searching the depth of water.

—*v. a.* To cause to make a noise; to play on; as, to *sound* a bugle. — To utter audibly; to cause to exist as a sound; as, to *sound* a note with the voice. — To give a signal for by a certain sound; to order or direct by a sound; as, to *sound* a parley. — To cause to be reported; to honor or celebrate by sounds; as, to *sound* one's achievements.

—To publish; to proclaim; to announce; to spread or circulate by fame, rumor, or report; as, to *sound* a man's praises.

—To try, as the depth of water and the quality of the bottom or ground, by sinking a plummet or lead. — To try; to examine; to discover, or endeavor to discover, as that which lies concealed in another's breast; to guage, as the private ideas or secret intentions of another; to test; as, he *sounded* his men and found them willing.

(*Surg.*) To introduce, as a sound into the bladder of a patient, to ascertain whether a stone is there or not; to examine by means of a sound.

Sound, (The,) a narrow strait at the entrance of the Baltic, lying between the southern point of Sweden and the Danish island of Zealand. The Sound is about 50 miles in length, and from 4 to 15 in width. Till within the last few years the Danes were in the habit of exacting a toll or custom from all ships entering the Baltic from the North Sea. This vexatious and oppressive impost, known as the *Sound Dues*, was abolished in 1857, by the payment of a composition from the great commercial states of Europe and America, and the Sound is now free for all ships of whatever country or tonnage.

Sound'able, *a.* That may be sounded.

Sound'er, *n.* One who, or that which, sounds.

Sound'ing, *p. a.* Sonorous; making a noise; as, a *sounding* instrument. — Uttering or imparting a magnificent sound; as, he addressed me in *sounding* and high-flown language.

—*n.* Act of one who, or that which, utters a sound or sounds.

—Act of endeavoring to discover the opinions, intentions, or desires of another.

—*pl.* (*Naut.*) Act of throwing the lead, to find depth of water, or a bottom.—Any part or place of the ocean, or depth of water where a plummet will reach the bottom.

—Quality of the ground brought up by the lead attached to the *sounding*-line. For an account of recent ocean-bottom explorations, see DEEP-SEA SOUNDINGS.

Sound'ing-board, *n.* A wooden canopy over a pulpit (Fig. 2186), intended to diffuse the sound of a preacher's voice over a church, and prevent its being lost by ascension. Such canopies are frequently richly decorated with carved work. — A thin board which propagates the sound in an organ, violin, or other musical instrument.

—*pl.* (Also called *sound-boarding.*) Boards used in floors for intercepting the transmission of sound between the different stories of a building.

Sound'ing-line, *n.* (*Naut.*) A line having a plummet attached to the end, used in taking soundings.

Sound'ing-post, *n.* (*Mus.*) A small post in a violin, violoncello, or similar instrument, set under the bridge for a support, for propagating the sounds in the body of an instrument.

Sound'ing-rod, *n.* (*Naut.*) A rod of iron employed to ascertain the depth of water in a ship's hold.

Sound'less, *a.* That cannot be sounded; unfathomable. — Without sound; noiseless; silent.

Sound'ly, *adv.* In a sound manner; healthily; heartily; severely; lustily; with heavy force or blows; smartly; without error or fallacy; fast; closely; so as not to be easily awakened.

Sound'ness, *n.* State or quality of being sound; wholeness; entireness; an unbroken, unimpaired, or undecayed state; healthiness; an unimpaired state of a vegetable or an animal body; as, *soundness* of constitution, *soundness* of timber, &c. — Sameness; a state in which the mind pursues its proper functions; as, *soundness* of intellect.

—Strength; solidity; vigor; firmness; as, the *soundness* of an argument. — Truth; rectitude; orthodoxy; freedom from error or fallacy; as, *soundness* of doctrine, *soundness* of faith.

Soup, (*sōōp.*) *n.* [Fr. *soupe;* Ger. *suppe.*] A decoction of flesh for food, seasoned or flavored more or less highly; strong broth; as, turtle *soup*, clear *soup*, *soup* à la reine, oyster *soup*, &c., &c.

Soup-kitchen, a public institution, supported by voluntary contributions during the winter, or any season of inclement weather, for preparing and supplying soup to the poor.

Sour, *a.* (*comp.* SOURER; *superl.* SOUREST.) [A. S. *sur.*] Acid; possessing a pungent taste; sharp to the palate; acid and astringent; as, a *sour* apple, *sour* cider, *sour* as vinegar, &c. — Rancid; musty; fusty; turned or coagulated: as, *sour* milk. — Harsh of temper or disposition; crabbed; austere; churlish; morose; as, a woman with a *sour* tongue. — Harsh, repulsive, or disagreeable to the feelings; apt to cause repining or discontent; bitter; distasteful; hard to bear; as, a *sour* look, *sour* poverty.

—Unattainable; beyond one's reach; — used figuratively; as, ah! my boy, the grapes are *sour*.

—*v. a.* To make or render acid; to cause to have a sharp, pungent taste. — To make harsh, cold, or unkindly. — To make severe in temper; to make cross, crabbed, peevish, or discontented. — To make uneasy or less agreeable.

—*v. n.* To become acid; to acquire the quality of tartness or pungency to the taste. — To become peevish or crabbed.

Source, *n.* [Fr., from *soudre*, to spring, to issue, as water, from Lat. *surgo*, to rise.] That from which anything proceeds or has its origin; that which gives rise to anything; he who, or that which, originates.—The spring or fountain from which a stream of water proceeds; any collection of water within the earth, or upon its surface, in which a stream originates.

Sour'-crout, *n.* See SAUER-KRAUT.

Sour'det, *n.* (*Mus.*) The little pipe of a trumpet.

Soure, (*so'ra,*) in Brazil, a town of the prov. of Bahia, 40 m. S.W. of Itapicuru.—A town of the prov. of Ceara, 16 m. S.W. of Ceara; *pop.* abt. 1,600.

Sour'-gourd, *n.* (*Bot.*) The BAOBAL, *q. v.*

Sour'ing, *n.* The quality of being sour.

Sour'ish, *a.* Somewhat sour; moderately acid.

Sour'-kraut, *n.* [Ger. *sauer-kraut.*] See SAUER-KRAUT.

Sour'ly, *adv.* With sourness or acidity.—With peevishness; with acrimony; discontentedly.

Sour'ness, *n.* The state or quality of being sour; acidity; sharpness to the taste.—Asperity; harshness of temper.

Sour'sop, *n.* (*Bot.*) *Anona muricata*, a West Indian fruit-tree, genus *Anona*, q. v. The tree does not attain a large size, but is much branched and very ornamental. The fruit is very large, often weighing two or three pounds; its pulp is white, succulent, sweet, with an agreeable acidity. The soursop is a pleasant and refreshing fruit, and is very much used in the West Indies, being produced in great abundance.

Souse, *n.* [From Lat. *salsus*, salt, salted, from *salio*, to salt.] Pickle made with salt. — Something kept or steeped in pickle.—The head, feet, &c., of swine pickled. —The act of throwing or plunging suddenly into water.

—*v. a.* To soak or steep in souse or pickle. — To plunge into water.

—*v. n.* To make a sudden plunge; to fall on precipitately; to rush with speed, as a hawk on its prey.

—*n.* The act of rushing or plunging, as a bird on its prey. (R.)

—*adv.* With sudden violence.

Sous'lik, *n.* (*Zoöl.*) (*Spermophilus citillus*, Cuvier.) A pretty little rodent quadruped, allied to the marmots, but distinguished by having cheek-pouches in which it stores away seeds and nuts. It is not uncommon in different parts of Germany and in Russia.

Sou'tane, *n.* [Fr.; It. *sottana.*] (*Eccl.*) The French term corresponding to the English CASSOCK.

South, *n.* [A. S. *suth;* Fr. and Sp. *sud;* Ger. *süd.*] One of the four cardinal points of the compass; the point in

which the meridian and horizon intersect each other; any point or place on the earth, or in the heavens, which is near the meridian towards the right hand as one faces the east.

—A region, country, or place relatively nearer the south point than another.

South, *a.* In any place north of the tropic of Cancer, pertaining to, or lying in, the meridian toward the sun; being in a southerly direction.

—*v. n.* (*Astron.*) To pass the meridian of a place; as, "the moon *souths*."

—*adv.* Toward the south; as, a ship sails *south*.— From the south; as, the wind blows *south*.

South, in *Iowa*, a twp. of Madison co.

South Ab'ington, in *Massachusetts*, a post-village of Plymouth co., 21 m. S.S.E. of Boston.

South Ac'ton, in *Massachusetts*, a post-village of Middlesex co., 25 m. N.W. of Boston.

South Ad'ams, in *Mass.*, a v. of Berkshire co.

South Af'rican Repub'lic. See SECTION II; RHODES, &c.

South Al'bion, in *Maine*, a post-vil. of Kennebec co.

South Al'ton, in *New Hampshire*, a post-village of Belknap co., 20m. N.E. of Concord.

South Amboy', in *New Jersey*, a post-village and township of Middlesex co., 27 m. S. W. of the City of New York.

South Amer'ica. See AMERICA.

South America, in *Illinois*, a post-village of Saline co.

Southamp'ton, a seaport-town of England, in the S. of the co. of Hants, and a county by itself, situated on a neck of land surrounded by the Southampton Water on the S. and W., and by the river Itchin on the E. *S.* is a town of considerable antiquity, and is entered from the N. by a gate of great architectural beauty and antiquity, called the *Bar Gate* (Fig. 2398). From this point, running S. to the quay extends the main street for the length of a mile, a thoroughfare both handsome and spacious. The most important public buildings are the assembly-rooms, theatre, military asylum for the orphans of soldiers, several places of worship, schools, almshouses, infirmary, and mechanics' and scientific institutions. The manufactures are carpets and silk, and its trade in timber, hemp, and iron is very large; it is, however, as the station of the West India, Chinese, Mediterranean, and Australian steam navigation and mail service, that *S.* owes its present prosperity and importance. *Pop.* (1897) 67,760.

Fig. 2398. — BAR GATE, (Southampton.)

Southamp'ton, in *Massachusetts*, a post-village and township of Hampshire county, 95 miles south-west of Boston.

Southampton, in *New Jersey*, a township of Burlington co.

Southampton, in *Pennsylvania*, a township of Bedford co.

—A township of Bucks co.

—A township of Cumberland co.

—A township of Franklin co.

—A township of Somerset co.

Southampton, in *Virginia*, a S.S.E. co., bordering on N. Carolina; *area*, 600 sq. m. *Rivers.* Nottaway, Meherrin, and Blackwater. *Surface*, level; *soil*, moderately fertile. *Cap.* Courtland. *Pop.* (1897) 21,220.

Southampton, In British N. America, an island in the N. of Hudson Bay, between Lat. 62° and 66° N., Lon. 80° and 87° W.

South An'na, a river of *Virginia*, rises in Louisa co., and unites with the North Anna to form the Pamunkey, after an E. course of 75 m.—A village of Louisa, 67 m. N.W. of Richmond.

South An'ville, in *Penna.*, a twp. of Lebanon co.

South Ash'burnham, in *Massachusetts*, a village of Worcester, 50 m. W.N.W. of Boston.

South At'tleborough, in *Massachusetts*, a post-village of Bristol co., 40 m. S.S.W. of Boston.

South Australia. See AUSTRALIA, SOUTH, page 209.

South Av'on, in *New York*, a village and township of Livingston co., 20 m. S.W. of Rochester.

South Bain'bridge, in *New York*, a village of Chonango co., 110 m. W.S.W. of Albany.

South Bar're, in *New York*, a post-village of Orleans co., abt. 7 m. S. of Albion.

South Barre, in *Vermont*, a post-village of Washington co., 7 m. S.E. of Montpelier.

South Bay, In *New York*, an inlet of Lake Champlain in Washington co., abt. 4 m. long.

South Bea'ver, in *Pennsylvania*, a township of Beaver co.

South Bel'lingham, in *Massachusetts*, a village of Norfolk co., 30 m. S.W. of Boston.

South Bend, in *Indiana*, a handsome manufacturing city, cap. of St. Joseph co., on the S. bank of St. Joseph River, 85 m. S. E. of Chicago. It is the seat of the Northern Indiana College; and near the town are the Roman Catholic University of Notre Dame and St. Mary's Female Academy. *Pop.* (1897) 25,840.

South Bend, in *Minnesota*, a post-village and township of Blue Earth co., on the Minnesota River, abt. 3 m. W. of Mankato.

South Bend, in *Pennsylvania*, a township of Armstrong co.

South Ber'wick, In *Maine*, a post-village and township of York county, 45 miles west south-west of Portland.

South Bloom'field, in *Ohio*, a township of Morrow county.—A post-village of Pickaway county, 15 miles S. of Columbus.

South'borough, in *Massachusetts*, a post-village and township of Worcester county, 17 miles east of Worcester.

South Boston, in *Indiana*, a village of Washington co., 24 m. N.W. of New Albany.

South Brad'ford, in *New Hampshire*, a village of Merrimack co., 22 m. N.W. of Concord.

South Brain'tree, in *Massachusetts*, a post-village and township of Norfolk co., 12 m. S.E. of Boston.

South'bridge, in *Massachusetts*, a post-village and township of Worcester county, 60 miles south-west of Boston.

South Bridge'ton, in *Maine*, a post-village of Cumberland co.

South Bridge'water, in *Massachusetts*, a village of Plymouth co., 27 m. S.E. of Boston.

South Bris'tol, in *New York*, a post-village and township of Ontario county, 12 miles south of Canandaigua.

South Brit'ain, in *Connecticut*, a post-village of New Haven co., 20 m. N.W. of New Haven.

South Brown, in *Ohio*, a township of Vinton co.

South Bruns'wick, in *New Jersey*, a township of Middlesex county, 14 miles north-west of Trenton.

South Buffalo, in *Pennsylvania*, a township of Armstrong co.

South'bury, in *Connecticut*, a post-village and township of New Haven county, 22 miles north north-west of New Haven.

South But'ler, in *New York*, a post-village of Wayne co., 158 m. W.N.W. of Albany.

South Butler, in *Pennsylvania*, a township of Butler co.

South By'ron, in *New York*, a post-village of Genesee co., 25 m. W.S.W. of Rochester.

South Ca'naan, in *Connecticut*, a post-village of Litchfield co., 50 m. N.W. of Hartford.

South Canaan, in *Pennsylvania*, a township of Wayne co.

South Can'dor, in *New York*, a village of Tioga co., 5 m. N.W. of Oswego.

South Caroli'na, one of the original States of the American Union, forming nearly a triangle, of which the base is the Atlantic Ocean, is bounded N. and W. by North Carolina, and S. by Georgia. It extends from 32° to 35° N. Lat., and from 79° to 82° 50′ W. Lon.; *area*, 30,213 sq. m. *Desc.* The coast for about 100 m. inward is flat and sandy, with a light soil, covered with pitch-pine forests, traversed by sluggish streams, and interspersed with numerous swamps. This portion of the State is of alluvial formation. Beyond this plain is a belt of low sand-hills, called the *middle country*, which is moderately productive. West of the middle country is a belt called the *ridge*, where the land rises abruptly, and thence continues to ascend, exhibiting beautiful alternations of hill and dale, till it terminates, at the extreme N.W. part of the State, in the Blue Ridge, the highest peak of which, in *S. C.*, is Table Mountain, 4,000 feet above the sea. King's Mountain, in York district, is an isolated mountain of considerable prominence. The coast-line of *S. C.* extends from Little River Inlet, in a S.W. direction, to the mouth of the Savannah River, about 200 m., presenting numerous inlets, bays, shallow sounds, and lagoons, and a few good harbors. Winyaw Bay, 14 m. long and abt. 2 m. wide, has at its head the port of Georgetown, to which vessels of light draught ascend. Charleston harbor, where the principal commerce of the State centres, has a difficult sand-bar at its entrance. — Beaufort harbor, which admits vessels of 24 feet draught, is one of the best in the S. States. Stone Inlet, a few miles S. of Charleston, admits vessels drawing 9 or 10 feet of water, and was resorted to during the blockade of Charleston in 1775. A number of small islands skirt the S. coast of the State, which are shut off from the mainland by narrow channels, which afford inland steamboat communication between Charleston and Savannah. These islands are low and flat, and produce the Black-seed, or *Sea-island cotton.* (See COTTON.)

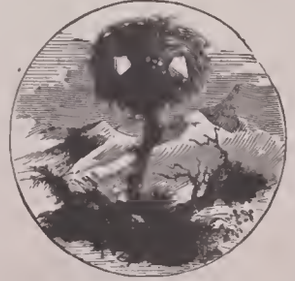


Fig. 2399. — SEAL OF THE STATE.

— *Rivers.* The principal are: — the Savannah, which bounds the State on the S., and for nearly 300 m. marks its line; the Broad River and Pocotaligo, which empty into the Bay of Port Royal; the Combahee, Ashepoo and Edisto, which empty into the Bay of St. Helena, and are bordered with rich rice and cotton plantations; the Stono, which is in the immediate vicinity of Charleston, and the Ashley and Cooper, on which old Charleston is situated; the Santee, which, through its connection with the Congaree and Wateree, runs through the heart of the State up to the mountains; and the Pedee, which receives the Waccamaw of N. Carolina into its bosom, and empties into the Bay of Winyah. — *Climate.* Favorably situated between the intense heat of the tropics and the frigid temperature of the North, *S. C.* enjoys the climate of the S. of France and of Italy; and while the State grows the cotton, rice, tobacco, and even the tea of the Southern plantations, it also produces wheat, rye, oats, barley, and every other product of the most northerly farm. The mean temperature at Charleston is about 65° 5′; and the mortality in the State is 1 death in 71 inhabitants, while in the District of Columbia, for instance, there is 1 in 58 inhabitants, and in Prussia 1 in 36. — *Soil.* The soil of *S. C.* is diversified. On the uplands, it is clay, loam, sand, or a mixture of all; and in the lowlands and bottoms, an alluvial of more or less value. The larger river bottoms are exceedingly rich, and especially in the tidal region. There are no barrens. — *Min.* The gold-bearing rocks of the Atlantic slope extend through the S. portion of *S. C.*, where the precious metal has been found in sufficient abundance to reward the labor of the miner. Iron of a very superior quality, copper, lead, manganese, bismuth, plumbago, soapstone, coal, black-lead, oxide of titanium, sulphuret of iron, and limestone, are found in divers districts. Granite of the finest grain and uniform appearance, equal to gray marble, is frequent in the upper and middle districts. Materials for pottery, porcelain clay, and arenaceous quartz, and pure sand for glass, are also found in many sections of the State. Mineral springs exist in Spartanburg, Greenville, Abbeville, and Laurens districts. *Agric.* The usual productions of the State are cotton, the long and short staple, rice, both swamp and upland, tobacco, indigo, sugar, wheat, rye, corn, oats, millet, barley, buckwheat, peas, beans, sorghum, broom-corn, sunflower, guinea-corn, sweet potatoes and white potatoes. Hemp, flax, and hops grow as in their native countries. The grape grows luxuriantly in every portion of the State; and enormous vines are found in woods and swamps, extending to the topmost branches of the tallest forest trees. The sea islands yield annually 10,000 bales of the famous long-staple cotton, while on the mainland there is an annual production of about 750,000 bales of short-staple cotton. The rice crop, which is another of the leading products of the State, yields about 12,000,000 lbs. annually. The growth of tobacco is on the increase, as is also truck farming and fruit growing, the demands of the Northern cities greatly stimulating these industries. Stock-raising, once neglected, has been revived with success, the State possessing about 150,000 horses and mules, 300,000 cattle, 100,000 sheep, and 850,000 swine, with a total value of over $18,000,000. The field work is done mainly by negroes, and many of these have taken up land for themselves, settling an inferior and abandoned territory, which they have made productive by the use of fertilizers. There are also many white farmers on a small scale, especially in the Piedmont district, who cultivate their own land. The number of farms in the State in 1890 was 115,008, a large increase since 1870, when there were but 51,889 farms. This increase in the division of the land is largely due to the freedmen farmers, and is in a ratio considerably greater than that of Georgia, which comes nearest to *S. C.* in the transformation which the land system has undergone, but is not nearly so much confined to agriculture as *S. C.* The area of land included in farms was 13,184,652 acres, of which 5,255,237 were improved, the total value, with improvements, being about $100,000,000, while the value of farm products was estimated at $51,337,985. Of the leading grain crops *S. C.* yielded, in 1895, 19,860,908 bushels of corn, 858,624 of wheat, and 4,390,322 of oats. —*Climate.* The climate of *S. C.* is mild and salubrious, though there is an exception to the latter in the swamps and rice-growing regions. The equable and dry climate of the pine lands is highly favorable to persons suffering from pulmonary complaints, Aiken and Somerville in particular being noted health resorts. The delightful climatic conditions of the Alpine and Piedmont regions attract many visitors in summer, while in winter other districts prove attractive resorts. Snow is rarely seen south of Columbia, and severe frost is an uncommon visitant. The coast region is occasionally devastated by cyclones, one of which, in 1893, caused great loss of life and property on the sea islands, and did much damage to Charleston and other seaboard cities. A cyclone in 1885 caused a loss of over $1,500,000 in Charleston alone. In 1886 a severe earthquake visited *S. C.*, Charleston being the center of its ravages, and suffering a loss of property estimated at $6,000,000, with considerable loss of life. The oldest meteorological record on the American continent has been kept in the city of Charleston, extending back to 1670, while since 1783 it has been kept with much regularity.—*Manuf.* South Carolina is of far less importance as a manufacturing than as an agricultural State, being much surpassed in this particular by the neighboring States of North Carolina, Georgia, and Alabama. The principal manufacturing establishments are cotton factories, foundries, oil mills, and fertilizer works. Cotton weaving has increased until there are about 62 factories, with over 650,000 spindles, 3 of the factories having each

SOUTH CAROLINA

SCALE OF MILES

0 5 10 20 30 40

State Capital ⊛ County Seats ⊙

Places of 10,000 and over		COLUMBIA.
" "	5,000 to 10,000	Florence
" "	2,000 to 5,000	Aiken
" "	1,000 to 2,000	Clover

Hammond's 8 x 11 Map of South Carolina

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SO. CAROLINA

Land surface, Sq. m. 30,170
Water surface, Sq. m. 400
Pop. 1900 ..1,340,316
White.....557,807
African...782,321
Indian.....121
Chinese.... ...67
Native-born, 1,334,788
Foreign-born, 5,528
Males.....664,895
Females..675,421

COUNTIES.

Abbeville.....B 3
Aiken .....D 4
Anderson .....B 2
Bamberg.....E 5
Barnwell..... E 5
Beaufort.....F 7
Berkeley .... H 5
Charleston....H 6
Cherokee.....D 1
Chester.....E 2
Chesterfield.. G 2
Clarendon ....G 4
Colleton.....F 6
Darlington ...H 3
Dorchester....F 5
Edgefield.....D 4
Fairfield.....E 3
Florence.....H 3
Georgetown..J 5
Greenville.....C 2
Greenwood ...C 3
Hampton ....E 6
Horry .....K 4
Kershaw .....F 3
Lancaster.....F 2
Laurens..... C 2
Lee ... .G 3
Lexington ....E 4
Marion.....J 3
Marlboro .....H 2
Newberry.....D 3
Oconee.. .....A 2
Orangeburg...F 4
Pickens .....B 2
Richland..... F 3
Saluda.....D 3
Spartanburg .D 2
Sumter.....G 4
Union.....D 2
Williamsburg H 4
York .....E 1

CITIES-TOWNS

Pop.	Thousands.	
55	Charleston.	H 6
21	Columbia...	E 4
11	Greenville..	C 2
11	Spartanburg	D 2
6	Lead	A 3
5	Sumter	G 4
5	Anderson ...	B 2
5	Rockbill	E 2
5	Union.....	D 2
4	Greenwood .	C 3
4	Florence..	H 3
4	Newberry...	D 3
4	Orangeburg	F 4
4	Georgetown.	J 5
4	Beaufort....	F 7
4	Chester.....	E 2
4	Laurens.....	C 2
3	Gaffney.....	D 1
3	Abbeville....	C 3
3	Aiken	D 4
3	Darlington .	H 3
2	Camden....	F 3
2	Summerville	G 5
2	Mt. Pleasant	H 6
2	Yorkville ..	E 2
1	Bennettsville	H 2
1	Clinton	D 3
1	Marion	J 3
1	Edgefield.. .	D 4
1	Winnsboro..	E 3
1	Bamberg....	E 5
1	Walterboro..	F 6
1	Lancaster...	F 2
1	Manning ...	G 4
1	Ft. Mill.....	F 2
1	Barnwell....	E 5
1	McColl	H 2
1	Walhalla....	A 2
1	Blacksburg..	D 1
1	Cheraw.	H 2
1	Blackville...	E 5
1	Branchville	F 5
1	Brookland...	E 4
1	Allendale .	E 5
1	Dillon.....	J 3

Pop.	Hundreds.	
9	Williamston.	C 2
9	Palmetto ...	H 3
9	Batesburg...	E 4
9	Clover.....	E 1
9	Seneca	B 2
9	Easley... ...	B 2
8	Rutherfordton	A 3
8	Johnston....	D 4
8	Timonsville.	H 3
8	Westminster	A 2
8	Mullins.....	J 3
8	Belton..	C 2
8	Lexington...	E 4
7	Mayesville .	G 4
7	Kingstree...	H 4
7	St. Mattbews	F 4
7	Denmark....	E 5
7	Bishopville .	G 3
7	Eau Claire..	E 4
7	Conway.....	J 4
7	Hartsville ..	G 3
6	Cowpens....	D 2
5	Greer.....	C 2
6	Cherokee Falls	D 1
6	Duewest.....	C 3
5	Kershaw....	F 2
6	Williston....	E 5
6	Honeapath..	C 3
5	Port Royal..	F 7
5	Woodruff ..	D 2
5	Prosperity..	D 3
5	St. George...	F 5
5	Pendleton...	B 2
5	Leesville	E 4
5	Hampton ...	E 6
5	Moultrieville	H 6
5	Kersbaw	F 2
5	Jonesville...	D 2
5	Clio	H 2
4	Crossbill	D 3
4	Latta	J 3
4	Pickens	B 2
4	Ninetysix ...	D 3
4	Elloree	F 4
4	Lincolnville.	G 5
3	Cokesbury ..	C 3
3	Lake City ..	H 4
3	Liberty	B 2
3	North	E 4
3	Willington.	C 4
3	Carlisle	E 2
3	Central... .	B 2
3	Welford	C 2
3	Springfield..	E 4
3	Brunson.....	E 6
3	Cameron....	F 4
3	Mt. Carmel..	B 3
3	Ft. Motte....	F 4
3	Chesterfield	H 2
3	Fairfax	E 6
2	Inman	C 1
2	Bradley	C 3
2	West Union	A 2
2	Ridgespring	D 4
2	Saluda	D 3
2	Hickory.....	E 1
2	Helena	D 3
2	Trenton.....	D 4
2	Heath Spr...	F 2
2	Troy	C 4
2	Landrum....	C 1
2	Hodges.....	C 3
2	Hollyhill...	G 5
2	St. Stephens	H 5
2	Rowesville ..	F 5
2	Ellenton	D 5
2	Greeleyville	H 4
2	Ridgeville...	G 5
2	Harleyville..	G 5
2	Lowndesville	B 3
2	Richburg....	E 2
2	Swansea.....	E 4
2	Coronaca....	C 3
2	Summerton	G 4
2	Donalds	C 3
2	Foreston	G 4
2	Lamar	G 3
2	Norway	E 5
2	Ehrhardt...	E 5
2	Calhoun ...	B 2
2	Elko	E 5
2	Scranton. ..	H 4
2	Woodford ..	E 4
2	Campobello .	C 1
2	Monks Corner	H 5
2	Tatum	H 2
1	Olar.....	E 5
1	Simpsonville	C 2
1	Irmo	C 3
1	Wagener....	E 4
1	Waterloo....	C 3
1	Chapin	E 3
1	Glenn Spr...	D 2
1	Blackstock .	E 2
1	Graycourt..	C 2
1	Verdery.....	C 3
1	Blenheim...	H 3
1	Trio	H 5
1	Reidville....	C 2
1	Peak	E 3
1	Ulmers.....	E 5
1	Sharon.....	E 2
1	Duncans ...	C 2
1	Dovesville..	H 3
1	Parksville...	C 4
1	Midway	F 5
1	Recvesville .	F 5
1	Wards	D 4
1	Sieglingville	E 5
1	Bowman . ..	F 5
1	Whitmires ..	D 2
1	Tirzah	E 1
1	Ft. Lawn....	F 2
1	Westville....	F 3
1	Lucknow ...	G 3
1	Mountville .	D 3
1	Gaston	E 4
1	Dunbar	H 2
1	Govan.....	E 5
1	Travellers Rest	C 2
1	Ridgeway ..	F 3
1	Clarendon ..	G 4
1	Kline.....	E 5
1	Littlerock..	J 3
1	Nickols.....	J 3
1	Vance.....	G 5
1	Cope	F 5
1	Sycamore...	E 5
1	Livingston ..	E 4
1	Modoc.....	C 4
1	Perry.... ...	E 4
1	Kelton	D 2
1	Springhill ..	E 3
1	Whiterock...	E 3
1	Grover	F 5
1	Chicora. ...	H 5
1	Smyrna	E 1
1	JacksonboroG	6

Robert Southey

1774–1843

over 50,000 spindles. The cottonseed industry, though of recent introduction, shows a satisfactory growth. In 1894 there were in operation 27 mills, crushing one-fourth of the seed crop—75,000 tons of seed—which was converted into oil, hulls, meal, &c. The manufacture of commercial fertilizers, the basis of which is the phosphate rock which exists in such abundance in the vicinity of Charleston, is the most flourishing manufacturing industry of the State. The product of the factories engaged in grinding the rock and preparing the fertilizers, in and around Charleston, is valued at from $5,000,000 to $6,000,000 annually, while the mining of the rock is another profitable industry. The landowners mine their own rock, but those engaged in mining phosphate rock from the river beds pay the State a royalty of 50 cents a ton. The annual product is about 4,000,000 tons. The shipping price of the fertilizers is about $20 a ton. In land mining the rock is got out with picks and shovels. In the river beds the work is performed by hand picking, by dredging, and by the use of tongs.—*Commerce.* South Carolina has a large foreign and domestic trade, its exports in the fiscal year of 1894 aggregating $16,477,409, from the ports of Charleston, Beaufort, and Georgetown. The imports were $678,406. There are three main systems of railroad: the Southern, 688 miles in length; the Atlantic Coast, 423 miles; and the Seaboard Air Line, 267 miles. The total length of railroad in the State aggregates nearly 3,000 miles.—*Polit. Div.* The State is divided in 35 counties, formerly called districts, viz.:

Abbeville,	Clarendon,	Horry,	Orangeburg,
Aiken,	Colleton,	Kershaw,	Pickens,
Anderson,	Darlington,	Lancaster,	Richland,
Barnwell,	Edgefield,	Laurens,	Spartanburg,
Beaufort,	Fairfield,	Lexington,	Sumter,
Berkeley,	Florence,	Marion,	Union,
Charleston,	Georgetown,	Marlboro,	Williamsburg,
Chester.	Greenville,	Newberry,	York.
Chesterfield,	Hampton,	Oconee,	

The principal towns are:—Charleston, the most important city in the State, Columbia, the capital, Beaufort, Georgetown, Hamburg, Camden, Greenville, Sumter, Spartanburg, Cheraw, Blackville, Aiken, Winnsborough, Anderson, Yorkville and Chester.—*Govt.* According to the Constitution of 1868, the House of Representatives is to be composed of 124 members, apportioned among the counties according to population, who shall hold office two years. There is to be one senator for each county, elected for a term of four years. The regular State elections are to be held on the third Wednesday in October of every second year, beginning with 1869, and the sessions of the General Assembly are to be held annually on the 4th Monday of November. Ministers of the gospel are made ineligible to seats in the Legislature, and to the office of Governor or Lieutenant-Governor. The Governor and Lieutenant-Governor are to be chosen for a term of two years, and are invested with the functions usual to officers of the same grade in other States. Among the disqualifications for these positions, is a denial of the "existence of a Supreme Being." A Comptroller-General, Treasurer and Secretary of State are to be chosen, to hold office for a term of four years. The judicial power of the State is vested in a Supreme Court; in two Circuit Courts, viz., a Court of Common Pleas, having civil jurisdiction, and a Court of General Sessions, with criminal jurisdiction only; in Probate Courts, and justices of the peace. The General Assembly may also establish such municipal and other inferior courts as may be deemed necessary. The Supreme Court is to consist of a chief justice and two associate justices, chosen by a joint vote of the General Assembly, for a term of six years. The Circuit judges are to be chosen in the same manner, and hold office four years. A Court of Probate is to be established in each county, the judge of which shall be chosen by a vote of the people, for a term of two years. Justices of the peace are elected by the people, and have jurisdiction of all cases where the amount involved does not exceed $100.—*Educ.* The subject of education was early considered in this State, a free school being established in Charleston as early as 1710. Provision was made for four colleges in 1784, but only two of these were established, and only one (the Charlestou College) survives. The South Carolina College was founded in Columbia in 1801, and a system of free schools was organized in 1811. These, however, obtained little aid from the public purse, and were mainly supported by private contributions. The existing public school system was established by legislative enactment in 1868, and has since steadily improved. It provides separate instruction for whites and blacks. Nearly every town has a graded school. In 1894 the number of children of school age in the State was 453,100, of whom 226,766 were enrolled in the public schools, the average daily attendance being 165,115. There were 4,594 teachers. The institutions for higher education are four in number, the South Carolina College (*q. v.*), the South Carolina Military Academy (chartered in 1842), the Clewson Agricultural and Mechanical College (for boys), and the Winthrop Normal and Industrial College (for girls). These four constitute the University of South Carolina, in which must also be included the Medical College of the State of South Carolina, and the pharmacy department of the University, both at Charleston. In addition to these institutions are many private colleges and other educational establishments.—*Liquor Legislation.* S. C. has instituted an original and singular experiment in the problem of the control of the liquor traffic, which has excited widespread attention. It is based on the plan of the Gothenburg licensing system of Sweden, the system which is there confined to a municipality being here extended to a State. Instead of endeavoring to prohibit the sale of liquor, as has been done in various other States, S. C. has taken the business out of private hands and is seeking to conduct it as a State institution. By an act of the legislature passed in 1892, the sale of liquor by private parties is prohibited, and State and county dispensaries established, in which chemically pure liquors are sold in sealed packages, by paid employees, to temperate persons, the opening of the packages on the premises being illegal. The profits arising are divided between the State and the locality. This law was declared unconstitutional by the State Supreme Court in 1893, but this decision was soon after reversed by the same court, and the law is still in force. *Hist.* The first settlement in S. C. was attempted in 1562, by a colony of French Protestant exiles, who named it *Carolina*, in honor of their monarch, Charles IX., King of France. In 1663, Charles II., King of England, granted a charter to a company of English nobles, and under their auspices the first successful settlement was made at Port Royal, previously founded by the French. In 1680 the foundation of Charleston was laid. Henceforth the population increased steadily, but slowly, on account of the dangerous proximity of the Indians, and the many difficulties which the first settlers had to encounter. In the Revolutionary War, S. C. furnished her full quota of patriot heroes, and ever since the achievement of the independence of the republic, she has had occasion to be justly proud of her statesmen and public benefactors. She has been the first to establish free schools for the education of her people; she claims to have been the first to build a railroad; and the first also to introduce the culture of cotton, of rice, &c. She entered at the head of her Southern sister States into the late Civil War, but she accepted its result with good faith, and no State in the Union seems willing to be more faithful to her pledge than the home of the palmetto. A new constitution, establishing perfect equality between the white and the colored races, was voted in 1869; and, in the same year, the ratification of the 15th Amendment of the Constitution of the U. S. having been carried by a vote of 18 to 1 in the Senate, and 88 to 3 in the House, the State was readmitted to representation in Congress.—*Pop.* (1890) 1,151,149, of whom 692,503 were colored, 458,454 white, 172 Indians, and 20 Chinese. There has been an increase of about 60 per cent. in population since 1870, when the number was 705,606. In 1880 it was 995,577. The population in 1900 was 1,340,316, of whom 782,321 were colored.

South Carolina College. A co-educational institution, founded in 1801, and organized as a college in 1806. It was reorganized in 1880, with two branches, as the South Carolina Agricultural and Mechanical College at Columbia (for whites), and Claflin University at Orangeburg (for negroes). In 1897, the Columbia branch had 12 instructors and 185 students, with 30,000 volumes in its library, with an income of $27,500. The Orangeburg branch, which is under the control of the Methodist Episcopalians, had in that year 25 instructors and 600 students, with 2,000 volumes in its library, its revenue being $30,000.

South Car'rolton, in *Kentucky*, a post-village of Muhlenberg co.

South Charles'ton, in *Ohio*, a post-village of Clarke co.

South Charles'town, in *New Hampshire*, a post-village of Sullivan co.

South Cor'inth, in *New York*, a post-village of Saratoga co.

South Cort'landt, in *New York*, a post-village of Cortland co.

South Cov'entry, in *Connecticut*, a post-village of Tolland co.

South Dako'ta, Univer'sity of. A Methodist Episcopal, co-educational institution located at Mitchell, Davison co., opened in 1882. In 1897, it had 14 instructors, 200 students, 14,000 volumes in its library, and an income of $22,000.

South Dan'vers, in *Massachusetts*, a post-village and township of Essex co.

South Dart'mouth, in *Massachusetts*, a post-village of Bristol co.

South Ded'ham, in *Massachusetts*, a post-village of Norfolk co.

South Deerfield, in *Massachusetts*, a post-village of Franklin co.

South Deerfield, in *New Hampshire*, a post-village of Rockingham co.

South Deu'uis, in *Massachusetts*, a post-village of Barnstable co.

South Dor'set, in *Vermont*, a post-village of Bennington co.

South Dover, in *New York*, a post-village of Dutchess county.

South-Down, *a.* Relating to South Downs, England: as, *South-Down* sheep.

South Dres'den, in *Maine*, a village of Lincoln co.

South-east', *n.* The point of the compass equally distant from the south and east.

South-east', SOUTH-EAST'ERLY, SOUTH-EAST'ERN, *a.* Pertaining to, or proceeding from, the south-east.

South Eas'ton, in *Pennsylvania*, a borough of Northampton co., at the mouth of the Lehigh.

South Eg'remont, in *Mass.*, a p.-v. of Berkshire co.

South Eng'lish, in *Iowa*, a p.-v. of Keokuk co.

Southerliness, (*sŭther-*,) *n.* The state of quality of being southerly.

Southerly, Southern, (*sŭth'-*) *a.* Belonging to, situated in, or proceeding from, the south.

South'ern Cross, *n.* (*Astron.*) A small brilliant, southern constellation, the principal stars of which are so arranged as to resemble a cross.

Southerner, (*sŭth'ern-er,*) *n.* A native or inhabitant of the South, or Southern States of the American Union.

South'ernly, *adv.* Toward the south.

South'ernmost, *a.* Furthest toward the south.

South'ern-wood, *n.* (*Bot.*) See ARTEMISIA.

Southey, ROBERT, (*sou'the,*) an English poet and miscellaneous writer, b. in Bristol, 1774. Shortly after leaving Oxford he formed the acquaintance of Coleridge, the two friends marrying at the same time two sisters. After a short visit to Portugal, in 1796, he entered himself a student of law at Gray's Inn; this was, however, subsequently abandoned, and in 1801 he fairly devoted himself to the practice of literature, and soon after took up his residence at Keswick, in Cumberland, where the remainder of his life was passed, he being henceforth classed as one of the Lake poets. In 1807 he obtained a pension from the government, and on the death of Pye was appointed poet-laureate. In 1839, two years after the death of his wife, he married Miss Bowles the poetess. The latter years of his life were clouded by a mental imbecility, which attended him to his death. His poetical works, collected in one volume, enjoyed great popularity; and his admirable philosophic gossiping romance *The Doctor*, &c., which was published anonymously (also in one volume), must long continue to be the delight of the reading and the thinking world. His *Commonplace Book*, a posthumous publication in 4 vols. 8vo, is a marvellous monument of his reading and research. D. 1843.

South Fair'fax, in *Vermont*, a village of Franklin co., 35 m. E.N.E. of Montpelier.

South Farms, in *Connecticut*, a village of Litchfield co., 35 m. S.W. of Hartford.

South Fayette, (*fa-yett',*) in *Pennsylvania*, a township of Allegbany co.

South'field, in *Michigan*, a post-township of Oakland co.

Southfield, in *New York*, a township of Richmond county, Staten Island, 12 miles S.W. of New York city.

South Fitch'burg, in *Massachusetts*, a village of Worcester co., 5 m. S. of Fitchburg.

South Fork, in *Arkansas*, a township of Clark co.—A township of Fulton co.

South Fork, in *Iowa*, a township of Delaware county—A township of Jackson county.—A township of Wayne county.

South Fram'ingham, in *Massachusetts*, a post-village of Middlesex county, 21 miles S. E. of Boston.

South Gar'diner, in *Maine*, a post-village of Kennebec co., 5 m. S. of Gardiner.

South Gardiner, in *Massachusetts*, a post-village of Worcester co.

South Genesee, (*jen-e-see'*), in *Wisconsin*, a village of Waukesha co., 21 m. S.W. of Milwaukee.

South Glas'tenburg, in *Connecticut*, a post-village of Hartford co., 10 m. S. of Hartford.

South Grove, in *Illinois*, a post-village and township of De Kalb county, 70 miles W.N.W. of Chicago.

South Grove, in *Wisconsin*, a village of Walworth co.

South Had'ley, in *Massachusetts*, a post-village and township of Hampshire co., on the Connecticut River, 90 m. S.W. of the city of Boston.

South Hadley Falls, in *Massachusetts*, a post-village of Hampshire co.

South Ham'mond, in *New York*, a village of St. Lawrence co., 38 m. W.S.W. of Canton.

South Hamp'ton, in *New Hampshire*, a post-township of Rockingham co., 45 m. S.E. of Concord; *pop.* abt. 500.

South Hampton, in *New York*, a village and township of Suffolk co., on Long Island, 100 m. E. of New York.

South Han'over, in *Indiana*, a village of Jefferson co., abt. 7 m. W.S.W. of Madisou.

South Hanover, in *Pennsylvania*, a township of Dauphin co.

South Harl'wick, in *Vermont*, a village of Caledonia co.

South Hart'ford, in *New York*, a post-village of Washington co., 50 m. N.N.E. of Albany.

South Har'wich, in *Massachusetts*, a post-village of Barnstable co., 80 m. S.E. of Boston.

South Ha'ven, in *Michigan*, a post-village and township of Van Buren co., 26 m. W.S.W. of Allegan.

South Haw'ley, in *Massachusetts*, a village of Franklin co., 105 m. N.W. of Boston.

South He'ro, in *Vermont*, a post-township of Grand Isle co., consisting of an island in Lake Champlain, 10 m. long.

South Hill, in *Pennsylvania*, a post-village of Bradford co., 150 m. N.E. of Harrisburg.

South Hing'ham, in *Massachusetts*, a post-village of Plymouth co., 15 m. S.E. of Boston.

South Hol'low, in *Illinois*, a village of Jo Daviess co., 180 m. W.N.W. of Chicago.

South Hope, in *Maine*, a post-village of Knox co., 10 m. N.N.W. of Rockland.

South Hunt'ingdon, in *Pennsylvania*, a township of Westmoreland co.

South'ing, *a.* Going toward the south.

—*n.* Tendency or motion to the south.

(*Surveying.*) The distance advanced toward the south in running any course.

(*Naut.*) The difference of latitude made in sailing southward.

South'ington, in *Connecticut*, a post-village and township of Hartford county, 16 miles S.W. of Hartford.
Southington, in *Ohio*, a post-township of Trumbull co.
South Jack'son, in *Michigan*, a post-village of Jackson co., 75 m. S.W. of Detroit.
South Keene, in *New Hampshire*, a village of Cheshire co., 44 m. S.W. of Concord.
South Kent, in *Connecticut*, a village of Litchfield co., 55 m. S.W. of Hartford.
South Kil'lingly, in *Connecticut*, a post-village of Windham co., 50 m. E. of Hartford.
South Kings'ton, in *Rhode Island*, a township of Washington county, 22 miles South of the City of Providence.
South Kort'right, in *New York*, a post-village of Delaware co., 75 m. S.W. of Albany.
South Leb'anon, in *Pennsylvania*, a township of Lebanon co.
South Lee, in *Massachusetts*, a post-village of Berkshire co., 125 m. S.W. of Boston.
South Lin'coln, in *Maine*, a post-village of Penobscot co., 100 m. N.E. of Augusta.
South Livo'nia, in *New York*, a post-village of Livingston co., 40 m. S.E. of Batavia.
South Lon'donderry, in *Vermont*, a post-village of Windham co.
South Lyme, in *Connecticut*, a post-village and township of New London co., 40 m. E. of New Haven.
South Mal'den, in *Massachusetts*, a post-village of Middlesex co., 3 m. N. of Boston.
South Man'helm, in *Pennsylvania*, a township of Schuylkill co.
South Mer'rimack, in *New Hampshire*, a post-vill. of Hillsborough co., 30 m. S. of Concord.
South Mid'dleborough, in *Massachusetts*, a post-village of Plymouth co., 38 m. S.E. of Boston.
South Mid'dleton, in *Pennsylvania*, a township of Cumberland co.
South Mil'ford, in *Delaware*, a village of Sussex co., 21 m. S.S.E. of Dover.
South Milford, in *Indiana*, a post-vill. of La Grange co., 37 m. N. of Fort Wayne.
South Milford, in *Massachusetts*, a post-village of Worcester co., 30 m. S.W. of Boston.
South'most, *a.* Farthest toward the south. (R.)
South Moun'tain, in *Maryland*, near Middletown, in Frederick co., the scene of a battle, Sept. 14th, 1862, between the Nationals, under Gen. Reno, composed of Reno's and Hooker's corps of Gen. McClellan's army, and the Confederates, about 30,000 strong, under Gens. Hill and Longstreet, in which, after a desperate struggle continuing throughout the day, the Nationals were finally victorious. Gen. Reno was killed in the action.
South Nash'ville, in *Tennessee*, a town of Davidson co., on the Cumberland River.
South Na'tick, in *Massachusetts*, a post-village of Middlesex co., 16 m. W.S.W. of Boston.
South New Ber'lin, in *New York*, a post-village of Chenango co., 100 m. W. of Albany.
South New'bury, in *Vermont*, a post-vill. of Orange co., 3 m. N. of Haverhill.
South New Mar'ket, in *New Hampshire*, a post-village and township of Rockingham co., 4 m. S. of Exeter.
South New'port, in *Georgia*, a village of McIntosh co., 40 m. S.W. of Savannah.
South Nor'ridgewock, in *Maine*, a post-township of Somerset co., 27 m. N. of Augusta.
South Nor'walk, or **Old Well,** in *Connecticut*, a city of Fairfield co., near the mouth of Norwalk river, 33 m. W.S.W. of New Haven. *Pop.* (1897) 7,300.
South'old, in *New York*, a village and township of Suffolk county, Long Island, 91 miles N.E. of New York City.
South Or'ange, in *New Jersey*, a post-borough of Essex co., 6 m. W. of Newark.
South Or'rington, in *Maine*, a post-village of Penobscot co., 7 m. S. of Bangor.
South Ot'selic, in *New York*, a post-village of Chenango co., 16 m. N.W. of Norwich.
South Ot'tawa, in *Illinois*, a township of La Salle co., on the Illinois River, opposite Ottawa.
South Par'is, in *Maine*, a post-village of Oxford co., 38 m. W.S.W. of Augusta.
South Per'ry, in *Ohio*, a post-village of Hocking co., 16 m. S.W. of Logan.
South Pitts'burg, in *Pennsylvania*. See PITTSBURG.
South Point, in *Missouri*, a post-village of Franklin co., on the Missouri River, 52 m. W. of St. Louis.
South Pom'fret, in *Vermont*, a post-village of Windsor co.
South'port, a watering-place of England, co. Lancaster, 18 m. N.E. of Liverpool; *pop.* 22,000.
Southport, in *Connecticut*, a sea-port and post-village of Fairfield county, 24 miles S.W. of New Haven.
Southport, in *Indiana*, a post-town of Marion co., 8 m. S. of Indianapolis.—A village of Owen co., about 1 m. S. of Spencer.
Southport, in *Maine*, a post-township of Lincoln county.
Southport, in *New York*, a post-village and township of Chemung co., 190 m. W.S.W. of Albany.
Southport, in *Wisconsin*, a village of Kenosha co.
South Prai'rie, in *Illinois*, a village of Boone co., 80 m. W.N.W. of Chicago.
South Pult'ney, in *New York*, a post-village of Steuben co., 210 m. S.W. of Albany.
South Read'ing, now **Wakefield,** in *Massachusetts*, a post-town of Middlesex county, 11 m. N. of Boston.
South Read'ing, in *Vermont*, a post-village of Windsor co., 60 m. S. of Montpelier.
South Riv'er, in *Iowa*, flows into the Des Moines River in the S.E. of Polk co.
South River, in *Missouri*, a township of Marion county.
South River, in *N. Carolina*, rises in Cumberland co., and flowing S.E., enters Cape Fear River 10 m. N.W. of Wilmington.
South River, in *New Jersey*. See MANALAPAN BROOK.
South River, in *Virginia*, rises in Augusta co., and flowing N.E., enters the main branch of the Shenandoah River at Port Republic, in Rockingham co.
South'ron, *n.* A southerner.
South Roy'alston, in *Massachusetts*, a post-village of Worcester co., 35 m. N. of Worcester.
South Roy'alton, in *Vermont*, a post-village of Windsor co., abt. 35 m. S.S.E. of Montpelier.
South Sa'lem, in *New York*, a post-village of Westchester co., 120 m. S. of Albany.
South Salem, in *Ohio*, a post-village of Ross co., 16 m. S.W. of Chillicothe.
South Sand'wich, in *Massachusetts*, a post-village of Barnstable co., 60 m. S.E. of Boston.
South Sehodae, (*sko-dak'*,) in *New York*, a post-village of Rensselaer co., 18 m. S.E. of Albany.
South Scit'uate, in *Massachusetts*, a post-village and township of Plymouth county, 25 miles S.E. of Boston.
South Scituate, in *Rhode Island*, a post-village of Providence co.
South See'konk, in *Massachusetts*, a post-village of Bristol co., 45 m. S.S.W. of Boston.
South Shaftes'bury, in *Vermont*, a post-village of Bennington co., 49 m. S.W. of Rutland.
South Shenan'go, in *Pennsylvania*, a township of Crawford co.
South Shrews'bury, in *Massachusetts*, a village of Worcester co., 35 m. S.W. of Boston.
South So'dus, in *New York*, a post-village of Wayne co., abt. 190 m. N.W. of Albany.
South So'lon, in *Ohio*, a post-village of Madison co., 5 m. S. of Columbus.
South Stafford, in *Vermont*, a post-village of Orange co., 35 m. S.S.E. of Montpelier.
South Stow, in *Vermont*, a village of Lamoille co., abt. 18 m. N.N.E. of Montpelier.
South Strabane', in *Pennsylvania*, a township of Washington co.
South Thom'aston, in *Maine*, a post-village and township of Knox co., on Penobscot Bay, 40 m. E.S.E. of Augusta.
South Ty'ringham, in *Massachusetts*, a village of Berkshire co., 120 m. S.W. of Boston.
South Union, in *Kentucky*, a post-village of Logan co., 165 m. S.W. of Frankfort.
South Union, in *Pennsylvania*, a township of Fayette co.
South Val'ley, in *New York*, a post-village of Otsego co., abt. 12 m. E. of Cooperstown.
South Ver'non, in *Vermont*, a village of Windham co., on Connecticut River, 100 m. S.E. of Montpelier.
South'ville, in *Connecticut*, a post-village of Litchfield co., 30 m. N.W. of New Haven.
Southville, in *Kentucky*, a village of Shelby co., 31 m. W.N.W. of Frankfort.
Southville, in *New York*, a post-village of St. Lawrence co., 220 m. N.N.W. of Albany.
South Wales, in *New York*, a post-village of Erie co., 21 m. S.E. of Buffalo.
South Wal'pole, in *Massachusetts*, a post-village of Norfolk co., abt. 22 m. S.W. of Boston.
Southward, (*sŭth'ŭrd,*) *adv.* Toward the south.
—*n.* The southern regions or countries.
Southwark, (*sŭth'ŭrk,*) a parliamentary borough of England, co. of Surrey, of which it is the largest town, and also a suburb of the city of London. It is situated on the S. bank of the Thames, immediately opposite the city of London, with which it communicates by London, Southwark, and Blackfriars' bridges. *Pop.* abt. 200,000.
South'wark, in *Pennsylvania*, a former district of Philadelphia co., on the Delaware River. It is now included within the limits of the city of Philadelphia.
South Weber, in *Utah*, a post-village of Davis co., 30 m. N. of Salt Lake City.
South Well'fleet, in *Massachusetts*, a post-village of Barnstable co.
South-west', *n.* The point of the compass equally distant from the south and west.
South-west', or **South-west'erly,** *a.* Lying in the direction of the south-west; coming from the south-west.
South-west, in *Pennsylvania*, a post-township of Warren co.
South-west'er, *n.* A gale or storm from the south-west.
South Wes'terloo, in *New York*, a post-village of Albany co., 20 m. S.W. of Albany.
South-west'ern, *a.* In the direction of south-west.
South West Harbor, in *Maine*, a post-village of Hancock co., 114 m. S.E. of Augusta.
South West Keys, or **Albuquerque Islands,** a group in the Caribbean Sea, 110 m. E. of the Mosquito coast; Lat. 12° 4′ N., Lon. 81° 50′ W.
South West'port, in *Massachusetts*, a post-village of Bristol co., 60 m. S.W. of Boston.
South Wey'mouth, in *Massachusetts*, a post-village of Norfolk co., 11 m. S. of Boston.
South Wheel'ing, in *W. Virginia*, a village of Ohio co., on the Ohio River.
South White'hall, in *Pennsylvania*, a post-twp. of Lehigh co., 6 m. N.W. of Allentown.
Southwick, (*sŭth'ik,*) in *Massachusetts*, a post-twp. of Hampden co., 100 m. S.W. of Boston.
South Wil'braham, in *Massachusetts*, a post-village of Hampden co., 11 m. E.S.E. of Springfield.
South Wil'liamstown, in *Massachusetts*, a post-village of Berkshire co., 130 m. N.W. of Boston.
South Wind'ham, in *Connecticut*, a post-village of Windham co., 26 m. N. of New London.
South Windham, in *Maine*, a post-village of Cumberland co.
South Wind'sor, in *Connecticut*, a post-township of Hartford co., on the Connecticut River, 8 m. N.E. of Hartford.
South Wo'burn, in *Massachusetts*, a village of Middlesex co., 8 m. N.N.W. of Boston.
South Wolfborough, in *New Hampshire*, a post-village of Carroll co., 35 m. N.E. of Concord.
South Wood'bury, in *Pennsylvania*, a township of Bedford co.
South Wood'stock, in *Connecticut*, a post-village of Windham co., 38 m. N.E. of Norwich.
South Wood'stock, in *Vermont*, a post-village of Windsor co., 50 m. S.E. of Montpelier.
South Worcester, (*woos'ter,*) in *New York*, a post-village of Otsego co., 60 m. S.W. of Albany.
South Wrentham, (*rent'-,*) in *Massachusetts*, a village of Norfolk co., 25 m. S.W. of Boston.
South Yad'kin, in *North Carolina*, a small stream which enters the Yadkin River 9 m. N. of Salisbury.
South Yar'mouth, in *Massachusetts*, a post-village of Barnstable co., 80 m. S.E. of Boston.
Souval'ky, a town of Russian Poland, on the Charnagarche, a tributary of the Niemen, 538 m. S.W. of St. Petersburg; *pop.* 13,143.
Souvenir, (*soov-neer',*) *n.* [Fr.] A keepsake; a memento.
Souz'dal, a town of European Russia, govt. of Vladimir, is said to have been founded 606 B. C.; *pop.* 7,224.
Sovereign, (*suv'er-in,*) *a.* [Fr. *souverain*; It. *sovrano*, from Lat. *supremus*, highest, from *super*, *supra*, above.] Supreme in power; possessing supreme dominion; superior to all others; chief; pertaining to the first magistrate of a nation.— Supremely efficacious; predominant; effectual.
—*n.* One who possesses the highest authority without control; a king, prince, monarch, or emperor; a supreme magistrate.
(*Numis.*) An English coin of the value of 20 shillings, the standard weight of which is 5 pennyweights and 3·27 grains, or 123·274 troy grains; a pound sterling, equal to $5 (gold).
Sov'ereignly, *adv.* In a sovereign manner; supremely. (R.)
Sov'ereignty, *n.* [Fr. *souveraineté.*] State or power of a sovereign; supreme power; supremacy; the possession of the highest power, or of absolute dominion.
Sow, *n.* [A. S. *sugu*; Dan. *so*; Ger. *sau.*] The female of the hog kind, or of swine.
(*Foundry.*) A large trough for holding melted metal.
—An ingot or mass of metal.
—*v. a.* [A. S. *sawan*; Ger. *säen*; Du. *zaaijen*; Lat. *sero.*] To cast or scatter on the ground, for the purpose of growth and the production of a crop; to scatter, as seed. —To spread or to originate; to propagate. —To supply or stock with seed.— To scatter over; to bespriukle.
—*v. n.* To scatter seeds for growth and the production of a crop.
Sow'-bread, *n.* (*Bot.*) See CYCLAMEN.
Sow'-bug, *n.* (*Zoöl.*) See ONISCUS.
Sow'er, *n.* One who scatters or spreads; one who sows or scatters seed for propagation.—A breeder; a promoter.
Sow'erby Bridge, a town of England, in the West Riding of Yorkshire, 3 m. S.W. of Halifax. *Manuf.* Woollen. *Pop.* 6,500.
Sow'ing, *n.* (*Agric.* and *Hort.*) The process of depositing seed in the soil for the purpose of producing plants. The operation of sowing is generally performed in spring, in order that the plants may have the advantage of the coming summer. The seed is either scattered abroad, or deposited in rows or drills; on a small scale by the hand, and on a large scale by a sowing-machine. Some seeds which are of large size are planted singly. The covering of seeds is greater or less, according to their size and the texture of the soil. Where the soil is somewhat firm, and the seed is pressed into it by a roller, or by other means, and where the climate is moist, very little covering is necessary; but where the soil is loose, and the climate dry and warm, the covering should be twice or thrice the thickness of the seeds.
S.-machine. (*Agric.*) A machine for depositing seeds in the soil, either by scattering broadcast, or by dibbling individually, or by placing them in rows, at a greater or less distance asunder. Machines for sowing seeds in rows are termed *drills.*
Sow-thistle, (*-thisl',*) *n.* (*Bot.*) See SONCHUS.
Sox'ville, in *Pennsylvania*, a village of Monroe co., 131 m. N.E. of Harrisburg.
Soy, *n.* See SOJA.
Soy'mida, *n.* (*Bot.*) A genus of plants, order *Erythroxylaceæ*. *S. febrifuga* is the Rohuna or Red-wood tree. Its bark is tonic, febrifugal, and astringent.
Spa, or **Spaa,** a town of Belgium, and a watering-place of world-wide celebrity, stands in a romantic valley amid hills which form part of the Ardennes chain, 27 m. S.E. of Liége, and 22 m. S.W. of Aix-la-Chapelle by railway. The prettily-built town consists almost entirely of Inns and lodging-houses. The mineral springs, seven in number, are all chalybeate, and contain minute quantities of iron, so combined with alkaline salts and carbonic acid gas as to be both easily digested and agreeable to

the alate. They are cold, bright, and sparkling, and are efficacious in complaints of the liver, uervous diseases, dyspepsia, &c. Spa-water is exported to all quarters of the globe. The other springs are in the vicinity of the town, and most of them are situated amid picturesque plantations. *S.* is also famed for the manufacture of wooden toys, which are stained brown by being steeped in the mineral waters. *S.* was frequented as a watering-place as early as the 14th cent., and has given its name to many mineral springs. *Pop.* 5,173.

Spa, *n.* A general name for springs of mineral water, from the place of this name in Belgium.

Space, *n.* [Fr. *espace;* It. *spazio;* Lat. *spatium.*] Extension, as in length, breadth, thickness, extent; any quantity of extension. — Quantity of time; also, the interval between two points of time. — A short time. (R.)

(*Geom.*) *S.* is not the mere notion of room in which a material object does or may exist, but it is the room in which an object, actual or imaginary, determinate necessarily as to its *form* and possibly as to its *magnitude* and its *position*, does exist.

(*Metaph.*) Matter as known to us, *i. e.* as it exists in so far as we are concerned, has always parts. We only know it either as a number of objects, forming parts of a great existing whole—the material universe—or as an object, one of these parts, itself the aggregate of a number of parts. As a whole, also, it is always known to us in a continual variation of state, in a constant change of condition and relation among its constituent parts. Our knowledge of it thus involves three distinct notions —*space, number,* and *time.* In their most elementary forms: *space* is the room in which more than one material object, or more than one part of a material object, exists, or, in other words, the room in which matter necessarily (*i. e.,* only known to us as) extended does exist; *number* is the plurality, or more-than-oneness, of two or more material objects, or two or more parts of a material object; *time* is the consecution or non-simultaneity of two states—conditions or relations of a material object. These are not *definitions* of space, number, and time; they add no clearness to our ideas of them; they are only *verbal limitations* of them to their elementary and primary forms as notions in the human mind. As such notions, they are intuitive and cannot be defined, for that what is intuitive cannot be defined is a maxim in logic. Similarly in spiritual existence, as known to us, an intelligence can exist only as an aggregate of consecutive states, and this knowledge, apart from any knowledge of matter, involves the notions of number and time. Space, number, and time, then, are not existences *per se;* apart from material and spiritual existence we can form no notion of them. As to the infinity of physical space, or the infinity of actual material existence, all that we can say is, that however far we advance (and we have advanced a great deal) in the power of discerning distant objects, we have uniformly found new objects to discern, and we have, therefore, good analogical reason for supposing that no limit can be assigned to their still further existence. This view of what is commonly called the infinity of space is further supported by the fact that metaphysical space, as a conjugate of material existence, in no way precludes the possibility of its infinite extension.

(*Mus.*) The void between the lines in a musical staff. The spaces are four in number, and the lines five.

(*Print.*) The distance or interval between lines or words, as in books. — Also, one of the thin pieces of type metal, cast to various thicknesses and different lengths, and not so high as type, which are put between and increase the width between the lines. They are generally called *leads.*

Space'-rule, *n.* (*Print.*) A fine line, cast type high, generally cast to a 4-to-pica lead in thickness, and to any length required. It is used in setting up tabular matter.

Spac'ing, *n.* (*Print.*) The adjustment of the distance between the words in a line, so that there shall not be any glaring disproportion.

Spa'cious, *a.* [Fr. *spacieux;* Lat. *spatiosus.*] Having large, or ample space or room; roomy; wide; not narrow, as a church. — Extensive; ample; capacious.

Spa'ciously, *adv.* Widely; extensively.

Spa'ciousness, *n.* The quality of being spacious; wideness; largeness of extent; roominess; extensiveness; vastness of extent.

Spade, *n.* [A. S. *spad, spadu;* Du., Dan., and Sw. *spade;* Ger. *spaten.*] An instrument for digging or cutting the ground, consisting of a broad and nearly rectangular blade of iron, with a handle. — A deer three years old.

— *pl.* A suit of cards.

— *v. a.* To dig with a spade, or to pare off, as the sward of land with a spade.

Spade'ful, *n.* As much as can be placed on a spade.

Spadi'ceous, Spadicose', *a.* [From Lat. *spadix, spadicis.*] Of a light red color.

(*Bot.*) Like, or bearing, a spadix.

Spadille', *n.* [Fr.] The ace of spades in the game of ombre and quadrille.

Spa'dix, *n.* [Lat.] (*Bot.*) A form of inflorescence in which the flowers are arranged around a fleshy rachis, and enclosed within a kind of bract called a *spathe,* as in palms and araceous plants.

Spa'do, *n.; pl.* SPA'DONES. [Lat.] A gelding; a castrated beast.

Spad'ra, in *Arkansas,* a township of Johnson co.

Spadroon', *n.* A sword lighter than a broad-sword, and made to cut and to thrust.

Spaf'ford, in *New York,* a post-township of Onondaga county, on Skaneateles Lake, 150 miles N.W. of Albany.

Spaf'ford Hol'low, in *New York,* a post-village of Onondaga co., 140 m. W. of Albany.

Spagnolet'to. See RIBERA.

Spahi's, *n.* [Same as *Sipahi* or *Sepoy.*] Formerly, a Sepoy. See SEPOYS. — At the present time, a soldier belonging to one of the regiments (called *regiments of Spahis*) raised by the French from among the native tribes of Algeria and from France in about equal proportion; the dress, especially of the indigenous soldiers, partakes very much of the Arab character.

Spain, (anc. *Hispania,*) [Sp. *España,* Fr. *Espagne,*] an extensive kingdom of S. Europe, occupying the E. and largest portion of its S.W. peninsula, between Lat. 36° 5′ and 43° 30′ N., and Lon. 3° 20′ and 9° 10′ E., having on the W. Portugal and the Atlantic, and S. and E. the Straits of Gibraltar and the Mediterranean. Greatest length, E. to W., about 650 m.; greatest breadth, 550 m. *Area,* 184,000 sq. m. — *Pol. Div.* Spain was formerly divided into a number of provinces, which formed as many separate governments under the Moors, or under the Christian chieftains. The whole were united under one head about the close of the 15th century; but the divisions, and even the titles (generally of kingdoms), were retained, and were attended with consequent discrepancies in the mode of administration. Actually, the 12 ancient divisions of the kingdom, inclusive of the adjacent islands, are divided into 49 provinces, as follows: — 1. *New Castile:* Madrid, Guadalaxara, Toledo, Cuenca, Ciudad Real; 2. *Old Castile:* Burgos, Logroño, Santander, Oviedo, Soria, Segovia, Avila, Leon, Palencia, Valladolid, Salamanca, Zamora; 3. *Galicia:* Coruuna, Lugo, Orense, Pontevedra; 4. *Estremadura:* Badajoz, Cáceres; 5. *Andalusia:* Seville, Huelva, Cadiz, Jaen, Cordova; 6. *Granada:* Granada, Almeria, Malaga; 7. *Valencia:* Valencia, Alicante, Castellon-de-la-Plaña, Murcia, Albacete; 8. *Catalonia:* Barcelona, Tarragona, Lerida, Gerona; 9. *Aragon:* Zaragoza, Huesca, Teruel; 10. *Navarre:* Navarre; 11. *Guipuzcoa:* Alava, Biscay, Guipuzcoa; 12. *Islands:* The Balearic and Canary Islands.—*Desc.* The shape of Spain resembles that of a very irregular pentagon, the longest side of which faces the N. The coast-line is, on the whole, pretty regular without those great and sudden indentations that characterize the shores of many other countries, though an exception may be made as regards the coast of Galicia, which is fringed with bays and headlands, the principal among the former being the bays of Betanzos, Pontevedra, and Vigo; and among the latter the capes Estaca, Ortegal, and Finisterre. The other capes of *S.* are principally on the coast of the Mediterranean. Cape Tarifa abuts on the Strait of Gibraltar; and further N. are capes Gata, Palos, La Nao, and Creux, the last being the extreme E. point of the peninsula. The surface is very much diversified, and intersected with mountains; but the whole may be described as a table-land of considerable elevation, Madrid, the cap., being 2,173 feet above the sea, which is the average height of the towns in the interior. Five chains of mountains are pretty clearly defined, running from E. to W., through the peninsula. 1. The range of the *Pyrenees,* not only divides France from *S.,* but runs in a continuous chain parallel to, and at a short distance from, the N. shore, upwards of 600 m., as far W. as Cape Finisterre. The E. division is known as the Pyrenees, properly so called, the W. portion consisting of the Asturian Mountains; the highest point in the former is the Pic de Netore on Mount Maladetta (11,424 ft.), and in the latter the Peña de Peñaranda, S.W. of Oviedo (11,031 ft.). 2. A range extending W.S.W. from the Ebro, near Tudela, dividing Old and New Castile, Leon, and Estremadura, and thence running S.S.W. through Portugal to Cape Roca, near Lisbon; the culminating point is the Sierra de Grados (10,552 ft.), at the S.W. angle of Old Castile; but the average height does not exceed 4,500 ft. 3. A chain branching S.W. from that last mentioned, divides the basin of the Tagus from that of the Guadiana; the central portion, S. of Toledo, called the *Sierra de Guadalupe,* attains a height of 5,110 ft. 4. A range, called the *Sierra Morena,* runs along the S. border of La Mancha, in New Castile, which, though not continuous, and of no great extent, forms the water-shed between the Guadiana and Guadalquiver. 5. The *Sierra Nevada,* runs from Cape Palos, near Carthagena, almost as far as Cadiz; it is at no great distance from the Mediterranean, the most elevated part being S.E. of Granada, where the Serro de Mulahaçen rises 11,660 ft. above the sea; the peak of Veleta is 11,385 ft. in height.—*Rivers.* In each of the valleys formed by these mountains, flows one of the great rivers of Spain, to which the smaller streams are tributary. These are the Douro, the Tagus, the Guadiana, the Guadalquivir, the Ebro, and the Minho. Spain, however, is not a well-watered country; for, although the rivers are long, their water-volume is small. The Douro drains the N. of the central table-land, and, in its lower course, the N. of Portugal. The Tagus is the largest river in the peninsula, and drains the central portion of the table-land, between the Castilian Mountains and the Sierra de Toledo, and, in its lower course, Central Portugal. The Guadiana drains the S. of the table-land, and the Guadalquivir drains another district S. of the great table-land. The Ebro drains the N.E. and has a rapid course; while the Minho forms the N. boundary between Spain and Portugal.—*Soil.* The central region consists for the most part of arid, unsheltered plains either of sand or gypsum, intersected with lofty mountains, which reflect with intolerable fierceness the scorching heat of summer, and sharpen into more intense keenness the extreme cold of winter. The lower region of the coast, sloping gradually towards the sea, is broken into an alternation of mountains and valleys, producing the most agreeable variety, and presenting a pleasant contrast to the bleak and barren sameness which characterizes the central region. It is everywhere fertile, or may be rendered so by irrigation. The alluvial soil of Old Castile is tolerably productive, even without irrigation. New Castile has every variety, from the gypseous marl composing the poor soil about Madrid, to the red marl of Guadalaxara and the limestone of Arganda. The valleys of the Sierra Morena, and the whole of Estremadura, have a soil formed of detritus from primary rocks, and cannot be excelled in beauty and natural fertility. The soil of Andalusia is chiefly of marl and clay, interspersed with red-sandstone marls, and it is by irrigation only that it can be made productive. The Vega of Malaga, however, is naturally of surprising fertility, owing partly to the long establishment of irrigation, but partly, also, to the fact of its being in a great measure alluvial. Valencia has a poor, ungrateful soil, yielding crops only by forced cultivation and the use of water. In Catalonia and Aragon the detritus of limestone is found alternating with fine red marls and waste tracts of gypseous marls, similar to those near Madrid. On the whole, the valleys of the Sierra Morena and the Alcarria, the provinces of Toledo and Guadalaxara, the Vega of Malaga, and the country between Gibraltar and Cadiz, would probably repay the labors of agriculture better than other parts of *S.* — *Climate. S.* is greatly diversified, being modified by the physical conformation of the country. The temperature of the air, always varying less near the coast than in the interior, is much more equable in the maritime than the other provinces. On the N. and W. coast, westerly winds prevail; and being loaded with moisture from the Atlantic, discharge abundant rains in winter and spring. The coast of the Mediterranean has a calmer atmosphere, with a prevalence of E. winds, and a temperature generally rising above 57° Fahr., and seldom descending so low as 32°. Winter indeed, is almost unknown on a coast sheltered by the elevated land of the interior, and warmed by the rays of a cloudless sun; while the heat of summer is very great, and would be all but intolerable were it not lessened by the sea-breeze, which lasts during the greater part of the day. On the plateau of Castile, the mean height of which, according to Bruginère, is about 1,900 feet above the sea, heat accumulates much more slowly, and it is only during the month of July that the temperature ascends as high as 77° Fahr. In August, the mornings and evenings begin to be cold, and in winter the severity of its climate forms a very striking contrast with the heats of summer. Owing to its extreme and sudden variations, the climate of the central plateau is far from healthy. The Madrid colic is always dangerous, and often fatal to strangers; besides which, there is a general tendency to pulmonary consumption and other diseases of the lungs. — *Minerals.* Abundant; they comprise lead, quicksilver, iron, marble, and good building-stone. The iron-works of Biscay, Aragon, and Asturias, have been of great note for several centuries. Precious stones are found on excavating particular spots; and there are indications of coal-mines in various parts, though they are not as yet extensively wrought. Salt forms one of the chief products of Spain; it is procured by evaporating sea-water, a process to which the climate of Spain is as favorable as that of Portugal and Sardinia. — *Forests* are less extensive than any other large country of Europe. — *Zoöl.* Among the animal products of *S.,* the horse is entitled to particular notice. The Arabs, when in possession of the country, stocked it with their finest breeds; and though the race has degenerated, it still shows many of the points by which it was originally distinguished. In beauty, grace, and docility, the horses of Andalusia are said to be superior even to those of England. Great numbers of mules are bred in Old Castile. The asses are of large size, carefully bred, and in strength, docility, and sure-footedness, nearly equal to the mules. The bull of Andalusia is found wild in the Sierra Morena. Hogs are bred in vast numbers. Sheep, however, are the favorite stock of *S.,* nor are there wanting wild animals, such as wolves, lynxes, wild cats, wild boars, and foxes. The bear is now found only in the Pyrenées. Monkeys are met with in the Sierra de Ronda, besides which there are various reptiles, as chameleons, lizards (some 2 feet long), and snakes. Among the birds may be mentioned several species of vultures, falcons, owls, ravens, magpies, partridges, quails, bustards, and plovers. — *Agric.* With the exception of a few districts which have peculiar facilities for irrigation, agriculture at present is in the most backward state imaginable. A great part of the land is not tilled, and that which is tilled is executed in so careless and slovenly a manner as to produce a starved crop of corn in spots where they might command the most abundant harvests. The corn is usually choked up with stones, filth, and weeds of every kind. Generally speaking, tillage-farms are small, and rents low; but owing to the exorbitant taxes, and other expenses wholly exclusive of rent, the farmers are wretchedly poor, and when they require money, are obliged to obtain it at exorbitant interest, by mortgaging their crops. The implements of husbandry are of the rudest description; it is not uncommon, in the S., to see men returning from ploughing seated on a mule, to the sides of which their whole apparatus is tied; the use of fanners is unknown, except in the neighborhood of seaport-towns. The most careful cultivation is found in the *huertas,* or irrigated lands of Granada, Murcia, and Valencia. These tracts, indeed, are considered as the gardens of *S.,* and abound not only with every variety of fruits, but all kinds of vegetables and plants, useful either as food or materials for manufactures. The mild red pepper raised in the huerta of Murcia is celebrated all over *S.,* and forms a considerable article of trade with the interior. Rice is

the chief product of Valencia. The sugar-cane of Granada and Valencia is as good as that of the West Indies; but it is cultivated at much greater expense, and its growth has, in consequence, been almost wholly abandoned. Considerable quantities of corn are raised in different parts along the S.E. coast. Mulberry-trees are carefully cultivated in the S. provinces; those of Murcia and Valencia are white, those of Granada black. In the cultivation of vines, poles are not used, but the cuttings are planted, and not being permitted to attain any great height, gradually form thick and very stout stocks. Espaliers, also, are numerous, especially in Andalusia, and the grapes on these vines attain an extraordinary size, the bunches often weighing from 12 to 14 pounds. The rich level lands produce the largest quantities of wine; but here, as elsewhere, that raised on gravelly soils on the hilly slopes is the best. The quality of the wine varies greatly in different districts; but it may be said with truth that, except the wines of Xeres, Rota, Malaga, Alicante, and Benicarlo, which are intended for exportation, few of the Spanish wines are equal even to those of third-rate quality in France. Being very generally kept in skins smeared with pitch, they acquire an *olor de bota*, or peculiar taste, and a flavor not disliked by the natives, but very disagreeable to foreigners. The Pyrenees, the hilly parts of Biscay and the Asturias, the vast plains of Andalusia, the two Castiles, Estremadura, and Leon, are almost wholly in pasture; and in some parts the traveller may journey for many miles without seeing either a house or an individual. In point of fact, however, half the pastures really consist of heaths, or of neglected tracts covered with thyme and other wild herbs, that at present are next to worthless. The Spaniards distinguish their sheep into the *sedentary*, or those which remain in the same place during the year, and the *migratory*, or those which move from place to place. The latter, or *transhumantes*, consisting chiefly of the Merinos, or fine-woolled breeds, are depastured during winter in the vast plains of Andalusia, Castile, Leon, and Estremadura; and are driven in summer to the nearest mountains. These migratory flocks are collected for their journeys in large bodies of 10,000 and upwards, called *mestas*, their peregrinations being regulated by a peculiar code of laws, and by immemorial custom. — *Manuf.* Catalonia, Biscay, and Valencia are the most industrious provinces, and in them manufactures are most advanced. Those of silk and cotton, especially the first, are carried on to a considerable extent in Barcelona, Valencia, and other towns; but, though the fabrics be excellent, the colors are wretched. The blondes mantillas of Almagro, in La Mancha, are perhaps the best of the Spanish manufactured articles. Broadcloth is made at Alcoy in Valencia, and coarse cloths (*pano pardo*) are extensively manufactured in Catalonia, and in various districts throughout the country. But, with the exception of silks, all the woven fabrics produced in *S.*, whether woollens, cottons, or linens, are at once badly finished and enormously dear; even the coarse, hard-spun *mantas*, that serve the muleteers for cloaks and blankets, bring exorbitant prices. — *Commerce.* The total imports of *S.*, including bullion and specie, averaged $80,000,000 per annum, within the ten years from 1885–95, while the exports within the same period averaged $95,000,000. The great articles of export from Spain are wine, olive-oil, wool, fruit of various kinds, lead, quicksilver, brandy, cork-wood, salt, raw silk, and wheat. The most important articles of import are colonial products, obtained principally from Cuba; cotton and cotton-wool, linens, hemp and flax, woollens, salted-fish, hardware, glass and earthenware, timber, rice, hide, leather, and cheese. *S.* was famous in ancient times for her mineral wealth, and sht. 2,000 mines are still worked, but some of them are very insignificant. The total value of the minerals and ores raised in the year 1896amounted to $10,046,816, and that of the metals to $16,880.749.—*Roads and Railways.* *S.*, until very recently, was singularly destitute of roads and other means for the speedy and easy transport of travellers and products from place to place. The king's highways (*caminos reales*), the only roads worthy of the name, extended only between the more important places. The ordinary roads of *S.* were always, and to a great extent still are, in a wretched condition, the consequences of which, for trade and industry, have been only remedied, within the last few years, by the construction of a vast and tolerably well planned network of railway. The railway system centres at Madrid, from which four great lines radiate in as many directions, connecting the capital with all the more important towns of the kingdom. The whole of the Spanish railways belong to private companies, but nearly all have obtained guarantees, or subventions, from the government. The length of lines in 1897 was 6,970 miles, and 900 miles were in course of construction.—*Religion.* *S.* has long been, and still is, the favorite seat of the Roman Catholic religion, the country in which it has been maintained in the greatest purity, and to the exclusion of every other. The Inquisition was introduced, or, at all events, vested with a vast increase of power, in the reigns of Ferdinand and Isabella; and that formidable tribunal ultimately succeeded, by dint of the stake and the rack, and such like atrocious means, in exterminating heresy, or, in other words, all difference of opinion as to religious matters in *S.*; and it was, also, mainly instrumental in prevailing on its weak and bigoted sovereigns to banish the Moors. According to an official statement drawn up in 1812, it appears that the clergy were then in possession of about one-fourth part of the landed property of the kingdom, exclusive of tithes and other casual sources of income, producing in all a total gross revenue of about $55,000,000 a year. The revenues of some of the high ecclesiastics were immense; the archbishopric of Toledo is said to have been worth from $325,000 to $400,000 a year. A decree of the 9th of March, 1836, entirely suppressed all conventional establishments and religio-military orders. This decree gave rise to a long dispute with the head of the Roman Catholic church, which ended in the sovereign pontiff conceding the principles of the measures. By a concordat with Rome (1859) the Spanish government was authorized to sell the whole ecclesiastical property, except churches, in return for an equal amount of untransferable public debt certificates, bearing interest at the rate of 3 per cent. — *Govt.* The government of *S.* was long a limited monarchy, the people being represented by their Cortes. But after the union, in the 15th cent., of the different provinces into one kingdom, the concentration of power in the executive branch enabled the latter to dispense with the Cortes, and to encroach on the privileges of the provinces; so that, on the accession of the house of Bourbon, in 1700, there remained hardly any vestige of independence, except in Biscay. Since 1833, a constitutional representative monarchy has been adopted. — *Education.* Up to a very recent period, the great mass of the population of *S.* were in a state of extreme ignorance. It was rare, in the latter part of the 18th cent. and the beginning of the present, to find a peasant or an ordinary workman, who was able to read, which accomplishment among women was even held to be immoral. Until 1808, public education was in the hands of the clergy; but late enactments, giving the instruction of the people in charge of the government, have made a radical change in this respect. The state, however, pays but a very small sum towards public education, which is left mainly to the charge of the communes and the parents themselves; but the superintendence of the government over educational matters has led to vast progress. In 1797, only 393,126 children attended the primary schools, which were very imperfect. In 1812, the Cortes tried to introduce some modifications, but failed, on account of the war, in making a radical

Fig. 2400. — PEASANTS OF ALICANTE.

reform in popular education. Fresh efforts were made in 1820 and 1825, but still without much success. The law of July 21, 1838, enjoining the expenditure of considerable sums by the communes for the purpose of public instruction, proved a great step in advance. It was found, at the census of 1860, that of the total pop. there were 2,414,015 men, and 715,906 women, able to read and write; 316,577 men, and 389,211 women, able to read but not to write; and that all the rest, upwards of 5,000,000 men, and 6,800,000 women, could neither read nor write. Since then the government has made efforts to improve public instruction, and the higher institutions of learning have been the object of special solicitude.—*Finances.* The annual revenue of *S.* is about $141,500,000. The total capital of the public debt in 1896 was $1,475,453,696. In 1851, owing to the inability of the gov. to pay in full, part of the debt of *S.* was converted into passive stock, not bearing interest, and to be liquidated by an annual sinking fund. This law closed the London and Paris markets against Spanish loans. It was admitted by successive ministers of finance in recent years that *S.* was absolutely unable to pay interest on its debt in the existing state of things, ruined both by a costly civil war, and desperate and equally costly efforts to suppress the Cuban insurrection.—*Army and Navy.* The army is formed by conscription. The time of service in the infantry is 8 years, of which 5 have to be spent in the infantry of the line, and 3 in the provincial militia. For military purposes the kingdom is divided into 5 districts, or *capitanias-generales*, at the head of each of which stands a *captain-general*. For the year 1897 the strength of the army on the peace footing was fixed at 146,200 men; on the war footing (including the national guard) at 1,280,000. The navy, commanded by one captain-general of the fleet, consisted of 11 armored and 63 unarmored ships, 2 armored and 40 unarmored gunboats, 79 torpedo boats, &c., with a total of 960 guns. The officers, seamen, &c., aggregated 26,460; the naval reserves, 25,000.—*Races, &c.* There are four distinct races in *S.*: 1. The *Spaniards*, who form the bulk of the population; 2. The *Basques* (about 500,000), descended from the ancient Cantabrians, and living in Navarre and the Basque provinces: 3. The *Moriscoes*, descendants of the Moors, about 60,000 of whom still reside in Granada and the Alpujarras; and, lastly, the *Gitanos*, or Gipsies, a race (comprising about 50,000) spread all over the peninsula, but especially on the S.E. coasts, not strolling from place to place, as in England, but generally pursuing fixed occupations in the towns. The Spaniards are middle-sized, thin, with well-proportioned limbs, dark hair, black piercing eyes, overshadowed by thick eye-brows, sharp features, and sallow complexions. The women are generally of middle or low stature, but gracefully formed, with almost aquiline noses, full, dark, expressive eyes, dark hair, and complexions varying from the flesh-tint of Northern Europe to the light-olive of the Moors. The character of the Spaniards has been variously drawn; but, though it differs materially in different provinces, its discriminating features are not to be mistaken. Though commonly slow, cautious, and deliberate, they become, when their passions are roused, rash, violent, and precipitate in the extreme. Though formal, they are courteous in their bearing, and, though grave, polite. The pride of the Spaniards is proverbial, and they entertain the most overweening opinion of themselves and their country. Though friendly, they are easily offended, vindictive, and more inclined to revenge real or fancied insults than to remember favors. They are fond to excess of show and ostentation, and will endure the greatest privations at home to make a display in public. Their vicious institutions and their climate have made them in the last degree indolent and procrastinating. They are infinitely less jealous now than formerly, and their bigotry has become passive rather than active. They have ceased, in fact, to care much about religion, and are satisfied if they observe the fasts and external duties which it enjoins. In *S.* there is a good deal of aristocratic pride, and the distinction of rank is much attended to. The *hidalgos*, or gentry, claim to be descended from those Spaniards who, on the subjugation of the rest of the country by the Moors, founded an asylum in the fastness of the northern provinces, whence they again gradually spread their conquering arms over the whole country. Besides the *hidalgos de sangre*, or by descent, there are also *hidalgos de privilegio*, or by office, conferred on them by the sovereign; but of these there are comparatively few. Even at the present time, the titled nobility of the kingdom is very numerous. It consisted in 1890 of 82 dukes, all grandees of *S.*; 722 marquises, of whom 54 were grandees; 558 counts, of whom 59 were grandees; 74 viscounts, and 67 barons. There are about half a million persons belonging to the untitled nobility. The manners and customs of the inhabitants vary greatly in different parts of *S.*, and are much influenced by climate. The diet of the middle and higher classes consists of chocolate for breakfast, with mutton, beef, and pork, especially the latter, dressed in various ways, and accompanied by cabbage, garbanzos (Spanish beans), onions, and large peas, called *chichoros*. The olla, or *cocido*, is a favorite dish; and the sausages (*chorizos*) of Castile are said to be about the best in Europe. Wine is used only in small quantities, and the kinds in common use are seldom much stronger than the low-priced wines of France. The *siesta*, or repose during the heat of the day, is customary to all classes throughout *S.* From 1 to 4 o'clock, in Madrid and most other cities, the shops are either shut, or a curtain drawn before the door; the shutters of every window are closed, and scarcely a respectable person is to be seen in the street. But the moment the *siesta* is over, all is again instinct with life and bustle. Exercise is usually taken in the evening, when nearly the entire population is abroad. *Certulias*, or evening parties, are very frequent in the great towns. The theatre is little frequented. *Bull-fights*, though discountenanced by government, are in *S.* what the circus was in ancient Italy, — the national pastime, favorite resort, and chief amusement of all classes. The lower classes live on wretched fare, rarely eating meat, and fish only occasionally, except on the coast. The farming laborers fare somewhat better, the chief articles of food being bread, soup, garlic, bacon, and *garbanzos*, with the accompaniments of wine and oil. — *History.* *S.* was first known to the Phœnicians, subsequently to the Carthaginians, and, in the 3d century before the birth of Christ, to the Romans. It was completely subdued under Augustus, after which it enjoyed tranquillity for nearly 400 years. This state of peace was disturbed by the eruption of the northern barbarians, — the Suevi, the Vandals, and the Alani. Christianity was introduced about the end of the 6th century the invasion of the Moors took place in the beginning of the 8th, and they overran the whole country except the Asturias. They were finally expelled in the year 1492. Under Charles V., *S.* made a great figure in the general affairs of Europe. He reigned forty years, and, in 1556, abdicated in favor of his son, Philip II., who died in 1598, and bequeathed to his successor, Philip III., Belgium, Naples, Sicily, and Portugal. Charles II., the last prince of the Austrian branch, reigned from 1668 to 1700; after which began the well-known war for

the succession to the Spanish dominions, in which the claim of Austria was supported by the grand alliance against Louis XIV. Notwithstanding the opposition of the allies, however, the grandson of Louis XIV. reigned in *S.*, relinquishing the Belgic provinces to the house of Austria. Philip V., the first king of the French line, had a long and turbulent reign. After him Ferdinand VI., a prudent prince, introduced various reforms, and maintained peace; but dying in 1759, his son, Charles III., went to war with Great Britain. Peace ensued in 1763, and continued till 1778, when *S.*, at first neutral in the American War of Independence, was prevailed on to take up arms against England, and obtained, at the peace of 1783, the Floridas and the island of Minorca. Charles IV. succeeded to the crown in 1788, became soon after a party to the coalition against republican France, but was, after Prussia, the first of the Great Powers to conclude a treaty of peace, in 1795. In little more than a year after this, the cabinet of *S.* joined its late opponent, and declared war against Britain. The abdication of the royal family of *S.* took place at Bayonne, in May, 1808. It was followed by the general resistance of the inhabitants, by the invasion of their country by Napoleon I., and by the subsequent expulsion of the French by the troops of Great Britain combined with those of Portugal and *S.* The dissatisfaction and indignation excited by the tyrannical proceedings of Ferdinand led, in the beginning of 1820, to a revolution of great importance, by which the constitution of the Cortes, as established in 1812, was restored, and such salutary restraints established on the power of the crown, as seemed best calculated for securing the rights of the people. In 1823, *S.* was again invaded by French troops, under the Duke d'Angoulême, whose object was to put down the new government, and to restore Ferdinand to absolute power. They penetrated the country without resistance; and having laid siege to Cadiz, the King was given up to them, and afterwards the town. In 1833, on the death of Ferdinand VII., the Queen-mother, Christina, was appointed Queen-regent during the minority of her daughter Isabella, to whom, by his will, he bequeathed his throne. On this, Don Carlos, the late king's brother, laid claim to the crown, when a civil war, which lasted till 1840, ensued. In that year, the partisans of Don Carlos were finally defeated. The next event of importance was the contest between Espartero (*q. v.*), the regent, and the Queen-dowager Christina, for the supreme power during the minority of the Queen. Espartero was successful from 1840 to 1843, but was compelled to flee before O'Donnell and Narvaez, and was not restored till 1847. Espartero's success had obliged Christina to retire to France, whence she returned after his fall, Narvaez and the *moderados* having control of the government. Isabella was now declared of age, married her cousin, Francis of Assis, and succeeded to the throne as Isabella II. During her reign Spanish history presented a dismal picture of faction and intrigue, the queen leading a dissolute life, and the Liberals and Conservatives successively gaining control of the government. The disputes finally ended in a successful revolt of the Liberals, the queen being obliged to fly to France, and the throne being offered in 1870 to Amadeus, a son of Victor Emanuel. Finding his task too difficult, he resigned in 1873. A republic was now formed, with Castelar as its leading spirit, but it was soon brought to an end, and the throne was offered, in 1874, to Alfonso, the young son of the exiled Queen Isabella. Alfonso XII. died in 1885; the regency was intrusted to his widow Christina, and the birth of a posthumous son May 17, 1886, who, as Alphonso XIII, is the present king of Spain. Meanwhile Spain had troubles at home and abroad, the partisans of Don Carlos breaking into occasional revolts, while an insurrection broke out in Cuba in 1868, which was not quelled until ten years afterward. In 1895 the Cubans again revolted, and continued the war until 1898. On August 8, 1897, Senor Canovas, the Conservative Minister, was assassinated. The Liberals came into power under Sagasta, and Weyler was recalled from Cuba. But the conduct of the war continued so cruel as to arouse great indignation in the United States, and war was declared in April, 1898. This war extended from Cuba to Porto Rico and the Philippine Islands. A peace protocol was signed in August, under which *S.* granted independence to Cuba and ceded Porto Rico and other islands to the United States. See CUBA and United States. *Pop.* (1898) 19,334,550.

Spal'ding, in *Georgia*, a W. central co.; *area*, 200 sq. m. It is bordered W. by Flint River. *Surface*, diversified; *soil*, fertile. *Cap.* Griffin.

Spallanzani, LAZARE, (*spal-lan-dza'ne,*) an eminent Italian naturalist, b. near Reggio, 1729, who became professor of philosophy at Pavia, where he was distinguished by his experiments in physiology. In 1785 he went to Turkey, and made many observations on geology and extinct volcanoes. He also visited Germany, and received particular marks of attention from the emperor Joseph II. His principal works are *Experiments on the Reproductions of Animals, Essay upon Animalcules in Fluids, Microscopical Experiments, Memoirs on the Circulation of the Blood, Travels in the Two Sicilies and the Apennines,* and *Observations on the Transpiration of Plants.* D. at Pavia, 1790.

Span, *n.* [A.S. and Dn. *span*; Dan. *spand*; Ger. *spanne.*] The space from the end of the thumb to the end of the little finger when extended; nine inches. — A short space of time.

—A pair of horses driven together, and generally similar in color, form, and movement. (U. S.)

(*Arch.* and *Engineering.*) The extent or spread of an arch between its piers and abutments.

(*Naut.*) A rope with both ends made fast, for a purchase to be hooked to its bight.

Span, *v. a.* To measure by spans, or by the hand with the fingers extended, or with the fingers encompassing the object. — To measure or reach from one side of to the other. — To be well matched, as horses. (U. S.)

Span'drel, *n.* [Probably from *span.*] (*Arch.*) One of the triangular spaces included between the arch of a doorway, &c., and a rectangle formed by the outer

Fig. 2401. — SPANDRELS, (Ely Cathedral, England.)

mouldings over it; the term is also applied to other similar spaces included between arches, &c., and straight-sided figures surrounding them. They are usually ornamented with tracery, foliage, shields, or other enrichments.

Spangle, (*spang'gl,*) *n.* [A. S. *spange*; Ger. *spange, spangel*; Dan. *spang.*] A small plate or boss of shining metal; something brilliant used as an ornament.—Any little thing sparkling and brilliant like pieces of metal, as crystals of ice.

—*v. a.* To set or sprinkle with spangles; to adorn with small, distinct, brilliant bodies.

Span'gler, *n.* A person who spangles.

Spaniard, (*span'yard,*) *n.* (*Geog.*) A native or citizen of Spain.

Spaniel, (*span'yel.*) *n.* [F. *épagneul*; O.F. *espagneul*, from *Hispaniola*, now Hayti, where the best breed of this species of dogs came from.] A dog of much antiquity, and one whose breed has been particularly attended to in various countries, particularly the Eastern. All the varieties of the *S.* are more or less elegant (Fig. 498); and the *S.* has been divided into more varieties than any other dog. The distinguishing characteristics of the race are:—A rather broad muzzle, remarkably long and full ears, the hair plentiful and beautifully waved, particularly that of the ears, tail, and hinder part of the thighs. The prevailing color is liver and white; sometimes red and white, or black and white; sometimes deep brown or black on the face and breast, with a tan spot over each eye. The true English-bred *S.*, called a *springer*, differs but little in figure from the setter, except in being not so tall. Their form is also more delicate, their ears longer, very soft and pliable, and covered with a coat of long waving and silky hair; the nose is red or black; the tail bushy and pendulous. The *cocker*, so called from his appropriation to woodcock-shooting, is a still smaller spaniel, and more compact in its frame, and his hair still more waved and curly than that of the springer. The Water-*S.* (*Canis aquaticus*) is a sturdy *S.* with crisped hair, and with head rather larger and rounder than those of the land-*S.* The Alpine, or St. Bernard, variety of

Fig. 2402. — KING CHARLES' SPANIEL.

the spaniel breed exceeds others in size and beauty. It is generally two feet high at the shoulders, and full six feet from the nose to the end of the tail. The smaller *S.*, King Charles' dog (*Canis brevipelis*), is a small variety of the *S.* used as lap-dogs. The Maltese dog and the Lion-dog (*Canis leoninus*) are small species of *S.* The first is supposed to have sprung from the intercourse of the little *S.* with the smaller water-dog. It has the hair all over the body very long and silky, and generally pure white. The other has long, silky hair about the head, neck, shoulders, and extremity of the tail, but on the other part short, giving the little animal a leonine appearance. The Newfoundland dog is placed by most authorities in the *S.* group, to which its form, its coat, and its hunting propensities evidently entitle him.

Span'ish, *n.* The language of Spain.

—*a.* Pertaining to Spain.

Span'ish-bayonet, *n.* (*Bot.*) See YUCCA.

Span'ish-black, *n.* A soft black pigment, prepared by burning cork in the manner of Frankfort and ivory blacks, differing from the former in being of a lighter and softer texture.

Span'ish Bluffs, in *Texas*, a village of Bowie co., on Red River, 12 m. N. of Boston.

Span'ish Creek, in *Ohio*, enters the Scioto river from Pike co.

Span'ish Flat, in *California*, a village of Eldorado co., 10 m. N. of Placerville.

Span'ish-fly, *n.* (*Zoöl.*) *Cantharis vesicatoria.* See CANTHARIDÆ.

Span'ish Fork, in *Utah*, a city of Utah co., 12 m. S. of Provo City. *Pop.* (1897) 2,460.

Span'ish Juice, *n.* The extract of the root of the liquorice.

Span'ish Lake, in *Louisiana*, 12 m. long, and connects with Red River a short distance above Natchitoches.

Spanish Language and Literature. It seems probable that the Cantabrian was the most ancient language of Spain, of which remnants are supposed by some still to exist in the modern Basque, spoken by the Biscayans and other inhabitants of the districts bordering on the Pyrenees. The old language of the Peninsula must, no doubt, have been considerably alloyed by the admixture of Phœnician words and phrases during the Carthaginian dominion; and when the Romans conquered Spain, they introduced their language, which for several centuries was the principal medium of communication of all except those living in the most remote districts. The Visigoths, who followed the Romans in possession of the Peninsula, introduced the *lingua Romana*, a mixture of the Latin and German languages; but the Latin, though corrupt, still continued to be spoken in many parts Again, when the Moors overran the country, expelled the Visigoths, and established their own power, they brought with them the Arabic language, already highly cultivated, and well adapted for poetry; and this, in turn, became the general language of the country. Thus, out of numerous elements was gradually formed a new language — the *Spanish;* and though numerous dialects necessarily arose in the different petty kingdoms into which the country was split, that of Castile became at length the classical language of Spain. Its basis is Latin; and many of the ancient inflexions, as well as words, are still preserved. There are also a large number of Teutonic words; but the admixture of Arabic, though very considerable, is less than in the Portuguese. Force of expression, depth of sound, and mellifluous cadence, are the peculiar characteristics of the Spanish; which, however, has a guttural accent, derived probably from its Teutonic origin. The abundance of vowels and liquids makes the language harmonious when spoken by native Castilians; it is essentially poetical, and poetry may be considered as the germ of the national literature. It is a curious fact, that there is very little *patois* among the Castilians, and that the language is spoken by the lower classes with remarkable purity and precision. The rise of Spanish literature cannot be traced further back than the middle of the 12th century, for the songs of the Troubadours belong to a period antecedent to the settlement of the language. The ballads composed in honor of Rodrigo Diaz de Vivar, called *El Campeador*, or more popularly the *Cid*, are among the earliest specimens of Spanish writing, and display at once great independence of thought and felicity of expression. No doubt, however, the Moorish ballads, or those written to celebrate the chivalrous contests between Christian and Moslem knights, that preceded and accompanied the fall of Granada, form the most striking and distinctive part of the national literature of Spain. "The Moorish wars had already afforded abundant themes of interest for the Castilian muse; but it was not till the fall of the capital that the very fountains of song were broken up, and those beautiful ballads were produced which seem like the rays of departed glory lingering round the ruins of Granada. They present a most remarkable combination of not merely the exterior form, but the noble spirit of European chivalry, with the gorgeousness and effeminate luxury of the East. They are brief, seizing single situations of the highest poetic interest, and striking the eye of the reader with a brilliancy of execution, so artless in appearance withal as to seem rather the effect of accident than study. We are transported to the gay seat of Moorish power, and witness the animating bustle, its pomp, and its revelry, prolonged to the last hour of its existence." (*Prescott's Ferdinand and Isabella*, ii. 200.) But it was, perhaps, hardly necessary to say so much about the Spanish ballads, as the admirable translations of Mr. Lockhart have made their spirit, at least, familiar to most readers. The honor of being the first to introduce regular dramatic writing into Spain has been ascribed to Torres de Navarro, in the early part of the 16th century. He was followed by Lope de Vega, born at Madrid in 1562, at once the most original, most unequal, and most voluminous of the Peninsular dramatists. Calderon, b. in 1600, carried the Spanish drama to its highest perfection. Like his great precursor, Lopez de Vega, his plays are most unequal, the finest scenes being mixed up with the most revolting barbarism and extravagance. The astonishing fecundity of these writers may in some degree account for, though it cannot excuse, the defects and inconsistencies in their dramas. The published works (which do not, however, embrace nearly all his pieces) of Lope de Vega, consist of 25 vols. 4to, each containing 10 or 12 plays; and 127 dramas are ascribed to Calderon, besides a still greater number of vaudevilles and interludes. The Spanish drama, however, has long fallen into decay. The humiliation of the country during the disastrous reigns of Philip IV. and Charles II., and the deadening influence of the Inquisition, were little favorable to its culture; and after the accession of the Bourbon dynasty to the throne, French criticism and taste obtained an ascendency, while the

troubles in which Spain has been more recently involved, have stifled all poetical talent. Some endeavors, indeed, have been made to revive the national drama; but they have signally failed, and no modern name connected with this branch of literature deserves notice, except, perhaps, that of Martinez de la Rosa, the author of the *Viuda de Padilla*. The *Araucana* of Ercilla, B. in 1525, is the only poem that Spain has produced that has any pretensions to be classed among epics. Chivalrous romance was early and assiduously cultivated in Spain. Happily, however, the inimitable satire of Cervantes destroyed at once and forever the whole race of knights-errant. His *Don Quixote*, however, still continues to interest all classes of readers by its exhaustless wit, the truth of its delineations, and its practical good sense. It has been rendered into almost all languages; and, how defective soever the translation, it never fails to amuse and instruct. But, with the exception of this unique and admirable work, Spanish works are but little known in foreign countries; and in most departments, indeed, the literature of Spain is poor in the extreme. And how could it be otherwise? In 1502 the censorship of the press was established; and the power of carrying it into effect was very soon entrusted to the Inquisition. "*Il s'est établi dans Madrid*," says Beaumarchais, with quite as much of truth as of wit, "*un système de liberté sur la vente des productions, qui s'étend même à celles de la presse; et que, pourvu que je ne parle en mes écrits ni de l'autorité, ni du culte, ni de la politique, ni de la morale, ni des gens en place, ni des corps en crédit, ni de l'Opéra, ni des autres spectacles, ni de personne qui tienne à quelque chose, je puis tout imprimer librement, sous l'inspection de deux ou trois censeurs.*" (Marriage de Figaro, acte v.) Under such circumstances, it would be contradictory and absurd to expect that the Spanish writers should have distinguished themselves in philosophical research, original discussion, or in any pursuit requiring freedom of inquiry. Spain has a few respectable, but no eminent authors. Since 1830, however, a great change for the better has taken place. The censorship of the press has been suppressed, newspapers have been established, and the influence and authority of the clergy greatly diminished. Hopes may, therefore, be reasonably entertained that literature will again revive; but up to the present time the natural development of the mental resources of the nation has been so slow, owing to the continual public disturbances, that many years more may elapse before literature acquires any material influence. See SPAIN, § *Education*.

Span'ish Peak, in *California*, a mountain peak of Plumas co., about 14 m. W. of Quincy.

Span'ish Prai'rie, in *Missouri*, a vill. of Maries co.

Span'ish Ranch, in *California*, a post-village of Plumas co., 6 m. W. of Quincy.

Span'ish-red, *n.* (*Paint.*) An ochre differing little from Venetian-red.

Span'ishtown, in *California*. See HALF-MOON BAY.

Spanishtown, in the island of Jamaica. See SANTIAGO DE LA VEGA.

Spank, *v. a.* To slap; to punish by striking with the open hand; as, to *spank* a child.

—*v. n.* To move between a trot and a gallop, as a horse; to move with speed.

Spank'er, *n.* A small coin.

(*Naut.*) Same as DRIVER, *q. v.*

Spank'ing, *a.* Striking with the open hand. — Moving in quick, lively manner or pace.

Span'ner, *n.* A person who spans. — The lock of a fuser or carbine.

(*Mech.*) An iron instrument used in the manner of a lever to tighten the nuts upon screws.

Span'-shackle, (*-shak'l,*) *n.* (*Naut.*) A large bolt driven through the forecastle, and forelocked under the forecastle-beam and under and upon the upper deck-beam.

Span'-worm, *n.* (*Zoöl.*) See PHALÆNIDÆ.

Spar, *n.* [Sw. *spat*, a stone; Ger. *spath*; Sans. *spadika*, crystal.] (*Min.*) A term applied to certain crystallized substances which easily break into cubic, prismatic, or other fragments with polished surfaces; — hence, also, the term *spathose*, applied generally to minerals of a sparry fracture. The term *spar* is commonly used by miners to denote crystalline quartz; by quarrymen it is applied indifferently to quartz and calcareous spar.

—[Du.; Dan. *sparre*, a rafter; Ger. *sparren*, a spar, rafter.] (*Naut.*) A long beam; a general term for masts, yards, booms, and gaffs.

(*Arch.*) A piece of timber employed as a common rafter in a roof, as distinguished from the principal rafters or other timbers.

—*v. n.* [A. S. *spirian.*] To dispute; to quarrel in words; to wrangle.

—To fight in show, or as in preparation for serious combat; to fight as a pugilist.

—*n.* A contention with the fists, as in boxing or sparring. —A motion, as if to strike a blow.

Spar'able, *n.* A small nail, used by shoemakers.

Spare, *v. a.* [A. S. *sparian*; Ger. and Du. *sparen*; Dan. *spare.*] To use frugally; not to be profuse of; not to waste.—To save or withhold from any particular use or occupation.—To part with without much inconvenience; to do without. — To omit; to forbear. — To use tenderly; to treat with pity and forbearance; to forbear to afflict, punish, or destroy. — To grant; to allow; to indulge.—To forbear to inflict or impose.

—*v. n.* To live frugally; to be parsimonious.—To forbear; to be scrupulous.—To be frugal; not to be profuse.—To use mercy or forbearance; to forgive; to be tender.

—*a.* Frugal; parsimonious.—Scanty; not abundant; in small measure. — That can be dispensed with; not wanted; superfluous. — Held in reserve, to be used in an emergency.—Wanting flesh; meagre; lean; thin.

Spare, *n.* That which is over and above what is sufficient.

Spare'ly, *adv.* Sparingly.

Spare'ness, *n.* The state of being spare, lean, or thin; leanness.

Spar'er, *n.* One who spares or avoids expense.

Spare'-rib, *n.* Some part cut off from the rib; as, a *spare-rib* of pork.

Spar'ganium, *n.* (*Bot.*) The Burr-reed, or Reed-grass, a genus of plants, order *Typhaceæ*, having perennial roots, and flowers collected in several dense, roundish heads, the sterile heads above the fertile.

Spar'ger, *n.* A copper cyliuder used by brewers for dashing or sprinkling.

Spar'idæ, *n. pl.* (*Zoöl.*) The Porgee family, comprising acanthopterygious, spine-rayed fishes which have no teeth in the palate, nor spines or teeth on the opercular bones, the muzzle not gibbous, and the bones of the head not cavernous. The Sheep's-head, *Sargus ovis*, of the Atlantic coast of the U. States, is 12-30 inches long. Its flesh is very highly prized. The Scupang, Scup, or Big Porgee, *P. argyrops*, also found on this side of the Atlantic, is from 8 to 12 feet long.

Spar'ing, *a.* Scarce; little. — Scanty; not plentiful; not abundant. — Saving; parsimonious.

Spar'ingly, *adv.* Not abundantly; frugally; parsimoniously; abstinently; moderately; seldom; not frequently; cautiously; tenderly.

Spar'ingness, *n.* The quality of being sparing; parsimony.

Spark, *n.* [A. S. *spearca*; Du. *spark*, a spark, from Lat. *spurgo*, to sprinkle.] A small glittering particle of fire, or ignited substance which flies off, with a cracking sound, from bodies when burning.— A small shining body or transient light. — A small portion of anything active; a very small portion. — A brisk, showy, gay man. — A lover; a beau.

—*v. n.* To act the lover.

Spark'-eyed, (*-id,*) *a.* Bright-eyed.

Spark'ish, *a.* Airy; gay. — Showy; well-dressed.

Sparkle, (*spark'l,*) *n.* [Dim. of *spark*.] A little spark; a luminous particle; lustre.

—*v. n.* To emit sparks; to send off small ignited particles, as burning fuel, &c. — To shine; to glitter; to glisten. — To twinkle. — To exhibit the appearance of animation.— To emit little bubbles, as spirituous liquors.

—*v. a.* To flash, as when sparks are emitted.

Spark'ler, *n.* One who, or the thing which, sparkles.

Spark'ling, *a.* Emitting sparks; glittering; lively.

Spark'lingly, *adv.* With twinkling or vivid brilliancy.

Spark'lingness, *n.* Vivid and twinkling lustre.

Sparks, JARED, an American historian, B. at Willington, Conn., 1789, was ordained a minister of the Unitarian congregation, 1819. His earliest publications were chiefly upon theological and controversial subjects; but, in 1829, he produced his first work in biography, under the title of *Life of John Ledyard, the American Traveller*. His subsequent publications were, *The Writings of George Washington, selected and published from 200 folio volumes of Original Manuscripts*, in 12 volumes,—a national work; *The Life of Washington; The Life of Benjamin Franklin*; and *Correspondence of the American Revolution, being Letters of Eminent Men to George Washington*. In 1839 he was appointed Professor of Ancient and Modern History in Harvard College, and was President of that College from 1849 to 1852. D. 1866.

Sparks'ville, in *Indiana*, a post-village of Jackson co., 22 m. S.W. of Seymour.

Sparlin'ville, in *Missouri*, a village of Newton co., abt. 10 m. W. of Neosho.

Spar'oid, *a.* (*Zoöl.*) Noting fishes of the family SPARIDÆ, *q. v.*

Spar'row, *n.* [A. S. *speara*; Ger. *sperling*; Dan. *spurv.*] (*Zoöl.*) A group of birds belonging to the family FRINGILLIDÆ, *q. v.*

Spar'row-hawk, *n.* [A. S. *spear-hafoc, spär-hafoc, spar-habuc.*] (*Zoöl.*) See ACCIPITRINÆ.

Spar'ry, *a.* Resembling spar, or consisting of spar.

Sparse, *a.* [Lat. *sparsus*, from *spargo*, to strew, to scatter.] Thinly scattered; not dense; set or planted here and there.

Sparse'ness, *n.* State of being sparse; thinness; scattered state.

Spar'sim, *adv.* [Lat., from *spargere*, to scatter.] Sparsely.

Spar'ta, or LACEDÆMON. (*Anc. Geog.*) The capital of Laconia, the chief city of Peloponnesus, and the rival of Athens in the ancient history of Greece, occupied partly a range of low hills on the right bank of the Eurotas, and partly the intervening plain. Its appearance, even in its palmiest days, was by no means equal to its renown, for, though not destitute of handsome public buildings, the severe law ascribed to Lycurgus, that "the doors of every (private) house should be fashioned only with the saw, and the ceiling with the axe," exercised a cramping influence on the development of architecture, and of the fine arts generally. The Acropolis of *S.* occupied a hill in the N. part of the city, and was adorned with a temple to Athena (the tutelary goddess of *S.*), plated with bronze, whence it was called the Brazen House, and the goddess herself *Chalcioecus* (the Dweller in the Brazen House). On the bronze plates were beautifully sculptured various Greek myths. At the E. base of the Acropolis stood the Agora, or Marketplace, whence streets proceeded to the different quarters of the city. Here stood the public buildings of the magistrates. The Agora contained many statues. The principal street in *S.*, called the Aphetaïs, ran S. from the Agora to the S. wall, through the most level part of the city, and was lined with a long succession of monumental edifices, chiefly *heroa* and sanctuaries. Along the banks of the Eurotas stretched the *Dromos* (Race-course), in which were several *gymnasia*, with temples of the Dioscuri, of the Graces, &c., and numerous statues; and still further S. lay a broader level, Platanistas, so called from the plane trees that grew there. This was the scene of those mock-contests in which the Spartan youth learned to face without fear the realities of war. The history of *S.* is really the history of Laconia. The origin of *S.* is unknown; but it cannot be doubted that their inhabitants were Achæans. It is during the rule of the Achæan princes that the events of the famous, but unhistorical, expedition against Troy, forming the subject of Homer's *Iliad*, are described as taking place. Menelaus, husband of Helen, was king at *S.*, and it was during the reign of his grandson, Tisamenus, that the Dorians invaded Peloponnesus. The *fact* of a Dorian invasion is universally admitted, but of the details, scanty even as they are, we may safely be sceptical. All that is clear is, that the native Achæan population were deprived of political privileges, and appear henceforth as *Perioeci* and *Helots*—the Dorian conquerors alone forming the historical Spartans. Towards the middle of the 8th cent. B. C., the Dorians of *S.* had not only thoroughly established themselves in their new settlement, but had subjugated the whole of the fertile and beautiful valo of Lacedæmon, commonly known as Laconia, and had begun to cherish ambitious views of extending their supremacy over the other Dorian settlements in Peloponnesus—viz., those of Messenia and Argos. Hence originated the *Messenian wars*, which terminated (668 B. C.) in the complete overthrow of the Dorians of Messenia, who were reduced by the victorious Spartans to the condition of Perioeci. Similar struggles occurred both with the older Achæan inhabitants in the centre of Peloponnesus and with the Dorians of Argos, &c., in which the Spartans were generally successful. The development of their warlike and ambitious character is usually ascribed to the institutions of Lycurgus; and whatever we may think of that more than semi-mythical personage, the institutions that go under his name were well fitted to make the Spartans exactly what they figure in history — a race of stern, cruel, resolute, rude, and narrow-minded warriors, capable of a momentary self-sacrificing patriotism (as in the story of the 300 heroes who fell at Thermopylæ), but utterly destitute of the capacity for adopting or appreciating a permanently noble and wise policy. The outbreak of the Peloponnesian war (431 B. C.) brought the rivalry between *S.* and Athens to a head, and in the mighty struggle that ensued, victory declared on the side of the combatant least capable of maintaining the greatness of Greece. *S.* now attained the hegemony of Greece; but her insolent tyranny in the hour of her triumph excited the indignation of those whom she held in virtual subjugation, and the glorious retaliations of the Thebans under Epaminondas stripped her of all her splendid acquisitions, and reduced the Laconian state to its primitive boundaries. Later, the rise of the Macedonian power limited still more the Spartan territory, nor did it ever after attain its earlier dimensions. Finally, after a series of vicissitudes, *S.* passed into the hands of the Romans, and became a portion of the Roman prov. of Achaia. Its site is now occupied by two villages, *Magula* and *Psychiko*, about 1 mile apart, by the town of *New Sparta*, built since the revolution, on one of the Spartan hills, and by corn-fields and gardens, amid which fragments of wrought stone may be seen cropping from the ground.

Spar'ta, in *Alabama*, a village, former cap. of Conecuh co., 100 m. S.S.W. of Montgomery.

Sparta, in *Georgia*, a post-town, cap. of Hancock co., 24 m. N.E. of Milledgeville.

Sparta, in *Illinois*, a township of Knox co., about 6 m. N.E. of Galesburg.—A city of Randolph co., 113 m. S. of Springfield. *Pop.* (1897) 2,230.

Sparta, in *Indiana*, a post-township of Dearborn co. —A village and township of Noble co., 55 m. N.W. of Fort Wayne.

Sparta, in *Kentucky*, a post-village of Gallatin co., 35 m. N. of Frankfort.

Sparta, in *Louisiana*, a post-village, former cap. of Bienville parish.

Sparta, in *Michigan*, a post-village and township of Kent co.

Sparta, in *Mississippi*, a post-village of Chickasaw co., 140 m. N.N.E. of Jackson.

Sparta, in *Missouri*, a village of Buchanan co., about 200 m. N.W. of Jefferson City.

Sparta, in *North Carolina*, a post-town, cap. of Alleghany co.; also called GAP CIVIL.

Sparta, in *New Jersey*, a post-village and township of Sussex county, about 66 miles north-east of Trenton.

Sparta, in *New York*, a township of Livingston co.—A. v. of Westchester co.

Sparta, in *Ohio*, a post-village of Morrow co., 35 m. N.N.E. of Columbus.—A village of Stark co., 68 m. S. of Cleveland.

Sparta, in *Pennsylvania*, a township of Crawford co.—A p. v. of Washington co.

Sparta, in *Tennessee*, a post-town, cap. of White co., 85 m. S.E. of Nashville.

Sparta, in *Virginia*, a post-village of Caroline co., abt. 33 m. N.N.E. of Richmond.

Sparta, in *Wisconsin*, a city and township, cap. of Monroe co., 25 m. E.N.E. of La Crosse. A mineral (iron) spring is here. *Pop.* (1895) 3,511.

Spar'taeus, a Thracian shepherd, famous for his victories over the Romans. He was one of the gladiators

of Lentulus; but, escaping with thirty others, he placed himself at the head of a numerous army, with which he defeated the Romans in several battles. At length Crassus was sent against him, and after a bloody contest *S.* was slain, B. C. 71.

Spar'tan, *a.* (*Geog.*) Relating to ancient Sparta; hence, hardy; courageous.

Spar'tanburg, In *Indiana*, a post-village of Randolph co., 20 m. N. of Richmond.

Spartanburg, in *S. Carolina*, a N.W. dist., bordering on N. Carolina; *area*, 950 sq. m. *Rivers.* Enoree, Broad, Tiger, and Pacolet. *Surface*, hilly; *soil*, fertile. *Min.* Gold and iron. *Cap.* Spartanburg. *Pop.* (1897) 57,150.—A city, cap. of the above district, 98 m. N.N.W. of Columbia. *Pop.* (1897) 6,140.

Spar'tansburg, in *Pennsylvania*, a post-village of Crawford co., 9 m. S.S.W. of Corry.

Spar'tapolis, in *Virginia*, a village of Rockingham co., 142 m. N.W. of Richmond.

Spar'terie, *n.* [Sp. *esparto*, grass-hemp; Lat. *spartum.*] Woven work, as mats, nets, ropes, cordages, &c., made of the blades of different species of grasses, of the gen. *Spartium stipa*, and others.

Spar'tium, *n.* (*Bot.*) A genus of plants, order *Fabaceæ*, distinguished by the roundish form of its standard. The Spanish Broom, *S. junceum*, is a native of the south of Europe, generally growing in dry soils and rocky situations, and attaining a height of 8 feet or upwards. Its branches are upright, round, and rush-like, a characteristic of this genus. They are smooth, and bear only a few small simple leaves, which soon drop off. The fibre of the branchlets is much used in some parts of Italy, France, and Spain, for making cloth, ropes, &c. In the south of France, the plant is cultivated on dry, unproductive soils. The branchlets are made into bundles, dried, beaten, steeped, and washed, in order to the separation of the fibre.

Spa'rus, *n.* (*Zoöl.*) The Boce, a genus of acanthopterygious fishes in the Linnæan system, having the gill-opening scaly, the mouth furnished with strong cutting teeth, the body compressed, the lateral line curved behind, and the pectoral fins rounded.

Spasm, (*spazm,*) *n.* [Fr. *spasme*; Gr. *spasmos*, from *spao*, to draw.] (*Med.*) An involuntary contraction of muscular tissue, or that state of contraction of the muscles which is not spontaneously disposed to alternate with relaxation. When the contractions alternate with relaxation, and are frequently and preternaturally repeated, they are called convulsions. *S.* are distinguished as *clonic* and *tonic;* the contractions in the former alternating with relaxations, as in epilepsy; but in the latter remaining fixed, as in lock-jaw.

Spasmod'ic, Spasmod'ical, *a.* Relating to spasm; consisting in spasm.—Convulsive.

—*n.* (*Med.*) A medicine good for removing spasm.

Spasmol'ogy, *n.* [Gr. *spasmos*, and *logos* discourse.] The doctrine of spasms.

Spas'tic, *a.* (*Med.*) Relating to spasms; spasmodic.

Spat, *n.* The young of shell-fish.—A light stroke or blow.—A petty quarrel. (U. S.)

Spatan'gus, *n.* [Lat. *spatangius.*] (*Zoöl.*) A genus of *Echinidæ*, or Sea-urchins, having the mouth situated laterally, and but four rows of pores.

Spatch'-cock, *n.* A fowl just killed and quickly boiled for any sudden occasion.

Spatha'ceous, *a.* (*Bot.*) Furnished with, or having the appearance of, a spathe.

Spathe, *n.* [Lat. *spatha.*] (*Bot.*) A large and colored bract situated at the base of a spadix, enclosing the latter, and supposed to perform the office of corolla.

Spath'ic, *a.* (*Min.*) Foliated or lamellar.

Spa'tial, *a.* Relating to space.

Spa'tially, *adv.* With reference to space.

Spat'lum, *n.* (*Bot.*) See LEWISIA.

Spat'ter, *v. a.* To sprinkle, as with water, or any fluid, or with any moist or dirty matter.—To asperse; to defame.

—*v. n.* To spit; to sputter as at anything nauseous taken into the mouth.

Spat'terdashes, *n. pl.* Coverings to protect the legs from mud and water.

Spatts, *n. pl.* A kind of spatterdashes, reaching but little above the ankle.

Spat'ula, *n.* [Lat. dim. of *spatha*, a broad, flat wooden instrument for stirring any liquid.] A broad thin sort of knife, used by apothecaries for spreading plasters, &c.

Spat'ulate, *a.* [From Lat. *spatula.*] (Written also *spathulate.*) (*Nat. Hist.*) Flattened, and broader and rounded at the apex, narrow at the base.

Spauld'ing, in *Michigan*, a township of Saginaw co., abt. 4 m. S. of Saginaw City.

Spav'in, *n.* [It. *spavinio.*] (*Far.*) A disease of horses, which occurs under two different forms, both interfering with soundness. In young, weakly, overworked subjects, the hock-joint is sometimes distended with dark-colored thickened synovia or joint-oil. This is *bog* or *blood S.* The second variety of *S.* is the more common and serious. Towards the inside of the hock, at the head of the shank-bone, or between some of the small bones of the hock, a bony enlargement may be seen and felt. This is *bone S.* At first, there is tenderness, heat, swelling, and considerable lameness; but as the inflammation in the bone and its investing membrane abates, the lameness is less perceptible, although the animal continues to drag his leg and go stiffly.

Spawl, *v. n.* To throw moisture out of the mouth.

—*n.* Spittle; moisture ejected from the mouth.

Spawl'ing, *n.* Spawl; spittle.

Spawn, *n.* [A. S. *spana*, teats.] (*Zoöl.*) The eggs or ova of those oviparous animals which exclude them in a mass, either separate, as in most osseous fishes, or enveloped in an albuminous covering, as in frogs, toads, and many molluscs.

(*Bot.*) See MYCELIUM.

Spawn, *v. a.* To eject or deposit, as fishes do their eggs.—To bring forth; to generate.

—*v. n.* To eject or deposit eggs, as fish or frogs.—To issue, as offspring.

Spawn'er, *n.* The female fish.

Spay, *v. a.* To castrate female beasts, by extirpating the ovaries.

Speak, *v. n.* [A. S. *spæcan, sprecan;* Du. *spreken;* Ger. *sprechen.*] To break silence; to utter articulate sounds or words, as human beings; to express thoughts by words; to discourse; to utter a speech, discourse, or harangue; to utter thoughts in a public assembly; to express opinions; to dispute; to make mention of; to give sound.

—*v. a.* To utter with the mouth; to pronounce; to utter articulately, as human beings; to declare; to proclaim; to celebrate; to talk or converse; to utter or pronounce, as in conversation; to address; to accost; to exhibit; to make known; to express silently or by signs; to communicate.

Speak'able, *a.* That can be spoken.

Speak'er, *n.* One who speaks, in whatever manner; one who proclaims or celebrates.—One who utters or pronounces a discourse;—usually, one who utters a speech in public.—The person who presides in a deliberative or legislative assembly, preserving order and regulating the debates; a chairman; as, the *speaker* of the House of Commons, the *speaker* of the House of Representatives.

Speak'er, In *Michigan*, a post-township of Sanilac co. *Pop.* (1897) 1,550.

Speak'ing, *n.* Act of uttering words; discourse.—Oratory; elocution.

Speak'ing-trumpet, *n.* A trumpet by means of which the voice may be made audible at a great distance.

Speak'ing-tube, *n.* A pipe of India-rubber, gutta-percha, &c., for communicating orders from one room to another.

Spear, (*spēr,*) *n.* [A. S. *spere.*] An offensive weapon thrown from the hand; a long, pointed weapon, used in war and hunting by thrusting or throwing; a lance; a sharp-pointed instrument with barbs, used for stabbing fish and other animals.

—*v. a.* To pierce with a spear; to kill with a spear.

—*v. n.* To shoot or sprout in the form of a spear.

Spear'-foot, *n.* A horse's off-foot behind.

Spear'-grass, *n.* (*Bot.*) See POA.

Spear'-hand, *n.* The right hand—being that in which a horseman holds the spear.

Spear'man, *n.* A soldier who is armed with a spear.

Spear'mint, *n.* (*Bot.*) See MENTHA.

Spears'ville, in *Pennsylvania*, a post-village of Fulton co., 83 m. W.S.W. of Harrisburg.

Spear'wort, *n.* (*Bot.*) See RANUNCULUS.

Special, (*spĕsh'i-al,*) *a.* [Fr. *spécial;* It. *speciále;* Lat. *specialis*, from *species*, a peculiar sort.] Designating a species or sort.—Particular; peculiar; noting something more than ordinary.—Appropriate; designed for a particular purpose; confined to some particular class of subjects.—Extraordinary; uncommon; chief in excellence.

Spe'cialist, *n.* A person devoted to a specialty; a practical man.

Special'ity, *n.* Specialty.—The quality of the species.

Specializa'tion, *n.* The act of specializing.

Spe'cially, *adv.* In a special manner; particularly; in a manner beyond what is common, or out of the ordinary course; for a particular purpose; chiefly.

Spe'cialty, *n.* [L. Lat. *specialitas.*] Something special or particular.

(*Law.*) A special contract; an obligation or bond; the evidence of a debt by deed or instrument under seal.

Specie, (*spē'she,*) *n.* [Contracted from *species*, q. v.] Special money; not paper money; coin; copper, silver, or gold coined and used as a circulating medium of commerce.

Species, (*spē'shez,*) *n.* [Lat., from *specio*, to look at, to behold.] The outward appearance; the outside; shape; sensible appearance or representation; sort; kind.

(*Nat. Hist.*) A group of such individuals as have an essential identity in all qualities proceeding from their alternate constitution or nature. The term employed to designate a collection of individuals which resemble each other more closely than they resemble any other, being the group inferior to *genus* and superior to *variety. S.* under certain circumstances are liable to variations, but all varieties have a tendency to revert to their original specific type. A *S.* is generally considered as a permanent production of nature, which is capable of varying within certain limits, but in no case capable of being altered so as to assume the characters of another species. Sir David Brewster, Darwin, and his followers, hold a different opinion, and contend that *S.*, so far from being immutable, are liable to change of almost any extent; in fact, that plants, or animals, by the operation of causes acting over a long period of time, may become so altered that they preserve scarcely any apparent resemblance to those from which they sprung. In mineralogy, the term is of very arbitrary application, serving only, like class, order, genus, &c., the purpose of classification, although it thus indicates common characters, or points of real agreement among minerals.

(*Logic.*) A predicable which is considered as expressing the whole essence of the individuals of which it is affirmed.

Specific, Specifical, *a.* [Fr. *spécifique*, from Lat. *species*, and *facio*, to make.] That makes a thing of the species of which it is; designating the peculiar property or properties of a thing, which constitute its species, and distinguish it from other things.—That specifies or particularizes; definite or particular disease or certain diseases.

S. gravity, or *S. weight.* (*Physics.*) The weight of a given bulk of any solid, liquid, or gas, as compared with some body taken as a standard; thus, taking a given bulk of water to consist of 1,000 atoms, an equal bulk of platinum will contain 23,000; of copper, nearly 9,000; of iron, about 8,000; and of glass, about 3,000; these numbers being in proportion to the specific gravity of the respective substances. The specific gravity of all substances, except the gases, is determined by a ready mode of weighing them in distilled water, after the celebrated principle of Archimedes. (See ARCHIMEDES, PRINCIPLE OF.) The specific gravity of a solid is ascertained by weighing the substance in air and in water. If the solid be heavier than water, it is first weighed in air, next immersed in water, when it will appear to have lost weight,—this, too, being carefully ascertained. The weight of the substance in water is subtracted from its weight in air, the latter being divided by the difference, the quotient affording the specific gravity desired. If the substance be lighter than water, it is sunk in the water by being fixed to a solid heavier than water,—the weight of this heavy solid both in air and water being known. The compound is weighed both in air and water, the loss of weight being ascertained. Find the difference between this loss and the loss sustained by the heavy body when weighed alone in water; with this number divide the weight of the light body; the result will afford its specific gravity. The specific gravity of a fluid may be readily ascertained by comparing the weights of equal bulks of distilled water and of the fluid whose specific gravity is sought; for on dividing the weight of the fluid by that of the water, the quotient will give the specific gravity. The specific gravity of a gas is ascertained in a manner similar to that of a liquid, except that atmospheric air is taken as the standard of unity. If a copper or glass flask, provided with a good atopcock, be weighed, first when filled with air, and secondly when exhausted as perfectly as possible by means of an air-pump, the difference of these weights will give the weight of air contained in the flask. If the flask be now filled with the gas under examination, and carefully weighed, this weight, after deducting the weight of the flask, will give the weight of the gas. The weight of the gas divided by that of the same bulk of air will afford the specific gravity of the gas as compared to air. The water used in determining the specific gravity of bodies should be taken at the convenient standard of 60° Fahr.

Specific, *n.* That which is peculiar to anything, and distinguishes it from all others.

(*Med.*) A remedy that cures diseases upon some principle peculiar to itself, and not common to any two or more remedies; a remedy which infallibly cures all cases of certain diseases to which it is deemed appropriate.

Specifically, *adv.* So as to constitute a species; according to the nature of the species; particularly; definitely.

Specificalness, *n.* Quality or state of being specifical.

Specifica'tion, *n.* [Fr.] Act of specifying; state of being specified; designation of particulars; particular mention; statement of particulars; statement in detail; act of placing in a particular species; act of determining by a mark or limit; notation of limits.

(*Law.*) A written statement containing a minute description or enumeration of particulars, as of an invention which it is sought to secure by a patent.

Specificness, *n.* Specificalness.

Spec'ified, *a.* Particularized; specially named.

Specify, (*spĕs'i-fi,*) *v. a.* [Fr. *specifier;* It. *specificare.*] To make special or specific; to mention or name, as a particular thing; to designate in words so as to distinguish a thing from every other.

Spe'cimen, *n.* [Lat., from *specio.*] That by which a thing is seen, known, or recognized; a token; a proof; a sample; a part or small portion of anything intended to exhibit the kind and quality of the whole, or of something not exhibited.

Specious, (*spe'shus,*) *a.* [Fr. *spécieux;* Lat. *speciosus*, from *species.*] Showy; pleasing to the view.—Apparently right; superficially fair, just, or correct; appearing well at first view; plausible; ostensible.

Spe'ciously, *adv.* With a fair appearance; with a show of right.

Spe'ciousness, *n.* The state or quality of being specious; plausible in appearance.

Speck, *n.* [A. S. *specca;* L. Ger. *spaak.*] A small place in anything that is discolored; a stain; a blemish; a flaw.—A very small thing.

—*v. a.* To stain in spots or drops; to spot.

—*n.* Same as SPICK, *q. v.*

Speckle, (*spek'l,*) *n.* [Dim. of SPECK, *q. v.*] A little spot in anything of a different substance or color from that of the thing itself.

—*v. a.* To mark with small spots of a different color.

Speck'led Mountain, in Oxford co., *Maine*, near the boundary of New Hampshire. It is abt. 4,000 ft. high.

Speck'ledness, *n.* The state of being speckled.

Specksioneer, Specksioner, (*spĕk'shun-er,*) *n.* (*Whale fishery.*) The man who directs the operation of cutting up a whale.

Spectacle, (*spĕk'ta-kl.*) *n.* [Fr.; Lat. *spectaculum*, from *spectare*, to look at.] An exhibition; something exhibited to view;—usually, something presented to view as extraordinary; a representation; anything seen.

Spec'tacle, *n. pl.* (*Optics.*) An instrument, consisting of two lenses set in a frame, for assisting or correcting the defects of imperfect vision. The lenses are convex or concave, according to the nature of the defect to be remedied. In old age the form of the eye becomes flat, and the rays of light are consequently not refracted sufficiently in passing through it to meet on the retina and produce distinct vision. This defect is remedied by a convex lens, which produces a slight convergency of the rays before they enter the eye. Short-sighted people, on the contrary, require concave lenses; because, in their case, the indistinctiveness of vision proceeds from too great a curvature of the anterior portion of the eye, which causes the rays to meet in a point before they reach the retina—a defect which is remedied by giving the rays a slight divergency before they enter the eye. Spectacles were probably invented by Alexander de Spina, a monk of Florence, about 1285.

Spec'tacled, *a.* Furnished with spectacles.

Spectac'ular, *a.* Relating to shows or exhibitions. (R.) — Relating to spectacles or eye-glasses.

Specta'tor, *n.* [Lat.; Fr. *spectateur.*] One who sees or beholds; one personally present; a witness.

Spectato'rial, *a.* Relating to a spectator. (R.)

Specta'tress, Specta'trix, *n.* A female spectator or looker-on.

Spec'tral, *a.* Pertaining to a spectre; ghostly. — Relating to a spectrum.

Spectre, (*spēk'tur,*) *n.* [Fr.; Lat. *spectrum,* from *specio,* to look at.] An apparition; the imaginary appearance of a person who is dead; a ghost.

Spec'troscope, *n.* (*Optics.*) One of the most powerful and important instruments of modern research, in which the analysis of light coming from various light sources is conducted by means of prisms and gratings. It was first employed in 1860 by Kirchhoff and Bunsen for studying the spectrum. One form of this apparatus, as modified by Duboscq and Grandeau, is represented in Fig. 2403. It is composed of three telescopes mounted on a common foot, and whose axes converge toward a prism, P, of very dense flint-glass. The telescope A is the only one which can turn round the prism. It is fixed in any required position by a clamping screw, *n.* The screw-head, *m,* is used to shift the position of the eye-piece, so that a clear image of the spectrum may be obtained, or, in other words, to *focus* the eye-piece. The screw-head *n* is used to change the inclination of the axis. To explain the use of the telescopes B and C, we

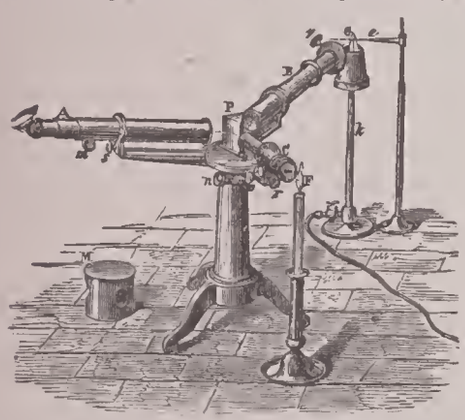


Fig. 2403. — SPECTROSCOPE.

must refer to Fig. 2404, which shows the passage of the light through the apparatus. The rays emitted by the flame G fall on the lens *a,* and are caused to converge to a point, *b,* which is the principal focus of a second lens, *c.* Consequently the pencil, on leaving the telescope B, is formed of parallel rays. This pencil enters the prism P. On leaving the prism, the light is decomposed, and in this state falls on the lens *x.* By the lens *x,* a real and reversed image of the spectrum is formed at *i.* This image is seen by the observer through a magnifying glass, which forms at *ss* a virtual image of the spectrum magnified about eight times. The telescope C serves to measure the relative distances of the lines of the spectrum. For this purpose there is placed at *m* a micrometer divided into 25 equal parts. The micrometer is formed thus:—A scale of 250 millimeters is divided with great exactness into 25 equal parts. A photographic negative on glass of this scale is taken, reduced to 15 millimeters. The negative is taken because then the scale is light on a dark ground. The scale is then placed at *m* in the principal focus of the lens *e;* consequently, when the scale is lighted by the candle F, the rays emitted from it leave the lens *e* in parallel pencils; a portion of these, being reflected from a face of the prism, passes through the lens *x,* and forms a perfectly distinct image of the micrometer at *i,* thereby furnishing the means of measuring exactly the relative distances of the different spectral lines. The micrometic telescope C (Fig. 2403), is furnished with several adjusting screws, *i, o, r;* of these *i* adjusts the focus; *o* displaces the micrometer in the direction of the spectrum laterally; *r* raises or lowers the micrometer, which it does by giving different inclinations to the telescope. Some of the most important astronomical discoveries of the last few years have resulted from the application of the *S.* to the telescope, the aid of the latter being called in to collect the light emanating from the distant stars and nebulæ. The light incident on the prism is rendered parallel, as in the ordinary arrangement, and the emergent rays are observed in the same manner, but a further refinement is required in this case. The image of a star formed at the focus of a good telescope is almost a point; its spectrum, therefore,

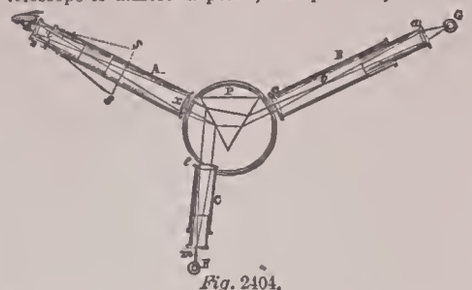


Fig. 2404.

would be a line, and in such a spectrum it would be impossible to distinguish any of the characteristic features. The point, therefore, is elongated somewhat at right angles to the plane of refraction by means of a cylindrical lens. Messrs. Sorby and Browning have also arranged a modification of the *S.* for use with the microscope. Their *Micro-spectroscope* is applied to the eye-piece of that instrument by means of direct vision prisms. It is applicable to opaque objects, and may also be applied beneath the stage. By its means the spectrum of the smallest object, or a particular portion of any object, may be viewed with the greatest precision and ease. See SPECTRUM ANALYSIS.

Spec'trum, *n.; pl.* SPECTRA. [Lat., from *specto,* to behold.] (*Optics.*) The term given to the colored bands of any luminous object when the light proceeding from it is transmitted through a prism and permitted to fall upon a screen. This fact of a decomposition, or separation into a system of pencils, of a single pencil of light, was first discovered by Newton, who admitted into a dark chamber, through a small aperture in a shutter, a pencil of white or undecomposed light. The pencil was refracted by means of a prism of glass, the image being thrown upon a screen in the shape of an elongated stripe of colors, called the prismatic spectrum. (See Fig. 834.) This stripe is made up of seven successive bands, of different colors, the lowest of which, or the least refracted portion, is red; orange, yellow, green, blue, indigo, and violet following. Dr. Wollaston was the first to discover lines in the spectrum. He observed two of these, and subsequently counted nearly a thousand. The relative positions of seven of these lines were named by Fraunhöfer after the first 7 letters of the alphabet. The sun, the planets, and almost every fixed star, have each their own system of lines. In the solar spectrum, the intensity of light appears to be greatest in the yellow band. The calorific powers of the spectrum increase from the violet to the red extremity. The chemical action of the solar spectrum appears to be greatest in the violet band, and in the dark space beyond. See DISPERSION.

Spec'trum Anal'ysis. (*Chem.*) A method of determining the chemical constituents of substances by examining the spectra of their flames, as shown in the SPECTROSCOPE (*q. v.*). It consists essentially of a tube, at one end of which is a convex achromatic lens, at the other an adjustable slit. Near the lens is placed a triangular prism, in such a position that the rays of light passing through the slit and convex lens may fall upon it at a certain angle, varying according to the refractive powers of the prism. On the other side of the prism is a telescope of low magnifying power, which receives the rays refracted by it. The flame of a common spirit-lamp (G, Fig. 2403), or a gas-jet known as the *Bunsen's burner,* placed before the narrow slit. A small bead of the substance to be experimented on may be fused into a small loop of platinum wire. The wire being attached to a convenient support (*e,* Fig. 2403), the bead should be brought to the front edge of the flame. The substance in burning gives the flame certain colors; these are refracted into their proper places on the spectrum by the prism or grating, and examined by the telescope. It has been found that almost every element when burnt gives off light of a tint peculiar to itself. Thus sodium gives a yellow light, refrangible into two lines of nearly equal color. Potassium, which burns with a purple flame, produces, as might be expected, red and blue lines. Lithium also gives red and blue lines, but of a different tint, and in a different part of the spectrum. Calcium gives red, yellow, green, and blue; barium a great number of green, and so on. *S. A.* affords the means of detecting almost infinitesimal portions of various elements. Sodium, for example, may be detected in quantities very much less than the millionth of a grain. Since the practice of this branch of analysis has obtained favor among chemists, no less than five new elements have been added to our already numerous list. Messrs. Bunsen and Kirchhoff, on examining the evaporated residue of a certain mineral water, noticed a new light blue line, which did not belong to any element with which they were acquainted. They rightly conjectured that it was caused by a new elementary substance, which they named *cæsium,* and which they shortly afterward obtained in bulk from the same and other sources. In the same manner they discovered *rubidium.* *S. A.* has also already thrown considerable light on the question of the constitution of the universe, new facts having been acquired concerning the sun, stars, nebulæ, and comets.

It is one of the proud achievements of modern science that the sun, stars, comets, and nebulæ are by the pen of light made to write their autographs, and reveal to us the secrets they hold. The marvellous revelations conveyed by their hieroglyphical inscriptions are accepted as legal proof in every scientific court. The power of this new method of analysis is not confined to elements in the chemist's laboratory, but can bridge the enormous spaces that separate him from the stars and the still more distant nebulæ. Of the chemical composition of the heavenly bodies, or of their motions to or from the earth in the line of sight, the telescope tells us nothing. There is hardly an art or branch of science in which the spectroscope is not made to do duty. No substance is so pure that it will not detect in it some impurity. Even in the making of steel by the Bessemer method, the spectroscope is used to indicate the completion of the process. Some 73 elementary substances are known, and the vapor of each when heated to incandescence exhibits lines in its spectrum peculiar to itself, regardless of its distance, making us as well acquainted with what is present in Arcturus, or the Dog Star, or the sun, as in a Bessemer converter. It has detected in the sun nearly 30 substances we are familiar with in our world, among which are hydrogen, nitrogen, carbon, calcium, aluminum, iron, nickel cobalt, &c., but not a trace of oxygen. It will detect the presence of the one hundred millionth of a grain of sodium, the double line of which in the yellow is seen in almost every star. Formerly the metal lithium was one of the rarest elements known to chemists, but *S. A.* detects it everywhere, even in the ash of a cigar. Its principal spectral line is in the red. Iron gives a spectrum of over 2,000 lines.

The color of light depends wholly on the rapidity of the vibrations of the all-pervading ether, as the musical notes depend on the frequency of the vibrations of the waves of air. The ear begins to hear when aerial vibrations amount to 16 in a second, and ceases to hear when they reach 40,000 during the same time. The eye begins to see when the ethereal vibrations in a second amount to 450,000,000,000, which produces the palo red, and ceases to see when they amount to the vast number of 527,000,000,000. Waves longer than the infra-red produce heat, and those shorter than the ultra-violet are not light, but actinic waves. Spectroscopic analysis of light from the nebulæ instantly decides whether they are clusters of suns, or a vast mass of self-luminous gas. If the lines be bright they are true nebulæ, but if dark they are clusters of suns, whether the telescope can resolve them or not.

Another qualification the spectroscope possesses that the telescope does not, is its ability to detect motion in a heavenly body in the line of sight. This property has opened a new field of research of vast proportions, notably in the discovery of exceedingly close binary stars, the vibratory movement of the lines, if any, being recorded by photography. Such stars are called photo-spectroscopic binaries, of which Zeta Ursæ Majoris, Beta Auriga, and Beta Persei (Algol) are examples. As the two stars revolve, their orbital planes being parallel to our line of sight, it results that while one is moving toward us, the other of course will be receding. Both stars give a spectrum of lines, and those of the approaching star will be moved slightly toward the violet end of the spectrum, and the lines from the receding star will be displaced toward the red end, thereby causing them to appear double on the photographic plates. By examining a long series of plates the periodic times can be ascertained. It is found that the lines in Beta Auriga are double every two days, and therefore the periods of their revolutions are four days. The shortest telescopic binary known is Kappa Pegasi, about 13 years. The stars Arcturus, Vega, Pollux, and many others are moving toward our solar system at a mean velocity of 60 miles a second. The increase in the brightness of Pollux is already apparent to the naked eye, being brighter than its twin, Castor, which has a motion of recession of 25 miles a second. When the stars were first catalogued, Castor was the brighter star, and named Alpha. Now Beta (Pollux) is the brighter. In this way the great velocity with which the red prominences around the sun's limb are formed has been determined.

Speed, *v. n.* [A. S. *spedan, gaspedan.*] To make haste; to move with celerity.—To have success; to prosper; to succeed, that is, to advance in one's enterprise.

—To have any condition, good or ill; to fare.

—*v. a.* To despatch or send away with celerity; to hurry; to hasten. — To hasten, as to a conclusion; to execute; to dispatch. — To help forward; to assist; to make prosperous; to cause to succeed. — To destroy; to kill; to ruin.

—*n.* Rapidity of motion; quickness; swiftness; rapidity of execution or performance. — Success; prosperity in an undertaking; favorable issue, that is, advance to the desired end.

Speed'er, *n.* One who, or the thing which, speeds.

Speed'ily, *adv.* Quickly; with haste; in a short time.

Speed'iness, *n.* The quality of being speedy; quickness; celerity.

Speeds'ville, in *New York,* a post-village of Tompkins co., 15 m. S.E. of Ithaca. It is pleasantly situated on a bluff near the confluence of the West Owego Creek with Blair's Brook. It has 3 churches, a hotel, and a school, and a fine park of sugar-maples in the centre of the village.

Speed'well, *n.* (*Bot.*) See VERONICA.

Speed'y, *a.* [A. S. *spedig.*] Quick; swift; nimble; hasty; rapid in motion; quick in performance; not dilatory or slow.

Edmund Spenser

1553(?)–1598

Speer'town, in *New Jersey*, a village of Essex co., 7 m. N. of Newark.

Speight's Bridge, (*spits,*) in *N. Carolina*, a post-village of Greene co., 79 m. E.S.E. of Raleigh.

Speke, JOHN HANNING, a distinguished African traveller, and explorer of the sources of the Nile, was B. of an ancient family at Whitelackington, in Somersetshire, in 1827. He entered the Indian army at the age of 17, served in Sir Colin Campbell's division through the campaign in the Punjaub, and during his annual leave of absence made exploring expeditions in the Himalayas and in Thibet, especially studying the botany, geology, and natural history of the region, and collecting specimens. He subsequently accompanied Captain Burton in his exploration of Eastern Africa, and in 1858 reached the head of the great lake Nyanza, under the Mountains of the Moon, and since called Victoria Nyanza. Desirous of ascertaining whether the Nile has its sources in that lake, he set out from Zanzibar in 1860, accompanied by Capt. Grant, to find the southern end of the lake; and after heroic struggles against extraordinary difficulties, succeeded in his object, spent some time on the shores of the Nyanza, and striking the Nile at Urondogoni, retraced its course to the lake. Speke was accidentally shot near Bath, 1864. His *Journal of the Discovery of the Source of the Nile* appeared in 1863, and a pamphlet, entitled, *What Led to the Discovery of the Source of the Nile*, in 1864.

Spel'ding, *n.* A dried haddock.

Spell, *n.* [A. S. *spelian*, to take another's place.] The act of taking another's place or turn temporarily in any labor or service.—A short period of time; a little while.

—[A. S. *spell*, history, speech.] An incantation; a charm consisting of some words of occult power.

—*v. a.* To take another's place or turn temporarily in any labor or service; to relieve.—To tell or name, as the letters of a word, with a proper division of syllables.—To write or print with the proper letters; to form, as words, by correct orthography.—To read by naming letters singly.—To charm; to bewitch; to fascinate.

—*v. n.* To read. (R.)—To form words with the proper letters, either in reading or writing.

Spell'-bound, *a.* Arrested or held by a spell or incantation; enchanted.

Spell'er, *n.* One who spells.—A book containing exercises in spelling. (U. S.)

Spell'ful, *a.* Full of, or abounding in, charms or spells. (R.)

Spell'ing, *n.* Act of naming the letters of a word.—Orthography; the manner of forming words with letters.

Spell'ing-book, *n.* A book for teaching children to spell and read.

Spell'-land, *n.* A land of charms or spells.

Spell'-work, (*-wurk,*) *n.* That which is performed or wrought by magic.

Spelt, *n.* (*Bot.*) See TRITICUM.

Spel'ter, *n.* A term applied to zinc.

Spen'cer, *n.* An outer coat or jacket, without skirts;—so called after Lord Spencer, who first brought it into fashion.

(*Naut.*) A fore-and-aft sail, set with a gaff and no boom, and hoisting from a spencer-mast.

Spen'cer, in *Illinois*, a post-village of Will co., 8 m. E. of Joliet.

Spencer, in *Indiana*, a S.W. co., bordering on the Ohio River; *area*, 390 sq. m. It is drained by Little Pigeon and Crooked creeks. *Surface*, diversified; *soil*, generally fertile. *Min.* Bituminous coal. *Cap.* Rockport. *Pop.* (1897) 22,900.—A township of Harrison co.—A township of Jennings co.—A city, cap. of Owen co., 54 m. S.W. of Indianapolis. *Pop.* (1897) 2,050.

Spencer, in *Iowa*, a post-village, cap. of Clay co., on the Little Sioux river, and the Chicago, Milwaukee & St. Paul R.R., about 90 m. N.E. of Sioux City; In a farming region. *Pop.* (1897) 2,210.

Spencer, in *Kentucky*, a N. co.; *area*, 200 sq. m. *Rivers.* Salt river, and Brashears creek. *Surface*, undulating; *soil*, productive. *Cap.* Taylorsville. *Pop.* (1897) 7,600.

Spencer, in *Massachusetts*, a post-village and township of Worcester co., 62 m. W.S.W. of Boston.

Spencer, in *Minnesota*, a village of Goodhue co., on the Canuon river, about 16 m. S. of Hastings.

Spencer, in *New York*, a post-village and township of Tioga co., 20 m. S. of Ithaca.

Spencer, in *North Carolina*, a village of Davidson co., 190 m. W. of Raleigh.

Spencer, in *Ohio*, a township of Allan county, 110 m. N.W. of Columbus.—A township of Guernsey county.—A township of Hamilton county, on the Ohio river.—A township of Lucas county.—A post-township of Medina county.

Spencer, in *Tennessee*, a post-town, cap. of Van Buren co., 90 m. S.E. of Nashville.

Spencer, in *W. Virginia*, a post-village, cap. of Roane co.

Spen'cer-mast, *n.* (*Naul.*) A small mast just abaft the fore and the main-mast.

Spen'cerport, in *New York*, a post-village of Monroe co., 18 m. W. of Rochester.

Spen'cersburg, in *Missouri*, a post-village of Pike co., 80 m. N.E. of Jefferson City.

Spen'certown, in *New York*, a post-village of Columbia co., 30 m. S.S.E. of Albany.

Spen'cerville, in *Indiana*, a post-village of De Kalb co., 135 m. N.N.E. of Indianapolis.

Spend, *v. a.* [A. S. *spendan;* Ger. *spenden;* Lat. *expendo*, to weigh out.] To lay out; to dispose of; to part with.—To consume; to waste; to squander; to exhaust.—To bestow for any purpose.—To pass, as time; to suffer to pass away.—To exhaust of force or strength.

Spend, *v. n.* To make expense; to lay out or dispose of money.—To be lost or wasted; to vanish; to be dissipated; to be consumed.—To prove in the use. (R.)

Spend'er, *n.* One who spends.—A prodigal; a spendthrift.

Spend'thrift, *n.* One who spends improvidently or prodigally money which has been earned or saved by thrift; a prodigal; one who lavishes his estate.

Spen'ser, EDMUND, an English poet, B. in London, about 1553; was educated at Pembroke Hall, Cambridge, and, on leaving the University, took up his residence with some relations in the north of England, probably as a tutor. In 1579 he published his first poem, *The Shepherd's Calendar*, which he dedicated to Sir Philip Sidney, who became his patron, and introduced him at court. In 1580 he was appointed by the Earl of Leicester secretary to Lord Grey, viceroy of Ireland, and obtained a grant of lands at Kilcolman, in the county Cork, where he built a castle, and finished his celebrated poem entitled the *Faërie Queene*. In the rebellion begun by the Earl of Tyrone, he lost his estate and was plundered; upon which he retired to London. He D. in 1598, and was buried near Chaucer, in Westminster Abbey. *S.* is one of the most purely poetic of all poets. Yet, as it is with Milton, so it is with him; his name is spoken with proud admiration, and his *Faërie Queene* is not read. Some, like Hume, find it more a task than a pleasure to read his poem. Others, like Pope, find it charming in old age as well as in youth. And an eminent modern critic asserts that "the shaping spirit of imagination was never possessed in the

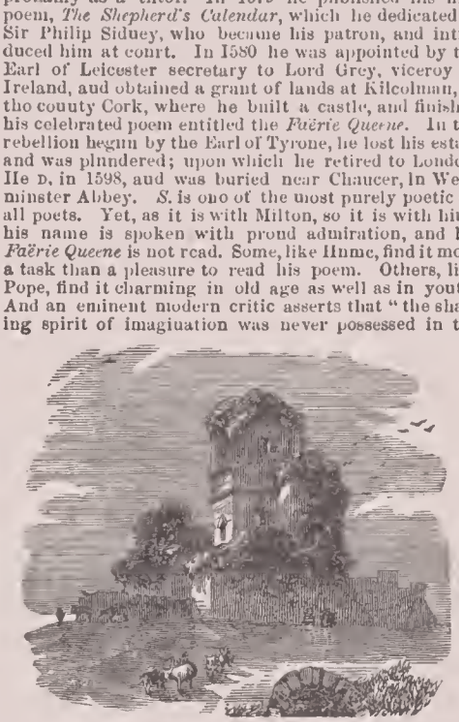


Fig. 2405.—KILCOLMAN CASTLE, THE RESIDENCE OF SPENSER.

like degree by any other writer; nor has any other evinced a deeper feeling of all forms of the beautiful; nor have words ever been made by any other, to embody thought with more wonderful art." His verse is exquisitely melodious, and the moral tone of his poetry is of the noblest and purest. The *Fairy Queen* is an allegory, a fact which has much to do with the lack of interest in it by modern readers, though the story-telling tendency of Spenser's mind has prevented the allegorical significance of his work from becoming unduly prominent. In addition to the poems named, he produced various others of a less ambitious character, including the magnificent *Epithalamion*, much the finest of his minor poems.

Spent'-ball, *n.* A cannon-ball, or musket-ball, which reaches an object without sufficient force to pass through or penetrate it.

Sper'gula, *n.* (*Bot.*) A genus of plants, order *Illecebraceæ*, consisting of herbs with flowers in loose cymes, and leaves stipulate. The Corn Spurry, *S. arvensis*, is a common weed in cultivated grounds, frequent from Canada to Georgia.

Sperm, *n.* [Fr.; Lat., from Gr. *sperma.*] The secretion proper to the spermatic vessels of the male; the seminal fluid.—Spermaceti.—Spawn of fishes or frogs.

Spermace'ti, *n.* [Fr.; Lat. *sperma*, and *cetus;* Gr. *ketos*, a sea-monster.] A fatty substance which concretes or crystallizes spontaneously out of the oil of the *S. whale.* It is purified first by pressure, then by fusion and boiling with a weak alkaline lye. When melted in masses, it concretes in crystalline plates of a silvery lustre and unctuous feel. It fuses at about 100°. It dissolves in boiling alcohol; and as the solution cools it separates in brilliant scales, to which Chevreul has given the name of *cetine.* *S.* differs from common fats in not yielding glycerine when saponified, but a peculiar base termed *ethal.*

Spermace'ti-whale, *n.* (*Zoöl.*) See CACHALOT.

Sper'macoce, *n.* (*Bot.*) The Button-weed, a genus of plants, order *Rubiaceæ*, mostly herbaceous and tropical; flowers small, axillary, sessile, whorled.

Spermat'ic, Spermat'ical, *a.* Seminal; pertaining to seed or conveying it.

Spermat'ic Cord, *n.* (*Anat*) The name given to the artery, vein, nerve, and lymphatic vessel, which, bound together in one sheath, like the *funis* or umbilical cord of the fœtus, runs from the loins in the male into the bag of the *scrotum*, where it becomes wonderfully attenuated and elongated, and for the better disposition and the compacter arrangement of the many thousands of yards into which the cord is extended, it is folded or rather rolled up, not unlike the thread of a ball of cotton.

Spermat'ocele, *n.* [Gr. *sperma*, and *kele*, a tumor.] (*Med.*) A VASICOCELE, *q. v.*

Sperm'atoid, *a.* [Gr. *sperma*, and *eidos*, form.] Similar to sperm.

Spermatol'ogy, *n.* [Gr. *sperma*, and *logos*, discourse.] (*Med.*) A treatise on sperm.

Sperm'atoon, *n.*; *pl.* SPERMATOA. [Gr. *sperma*, and *ōon*, an egg.] (*Physiol.*) One of the cells which stand in the relation of nuclei to the sperm-cells, and of developmental cells to the spermatozoa. Sometimes the sperm-cell contains a single spermatoon, sometimes several spermatoa, in which case the resulting spermatozoa often unite together and form a fasciculus, as, *e. g.,* in the sparrow.

Sperm'atophore, *n.* [Gr. *sperma*, and *phero*, to carry.] (*Physiol.*) One of the cases of albuminous matter in which the bundles of spermatozoa are packed; they are largest and most complex in the cephalopods.

Spermatozo'a, *n., pl.* of SPERMATOZOON. [Gr. *sperma*, and *zōon*, animal.] (*Physiol.*) The filamentary bodies developed in the semen, and consisting of an enlarged extremity called *body*, and a vibratile filamentary appendage called *tail.* *S.* consist of an amber-colored, highly refracting, homogeneous substance, like the hyaline nucleus of cells, and are formal modifications of the nucleus of the spermatoon. They are essential to impregnation.

Spermatozo'id, *n.* [Gr. *sperma*, and *eidos*, form.] (*Physiol.*) One of the SPERMATOZOA, *q. v.*

(*Bot.*) One of the small cells containing moving filaments, which have been detected in *Antheridia.* They are also called *phytozoa* (Gr. *phulon*, a plant, *zōon*, an animal). Each *S.* is formed in a special cell, is rolled upon itself in a spiral manner, and escapes either by a pore or by a dissolution of the wall of the cell. Similar moving spores have also been observed in the thecæ and sporangia of many cryptogamia.

Sperm'-cell, *n.* (*Anat.*) One of the cells contained in the liquor seminis, in which are formed the spermatoa, or cells of development of the spermatozoa.

Spermid'ium, *n.*; *pl.* SPERMIDIA. [From Gr. *sperma.*] (*Bot.*) A kind of small seed-vessel, resembling a seed, and more commonly called an *achene.*

Sperm'-oil, *n.* (*Manuf.*) The liquid portion of the fat of the spermaceti whale. The crude oil contains a small quantity of a peculiar oil (termed *phocenin* by Chevreul), which gives it a very disagreeable odor and taste, and traces of gelatinous matter. These impurities are removed by adding to the oil a solution of chloride of lime and a small quantity of decoction of oak-bark, after which it is agitated with a small quantity of sulphuric acid, clarified by subsidence, and washed to remove adhering sulphuric acid. *S. O.* becomes semi-solid at 45° Fahr.

Spermoph'ilus, *n.* (*Zoöl.*) A genus of Rodentia, family *Sciuridæ*, including Ground Squirrels, Spermophiles, and Gophers. It is characterized by a squirrel-like body, variable ears, well developed cheek-pouches, and absence of the thumb claw. They are all burrowing animals. This genus is represented in N. America by at least 14 species.

Sperm'-whale, *n.* (*Zoöl.*) The spermaceti-whale. See CACHALOT.

Sperry, in *Iowa*, a township of Clayton county.

Sper'ryville, in *Virginia*, a post-village of Rappahannock co., 120 m. N.W. of Richmond.

Spetch'es, *n. pl.* Scraps of glue;—the offal of skins or hides.

Spew, (*spū,*) *v. a.* [A. S. *spiwan;* Du. *spugen*, to spit, *spuwen*, to vomit.] To eject from the mouth; to vomit; to puke; to eject from the stomach.—To eject; to cast forth; to cast out with abhorrence.

—*v. n.* To vomit; to puke; to discharge the contents of the stomach.—To swell, as wet land affected by frost so as to throw seed out of the ground.

Spewer, (*spū'er,*) *n.* One who spews.

Spew'ing, *n.* The act of vomiting.

Spew'y, *a.* Wet; foggy. (Prov. Eng. and U. S.)

Spey, (*spai,*) a large and rapid river of Scotland, in Inverness-shire, rising from Loch Spey, and, after a course of upwards of 100 m., falling into the sea, about 8 m. E. of Elgin.

Spey'er, a town of Germany. See SPIRES.

Spez'er, in *Nebraska*, a former township of Richardson county.

Spezia, (La,) (*spet'ze-a,*) a town and seaport of N. Italy, prov. Genoa, at the extremity of the gulf of its own name, 50 m. E.S.E. of Genoa. The gulf is formed by the bifurcation of a spur of the Apennines, and is 3½ m. long and 3 broad; its western shore is indented by many coves or creeks, five of which—Porto-Venere, La Castagna, the Varignano (the Quarantine station), Grazie, and Panigaglia—are so deep that large men-of-war may be moored in them. Within the last 12 years the Italian government has executed immense hydraulic works for the appropriation of that important position; and La Spezia is now one of the chief naval stations and arsenals of the kingdom. The scenery of the gulf is very beautiful; and the mildness of its climate was famous in ancient times, when it was known as the Gulf of Luna (*Portus lunæ*). The town has become within recent years a much frequented watering-place. *Pop.* 12,146.

Spezzia, (*spet'ze-a.*) a small island of Greece, in the Gulf of Nauplia, 10 miles from Hydra; *area*, 26 sq. m.; *pop.* 8,000.

Sphac'elate, *v. n.* To mortify; to suffer with gangrene.

—*v. a.* To affect with gangrene.

Sphac'elate, Sphac'elated, *a.* Mortified; affected with gangrene.

Sphacela'tion, *n.* (*Med.*) State of being sphacelated; mortification.

Sphac'elus, *n.* [Gr. *sphakelos.*] (*Med.*) The GANGRENE, *q. v.*

Sphag'num, *n.* (*Bot.*) The Bog Moss, a genus of Mosses, whose sporecase is su urn closed by a deciduous lid, and its brim toothless, the calyptra irregularly torn. They are common in hogs, and are remarkablo for the whitish color of their leaves. They are very elegant plants. They often grow in considerable masses, absorbing water like a sponge, but becoming friablo when dry. They contribuio much to the formation of peat. Gardeners employ them in preference to other mosses for covering the roots of plants and keeping them moist, as they have in a high degree the property of absorbing moisture from the atmosphere.

Shargi'didæ, *n. pl.* (*Zoöl.*) A family of reptiles, comprising turtles whose general form is something like that of a flattened pyramid, and the body is covered with a thick coriaccous s' in, instead of a hard shell. *Sphargis* is the only genus, and is represented by *S. coriacea* of tho Atlantic and Mediterranean, which is the largest of all turtles, in some cases attaining the weight of 1,200 to 2,000 pounds. One caught in Chesapeake Bay had a total length of almost 8 feet.

Spheg'idæ, *n. pl.* (*Zoöl.*) A family of insects comprising hymenoptera which have long antennæ, pedicelled abdomen, and long hind legs. They are large, black and red, brown and red, or wholly blue or black. They are very active, and their sting powerful. They are known under the popular names of *Mud-wasps, Dirt-daubers,* and *Sand-wasps.*

Sphene, *n.* [Gr., a wedge, from the shape of the crystal.] (*Min.*) A titanate and silicato of lime (or a silicate of titanium, in which part of the latter is replaced by lime). It is found crystallized and sometimes in granular or foliated masses of a brown, gray, and yellow color.

Sphenis'cinæ, *n. pl.* (*Zoöl.*) A sub-family of *Alcidæ,* the PENGUINS, *q. v.*

Sphe'noid, *n.* [Gr. *sphen,* a wedge, and *eidos,* form.] (*Anat.*) A bone common to the head and face, which, as the word implies (wedge-like), serves to fix the other bones above and around it in a perfect framework. From its situation at the base of the skull, the sphenoid bone gives origin to several muscles of the face and pharynx, such as the *spheno-palatina, spheno-pharyngeal,* and some others.

Spher'al, *a.* Round like a sphere; symmetrical; perfect; complete.

Sphere, (*sfēr,*) *n.* [Fr.; Lat. *sphæra;* Gr. *sphaira,* a ball, a globe which Anaximender conceived as surrounding the universe.] An orb; a ball; a globe.

(*Geom.*) A solid body contained under a single surface, which in every part is equally distant from a point called its *centre.*

(*Astron.*) The concave or vast orbicular expanse in which the heavenly bodies appear; an orbicular body, or a circular figure representing the earth or apparent heavens.

(*Geog.*) A representation of the earth on a globular surface.

—Circuit of motion; revolution; orbit. — Circuit or compass of action, knowledge, or influence; province; employment. — Rank; condition; class or order of society; as, he moves in a higher *sphere* than ourselves. — A socket; an orbit. (R.)

Armillary spheres. (*Astron.*) See ARMILLARY. — *Doctrine of the sphere,* spherical geometry. — *Music of the spheres.* (*Anc. Astron.*) Among the Pythagoreans, the music supposed to result from the motions of the spheres. — *Oblique sphere.* (*Astron.* and *Geog.*) The celestial or terrestrial sphere when its axis is oblique to the horizon of the place; or its position to an observer at any point on the earth except the poles and the equator. — *Parallel sphere.* See PARALLEL. — *Right sphere.* (*Astron.* and *Geog.*) That position of the sphere in which the equator cuts the horizon at right angles; in spherical projections, that position of the sphere in which the primitive plane coincides with the plane of the equator.

—*v. a.* To place in a sphere. — To form into roundness.

Spheric, Spherical, (*sfēr'ik,*) *a.* [Fr. *sphérique;* Lat. *sphæricus;* Gr. *sphairikos.*] Pertaining to a sphere. — Resembling a sphere; orbicular; globicular; having a surface in every part equally distant from the centre; as, a *spherical* body. — Planetary; having reference to the celestial orbs; as, *spherical* predominance.

Spherical angle. (*Geom.*) The angle formed on the surface of a sphere by the arcs of two great circles.

Spherical coördinates. (*Math.*) Trigonometrical coordinates. — *Spherical excess.* (*Math.*) In trigonometry, the excess, above two right angles, of the sum of the angles of a spherical triangle. — *Spherical geometry.* See SPHERICS. — *Spherical line.* (*Geom.*) A portion of a spherical surface included between two great semicircles having a diameter in common. — *Spherical polygon,* a portion of the surface of a sphere limited by the arcs of three or more great circles. — *Spherical projections,* the projections of the surface of a sphere upon a plane. — *Spherical sector.* See SECTOR. — *Spherical segment,* the segment of a sphere. — *Spherical triangle,* a figure on a sphere's surface bounded by the intersecting arcs of three great circles. — *Spherical trigonometry.* See SPHERICS.

Spher'ically, *adv.* In the form of a sphere.

Spher'icalness, Sphericity, (*-is'i-te.*) *n.* [Fr. *sphéricité.*] State or quality of being spherical; roundness; circularity.

Spheric'le, (*sfēr'e-kl,*) *n.* A little sphere.

Spherics, (*sfēr'iks,*) *n. sing.* Spherical geometry and trigonometry, or the doctrine of the properties and relations of the circles, figures, and other magnitudes of a sphere, caused by the intersection of planes.

Spherograph, (*sfēr'o-grăf,*) *n.* [Gr. *sphaira,* sphere, and *graphein,* to write.] An instrument invented for the practical application of spherics to navigation. — By its aid any possible spherical triangle can be constructed without dividers or scales.

Spheroid', (*sfē-,*) *n.* [Fr. *sphéroïde;* Gr. *sphaira,* and *eidos,* form.] (*Geom.*) A body or figure resembling a sphere, but not perfectly spherical; — particularly, a solid generated by the revolution of an ellipse about one of its axes. If the generating ellipse revolves about its major axis, the *S.* is *prolate,* or obloug; if about its minor axis, the *S.* is *oblate.*

Spheroid'al, Spheroid'ic, Spheroid'ical, *a.* [Fr. *sphéroïdal.*] Possessing the form of a spheroid.

(*Crystallog.*) Bounded by divers convex faces.

Spheroidal Condition of Liquids. (*Physics.*) When liquids are throwu upon incandescent metallic surfaces, they present remarkable phenomena, which were first observed by Leidenfrost a century ago. They have since then been studied by other physicists, and more especially by M. Boutigny, to whom our present knowledge of the subject is mainly due. When a tolerably thick silver or platinum dish is heated to redness, and a little water, previously warmed, dropped into the dish by means of a pipette, the liquid does not spread itself out on the dish, and does not moisten it, as it would at the ordinary temperature, but assumes the form of a flattened globule, which fact M. Boutigny expresses by saying that it has passed into the *spheroidal state.* It rotates rapidly round on the bottom of the dish, taking sometimes the form of a star, and not only does it not boil, but its evaporation is only about one-fifth as rapid as if it boiled. As the dish cools, a point is reached at which it is not hot enough to keep the water in the spheroidal state; it is accordingly moistened by the liquid, and a violent ebullition suddenly ensues. All volatile liquids can assume the *S. C.;* the lowest temperature at which it can be produced varies with each liquid, and is more elevated the higher the boiling-point of the liquid. For water, the dish must have at least a temperature of 200°; for alcohol, 134°; and for ether, 61°. The temperature of a liquid in the *S. C.* is always below the boiling-point. This property of liquids in the *S. C.* remaining below their boiling-point has been applied by M. Boutigny in a remarkable experiment—that of freezing water in a red-hot crucible. He heated a platinum dish to bright redness, and placed a small quantity of liquid sulphurous acid in it. It immediately assumed the *S. C.,* and its evaporation was remarkably slow. Its temperature was about 11°, and when a small quantity of water was added, it immediately solidified, and a small piece of ice could be thrown out of the red-hot crucible. In a similar manner, Faraday, by means of a mixture of solid carbonic acid and ether, succeeded in freezing mercury in a red-hot crucible. The common experimental method of exhibiting the *S. C.* is easily performed thus: A metallic disc, slightly concave, like a watch-glass, is heated by a lamp, and water is cautiously dropped on it from a pipette. If this be done before the disc is sufficiently heated, the water boils almost explosively, and is dispersed at once in vapor. But, when the disc is hot enough, the water remains suspended, as shown in the cut, *above* the surface; and the drop, when small, takes nearly the form of an oblate spheroid. Various proofs have been given, though they are obviously unnecessary, that there is no contact in this case. Thus, if the disc be very nearly flat, light passes freely between it and the drop. Again, if one pole of a galvanic battery be connected with the disc, and the other be dipped into the drop, a galvanometer interposed in the circuit shows that no current passes. By heating the disc sufficiently, and dropping on the water very carefully, we may easily keep in the spheroidal state as much water as, if not more than, it could hold when cold. It is not necessary that a metal plate be used — a watch-glass will suffice for the experiment; but *hot* water must be dropped on it, else the glass will crack. Similarly, liquids may be made to roll upon liquids, and solid bodies which vaporize without becoming liquid also assume a condition analogous to the *S. C.* of liquids when they are placed on a surface whose temperature is sufficiently high to vaporize them rapidly. This is seen when a piece of carbonate of ammonium is placed in a red-hot platinum crucible. The phenomena of the *S. C.* seem to prove that the liquid globule rests upon a sort of cushion of its own vapor, produced by the heat radiated from the hot surface against its under side. As fast as this vapor escapes from under the globule, its place is supplied by a fresh quantity formed in the same way, so that the globule is constantly buoyed up by it, and does not come in actual contact with the heated surface. When, however, the temperature of the latter falls, the formation of vapor at the under surface becomes less and less rapid, until at length it is not sufficient to prevent the globule touching the hot metal or liquid on which it rests. As soon as contact occurs, heat is rapidly imparted to the globule, it enters into ebullition, and quickly boils away. These experiments on the *S. C.* explain the fact that the hand may be dipped into melted lead, or even melted iron, without injury. It is necessary that the liquid metal be heated greatly above its solidifying point. Usually, the natural moisture of the hand is sufficient, but it is better to wipe it with a damp cloth. In consequence of the great heat, the hand becomes covered with a layer of spheroidal fluid, which prevents the contact of the metal with the hand. Radiant heat alone operates, and this is principally expended in forming aqueous vapor on the surface of the hand. If the hand is immersed in boiling water, the water adheres to the flesh, and consequently a scald is produced. The tales of ordeals by fire during the Middle Ages, of men who could run barefooted over red-hot iron without being injured, are possibly true in some cases, and would find a ready explanation in the preceding phenomena.

Fig. 2406.

Spheroid'ity, *n.* State, quality, or condition of being spheroidal. (R.)

Sperom'ere, *n.* (*Zoöl.*) A name proposed by Agassiz for the homological segments of the body in radiates.

Sperom'eter, *n.* [Fr. *sphéromètre,* from Gr. *sphaira,* and *metron,* measure.] (*Phys.*) An instrument for measuring, with great precision, the thickness of small bodies, the curvature of optical glasses, &c.

Sperosid'erite, *n.* (*Min.*) A variety of synthose iron-ore in spheroidal masses, occurring in trap.

Spher osune, *n.* (*Zoöl.*) A name proposed by Agassiz for the body-wall of radiates.

Spherulate, (*sfēr'u-late,*) *a.* Covered or set with spherules or minute tubercles.

Spherule, (*sfēr'ōōl,*) *n.* [From Lat. *sphæra,* a sphere.] A small sphere, globe, or orbicular body.

Sphery, (*sfēr'y,*) *a.* Round; spherical; globular. — Pertaining or relating to the spheres.

Sphigmom'eter, Sphygmom'eter, (*sfig-,*) *n.* [Gr. *sphigmos,* a binding tight.] (*Med.*) An instrument for counting the arterial pulsations; a smygmograph.

Sphinc'ter, *n.* [Gr., from *sphiggo,* to bind tight.] (*Anat.*) A name common to several muscles which draw together, close, or bind certain apertures of the body; the most important of these oval or circular muscles is the *sphincter ani,* the door-keeper to the anus, and which, in its action, operates also on the urethra, assisting to void the last of the urine.

Sphin'gidæ, *n. pl.* (*Zoöl.*) The Hawk-moth family of *Lepidoptera,* comprising the most robust and powerful insects in the order, and generally distinguished by their strength of flight and large size. The antennæ are prismatic, and terminated by a little feather or thread; the tongue is often extremely long, in some species even exceeding the whole body in length; the labial palpi are broad and compressed, and closely covered with scales; the labrum and mandibles are minute; the body is long, and acute behind; and the wings, especially in the hinder pair, small. The caterpillars are naked, cylindrical, and 16-footed; they are ornamented with pale oblique stripes upon the sides of the body, and are usually furnished with a short horn on the back of the eleventh segment. They descend into the earth to become pupæ, which are naked and conical. Various modifications occur in the character of the image in this family. The maxillæ vary considerably in length, exceeding that of the entire body in Sphinx, but scarcely exceeding that of the head in the Death's-head Hawk-moth (*Acherontia atropos*) (see ACHERONTIA), and in *Smerinthus* not longer than the labial palpi; this variation in length corresponds with the rapidity of flight, and the habit of the insects of extracting the nectareous juices of tube-bearing flowers by means of their elongated tongue. The caterpillars of the typical species are remarkable for the attitude in which they are usually seen, and from which they have obtained the genuine name of *Sphinx,* from their supposed resemblance to the figures of that fabulous creature. Some of them are also remarkable for the faculty they possess of elongating and contracting the three anterior segments of the body, giving them somewhat of a proboscis-like appearance, whence they have been termed *Elephant Sphinxes.*

Fig. 2407. — PRIVET HAWK-MOTH, (*Sphinx ligustri.*)

Fig. 2408. CATERPILLAR AND CHRYSALIS OF PRIVET HAWK-MOTH, (*Sphinx ligustri.*)

Sphinx, (*sfingks,*) *n.* [Lat. and Gr., said to be from Gr. *sphinggō,* to compress tightly.] (*Myth.*) A fabulous monster, said to have had the head and bust of a woman, a dog's body, the wings of a bird, and the tail of a serpent. The *S.* was sent by Juno to punish the Thebans, by propounding riddles to all passers by, and devouring all who were unable to interpret her enigmas. Œdipus, however, explained all the riddles, when the monster immediately flung herself into the sea and perished. The form of the so-called Egpytian *S.* is that of a winged lion with a human head and bust, always in a lying attitude, whereas the Greek *S.* is represented in any attitude which might suit the fancy of the poet. The Egyptian figures seem to have been set up in avenues, forming approaches to the great temples. The statue disinterred by Belzoni near the Pyramids of Ghizeh, 62 feet high (see Fig. 2191), has again been nearly covered with sand. It is stated by Pliny that the Sphinx represented the Nile in a state of flood, as this event occurred regularly under the signs of the Virgin and the Lion. Figures of lions have also been found with the heads of rams and hawks.

Sphinx, *n.* (*Zoöl.*) The typical genus of the family Sphinoidæ (*q. v.*).

Sphragistics (*sfra-jis'tiks*), *n. sing.* [From Gr. *sphragis*, a seal.] The science of seals, their history, peculiarities, and distinctions, especially with a view to the means which they afford of ascertaining the age and genuineness of documents to which they are affixed.

Sphygmic (*sfig'mik*), *n.* [Gr. *sphygmos*, the pulse.] Pertaining or having reference to the pulse.

Sphy'mograph, Sphig'mometer, *n.* [Gr. *sphygmos*, the pulse, and *graphein*, to describe.] (*Med.*) A contrivance for indicating the character of the pulse as to force and extent of undulations.

Spi'ca, *n.*; *pl.* Spicæ. [Lat., an ear of corn.] (*Astron.*) A star of the first magnitude, located in the constellation Virgo.

(*Surg.*) A kind of bandage; so named from its resemblance to an ear of barley.

Spi'cate, Spi'cated, *a.* (*Bot.*) Presenting the form of a spike or ear.

Spicca'to, *p. a.* [It., divided.] (*Mus.*) A term indicating that every note is to have its distinct sound. When used in relation to instruments played with a bow, it is to be understood that every note is to have a bow distinct from the preceding or succeeding one.

Spice, *n.* [Fr. *épice;* Sp. *especia;* It. *spezie*, from Lat. *species*, spices, drugs, &c.] A series of vegetable products, fragrant to the smell, and pungent to the taste; used in cookery, sauces, &c., and also as condiments. The principal of these in common use are nutmegs, mace, allspice or pimento, ginger, cloves, and cinnamon.—Hence, a small quantity giving aroma, zest, or seasoning to a greater; something that enriches or alters the quality or smack of a thing in a small degree; a relish; a slight flavoring: hence, a little quantity.

—*v. a.* To season with spice, or that which serves the purpose of spice; to flavor with aromatic substances; to mull; as, to *spice* a beverage.—To tincture or impregnate with the odor of spices.

Spice'-bush, *n.* (*Bot.*) Spice-wood. See Benzoin.

Spice'land, in *Indiana*, a post-village and township of Henry co., about 30 m. W. of Richmond.

Spice'-nut, *n.* In England, a gingerbread-nut; a jumble.

Spi'cer, *n.* One who seasons or flavors with spice.

—[Fr. *epicier.*] A dealer in spices.

Spi'cerville, in *New Jersey*, a village of Gloucester co.

Spi'cery, *n.* [Fr. *epicerie.*] Spices generally; fragrant and aromatic vegetable substances used in seasoning.—A repository of spices; a place where spices are kept.

Spice Val'ley, in *Indiana*, a township of Lawrence co.

Spice'-wood, *n.* (*Bot.*) See Benzoin.

Spiciform (*spi'si-*), *a.* (*Bot.*) Having the form or shape of a spike.

Spi'cily, *a.* In a spicy manner; pungently; with flavor.

Spi'ciness, *n.* State or quality of being spicy.

Spick, n. A provincial English term for a spike or nail.

Spick and span new, quite new; that is, as new as a spike or nail just made; as, "honor *spick and span new*, piping hot."—*Buller.*

Spic'ula, *n.*; *pl.* Spicule. [Lat.] (*Bot.*) A spikelet.—A pointed, fleshy appendage.

Spic'ular, *a.* [Fr. *spiculaire*, from Lat. *spiculum*, a dart.] Sharp-pointed; resembling a dart.

Spic'ulate, *v. a.* [Lat. *spiculare*, from *spiculum*, a dart.] To sharpen to a point. (R.)

—*a.* (*Bot.*) Divided into small spikelets; covered with minute points, as pointed fleshy appendages.

Spicule (*spik'yūl*), *n.* [Lat. *spiculum.*] (*Bot.*) A minute, slender point or granule.

Spicu'liform, *a.* [Lat. *spiculum*, and *forma*, form.] Possessing the form of a spicule.

Spiculigenous (*spic-ū-lij'e-nŭs*), *a.* [Lat. *spiculum*, and *genere*, *gignere*, to produce.] Producing or containing spicules.

Spicy (*spi'si*), *a.* (*comp.* spicier; *superl.* spiciest.) [From *spice.*] Producing, yielding, pertaining to, or having the qualities of spices; fragrant; aromatic; as, a *spicy* decoction.—Hence, pungent; pointed; racy; as, a *spicy* story, a *spicy* scandal.

Spi'der, *n.* [For *spinder;* Ger. *spinne;* Du. *spin*, a spider.] (*Zoöl.*) An order of invertebrate animals belonging to the class known as *Araneæ*, of the sub-kingdom *Arthropoda*. They are universally distributed and are especially distinguished by the habit of weaving silken snares to capture their prey. They are thus the only animals except man who obtain their living by means of a manufactured article or tool. This spinning faculty has attracted attention in all ages, and has been the subject of myths and popular traditions and superstitions, and the theme of many poets and writers.

The true spiders have been divided into two sub-orders, based upon the number of gills or breathing plates. The classification of Prof. Tamarlan Thorell, M.D., is as follows: Order Araneæ: Sub-order I, Tetrapneumones; Tribus I, Territelariæ. Sub-order II, Dipneumones; Tribus II, Tubitelariæ, (*a*) Ecribellatæ, (*b*) Cribellatæ; Tribus III, Retitelariæ; Tribus IV, Orbitelariæ, (*a*) Cribellatæ, (*b*) Ecribellatæ; Tribus V, Laterigradæ; Tribus VI, Citigradæ; Tribus VII, Saltigradæ.

The tribal classification is here based substantially upon the web-spinning habit of the animal and its method of capturing its prey, which, however, is closely correlated with formal characteristics. From this popular standpoint the spiders may be placed in two great groups, as follows: First division, the Sedentary Spiders, which sit upon or near their webs, using them as permanent residences and tools for taking prey. This division consists of four tribes or sections:

(1) The Orbweavers (*Orbitellariæ*) which make the round geometric webs familiar in gardens, fields, and woods. These snares are remarkable structures, and when covered with drops of dew in the early morning and touched with sunlight, are among the most beautiful objects in Nature. They greatly vary in form, some consisting of an entire circular plane; others of a circular plane with a section cut out, and others again, as the triangle spider, of a single section or segment of a circle. The web is composed of numerous radii crossed by consecutive spiral lines, which are armored with numerous globules of viscid material secreted by the spider in the process of spinning. These viscid beads catch the insects that fly against the webs and retain them until the spider rushes from its seat in the center of the snare or within its den on the outskirts thereof. Many Orbweavers make bell-shaped nests of a single leaf or of several leaves worked together and deftly bound by silken bands. Others make nests of closely woven silk, which are often protected by numerous outlying masses of crossed lines, or by a leaf or other material placed over them. The spider remains within this den, which is usually above or to one side of the snare, retaining a connection with the center by a thick thread or trap-line. The motion of the entrapped insect is communicated through the vibrating lines of the web along this thread to the spiders, and gives warning of captured prey.

(2) The Lineweavers (*Retitelariæ*) form snares of intercrossed lines within which the spider rests with its back downward. Insects striking this line are arrested and entangled, and thus easily captured. These snares are the most common cobwebs of our houses and barns.

(3) The Tubeweavers (*Tubitelariæ*) construct tubular webs which are used partly as dens or dwelling places, and in part as snares. One of the familiar American representatives is the Speckled-tubeweaver (*Agalena nævia*), which is everywhere found upon boxwood borders, arbor-vitæ hedges, and on the grass of roadsides, meadows, and lawns. It is a funnel-shaped web, the greatly widened mouth of which is thickly meshed; the funnel runs downward along the stems of the plants. A system of interlaced lines is erected above the top of the funnel, upon which flying insects are stopped, and, dropping down upon the outspread sheet, are captured by the spider which commonly lurks at the mouth of its tubular den.

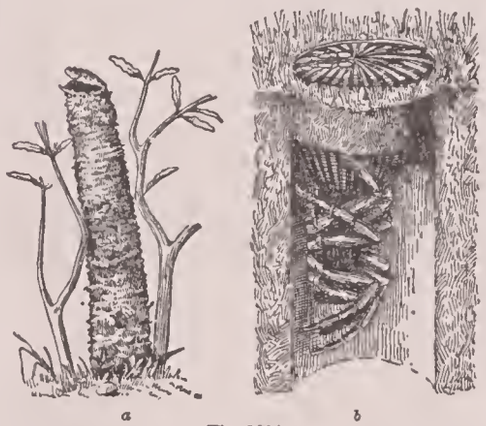


Fig. 3004.

a, Trapdoor spider's turret; nest of *Dolichoscaptus latastei* (Simon); *b*, *Cyclosomia truncata* stopping the door of her burrow with her abdomen.

(4) The Tunnelweavers (*Territelariæ*) make their homes within the ground. They burrow straight tubes, varying in size according to the age and size of the spider, which they often line with thick silken sheeting. Sometimes this inner lining extends above the surface of the ground in the form of a little tower composed of chippage of various material. The well-known trapdoor spider of California belongs to the Tunnelweavers. Its beautiful silk-lined burrow with its skilfully constructed and hinged trapdoor is one of the most striking objects of animal architecture known to man. The Tunnelweavers are distributed in all parts of the earth, but have their largest development in tropical and semi-tropical regions. They embrace the largest known spiders. The tarantula or bird-killing spiders of the tropics and of the southwestern United States belong to this tribe.

The second divisional group is that of the Wandering Spiders. The wanderers do not capture their prey by means of snares, but take them in the open as do the carnivora. However, many species construct silken nests within which they live and rear their young. The Wanderers include three tribes: (1) The Citigrades (*Citigradæ*, or ground spiders), among which are the lycosids or wolf spiders. Of these, certain species construct interesting forms of nests, as the turret spider, which erects above its earthen burrow a structure of straws and bits of twigs somewhat resembling an old-fashioned chimney. Some of these ground spiders have the curious habit of carrying their silken cocoons or egg-bags lashed to the ends of the abdomen, and when the young are hatched they are carried about upon the back attached to the numerous hairs that cover the body. (2) The Laterigrades (*Laterigradæ*) get their name from the construction of their legs, which permits them to run sidewise with as great facility as forward or backward. (3) The Saltigrades or Jumping Spiders (*Saltigradæ*) include many interesting species, which are known by their peculiar jumping action. They lurk in ambush for their prey, stealing slowly upon them like a cat, and seizing them by a final jump. They are distinguished by the brilliant coloring of many species, and generally live in thick silken tubes spun against stones, trees, or other surfaces.

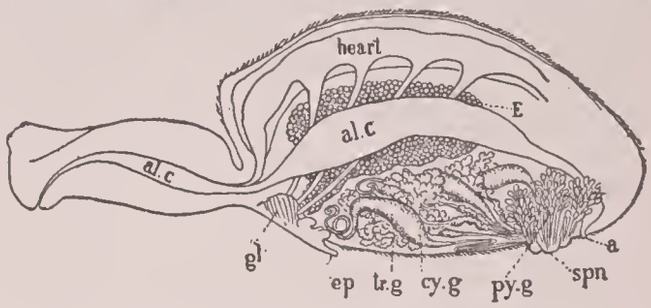


Fig. 3005.—Internal Anatomy of a Female Spider.

Sectional view, showing the spinning glands and other organs (McCook: *American Spiders*, 1, 39). Partly diagrammatic view of the spinning organs in *Argiope cophinaria*: *spn*, spinnerets; *py.g*, pyriform glands; *cy.g*, cylindrical glands; *tr.g*, treeform glands; *ep*, epigyrum; *gl*, gills; *E*, eggs; *al.c*, alimentary canal; *a*, anus. The figure is a composite one.

Some of the most interesting habits of spiders are associated with the maternal instinct. The eggs are commonly enclosed within silken cases, more or less water-tight, which are protected in the most ingenious manner by silken snares, silken mattresses filled with chippage, or mud-plastered cases. They are attached to stones, trees, or other objects, and oftentimes hung upon the branches or within the foliage of shrubs and trees. In some cases the young are cared for during a short season by the mothers. But in all cases the industrial instinct is manifested at an early period, the most perfect forms of architecture being constructed, but on a smaller scale, by the youngest spiders. These vary in form, but the pyriform, globular, hemispherical, or lenticular shapes prevail. Some cocoons are formed of richly colored silk.

Contrary to popular belief, spiders are often beautifully colored, some families, especially of the Jumping Spiders, having even more brilliant hues than one sees upon the gaudily tinted butterflies. A good collection of these animals shows coloring as brilliant as one sees in a case of jewels. Another popular error is that spiders are very poisonous and dangerous to the human species. They are, indeed, provided with a poison apparatus which resembles that of poisonous snakes. This is located in the head within or just beyond the base of the fang, and consists of a small gland covered with muscular tissues, whose contraction expels the liquid poison through a small duct along the fang to an opening near the point. Whatever may be the effect of this substance upon insects, its toxic influence upon man is not greatly to be dreaded. The largest spiders, such as the tarantula of the Southwest, can inflict a painful and in certain conditions a fatal wound. There is also a black species of Lineweaver

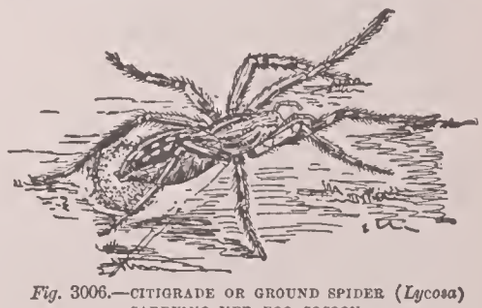


Fig. 3006.—Citigrade or Ground Spider (*Lycosa*) carrying her egg cocoon.

(*Latrodectus mactans*) and a large black Saltigrade spider (*Phidippus morsitans*), both of which have a bad reputation which there is evidence to believe is in some measure well founded. But, for the most part, spiders are innocuous to man. At least the writer of this article has never experienced any effect from the strike of their fangs more serious than that inflicted by the prick of a pin. Mosquitoes are far more poisonous to his system, and, he believes, to most human beings. Man's inveterate hostility to the spider is probably due to this belief in its dangerous character. But, in truth, there is no greater friend to man among the small creatures that inhabit the earth. The spider is Nature's check upon the increase of irritating and de-

structive insects, against which it wages ceaseless warfare. It never destroys a man's crops, structures, apparel, and fabrics, as do the larvæ of many insects. It does not prey upon the stores within pantry, cellar, barn, and storeroom. Whenever it is found in these places, it is there to destroy the insects that are dangerous or annoying to man. It is, in fact, the philanthropist of the invertebrate world, and it is a striking example of human ingratitude or human ignorance that this most friendly and helpful creature should be pursued with a rancor that is scarcely less than the remorseless hate with which serpents are destroyed. If one will walk through a meadow on a summer morning, and note the myriads of spider-webs revealed by the dewy beads that gather upon them, and remember that all these myriads of creatures are engaged in lessening the number of insects in the world, he will form an adequate conception of the service wrought to man, and possibly find his hostility tempered by justice, and modified into gratitude.

Another popular error is that spiders are insects. This is somewhat justified by the fact that the early entomologists so classified them, and they are by courtesy given a place in entomological treatises. They are widely separated from insects. The head, instead of being divided from the thorax by a distinct neck, is set upon the thorax, to which it is closely united. Thus the body is divided into two principal parts, of which the first is called cephalothorax (head-thorax). The other part is the abdomen, and the two parts are united by a small hollow pedicle. The head is provided with a pair of formidable outer jaws or mandibles which terminate in curved fangs. There are usually eight simple eyes which are grouped in various ways, thus forming generic and specific characteristics. There are eight legs, instead of six as in the insects, which are attached to the sternum or breastplate, the under part of the cephalothorax. There are seven joints, named in order as follows: The coxa, which unites the leg with the sternum; the trochanter, a small joint by which the femur articulates upon the coxa; the femur, or thigh; the patella, or knee; the tibia, or shank; the metatarsus, and the tarsus, or foot. The latter is provided with claws which are commonly toothed, and the underpart has in many species a brush-like pad, the scopulæ. The legs are armed with numerous spines, bristles, and hairs Attached to the sternum immediately in front of the forelegs are two leg-like, five-jointed palps which are inserted into the free end of the maxilla or under jaws, of which they are a part. These organs aid in walking, but chiefly serve for the grasping and handling of prey, and revolving and clasping it to the mouth. The abdomen is covered with a soft hairy skin, instead of by a hard case like the cephalothorax, a fact which renders difficult the preservation of these animals for cabinet use. The most distinctive organs are the spinning glands, which are placed in a mass in the lower part of the abdominal cavity, and arranged along the venter forward and laterally. These consist of a number of glands of several shapes, arranged in clusters, containing the several sorts of liquid silk used for spinning snares, nests, and cocoons. These glands connect by delicate ducts with the external spinning organs or spinnerets, which are located under the posterior or apical extremity of the abdomen in most species. In Orbweavers, the external spinning organs consist ordinarily of six spinnerets, which are divided into pairs arranged symmetrically on either side of the median line of the center, occupying a small circular space immediately forward of the anal opening. These spinnerets are covered with numerous jointed tubes or spinning-spools, and with a number of bristles. The liquid silk within the glands is expressed by muscular contraction through the ducts into the spinning-spools, whose points can be clustered together by the spinner. The delicate jets of liquid silk emerging from the spinning-spools blend into a single thread which is hardened by contact with the air, and thus is formed the well-known spider thread.

Most spiders are solitary in their habits, but in a few species the male and female live together peaceably: and recent observations have discovered several species in South America which appear to possess social habits somewhat resembling that of the social *Hymenoptera*—ants, wasps, and bees. For the most part, however, spiders prey upon one another, as well as upon insects; and the female frequently maims or devours the male who is hardy enough to insist upon his attentions. The extreme voracity and cannibalistic habit of spiders is largely responsible for the fact that their industry has never been utilized by man, as with the silk moth. At various times the experiment has been tried, and specimen objects have been formed from spider silk. But these have served more as curios than as models of a practicable industry. Should human ingenuity succeed in overcoming these seemingly impassable obstacles, and utilize spiders for the production of commercial silk, the naturalist will not need to plead the cause of this our unjustly despised "little sister" of the animal world. But even as the case now stands, she is worthy of high esteem as man's benefactor by reason of her ceaseless and successful warfare against hordes of insects.

To the above general account of the classification and habits of spiders, it may be of interest to add certain particulars of a more special character concerning them. Though the general habitat of the spider is the surface of the earth, it is by no means confined to that locality. We have seen that many members of the spider class build underground habitations or burrows, shut out from the upper world by a skillfully contrived and concealed trap-door. Others, the so-called "flying" or "ballooning" spiders, have learned the art of aerial navigation; and still others make the water their habitat. The flying habit is possessed by many of the smaller species and by the young of most of the species, they flying often with much rapidity—this depending on the strength of the wind—and at considerable heights. Flight is obtained through the buoyant properties of the silken thread. The spider seeks some elevated position and emits a number of threads from its spinning organ, suffering them to float freely in the air until sufficient buoyancy is attained to bear its weight. A period of light air movement seems to be chosen, the wind lifting the threads and the spider with them. These threads are grasped by the feet in such a manner that the head comes usually in front. Ordinarily the limit of flight is within the height of 150 feet, though much greater heights are at times attained. This habit may perhaps be looked upon as one of distribution, and puts minute spiders on a level in this respect with many of the birds and larger animals. Spiders take no less freely to the water, on whose surface many of them run with ease, some descending and remaining under water for considerable periods, depending for respiration on the air confined by the liquid among the hairs with which they are clothed. The *Argyroneta aquatica* of Europe builds itself a dome-shaped dwelling under water, filling it with bubbles of air, and making it its habitual home. Others live under frozen water during winter, passing from point to point by means of threads strung upon water plants. Those that seek food on the surface of water make use occasionally of floating material to rest upon, and this

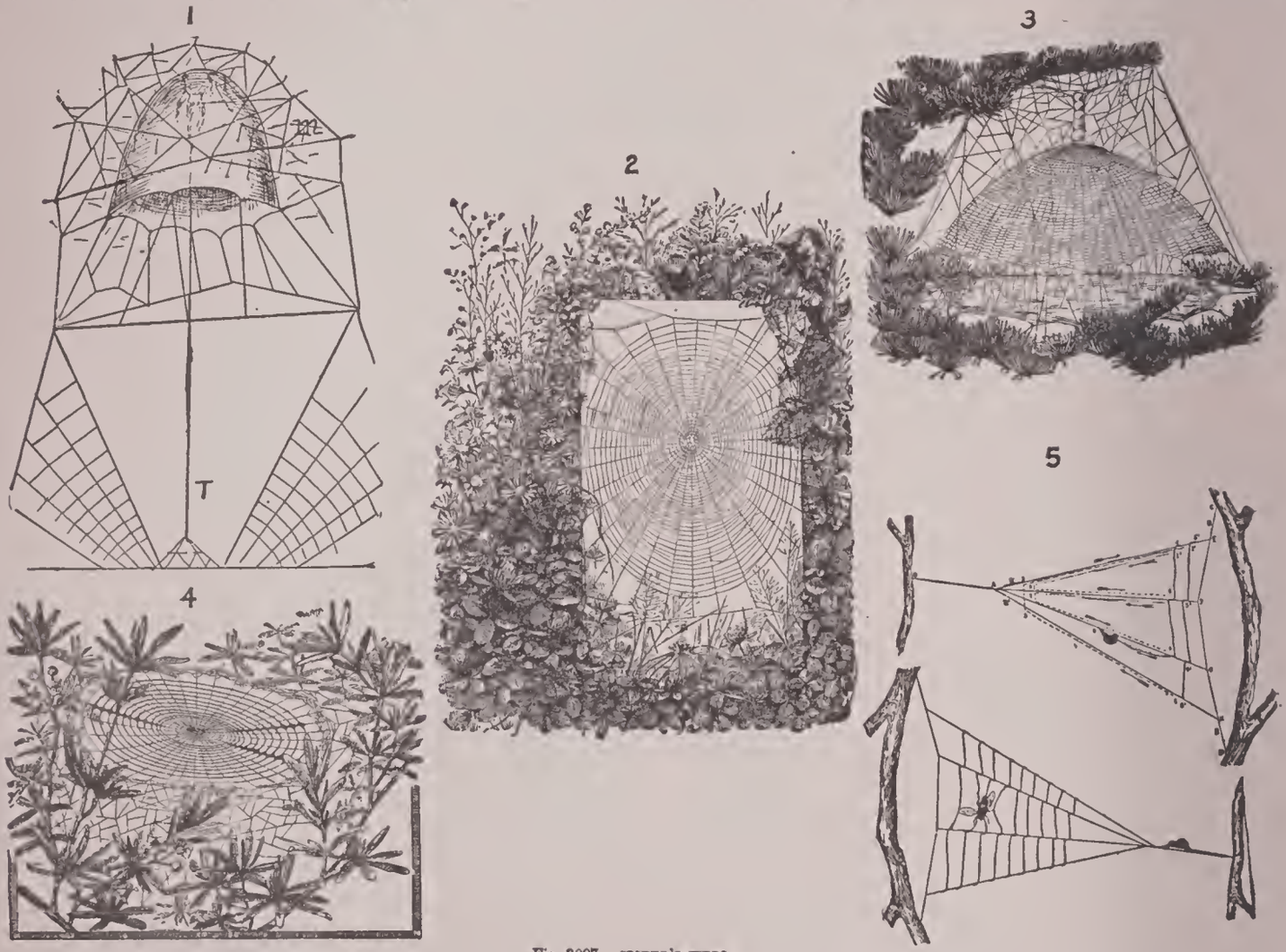


Fig. 3007.—SPIDER'S WEBS.

1, Bell-shaped silken nest of *Epeira globosa;* 2, the orb web of *Epeira trifolium* (McCook: *Am. Spiders*, ii. 17); 3, domed snare and cocoon string of the basilica spider, *Hentzia basilica* (McCook: *Am. Spiders*, ii. 106); 4, horizontal snare of *Uloborus plumipes* (McCook: *Am. Spiders*, i, 174); 5, triangle spider's snares.

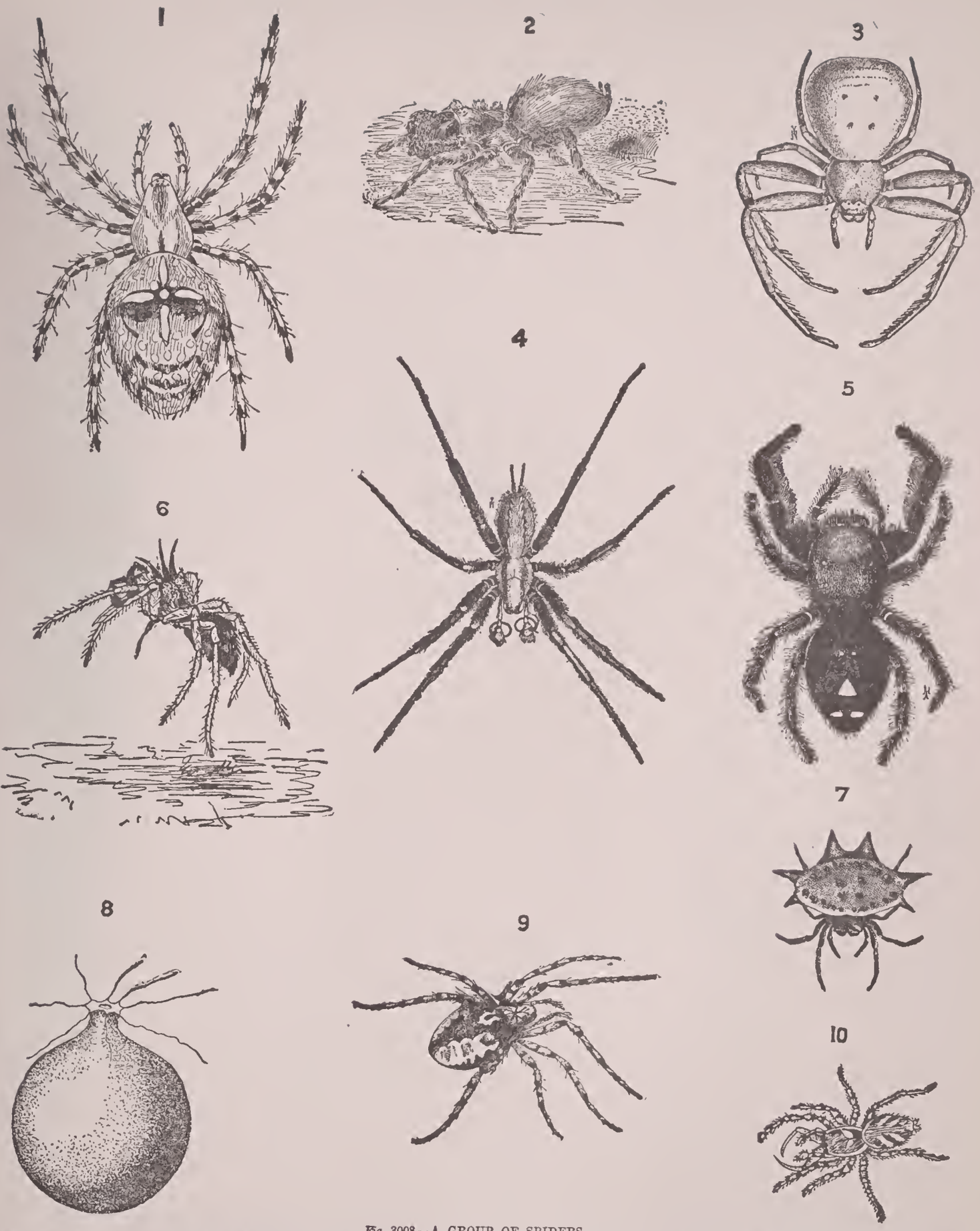


Fig. 3008.—A GROUP OF SPIDERS.

1, The cross-spider, a garden orbweaver (*Epeira diademata*); 2, Hentz's tarantula (*Eurypelma Hentzii*), a female carrying dirt from her burrow (McCook); 3, a Laterigrade spider; 4, the common speckled tubeweaver (*Agalena nævia*), male; 5, a "poison spider" (*Phidippus morsitans*); 6, a dancing male spider; 7, a spined orbweaver (*Gasteracantha*); 8, egg cocoon of *Argiope cophinaria* (McCook); 9, a female orbweaver (*Epeira angulata*); 10, a jumping spider (*Saltigrade*).

perhaps has given rise to an interesting habit of one species, that of building a sort of raft by lashing together floating leaves by threads. From this the spider darts out to capture prey and returns to it to devour its food. It is certainly of interest to perceive that the spider had thus solved the problems of the balloon and the boat ages before man achieved the same result.

The spider does not prey upon insects with complete impunity. Certain of the insects prey upon it in return. There are various species of wasps which capture spiders as food for their young. For this purpose they do not kill their victims, but sting the nerve centers in such a way as to produce complete paralysis, the captured spiders being stored in proximity to the wasp eggs, and retaining vitality until the wasps are sufficiently developed to feed upon them. The wasp is by no means the only enemy of the spider, and the latter has developed various protective habits and instincts of an interesting character. Well aware of its danger from wasps, it seeks to escape by rapid flight and concealment, and often succeeds. Another protective measure practiced by many Orbweavers is that of swinging with great rapidity in the web, the oscillations becoming so rapid that the form of the spider grows indistinct. Linewеavers have a different habit, their method being that of whirling in a circular direction within the snare, the motion growing so rapid that the spider almost disappears from sight. This, while doubtless protective, may also aid in entangling prey in the web. The feigning of death is another interesting habit of the spider clan. Thus many of the Orbweavers, when touched in the web, suddenly drop from it to the ground, and if examined will be found motionless and to all appearance dead, retaining the appearance of death if picked up and examined. Yet if left alone, activity soon reappears and the spider ascends to its web. It has emitted a long thread instantaneously as it fell, and retains this as a bridge to climb back again. Mimicry is occasionally displayed by spiders, one interesting example being that of certain species which imitate the white excreta of birds so closely as to deceive trained observers. In one African species the spider, whose web is built on the twigs of bushes, admirably imitates in color and appearance an orchid-like flower, its body being blue, its legs yellow, ringed with brown. A mimicry of a different kind is that practiced by the trapdoor spiders. On the surface of the traps are arranged grass blades, bits of lichen, and other vegetable material, in a way to produce so close a resemblance to the surroundings that the door can rarely be discovered unless the inmate of the nest be caught in the act of opening it for an out-door excursion.

The spider possesses the habit of moulting, casting its skin a number of times during its period of growth.

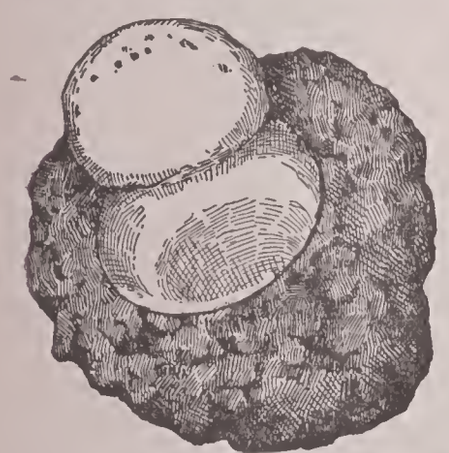


Fig. 3009.—BURROW OF THE TRAPDOOR SPIDER (*Cteniza Californica*); LID OPEN.

In doing so, it occasionally loses a limb. It is also liable to lose its legs and palps from other causes, but fortunately for itself has the power of reproducing the lost organs. Thus, in the case of a lost leg, the tissues which fill the stump of the leg gradually disappear, and a new organ develops within the cavity thus formed. This regeneration takes place during the period between moults, and the power continues during the time that the animal is subject to moults; that is, until sexual maturity is attained. After that period no lost part will be renewed, though life may be long continued. As to the length of life attainable by spiders, Dr. McCook had in captivity a tarantula which could not have been less than seven years old at its death. Of course, it was carefully protected from the dangers to which spiders are subject under ordinary conditions.

Spiders do not possess composite eyes like those of insects, their eyes resembling the ocelli, or single eyes, of the insects. The webspinners have less need of acute vision than the hunting spiders (which "sight" their prey carefully before springing upon it) and probably trust largely to the sense of touch. It is difficult to tell to what extent the sense of taste and smell are developed, though there is satisfactory evidence that many spiders are sensitive to odors. It has proved equally difficult to decide regarding the sense of hearing, since what appears a response to sound on the part of some spiders may be simply due to the action on it of air vibrations and the sense of touch where the web is moved by the air. The various stories extant in regard to the effect of music upon spiders lack confirmation, and do not agree with the careful experiments made by recent scientific observers. The sense of touch is probably the most important of the senses of spiders, or at least of those that build webs, these depending on the movement of the web as an intimation of the presence of prey. As regards the color of spiders, it is often brilliant and attractive. There are numerous richly-colored species in the tropics, and many of those of the temperate zones display much beauty of color. This is particularly the case with the orchard spider, and with *Argiope argenteola* of the southeastern United States, while the coloring of the Saltigrades is as rich as that of humming birds and beetles, some of them being so brilliant in hue as to remind one of jewels rather than spiders.

We may conclude with some remarks about the building of the web. The framework or foundation lines of the web are laid in two different ways. In one method the spider, after attaching the end of its line, crawls over the objects between which the web is to be built, attaching the line at various points as it proceeds. A second method is that of taking advantage of air currents. The lines emitted from the spinnerets are allowed to float at random upon the wind until they

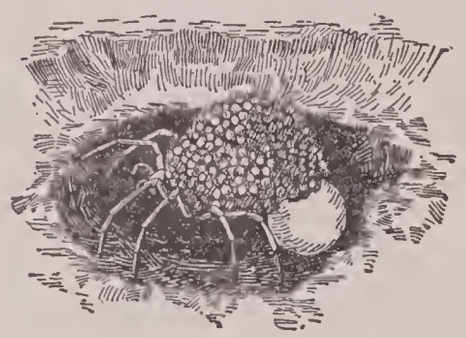


Fig. 3010.—THE YOUNG OF THE GROUND SPIDER (*Lycosa*) MASSED ON HER BACK.

touch and become attached to some distant point. These lines may be of considerable length, having been observed as much as 30 or 40 feet long. Usually, however, they find a point of attachment at a few feet distance. One or more foundation lines thus laid and drawn taut, the remainder of the work becomes comparatively easy, the remaining lines of the web being laid in accordance with the character of web native to the particular species.

Several Americans have written upon spiders and their habits—the late George Marx, M.D.; Mr. J. H. Emerton on the New England spiders; the brilliant, interesting, and learned papers of Prof. and Mrs. G. W. Peckham, and Dr. H. C. McCook. The work of the last named, *American Spiders and Their Spinningwork* (3 vols. folio), is the principal treatise in English upon the general habits of spiders and the classification of American Orbweavers. The cuts in this article are taken by permission from that work. M. Eugéne Simon is publishing a work (French), of which several series have been issued, *Histoire Naturelle des Arraignées*, which promises to be the most important European work, and will embrace not only habits but the latest authorities in classification. Prof. T. Thorell, M.D., and Rev. O. Pickard-Cambridge are eminent living writers and authorities.

—A trevet to hold utensils over a fire.—A skillet.

(*Mach.*) A skeleton of radial pieces somewhat resembling a spider in shape.

Spi'der-catcher, *n.* One who, or that which, catches spiders;—specifically, a kind of woodpecker.

Spi'der-monkey, *n.* (*Zoöl.*) See ATELES.

Spi'der-shell, *n.* (*Conch.*) A species of murex.

Spi'der-wort (*wurt*), *n.* (*Bot.*) See TRADESCANTIA.

Spiel'berg, Prison of. See BRUNN.

Spielha'gen, FRIEDERICH, a popular German novelist, born at Magdeburg, in 1829. After completing his course of "gymnasial" education at Stralsund in 1847, he went to the University of Berlin, intending to study medicine. But his poetical nature soon caused him to give up all thoughts of the medical profession; and the following year he removed to Bonn to study philology, and finally settled in Leipzig, 1854, when he devoted himself entirely to general literature. His first romance, *Claro Vere*, was published in 1857, and in the following year a short romance, "Auf der Düne" (*On the Downs*), appeared, and attracted considerable attention. In 1860, S. went to Hanover, where he married. In 1861, his first large romance, "Problematische Naturen" (*Problematic Characters*), appeared, and at once established for the writer a great reputation. Among his later works are: *Uhlenhauns* (1883); *A New Pharaoh* (1883); *Discoverers and Inventors* (1890); *Poems* (1891).

Spige'lia, *n.* (*Bot.*) A genus of plants, order *Loganiaceæ*. They are herbaceous or suffrutescent plants, with leaves opposite; stipules small, interpetiolar; flowers sessile, in terminal spikes. The most important species is *S. Marylandica*, the Pink-root, or Worm-grass, found in woods from Pennsylvania to Florida and west to Illinois. Its root and leaves are much employed as anthelmintics. In larger doses they operate as irritant cathartics, and in poisonous doses as narcotics.

Spig'got (or SPICKET) **River,** rises in Rockingham co., New Hampshire, and enters the Merrimac River in Middlesex co., Massachusetts.

Spig'ot, *n.* [W. *ysgigawd.*] A pin or peg used to stop a faucet, or to stop a small vent-hole in a cask of liquor.

Spigur'rel, *n.* [A. S. *spicurran*, to inclose.] (*Eng. Law.*) The sealer of the royal writs.

Spike, *n.* [Sw. and Goth. *spijk;* Lat. *spica*, an ear, a spike.] A kind of very large nail.—A rod of iron or wood pointed. — An ear of grain; as, a *spike* of barley. — A shoot or ray.

(*Bot.*) A form of inflorescence in which all the flowers are sessile along a common axis, as in *Plantago*.

—*v. a.* (*imp.* and *pp.* SPIKED.) (*spīkt.*) To fasten with spikes, or long and large nails, as the planks of a flooring. — To set with spikes; as, *spiked* palings. — To fix on a spike; as, traitors' heads were formerly *spiked* on Temple Bar. — To stop the vent of with a spike, nail, or the like; as, to *spike* a field-piece.

Spiked, (*spīkt,*) *p. a.* Furnished with spikes, as grain. — Secured with spikes, as planking. — Stopped with spikes, as the vent-hole of a cannon.

Spike'-lavender, *n.* (*Bot.*) *Lavendula spica.* See LAVENDULA.

Spike'let, *n.* (*Bot.*) A small spike; a subdivision of a spike.

Spikenard, (colloq. *spīk'nard,*) *n.* [Fr. *spicanard;* Lat. *spicanardi.*] (*Bot.*) The spike or ear that grows on the top of the *Nardus*, or *Nardostachys*, which is highly aromatic; also, the plant itself, and the oil or balsam obtained from it. See NARDOSTACHYS.

Spik'ing, *n.* (*Mil.*) The operation of rendering a gun unserviceable, either temporarily, by pushing into the vent a spring spike, which can be removed when the spring is compressed by a rammer pushed down the bore from the muzzle, or more permanently, by driving an iron nail hard into the vent, which must be drilled out before the gun can be used.

Spik'y, *a.* Set with spikes. — Presenting a sharp point, or points.

Spilan'thes, *n.* [Gr. *spilos*, a spot, and *anthos*, a flower.] (*Bot.*) A genus of tropical weeds, order *Asteraceæ*, the leaves of many of which have a singularly pungent taste, which is especially noticeable in the Pará Cress, *S. oleracea*. This plant is cultivated as a salad and potherb in tropical countries, and, like many cultivated plants, its native country is uncertain. The Japanese call the plant *Hoko So*.

Spile, *n.* [Du. *spijl.*] A small, wooden peg, used to stop a hole, as in a cask. — A pile or stake driven into the ground as a support for some superstructure.

Spile'-hole, *n.* A vent-hole in a cask.

Spill, *n.* [Du. *spil;* A. S. *spindel.*] A spile; a small peg for stopping a cask. — A small spiral roll of paper or splinter of wood for lighting lamps, tobacco-pipes, and the like.

—*v. a.* (*imp.* and *pp.* SPILLED, or SPILT.) [A. S. *spillan*, to spill, spoil, destroy.] To suffer to fall or run out of a vessel; to lose, or suffer to be scattered or dispersed, as liquids, flour, sand, &c.; — implying a loss or waste incurred accidentally. — To pour out; to waste; to cause to flow out or lose; to shed, or suffer to be shed, as blood.

(*Naut.*) To dislodge the wind from, as the belly of a sail, in order to reef or furl it.

—*v. a.* To be shed; to be suffered to fall, be lost, or wasted.

Spill'er, *n.* One who spills or sheds. — A kind of fishing-line.

Spil'let-fishing, Spilliard-fishing, (*spil'yard-,*) *n.* Same as BULTOW, *q. v.*

Spil'ling-line, *n.* (*Naut.*) A rope used for dislodging the wind from a sail in order to furl it easily.

Spin, *v. a.* (*imp.* and *pp.* SPUN.) [Sw. and Icel. *spinna.*] To draw out and twist into threads, as wool, flax, cotton, &c., whether by hands or by machinery; as, to *spin* yarn. — To form by a slow process or by degrees; to draw out tediously, or to a great length; — preceding *out;* as, to *spin out* a long discourse. — To protract; to expend by delays; as, to *spin out* one's whole time in idling. — To twirl; to whirl with a thread; to turn or cause to whirl or rotate; as, to *spin* a top. — To draw out from the stomach in a filament, as a spider.

(*Mach.*) To put into shape, as metal, by causing it to revolve, as in a lathe, and pressing against it with a roller or hand-tool.

To spin a yarn. (*Naut.*) To tell a long or tedious story, often implying one that is marvellous or improbable; — used in a figurative sense; as, some half-dozen of the crew sat round the galley-fire *spinning yarns.* — *To spin hay.* (*Mil.*) To twist hay into ropes for portable transport on an expedition.

—*v. n.* To practise spinning; to work at drawing or twisting threads; as, a woman who knows how to *spin.*—To perform the act of drawing or twisting threads; as, this jenny *spins* capitally. — To revolve or whirl, as a top or spindle; as, it *spins* round with great velocity. — To stream or issue in a thread or small current; as, blood *spins* from a wound.

Spinaceous, (*-ā'shŭs,*) *a.* (*Bot.*) Pertaining or relating to, or resembling, spinach, and the class of plants to which it belongs.

Spin'ach, Spin'age, *n.* [It. *spinacce*, from Lat. *spina*, a thorn.] (*Bot.*) See SPINACIA.

Spin'acia, *n.* (*Bot.*) The Spinach, a genus of plants, order *Chenopodiaceæ*. The Common Spinach, *S. oleracea*, is a well-known potherb and hardy annual, whose native country is unknown. The plant has large, thick, succulent, deep-green leaves, for the sake of which alone it is cultivated, and which are considered wholesome; when properly dressed, and thoroughly deprived of all moisture before being mashed with butter or rich gravy,

they make an excellent dish, which may he eaten with any kind of meat. The seeds of one of the species are spiny, whence it is commonly called, tautologically, Prickly Spinach. It is a singular fact that the water drained from spinach, after being boiled, is capable of making as good match-paper as that made by a solution of nitre.

Spi'nal, *a.* [Fr.; Lat. *spinalis.*] Pertaining, or relating, to the spine or backbone of an animal; as, the *spinal* marrow.

Spinal column, Spinal cord or *marrow.* See SPINE.

Spindle, (*spin'dl,*) *n.* [A. S., Swed., Ger., and Dan. *spindel.*] The pin used, in the primitive mode of spinning with the hand, for twisting the thread, and on which the thread, when twisted, is wound.

(*Weaving.*) See WEAVING.

—A slender, pointed rod or pin on which anything turns or revolves; the axis of a wheel or roller; as, the *spindle* of a vane, the *spindle* of a capstan. — A long, slender stalk, as of a plant. — The fusee of a watch. — In cotton-yarn, a measure containing 18 hanks, or 15,120 yards; in linen-yarn, 24 heers, or 14,400 yards.

(*Geom.*) A solid generated hy the revolution of the arc of a curve line about its chord. The solid generated by the revolution of a curve about its axis is called a *canoid.*

Dead-spindle. (*Mach.*) The spiudle of the tail-stock; the non-revolving arbor of a machine-tool, in contradistinction from *live-spindle,* or spindle of the head-stock, or revolving arbor.

—*v. n.* To shoot or grow in a long, slender stalk, as a plant.

Spin'dle-legged, Spin'dle-shanked, (*-lĕgd, -shănkt.*) *a.* Having long, slender legs.

Spin'dle-legs, Spin'dle-shanks, *n.* A long-legged, slender person; — used humorously or derisively.

Spin'dle-shaped, (*-shāpt,*) *a.* Possessing the form of a spindle.

(*Bot.*) Fusiform; — said principally of roots.

Spin'dle-tree, *n.* (*Bot.*) See EUONYMUS.

Spine, *n.* [Lat. *spina,* a thorn.] (*Anat.* and *Physiol.*) The *S.* is the long articulated bony column at the back of the trunk, extending downwards from the head its entire length. (See Fig. 407.) It forms the basis of support of the trunk, and connects all the other parts of the frame. Its interior is hollow, and contains the *spinal cord,* or *spinal marrow;* its lower end rests on the pelvis. It is usually divided into two portions, a superior and inferior; the former flexible, and composed of 24 hones, or true vertebræ; the latter more fixed, and composed of 9 bones, or false vertebræ. The true vertebræ are divided into *cervical, dorsal,* and *lumbar;* the false form the *os sacrum* and *coccyx.* Each vertebræ consists of two parts, the body of the bone and the arch; the former being solid, convex before and concave behind; the latter being formed by two pedicles and two laminæ, supporting seven processes; namely, four articular, two transverse, and one spinous process. The bodies of the vertebræ are piled one upon another, forming a strong pillar for the support of the cranium and trunk; the arches forming behind a hollow cylinder for the protection of the *spinal cord.* Between each pair of vertebræ apertures exist, through which the spinal nerves pass from the cord. The several vertebræ are united together by means of a substance impressible like cork, which is firmest and hardest externally, and gradually becoming thinner and softer, till at length in the centre it is in the form of a mucous substance. There are likewise many strong ligaments which unite the hones of the *S.* to each other. The spinal cord is that portion of the cerebro-spinal nervous system which is contained in the spinal canal. Its length is usually about sixteen or seventeen inches, terminating in the adult in a slender filament of gray substance about the lower border of the body of the first lumbar vertebra. It does not nearly fill the canal, its investing membranes being separated from the surrounding walls by areolar tissue and a plexus of veins. Its membranes are three in number. The most external is the *dura mater,* a strong filamentous membrane, which forms a loose sheath round the cord. The most internal is the *pia mater,* a cellulo-vascular membrane, which closely invests the entire surface of the cord; while between the two is the arachnoid membrane, an intermediate serous sac, which envelops the cord, and is then reflected on the inner surface of the dura mater. The surface of the cord is marked by two enlargements, — an upper, or cervical, which is the larger, and extends from the third cervical to the first dorsal vertebra; the latter being situated opposite the last dorsal vertebra. In form, the cord is a flattened cylinder. Its anterior surface presents along the middle line a longitudinal fissure, called the *anterior median fissure;* and its posterior surface another, called the *posterior median fissure.* These fissures divide the cord into two symmetrical halves, which are united in the middle line throughout their entire length by a transverse band of nervous substance, called the *commissure.* When cut transversely, the spinal cord is seen to consist of white and gray nervous matter. The former is situated externally, and constitutes its chief portion; the latter occupies its centre, and is so arranged as to present two crescental masses placed one in each lateral half of the cord, united together by a transverse band of gray matter, — the gray commissure. The posterior horn of each crescental mass is long and narrow, and approaches the surface at the posterior lateral fissure, near which it presents a slight enlargement; the anterior is short and thick, and does not quite reach the surface. The nerves of the spinal cord consist of 31 pairs, issuing from the sides of the whole length of the cord, their number corresponding with the intervertebral foramina through which they pass. Each nerve arises by two roots, an anterior and a posterior, the latter being the larger. The roots emerge through separate apertures of the sheath of dura mater, and directly after their emergence a ganglion is formed on the posterior root, the anterior root lying in contact with the anterior surface of the ganglion, but none of their fibres intermingling. Immediately beyond the ganglion the two roots coalesce, and by mingling their fibres form a compound, or mixed, spinal nerve, which, after issuing from the intervertebral canal, divides into an anterior and posterior branch, each containing fibres from both roots. The spinal cord is a nervous centre, or rather an aggregate of many nervous centres, and has the power of conducting impressions or states of nervous excitement. Through it the impressions made upon the spinal sensitive nerves are conducted to the brain, where alone they can be perceived by the mind; and through it also the stimulus of the will applied to the brain excites the action of the muscles supplied from it with motor nerves. As a nervous centre, it has the power of communicating impressions from sensitive to motor nerve-fibres independent of the will, which is usually termed the reflex function of the spinal cord. Thus the movements of the pharynx and œsophagus are involuntary, for the will cannot arrest or modify them. A portion of food being conveyed by voluntary efforts into the fauces, is carried by successive involuntary contractions of the constrictors of the pharynx and muscular walls of the œsophagus into the stomach. These contractions are excited by the stimulus of the food on the sensitive nerves of the pharynx and œsophagus conducted to the spinal cord, and thence reflexed through the motor nerves to these parts. The spinal cord, like other parts of the body, is subject to various diseases, one of the most common of which is inflammation, which may be either acute or chronic, affecting the cord itself or its membranes. It is characterized by pain more or less acute, extending throughout the length of the spine, or confined to a certain portion of it. It is much increased by every movement of the spine, and in many cases is more or less intermittent. It frequently also gives rise to spasmodic or paralytic affections of various parts. It is always a highly dangerous disease, and in general requires similar treatment with inflammation of the brain. (See BRAIN, DISEASES OF THE.) — *Spina bifida,* or divided spine, consists in an imperfection of the posterior part of the spinal canal, and is almost always accompanied by an excessive secretion of the spinal fluid. It is almost always characterized by a tumor situated over the defective vertebræ, and varying in size according to the extent of the fissure in the spinal canal. It commences when the spine is being formed in fœtal life, and may continue for ten, or even twenty years, without affecting the general health; but the tumor is liable to inflame and ulcerate by friction, and thus produce death. A gentle pressure on the tumor, so as to resist the effusion of the fluid, is recommended.

(*Bot.*) A thorn; a sharp-pointed process from the woody part of a plant.

(*Zoöl.*) A thin, pointed spike, as found in certain fishes.

—A ridge; as, the *spine* of a mountain.

Spined, *a.* Spiny; furnished with spines.

Spine'-finned Fishes, *n. pl.* (*Zoöl.*) See ACANTHOPTERYGII.

Spi'nel, CEYLONITE, *n.* [Fr. *spinelle.*] (*Min.*) An anhydrous aluminate of magnesia, consisting (when pure) of 71·99 per cent. of alumina and 28·01 magnesia; but part of the magnesia is often replaced by lime and the protoxides of zinc, manganese, and iron, and the alumina sometimes by peroxide of iron. It is of various tints of red, violet, and yellow, sometimes black, as at the copper-mine at Migiandone, in the valley of Toce in Piedmont; occasionally nearly white. It occurs in octahedrons, the edges of which are occasionally replaced, and sometimes in rhombic dodecahedrons; also in nacles. The finest specimens are brought from Ceylon, Siam, Pegu, and other eastern countries. Spinel constitutes a beautiful gem, which is often sold for Oriental Ruby. The scarlet spinel is called *Spinel Ruby* by lapidaries; the rose-red, *Balass Ruby;* the yellow or orange-red, *Rubicelle;* the violet-colored, *Almandine Ruby.*

Spines'cent, *a.* (*Bot.*) Tapering gradually to a rigid, leafless point, tipped with a spine.

Spinet', *n.* [Fr. *épinette;* It. *spinetta,* from Lat. *spina,* a thorn.] (*Mus.*) A musical stringed instrument, resembling the harpsichord, and, like that instrument, now superseded by the pianoforte. Each note had but one string, which was struck by a quilled jack acted on by one of the finger-keys. The strings were placed horizontally, and nearly at right angles to the keys; and the general outline of the instrument resembled that of a harp laid in a horizontal position, on which account the spinet, when first introduced, was called the *concha harp.* — A clavichord; a virginal.

Spiniferous, *a.* (*Bot.*) Producing, or bearing, thorns or spines; thorny.

Spin'iform, *a.* Spine-shaped.

Spinigerous, (*-nĭj'er-ŭs,*) *a.* Bearing a spine, or spines.

Spin'iness, *n.* State or quality of being spiny.

Spin'ner, *n.* One who spins; as, a *spinner* of yarns or cloths, a cotton-*spinner,* &c. — A spider; as, a long-legged *spinner.*

Spin'ner, Spin'neret, *n.* (*Zoöl.*) An organ with which insects form their silk or webs. See SPIDER.

Spin'nerstown, in *Pennsylvania,* a post-village of Bucks co., 91 m. E. of Harrisburg.

Spin'nery, *n.* A place where spinning is performed; a mill for spinning.

Spin'ney, Spin'ny, *n.; pl.* SPINNIES. In England, a small coppice or ticket, with an undergrowth of bramble, &c.

Spin'ning, *n.* (*Manuf.*) The art of combining animal and vegetable fibres into continuous threads fit for the processes of weaving, sewing, or rope-making. If wool or cotton is to be spun, it has at first to be "opened;" that is, it must be relieved from its original knotted and lumpy condition; this was formerly done by hand, but is now easily managed by machines called *willows* or *willeys, blowers,* and *openers.* By the first of these, which consists of a drum covered with small spikes moving in a hollow cylinder, also lined with spikes, but so arranged that those on the drum pass close to, but do not come into collision with, them as it revolves, the cotton or wool is fed in on one side, is dragged forward by catching on the spikes, and is delivered at an opposite opening to that by which it entered, in a loose state and free from knots. It is not, however, quite loose enough for the subsequent operations, and it is more or less mingled with impurities. It is therefore taken to the "blower" or "opener," and being put into a shaft, is there acted upon by a stream of air violently driven in by machinery, which blows it forward, removes extraneous matters, and so separates the fibres that they pass out at the other end in an exceedingly light flocculent state, and ready for being formed into *laps.* This operation consists in laying the material very equally on an endless apron made of small bars of wood, and of the width of the frame of the machine in which they are placed. This apron passes round two rollers, placed at a little distance apart, the rollers being moved by machinery, which control the direction in which the apron moves; and as the operator covers its entire surface with a thin layer of the fibre, it passes successively under the two rollers, and comes out in the form of a compressed layer of cotton or wool, called a *lap.* The laps are taken to the *carding-machine,* consisting of a series of cylinders revolving in a frame, and placed so close together that they almost touch each other. Each cylinder is covered with a coating of fine steel-wire points, which are stuck in leather, or some other flexible material, and are technically called *cards.* The lap is made of the same width as the cylinders of the carding-machine, and is so adjusted that, as it unwinds from its roller, it passes in between a pair of the carding cylinders, the steel-wire teeth of which seize hold of the individual fibres, and drag them in one direction until they are caught by other cylinders, and so carried from one to another, always being pulled in a straight direction, until they are laid as nearly as possible side by side, and are given off in a thin cobweb-like film at the last cylinder, where it is prevented from continuing its journey round the cylinders by a small bar of metal called the *doffer,* which, with a gentle and peculiar motion, removes it from the cylinder. The film of fibre is of the same width as the cylinder of the carding-machine, but it is gathered together by the operator, who passes it through a smooth metal ring, and between two small polished rollers, the revolutions of which carry it forward, and deposit it in a deep tin-can in the form of a loose untwisted column of cotton or wool, about an inch in thickness, which is called a *sliver.* If such a sliver or cord be firmly griped or compressed at two points rather farther apart than the average length of its component filaments, it may be extended or drawn out to a greater length, the filaments sliding upon each other. When two or more such cords have been extended in this way, until they will stretch no longer without separating or being pulled asunder, they may be laid parallel to each other, and combined by being slightly twisted together. The compound cord thus formed may be again extended by stretching or drawing; and the repetition of the processes of doubling, twisting, and stretching will enable the spinner to extend the length and diminish the thickness of the cord until it becomes a fine compact thread or yarn. — The primitive modes of *S.* by the spindle and distaff, and by the *spinning-wheel* (Fig. 2410), which are still extensively practised in the East, and not entirely superseded in some remote parts of this country, only enable the spinner to produce a single thread; but with the almost automatic spinning-machinery which has been called into existence by the cotton manufacture, one individual may produce nearly 2,000 threads at the same time. The history of the series of inventions by which this result has been gradually attained is briefly noticed under COTTON MANUFACTURE. The manufacture of yarns or threads of silk is a process essentially different from the *S.* of cotton, wool, or flax. Instead of combining a number of short fibres into a long thread, the silk-throwster receives the silk in the form of very long and exceedingly fine filaments, which merely need cleansing and twisting together until the requisite strength is attained. The twisting process is, in this case, called *S.* There is, however, besides the best portion of the silk, which is wound off from the cocoon, a quantity of loose or *floss* silk, which forms a soft tangled mass enveloping it. This, with the refuse of the superior part of the silk, under the general name of *waste,* is converted into yarns for coarse or inferior articles, by a process very similar to that of *S.* other fibrous substances. This waste silk was formerly cut by a machine, to reduce its filaments into short lengths, and then treated in much the same way as cotton-wool; but the process of manufacturing it into yarns has been recently much improved by the adoption of contrivances similar to those used in flax-*S.*, by which the filaments are heckled or drawn out into a sliver without being cut.

Spin'ning-jenny, *n.* (*Mach.*) A machine used in the cotton manufacture to turn a great number of spindles, by means of bands from a horizontal wheel. See COTTON (MANUFACTURE OF).

Spin'ning-wheel, *n.* A wheel formerly employed in the domestic spinning of material for textile fabrics; it consisted of a wheel which worked with the foot by means of a treddle, gave motion to a spindle, on which the thread or yarn spun by the fingers was wound.

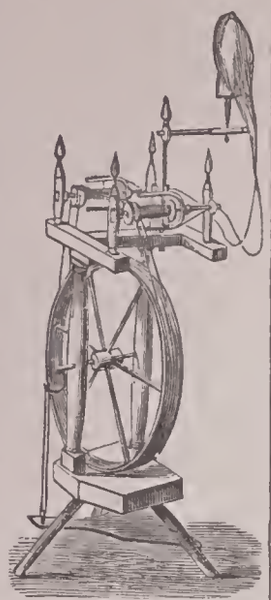


Fig. 2410.
TWO-HANDED SPINNING-WHEEL.

Spinose', Spi'nous, *a.* [Lat. *spinosus.*] Full of spines; thorny; as, a *spinose* branch.

Spi'nosity, *n.* State or quality of being spiny.

Spinoza, BENEDICT, (*spe-no'za.*) a celebrated philosopher, b. at Amsterdam, 1632. He was the son of a Portuguese Jew, and was first named BARUCH, but adopted that of *Benedict* on renouncing the faith of his fathers. He was early remarkable for an ardent love of truth, and a keen and logical intellect. His first serious studies were the Bible and the Talmud. He made no secret of the doubts which grew up in his mind, and was exposed to much persecution on account of them. Taking refuge in the house of the physician Vanden Ende, he studied Latin and Greek, mathematics and metaphysics, and was especially attracted by the philosophy of Descartes. A large bribe was offered him if he would continue to conform outwardly to Judaism; but neither his will nor his poverty consented to such a degradation. An attempt was made to assassinate him, and he had a very narrow escape. He was at last excommunicated, and being driven from Amsterdam, lived for a time near Leyden, and afterwards at the Hague. He devoted himself wholly to philosophy, earning such a livelihood as contented him by the trade of polishing glasses for optical instruments. His character was most estimable, and endeared him to his personal friends. His system of philosophy has been made odious by the vulgar accusation of Atheism, which is the very reverse of the truth. To his thought God is the only being, the only substance, infinite, eternal — before whom all things else have but a phenomenal existence. And his aim was to build up, on the knowledge of God as foundation, a system of morals by a rigorously mathematical method. With more reason, *S.* has been called the father of modern Pantheism. The great defect of his system is the virtual suppression of individuality, and the denial of free-will; all finite things, not excepting human actions, being parts of a necessary chain of sequences. *S.* has of late been more fairly judged, and both his merits and errors impartially discussed. His influence on the mind of Gœthe was overpowering. Cousin says: "The author whom this pretended atheist most resembles, is the unknown author of the *Imitation of Jesus Christ.*" And Schleiermacher thus testifies to the depth of the religious sentiment in *S.*: "He was filled with religion and religious feeling: and therefore is it that he stands alone, unapproachable, the master in his art, but elevated above the profane world, without adherents, and without even citizenship." The works of *S.* are: — *Renati Descartes Principiorum pars Prima et Secunda more Geometrico Demonstrata; Cogitata Metaphysica; Tractatus Theologico—Politicus; Ethica*, perhaps the most important of his treatises; *Tractatus Politicus; De Intellectus Emendatione;* and *Epistolæ.* The last four form his *Opera Posthuma.* The works written in defence and refutation of the system of *S.* are very numerous. D. 1677. Feb. 21, 1877, Earnest Renan delivered an address at the unveiling of a monument to *S.* at the Hague.

Spi'nozist, *n.* A follower of, or believer in, the Pantheistical doctrines of Spinoza.

Spin'ster, *n.* [*Spin*, and term. *ster.*] A woman who spins, or whose occupation is to spin.

(*Law.*) The common designation of an unmarried woman or single woman; — used in legal proceedings as an addition to the surname, as *bachelor* is appended to that of an unmarried man.

Spin'there, *n.* [Fr., from Gr. *spinther*, a spark.] (*Min.*) A greenish variety of sphene, occurring crystallized in very irregular four-sided pyramids, which are obliquely truncated in Danphine, adhering to crystals of calc spar.

Spinule, (*spin'yool,*) *n.* A minute spine.

Spinulescent, (*spin-ū-lĕs'sent,*) *a.* (*Bot.*) Small-spined.

Spin'ulose, Spin'ulous, *a.* Presenting minute spines.

Spin'y, *a.* [From *spine.*] Thorny; full of spines; as, a *spiny* shrub. — Slender; tenuous; like a spine; as, a *spiny* insect. — Perplexed; difficult; troublesome; arduous; as, a *spiny* affair.

Spin'y Lobster, SEA-CRAYFISH, *n.* (*Zoöl.*) The popular name of the genus *Palinurus*, a genus of *Crustaceæ*, section *Macrurans.* The Common *S. L.* (*Palinurus vulgaris*), attains a length of about 18 inches. The shell is very hard, and the whole body is rough with short spines. The antennæ are very long, much longer than those of the common lobster. There are no claws or pincers, the first pair of feet being very similar to the others.

Spiracle, (*spi'ra-kl.*) *n.* [Fr. *spiracule*; Lat. *spiraculum*, from *spiro*, to breathe.] Any small hole; an aperture or vent.

(*Nat. Hist.*) A small vent in animal or vegetable bodies, by which air or other fluid is inhaled or exhaled.

Spiræ'a, *n.* (*Bot.*) A genus of plants, order *Rosaceæ.* The species *S. ulmaria* is the herb familiarly known by the names of *Pride of the Meadow, Queen of the Meadows*, and *Meadow-sweet* (Fig. 2411). Its numerous white flowers are remarkable for their fragrance, its roots for their tonic properties. It is cultivated in our gardens, as are also other species of this beautiful genus.

Fig. 2411.—PRIDE OF THE MEADOW, (*Spiræa ulmaria.*)

Spi'ral, *a.* [Fr., from Lat. *spira*, a coil, a fold; Gr. *speira.*] Pertaining to, or resembling, a spire.—Winding round a cylinder or other round body, or in a circular form, and at the same time rising or advancing forward; winding like a screw; winding round a fixed point or centre, and continually receding from it, like a watch-spring.

Spiral gear, or *gearing*, a kind of gearing often used in light machinery in place of bevel gearing, to change the direction of motion; it consists of wheels coworking with their axis at an angle with each other double that of the direction of the teeth with the axis.

Spiral wheel. (*Mach.*) A wheel having its teeth notched at an angle with its axis, so that they form small parts of screws or spirals.

Spiral vessels. (*Veg. Anat.*) Membraneous tubes with conical extremities, lined in the inside by a fibre twisted spirally, and capable of unrolling with elasticity. Their function is that of the conveyance of air. They are found in almost any part of a plant except the bark; but are most abundant in leaves and flowers, and least common in the stem and root, except in the medullary sheath of the former.

—*n.* (*Geom.*) A curve-line of the circular kind, which in its progress always recedes more and more from its centre.

(*Arch.*) A curve that ascends winding about a cone or spire, so that all its points continually approach its axis.

Spiral of Archimedes. The curve traced by a point moving with uniform velocity along a line (radius rector) which rotates with uniform velocity around a point.

Spi'rally, *adv.* In a spiral form or direction; after the manner of a screw.

Spi'rant, *n.* [Lat. *spirans, spirantis*, from *spirare*, to breathe.] (*Gram.*) A continuous or fricative consonant.

Spir'anthes, *n.* [Gr. *speira*, a cord; in reference to the twisted spike.] (*Bot.*) A genus of plants, order *Orchidaceæ.* The Ladies' Tresses, *S. gracilis*, not uncommon in old woods in N. England and Canada, is a very delicate plant. Its small, white flowers are arranged in a row which winds once or twice around the stem.

Spire, or SPIRES, (Ger. *Speier*, or *Speyer*, anc. *Civitas Nemetum* or *Noriomagus,*) an ancient town of Germany, at the confluence of the Spirebach and the Rhine, 17 miles from Landau. The only interesting building is the old Cathedral, now falling into decay. It is inclosed by walls, has an old palace, a city hall, gymnasium, orphan asylum, house of correction, and museum of antiquities. *Manuf.* Tobacco, vinegar, and there are sugar-refineries. — In this city forty-nine diete were held; and at one, in 1529, the protest to the emperor was made which gave rise to the religious designation of Protestants. On one occasion it was the winter quarters of Julius Cæsar, and in the Middle Ages the residence of several German emperors. *Pop.* 11,742.

Spire, *n.* [R.; Lat. *spira*; Gr. *speira*, from *eirō* to join.] That which is wound, wreathed, coiled, or twisted; a coil; a curl; a twist; a wreath; a winding line like the threads of a screw; anything wreathed or contorted; as, "air seems to consist of *spires* contorted with small spheres." — *Cheyne.*

—A body that shoots up to a point, so called perhaps because a line drawn round and round in less and less circles and rising at the same time, would be a spire; a conical or pyramidal body; a steeple; a tapering body; as, the *spire* of a church. — A stalk or blade of grass or other plant.

—The top, apex, or uppermost point of a thing; as, the *spire* of one's ambition.

(*Geom.*) A line drawn progressively round the same axis, with a distance between each circle.

Spire of a shell. See SHELL.

(*Arch.*) Among the ancients, the base of a column, also the astragal or torus of the base. In modern architecture, the conical erection above the tower of a church, which diminishes gradually as it rises, sometimes assuming the form of a plain, slender pyramid, polygonal in plan, rising from the square base formed by the tower from which it springs. The earliest examples of anything resembling a spire are the pyramid roofs of the turrets of Norman date, of which Fig. 2412 presents good specimens. As the early English style arose, considerably greater elevation was given to spires (Fig. 2413), although they were still very frequently less acute than they afterwards became. In the decorated style, the spires were more enriched, with a parapet and pinnacles at the top of the tower, crochets on the angles, and enriched windows. In the perpendicular style the same arrangement was continued, although the character of the details and enrichments were altered in common with those of the other features of Gothic architecture. The spires were often perforated, and their sides filled entirely with tracery. Such spires are common in Germany, those of Strasburg (see STRASBURG) and Freiburg on the Rhine, being very fine examples.

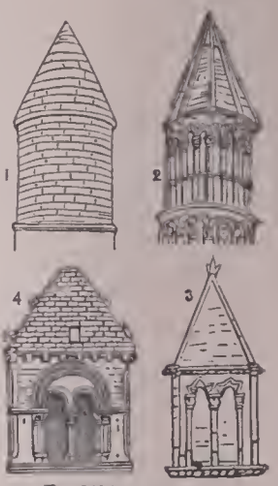


Fig. 2412 — SPIRES.

1. Turret, St. Peter's Church, Oxford, c. A. D. 1160. 2. Turret, Rochester Cathedral, c. A. D. 1160. 3. Pinnacle, Bishop's Cleeve Church, Gloucestershire, c. A. D. 1080. 4. Thaon Church, near Caen, Normandy, c. A. D. 1080.

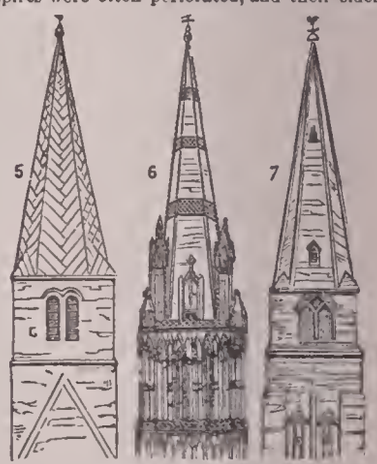


Fig. 2413. — SPIRES.

5. Almondsbury Church, Gloucestershire, c. A. D. 1250. 6. Salisbury Cathedral, c. A. D. 1350. 7. St. Mary's Church, Cheltenham, c. A. D. 1300.

Spire, *v. a.* To shoot up pyramidically or conically. — To sprout, as grain in malting.

Spired, *a.* Possessing a spire.

Spire'-steeple, *n.* The upper extremity of a spire. (R.)

Spi'rifer, *n.* [Lat. *spira*, a spire, and *ferre*, to bear.] (*Pal.*) The name of a genus of extinct molluscs of the class *Brachiopoda*, characterized by the shell having two internal calcareous spiral appendages. They are common in the coal strata.

Fig. 2414.
SPIRIFER UNDULATUS.

Spir'it, *n.* [Fr. *esprit*, from Lat. *spiritus*, from *spirō*, to breathe, live; akin to W. *ysbrid*, a spirit.] Breath; air or wind set in motion by breathing; — hence, sometimes life itself; as, the balmy *spirit* of the western breeze. — An immaterial intelligent substance or being; vital or active principle, essence, force, or energy, as distinct from matter; life or living substance, considered apart from material or corporeal existence. — The soul of man, as distinguished from the *body* wherein it dwells.

"If we seclude space, there will remain in the world but matter and mind, or body and *spirit.*" — *Watts.*

—The human soul after its disruption from the body.

"The *spirit* shall return unto God who gave it" — *Eccl.* xii. 7.

—Hence, a ghost; a spectre; a supernatural apparition or manifestation; also, sometimes, an elf; a fay; a sprite. — Animal excitement, or the effect of it; ardor; fire; courage; elevation or vehemence of mind, temper, energy, or enthusiasm; as, a man of *spirit.* — A person of life, vigor, activity, or enterprise; one who exhibits liveliness, vivacity, or peculiar characteristics of mind or temper; as, a ruling *spirit*, a dominant *spirit*, a restless *spirit.* — Disposition of the mind, habitual or temporary; turn of tem-

Benedict Spinoza

1632–1677

per; occasional mental, moral, or intellectual state; as, he worked with *spirit*, I left him in good *spirits*, uncertainty is apt to put a man in low *spirits*. — The quality of any substance which manifests life, activity, or the power of strongly affecting other bodies; any tenuous, airy, or volatile substance. — Real meaning; latent; — in contradistinction to the *letter*, or to *formal statement*; also, characteristic quality, particularly such as is derived from the individual genius, or the personal character; as, the *spirit* of the law.

(*Chem.*) A name generally applied to fluids, mostly of a lighter specific character than water, and obtained by distillation. Thus, the essential oil of turpentine is called *spirit* of turpentine. Essential oils dissolved in alcohol are called spirits, as *spirit* of aniseed, peppermint, &c., because formerly prepared by distilling the herbs with alcohol. The volatile alkali ammonia, distilled and condensed in cold alcohol, is called *spirit* of ammonia; even hydrochloric acid is often called *spirit of salts*. But in a stricter sense, the term *spirit* is understood to mean *alcohol* (q. v.), in its potable condition, of which there are very numerous varieties, derlving their special characters from the substances used in their production, as brandy, rum, whisky, gin, arrack, &c.

(Note. *Spirit* is frequently combined with other words, forming self-explaining compounds; as, *spirit*-moving, *spirit*-stirring, *spirit*-rousing, &c.)

Animal spirits. (*Physiol.*) The fluid which is supposed to circulate through the nerves, and which has been regarded as the agent of sensation and motion, and as analogous in its effects and properties to electricity; the nervous fluid or principle. (*Dunglison.*) — *The Spirit*, or *Holy Spirit*. (*Theol.*) The Holy Ghost; the Spirit of God, or the third person of the Trinity. The *spirit* also denotes the human spirit as animated by the Divine Spirit.—*Rectified spirit*, proof spirit made pure by distillation.

Spir'it, *v. a.* To infuse life or spirit into; to animate with vigor; to excite; to inspirit; to encourage;—sometimes preceding *up*.

"Civil dissensions never fail to *spiriting* the ambition of private men." — *Swift.*

—To convey away rapidly and secretly, as if by the agency of a spirit; — often followed by *away*; as, "The ministry had him *spirited away* abroad as a dangerous person." — *Arbuthnot.*

Spir'it Creek, in *Georgia*, enters Savannah River from Richmond co.

Spir'it-duck, *n.* (*Zoöl.*) A species of duck; the Garrot, *q. v.*

Spir'ited, *p. a.* Animated; ardent; lively; full of life; vivacious; infused with spirit or fire; bold; as, a *spirited* reply, a *spirited* demand, a *spirited* rebuke, &c.; — used also in composition as expressive of the mind, disposition, or character, as in high-*spirited*, mean-*spirited*, low-*spirited*, &c.

Spir'itedly, *adv.* In a spirited, ardent, or vivacious manner; with spirit, courage, or animation; as, he spoke *spiritedly*.

Spir'itedness, *n.* Quality of being spirited; life; vivacity; animation; as, his answer was written in a strain of *spiritedness*.—Disposition or make of mind; — used in the construction of compound terms; as, high-*spiritedness*, mean-*spiritedness*, low-*spiritedness*, narrow-*spiritedness*.

Spir'itful, *a.* Lively; animated; full of spirit or vivacity. (R.)

Spir'itfully, *adv.* In a spiritful, lively, or vivacious manner. (R.)

Spir'itfulness, *n.* State or quality of being spiritful; liveliness; sprightfulness; vivaciousness.

Spir'itism, *n.* Same as Spiritualism, *q. v.*

Spir'itist, *n.* A spiritualist.

Spir'it Lake, in *Iowa*, a lake of Dickinson co., abt. 10 m. long and 7 broad.—A post-village, cap. of Dickinson co., on the above lake, abt. 90 m. N.N.W. of Fort Dodge. It is a summer resort, and has the State fish-hatchery.

Spirit Lake, or Mille Lacs (*meel-lak*), in *Minnesota*, a lake of Aitken co., abt. 18 m. long and 14 broad, the surplus waters of which are discharged into the Mississippi through Rum River.

Spir'it-lamp, *n.* A lamp in which spirits of wine is burned, used chiefly for heating.

Spir'itless, *n.* Destitute of spirit or liveliness; wanting animation; lacking cheerfulness; dejected; depressed; as, a *spiritless* mind. — Wanting in life, courage, fire, vigor, or energy; as, a *spiritless* coward. — Dead; defunct; without breath or vital heat; as, a *spiritless* corpse.

Spir'itlessly, *adv.* In a spiritless manner; without animation, courage, or exertion; as, he went about his work *spiritlessly*.

Spiritless'ness, *n.* State or quality of being spiritless; deadness; dulness; lack of animation, vigor, courage, or energy.

Spir'it-level, *n.* See Level.

Spir'ito, Spirito'so, *a.* [It., with spirit.] (*Mus.*) A term denoting, when affixed to a movement, that the latter is to be performed in a spirited manner.

Spir'itous, *a.* [Fr. *spiriteux*.] Like spirit; refined; pure; defecated.—Fine; ardent; active. (R.)

Spir'it-rapper, *n.* A pretender to interconrse with spirits of the departed, which latter impart intelligence by means of audible raps or knocks.

Spir'it-rapping, *n.* Spiritualism; clairvoyance.

Spir'itual, *a.* [Fr. *spirituel*; Lat. *spiritualis*—*spiritus*.] Consisting of spirits only; incorporeal; not material; as, a *spiritual* being. — Mental; intellectual; pertaining, or relating, to the higher attributes or endowments of the mind; as, *spiritual* knowledge. — Refined from external actions or things; having reference to the moral feelings or internal workings of the soul; not gross or sensual. — Pertaining, or having reference, to the soul or its affections, as influenced by the spirit; pertaining to the renewed nature of man; pertaining to divine things; pure; holy; not carnal or material; as, *spiritual* blessings. — Ecclesiastical; pertaining, or having reference, to sacred things; clerical; not lay or temporal; as, a *spiritual* person, *spiritual* kindred, the *spiritual* functions of the church, &c.

Spiritual court. (*Law.*) An ecclesiastical court or tribunal.

Spir'itualism, *n.* State of being spiritual.

(*Philos.*) That philosophical system according to which all that is real is spirit, soul, or self; that which is called the *external world* being regarded as either a succession of notions impressed on the mind by the Deity, or else the mere educt of the mind itself. The first is the *S.* of Berkeley; the second, which may be called *pure egoism*, is that of Fichte.—Of late, however, the term *S.* has been almost exclusively applied, at least in America, to a faith in the frequent communication of intelligence from the spirit-world, by the agency of physical phenomena, usually manifested through a person possessing peculiar susceptibility, called a *medium*; — which faith is called *Spiritism* in France and other states of continental Europe. The origin of *S* has been traced to the writings of Swedenborg, who died in 1774; but *S.*, properly so-called, may be said to have had for a precursor Andrew Jackson Davis, surnamed *the Seer of Poughkeepsie*, born in Orange co., N. Y., 1826, who, in his youth, entered into wonderful communication with the unseen world, which he believed to be from the disembodied spirits of human beings. He, later, entered into what he calls *clairsciance*, or the *superior condition*, far above that of ordinary clairvoyance, and proceeded to dictate a book called the *Principles of Nature*, which, in due time, was followed by *The Great Harmonia; being a Philosophical Revelation of the Natural, Spiritual, and Celestial Universe*. About the same time (April, 1848) new wonders claimed the attention of the American people. The "spirit-rapping" phenomenon caused throughout the civilized world an excitement which is still fresh in the memory of every one. Spiritualists admit that many impositions have been practised under the name of spiritual manifestations, but they aver that in most instances cheats could not have been palmed off, even if designed, and that in other cases there could not be any possible motive for deception, as the investigations were carried on in private families, while the mediums were their own sons and daughters. For several years *S.* constituted one of the most prominent themes of public discussion; its phenomena were multiplied by thousands, and were subjected to many tests. Though not over-successful in its public manifestations, *S.* has impressed itself as a truth in the minds of so many excellent persons that, even at the present day, it would be presumptuous, even for the unbeliever, to pronounce decidedly against it. A considerable impulse was given to *S.* in Europe, chiefly in France and in England (1855), by the arrival of a super-eminent American medium, Mr. Daniel D. Home. In his presence, it is said, an accordion held by the end opposite to the keys played the finest music; tables and chairs moved without contact; the hands of disembodied spirits appeared at the side of a table, or touched the knees of those sitting at it; mystic lights were seen. Most surprising of all, it was stated by various professed eye-witnesses that Mr. Home was occasionally lifted off his feet and passed floating through the air, while the accordion would also float about under the ceiling of the room, discoursing the divinest voluntaries. By the raps and tapping of tables, and by the control of the medium's organs to write and speak, the spirits are supposed to express their own peculiar intelligence in a degree of perfection proportioned to the development and passivity of the medium; and it is averred that persons while under the spiritual afflatus have often spoken in foreign tongues which they had never learned; and writings in languages to them unknown have, in a few instances, been produced in their presence, as we are told, by invisible hands. — In their 5th National Convention, held at Rochester, N.Y., Aug. 26–28, 1868, the Spiritualists of America united themselves into an association, to which they gave the name of the *American Association of Spiritualists*, whose objects are "to coöperate with State and local organizations in the promulgation of the Spiritual philosophy and its teachings, and encourage the establishment of at least one national college, for the education of persons of both sexes, on terms of equality, free from all sectarian dogmas, where their children may be educated in accordance with the progressive developments of the age." In the same Convention they adopted the following resolutions, embodying the essential truths of *S* : — 1. That man has a spiritual nature as well as a corporeal; in other words, that the real man is a spirit, which spirit has an organized form, composed of spiritual substance, with parts and organs corresponding to those of the corporeal body. 2. That man, as a spirit, is immortal, and has continued identity. Being found to survive that change called physical death, it may be reasonably supposed that he will survive all future vicissitudes. — 3. That there is a spirit-world, with its substantial realities, objective as well as subjective. 4. That the process of physical death in no way essentially transforms the mental constitution, or the moral character of those who experience it. 5. That happiness or suffering in the spirit-world, as in this, depends not on arbitrary decree, or special provision, but on character, aspirations, and degree of harmonization, or of personal conformity to universal and divine law. 6. Hence, that the experiences and attainments of this life lay the foundation on which the next commences. 7. That since growth is the law of the human being in the present life, and since the process called death is in fact but a birth into another condition of life, retaining all the advantages gained in the experiences of this life, it may be inferred that growth, development, or progression is the endless destiny of the human spirit. 8. That the spirit-world is near or around, and interblended with our present state of existence; and hence that we are constantly under the cognizance and influence of spiritual beings. 9. That as individuals are passing from the earthly to the spirit-world in all stages of mental and moral growth, that world includes all grades of character from the lowest to the highest. 10. That since happiness and misery depend on internal states rather than on external surroundings, there must be as many grades of each in the spirit-world as there are shades of character — each gravitating to his own place by the natural law of affinity. 11. That communications from the spirit-world, whether by mental impression, inspiration, or any other mode of transmission, are not necessarily infallible truths, but on the contrary partake unavoidably of the imperfections of the minds from which they emanate, and of the channels through which they come, and are, moreover, liable to misinterpretation by those to whom they are addressed. 12. Hence, that no inspired communication, in this or any past age (whatever claims may be or have been set up as to its source), is authoritative, any further than it expresses truth to the individual consciousness, which last is the final standard to which all inspired or spiritual teachings must be brought for test. 13. That inspiration, or the influx of ideas and promptings from the spirit-world, is not a miracle of a past age, but a perpetual fact, the ceaseless method of the divine economy for human elevation. 14. That all angelic and all demoniac beings which have manifested themselves, or interposed in human affairs in the past, were simply disembodied human spirits, or beings of like character and origin, in different grades of advancement. 15. That all authentic miracles (so called) in the past, such as the raising of the apparently dead, the healing of the sick by the laying on of hands or other simple means, power over deadly poisons, the movement of physical objects without visible instrumentality, &c., have been produced in harmony with universal laws, and hence may be repeated at any time under suitable conditions. 16. That the causes of all phenomena — the sources of all power, life, and intelligence — are to be sought for in the internal or spiritual realm, not in the external or material. 17. That the chain of causation, traced backward from what we see in nature and in man, leads inevitably to a Creative Spirit, who must be not only a *fount of life* (love), but a *forming principle* (wisdom) — thus sustaining the dual parental relations of Father and Mother to all individualized intelligence, who, consequently, are all brethren. 18. That man, as the offspring of this Infinite Parent, is in some sense His image or finite embodiment; and that, by virtue of this parentage, each human being is, or has, in his inmost nature, a germ of divinity — an incorruptible off-shoot of the Divine essence, which is ever prompting to good and right. 19. That all evil in man is in harmony with this divine principle; and hence whatever prompts and aids man to bring his external nature into subjection to, and harmony with, the divine in him — in whatever religious system or formula it may be embodied — is a "means of salvation" from evil. 20. That the hearty and intelligent conviction of these truths, with a realization of spirit-communion, tends, 1st. To enkindle lofty desires and spiritual aspirations, an effect opposite to that of materialism, which limits existence to the present life. 2d. To deliver from painful fears of death, and dread of imaginary evils consequent thereupon, as well as to prevent inordinate sorrow and mourning for deceased friends. 3d. To give a rational and inviting conception of the after-life to those who use the present worthily. 4th. To stimulate to the highest possible uses of the present life, in view of its momentous relations to the future. 5th. To energize the soul in all that is good and elevating, and to restrain from all that is evil and impure. This must result, according to the laws of moral influence, from a knowledge of the constant pressure or cognizance of the loved and the pure. 6th. To promote our earnest endeavors, by purity of life, by unselfishness, and by loftiness of aspiration, to live constantly *en rapport* with the higher conditions of spirit-life and thought. 7th. To stimulate the mind to the largest investigation and the freest thought on all subjects, especially on the vital themes of spiritual philosophy and duty, that we may be qualified to judge for ourselves what is right and true. 8th. To deliver from all bondage to authority, whether vested in creed, book, or church, except that of received truth. 9th. To cultivate self-reliance and careful investigation by taking away the support of authorities, and leaving each mind to exercise its own truth-determining powers. 10th. To quicken all philanthropic impulses, stimulating to enlightened and unselfish labors for universal human good, under the encouraging assurance that the redeemed and exalted spirits of our race, are encompassing us about as a great cloud of witnesses, inspiring us to the work. $50,000 was left by Mr. Seybert of Phila., for the investigation of moderu *S.* See Report of the Seybert Commission. (Phila., 1887).

Spir'itualist, *n.* [Fr. *spiritualiste*.] One whose avocation or employment is spiritual; one who professes a regard for spiritual things only; — the opposite to *materialist*. — One who upholds or believes in the philosophical doctrine of spiritualism. — One who has faith in immediate intercourse with departed spirits, through

the agency of persons styled *mediums;* a believer in spirit-rapping; a spiritist.

Spiritualist'ic, *a.* Relating or pertaining to, or associated with or deduced from, spiritualism.

Spiritual'ity, *n.* [Fr. *spiritualité.*] Quality or state of being spiritual; essence, as distinct from matter; intellectual or spiritual nature; the quality which affects the spirit or affections of the heart only, and the essence of true religion; immateriality; as, the *spirituality* of the soul.—That which belongs to a church, or to a person, as an ecclesiastic, or to religion; as, the *spiritualities* of a hicrarchy.

Spiritualization, (*-zā'shun,*) *n.* Act of spiritualizing.

Spir'itualize, *v. a.* [Fr. *spiritualiser.*] To render spiritual; to imbue with spirituality or lutellectual life; as, to *spiritualize* the soul.—To refine, as the intellect; to purify from the pollutions of the world, as the moral nature.—To convert to a spiritual meaning. (*Chem.*) To extract spirit from, as certain natural bodies.—To couvert iuto spirit, or to impart the properties of spirit to.

Spir'itualizer, *n.* One who spiritualizes.

Spir'itually, *adv.* In a spiritual manner; In a manner conformed to the spirit of true religion; with purity of spirit or heart; without corporeal grossness or sensuality.

Spir'itualness, *n.* State or quality of being spiritual.

Spir'ituous, *a.* [Fr. *spiritueux.*] Possessing the quality of spirit; pure; active; as, a *spirituous* nature. (*South.*)—Containing spirit; consisting of refiued spirit; ardent; as, *spirituous* liquors.

Spir'ituousness, *n.* State or quality of being spirituous; ardor; heat; vitalizing quality.

Spir'ketting, *n.* (*Naut.*) That part of the inner planking of a ship which lies between the ports and the next lower waterway.

Spirom'eter, *n.* [Lat. *spirare,* to breathe, and Gr. *metron,* measure.] An apparatus for measuring the vital capacity of the lungs, or the quantity of air that an individual can expire after a forced inspiration.

Spirt, *v.* and *n.* Same as SPURT, *q. v.*

Spir'tle, *v. a.* To spirt in a scattering manner.

Spir'ula, *n.*; SPIRULIDÆ, *n. pl.* [Lat., a small, twisted cake.] (*Zoöl.*) A genus and family of dibranchiate ce-

Fig. 2415.—SPIRULA LÆVIS, (half size.)

phalopods (Fig. 2415), characterized chiefly by having a spiral, discoid, chambered shell developed in the substance of the mantle, instead of a calcareous or horny plate.

Spir'y, *a.* [From *spire.*] Of spiral form; wreathed; curved.—Pyramidical: having the form of a pyramid; presenting the appearance of a spire; as, a *spiry* turret. (*Pope.*)—Having, or abounding with, spirea; as, a *spiry* edifice.

Spis'sated, *a.* Inspissated; thickened; rendered dense or compact.

Spis'situde, *n.* [Lat. *spissitudo.*] The denseness or compactness which pertains to substances not perfectly fluid nor perfectly solid.

Spit, *n.* [A. S. *spitu;* Du. *spit,* a spit.] An iron prong or bar pointed, on which meat is roasted.—A long, narrow shoal or sand-bank extending from the shore into the sea.

—*v. a.* To thrust a spit through; to put upon a spit; as, to *spit* a sirloin of beef.—Hence, to pierce; to thrust through; as, to *spit* a man with a bayonet.

—*n.* [Icel. *spyta.*] Spittle; saliva. See SALIVA.

—*v. a.* (*imp.* and *pp.* SPIT,) (SPAT, obs.) [A. S. *spætan;* Dan. *spytte.*] To eject from the mouth; to throw out, as saliva.—Hence, to eject or throw out with violence.

—*v. n.* To throw out saliva from the mouth.

To spit on, or *upon,* to treat with gross insoleuce or contumely.

"I dare meet Surrey, and *spit upon* him whilst I say he lies." *Shaks.*

Spit'-box, *n.* Same as SPITTOON, *q. v.*

Spitch'-cock, *v. a.* (*Cookery.*) To split, as a fowl or an eel lengthwise, and broil.

—*n.* (*Cookery.*) Any thing split and brandered, or broiled, as an eel, a chicken, &c.

Spite, *n.* [Du. *spijt;* Fr. *dépit;* Lat. *despectus,* from *despício,* to look down upon.] Contempt; hatred; malice rancor; malignity; malevolence; pique; grudge; as, a good, solid hatred does not descend to vulgar *spite.*—*In spite of,* in defiance or contempt of; notwithstanding all efforts of; as, he gets drunk occasionally *in spite of* all.—*To owe one a spite,* to cherish a grudge against a person; to harbor a malevolent feeling for one, scarcely amounting to a fixed or permanent hatred.

—*v. a.* To hate, or, rather, regard maliciously; to be angered or vexed at.—To thwart: to meditate or do mischief to; to injure; to treat maliciously.—To vex; to offend; to fill with spite, petty anger, or vexation.

Spite'ful, *a.* Filled with spite; malicious; malignant; having an impulse to vex, offend, annoy, or injure; as, a *spiteful* temper.

Spite'fully, *adv.* In a spiteful manner; malignantly; maliciously; with a desire or propensity to vex, annoy, offend, or injure.

Spite'fulness, *n.* State or quality of being spiteful.

Spit'fire, *n.* A violent, irate, or hot-tempered person; particularly, a termagant; a scolding, railing woman. (Used colloquially.)

Spit'head, a noted roadstead for shipping in the English Channel, situats betwsen Portsmouth and the Isle of Wight, directly facing Portsmouth harbor. It is about 20 miles in extent, and is said to be capable of holding 1,000 vessels in safety. Its security has obtained for it from sailors the name of the "King's Bedchamber," aud it is the principal reudezvous of the British navy.

Spit'ted, *p. a.* Put upou a spit; as, a *spitted* joint of meat.

—Shot out at length, as the horns of a full-grown deer.

Spit'ter, *n.* One who spits meat.—One who ejects spittle or saliva from his mouth.—A brocket or pricket.

Spittle, (*spit'tl,*) *n.* [From *spit.*] Same as SALIVA, *q. v.*

Spit'toon, *n.* A box for the reception of saliva or tobacco-juice ejected from the mouth; a spit-box.

Spitzber'gen, a cluster of islands in the Arctic Ocean, and the most northern land yet discovered, in Lat. 76° 30′ and 80° 40′ N., Lon. 9° and 22° E., 200 m. N. of Scandinavia, and 325 m. E. of Greenland. Being far within the Arctic circle, and surrounded by a wide expanse of sea, almost the whole of its surface is covered with perpetual snow and glaciers. It was discovered in 1596 by W. Barentz, a Dutch explorer, and has since been frequently visited by whalers. It is claimed by Russia as a dependency of its European territories.

Splanch'nic, *a.* [Gr. *splâgchnon,* an entrail.] (*Anat.*) Pertaiuing or relating to the viscera; as, the *splanchnic* cavities.

Splanch'ni-skel'eton, *n.* [Gr. *splâgchnon,* and Eng. *skeleton.*] The osseous structure of the viscera and other organs.

Splanchnog'raphy, *n.* [Gr. *splâgchnon,* and *graphein,* to write.] A description of the viscera.

Splanchnol'ogy, *n.* [Gr. *splâgchnon,* and *logos,* discourse.] The doctrine of the viscera.

Splanchnot'omy, *n.* [Gr. *splâgchnon,* and *tone,* cutting.] (*Anat.*) The dissection of the viscera.

Splash, *v. a.* [*Intens.* of PLASH, q. v.] To besprinkle or bespatter with water, or with water and mud.

—*v. a.* To strike and dash about water.

—*n.* Water, or mud and water, cast upon anything, or thrown from a puddle or mess of slush.

Splash'-board, *n.* The leather guard in front of the driving-box or seat of a vehicle, which preveuts the driver or occupauts thereof from being splashed by the horse's heels.

Splash'er, *n.* One who, or that which, splashes.—A guard over a wheel, as of a carriage, locomotive, &c.

Splash'y, *a.* Wet; wet and muddy; full of dirty water.

Splat'ter, *v. n.* To splash or scatter water about.

Splat'terdash, *n.* Turmoil; confusion; uproar.

Splay, *v. a.* [A contraction of *display,* q. v.] To dislocate or break, as a horse's shoulder-bone.—To make or render oblique; to slope or slant, as the side of a window and the like.

—*a.* Displayed; spread; turned outward.

—*n.* See BEVEL.

Splay'-foot, *n.* A wide, flat foot.

Splay'-foot, Splay'-footed, *a.* Having the foot turned outward; possessing a wide foot.

Splay'-mouth, *n.* A naturally wide mouth; also, a wide mouth stretched by design.

Splay'-mouthed, *a.* Wide-mouthed; having a splay mouth.

Spleen, *n.* [Gr. *splen.*] (*Anat.*) A spongy viscus (Fig. 218), of a livid color, oval in figure, aud situated in the left hypochondriac region, between the eleventh and twelfth false ribs. It is convex externally and concave internally, and its weight in the healthy adult is from four to ten ounces. It is largely composed of cells, but its internal structnre is not well understood, neither have its uses been ascertained; but it would seem to be in some way of use to the stomach during the process of digestion. The ancients regarded it to be the seat of all ill-humors, as anger, melancholy, &c.; and hence the term *splenetic* applied to such as are cross and crabbed.

—Latent spite; ill-humor;—a species of hypochondria peculiar to Englishmen.—A hurst of anger or vexation; as, do not vent your *spleen* upon me.—Constitutional melancholia; hypochondriacal bent; as, "Bodies chauged to recent forms by *spleen.*"—*Pope.*

Spleened, *a.* Deprived of the spleen; as, "Animals *spleened* grow salacious."—*Arbuthnot.*

Spleen'ful, *a.* Exhibiting spleen; angry; fretful; melancholy; hypochondriacal; as, a *spleenful* will.

Spleen'ish, *a.* Spleeny; affected with spleen.

Spleen'ishly, *adv.* In a spleenish or petulant manner.

Spleen'ishness, *n.* State or quality of being spleenish.

Spleen'wort, (*-wurt,*) *n.* (*Bot.*) See ASPLENIUM.

Spleen'y, *a.* Affected with spleen; angry; peevish; fretful; melancholy.

Spleget, (*splĕj'et,*) *n.* (*Surg.*) A cloth dipped in any kind of liquor for washing a sore.

Splen'dent, *a.* [Lat. *splendens,* from *splendeo,* to shine.] Shining; bright; gleaming; glittering; glossy; beaming with light; very conspicuous; illustrious.

Splen'did, *a.* [Fr. *splendide;* Lat. *splendidus,* from *splendeo.*] Shining; very bright; glittering; showy; magnificent; sumptuous; pompous; illustrious; heroic; brilliant; famous; celebrated.

Splen'didly, *adv.* With great brightness or brilliant light; magnificently; sumptuously; richly; with great pomp or show.

Splen'dor, *n.* [Fr. *splendeur;* Lat. *splendor,* from *splendeo,* to shine, be bright.] Brightness; brilliancy; lustre; great brightness; brilliant lustre; great show of riches and elegance; magnificence; grandeur; gorgeousness; display; pomp; parade; brilliance of appearance, as of ceremonies; emiuence.

Splen'etic, *n.* A person affected with spleen.

Splen'etic, Splenet'ical, *a.* Troubled with, or proceeding from, spleen; fretful; peevish.

Splenet'ically, *adv.* In a morose or spleeny manner.

Splen'ic, *a.* Belonging to the spleen.

Splenī'tis, *n.* [Gr.] (*Med.*) Inflammation of the spleen.

Spleniza'tion, *n.* (*Med.*) The state of the lungs in the first or second stage of pneumonia, or lung fever, in which its tissue resembles that of the spleen.

Splen'ocele, *n.* [Gr. *splēn,* and *kēlē,* tumor.] (*Med.*) Hernia formed by the spleen.

Splenog'raphy, *n.* [Gr. *splēn,* and *graphein,* to describe.] (*Med.*) A description of the spleen.

Splenol'ogy, *n.* [Gr. *splēn,* and *logos,* a discourse.] (*Med.*) A treatise on the spleen.

Splenot'omy, *n.* [Gr. *splēn,* and *teneo,* to cut.] (*Anat.*) Dissection of the spleen.

Splent'-coal, *n.* A hard, laminated kind of coal, less bituminous than caking coal, aud intermediate betweeu cannel and common pit-coal.

Splice, (*splīs,*) *v. a.* [Ger. *splissen.*] To take asunder or separate, as the stranda of the two ends of a rope, and unite them by a particular manner of interweaving them; or to unite, as the end of a rope to any part of another, by a like interweaving of the strands.

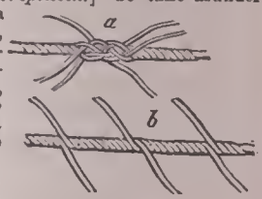


Fig. 2416.
a, Short splice; *b,* long splice.

To splice the main brace. (*Naut.*) To grant an extra allowance of spirits in case of cold or wet.

—*n.* The union of ropes by interweaviug the strands; a piece added to a rope by splicing.

Splic'ing, *n.* Act of one who splices.

Splint, *n.* [Ger. *splint, splitter.*] A piece of wood or other solid substance rent from the main body; a splinter.

(*Surg.*) A thin piece of wood, or other substance, used to hold or confine a broken bone, when set.—A piece of bone rent off in a fracture.

(*Farriery.*) A bony enlargement on a horse's leg, between the knee and fetlock, usually appearing on the inside of one or both forelegs, frequently situated between the large and small cannon bones, depending upon concussion, aud most common in young horses that have been rattled rapidly along hard roads before their bones are consolidated.

—*v. a.* To split or rend into long, thin pieces; to shiver; to confine with splinters, as a broken limb.

Splint'-bone, *n.* (*Farriery.*) One of the two small bones extending from the knee to the fetlock of a horse, behind the cannon, or shank-bone.

Splin'ter, *n.* A fragment of anything broken with violence.—A thin piece of wood; a splint.

—*v. a.* To split or rend into fragments; to shiver.

—*v. n.* To be broken into fragmeuts; to be shivered.

Splin'ter-bar, *n.* A cross-piece supportiug the springs of a carriage.

Splin'tery, *a.* Cousisting of splinters, or resembling splinters.

Split, *v. a.* (*imp.* and *pp.* SPLIT.) [Du. *splitten, splitzen;* Heb. *palach,* to cleave.] To divide; to sever; to separate; to part; to sunder; to divide longitudinally or lengthwise; to separate, as a thing from end to end by force; to rive; to cleave; to rend; to tear asunder by violence; to hurst; to dash and break on a rock; to divide or break into discord.—To strain and pain with laughter.

—*v. n.* To sever; to part asunder; to burst; to suffer disruption; to crack; to burst with laughter; to be broken; to be dashed to pieces.

—*n.* A crack, rent, or longitudinal fissure.—A breach or separation, as in a political party.

—*a.* Divided; severed; separated; rent; broken or dashed to pieces against a rock, as a ship.

Splurge, (*splŭrj,*) *n.* A great effort; a struggle; a bustle.

Splut'ter, *n.* Bustle; tumult. (Low.)

Spod'umene, *n.* [Gr., to burn to ashes.] (*Min.*) A silicate of aluminа and lithia, with part of the lithia replaced by soda. It is found in crystallized aud laminated masses, hard, brittle, translucent, and of various shades of green or gray. Before the blowpipe, it exfoliates into little scales of an ash color; hence its name.

Spohr, LOUIS, (*spor,*) a German composer, b. at Seesen, in Brunswick, 1783, was at first a violin-player in the private band of the Duke of Brunswick. His reputation commenced with the year 1804, upon the occasion of his travelling over Germany and giving concerts. After a course of travel in Italy, he was, in 1818, appointed director of music at the theatre at Frankfort-on-the-Main. About this time he commenced writing those operas which made his name famous throughout Europe. The most popular of these works are *Azor, Faust, Zemira,* and *Jessonda.* On leaving Frankfort, he was appointed chapel-master to the Grand-Duke of Hesse-Cassel. His *Violin School* is one of the best works of the kind which has ever been written. He also produced oratorios, songs, ballads, cantatas, and orchestral pieces, which are highly esteemed in Germany. D. 1859.

Spoil, *v. a.* [Fr. *spolier;* It. *spogliare;* Lat. *spoliare,* from *spolium,* the skin or hide of an animal stripped off, the arms stripped from an enemy.] To strip or deprive of; to cause to perish: to corrupt; to vitiate; to mar; to taint; to ruin; to injure fatally.

—*v. n.* To grow useless; to become corrupted or ruined; to decay,

Spoil, *n.* Something stripped off; that which is taken from others by violence;—particularly, in war, the plunder taken from an enemy; pillage; booty; prey; that which is gained by strength or effort; that which is taken from another without license; the act or practice of plundering; robbery: waste.

Spoil'able, *a.* That may be spoiled.

Spoil'-bank, *n.* A bank formed by earth dug out of any place, as in making a canal.

Spoiled, *a.* Plundered; unfit for use; corrupted.

Spoil'er, *n.* A plunderer; a pillager; a robber; one who corrupts, mars, or renders useless.

Spokane', In *Washington*, an E. co., bordering on Idaho. *Rivers.* Columbia, Palouse, Spokane, and Lewis or Snake rivers. *Surface*, diversified; *soil*, generally fertile. *Cap.* Spokane. *Pop.* (1897) 51,200.

Spokane River, rises in Cœur d'Alene Lake, Idaho, and flows into the Columbia River in Spokane co., Washington Territory, after a N.W. course of abt. 100 m.

Spoke, *n.* [A. S. *spaca*; Du. *spaak*, a lever, windlass; *spook*, a spoke; Ger. *speiche.*] The radius or ray of a wheel; one of the small bars which are inserted in the nave, and which serves to support the rim or felly; the rung or round of a ladder.

—*v. a.* To fit or furnish with spokes.

Spoke, *imp.* of SPEAK, *q. v.*

Spoken, (*spō'kn,*) *pp.* of SPEAK, *q. v.*

Spoke'shave, *n.* A kind of shave for smoothing spokes, &c.

Spokes'man, *n.* One who speaks for another.

Spoleto, (*spo-lā'to,*) a town of the kingdom of Italy, formerly cap. of a delegation of the States of the Church, on a hill, near the small river Maroggia, 24 m. from Rieti. It is an archbishop's see, and has some interesting remains. *Pop.* 8,714.

Spoliate, *v. a.* [Lat. *spolio, spoliatus.*] To spoil; to plunder; to pillage; to rob.

—*v. n.* To spoil; to practise plunder; to commit robbery.

Spoliation, *n.* [Fr.] Act of spoiling or plundering; particularly, of plundering an enemy in time of war; act or practice of plundering neutrals at sea, under authority.

Spoliative, *a.* (*Med.*) Applied to blood-letting, when used for the purpose of diminishing the mass of the blood.

Spoliator, *n.* [Lat.] One who commits spoliation.

Spondaic, Spondaical, *a.* [Lat. *spondaicus.*] Pertaining to a spondee. See SPONDEE.

Spondee, *n.* [Fr. *spondée*; Lat. *spondæus*; Gr. *spondeios.*] (*Lat. Poetry.*) A foot consisting of two long syllables. It was so called because, from its slow movement, it was ordinarily employed in the hymns sung in honor of the gods during the offering up of a sacrifice. —*Spondaic verse* is a hexameter line, in which the two last feet are spondees, instead of the usual termination, a dactyl and a spondee; but in these the fourth foot is always dactylic.

Spondias, *n.* (*Bot.*) A genus of plants, order *Anacardiaceæ*, the species of which are natives of the tropics of both hemispheres. The fruits of some of them are edible. Thus, in Brazil and the W. Indies, *S. lutea, S. mombin, S. tuberosa,* &c., yield fruits eaten under the

Fig. 2417. — HOG PLUM, (*Spondias tuberosa.*)

name of *Hog Plum*, the taste of which is said to be peculiar, and not agreeable to persons unused to them. These fruits are chiefly used to fatten swine. *S. dulcis*, a native of the Society Isles, yields a fruit compared in flavor to that of the Pine-apple. *S. mangifera* yields a yellowish-green fruit, which is eaten in India, and is used as a pickle in the unripe state. — Some of the species are employed medicinally.

Sponge (*spunj*), *n.* [A. S. *spynge, sponge*; Fr. *éponge*; Lat. *spongia.*] (*Zoöl.*) A class of animals known to zoölogists under the name of *Spongida* or *Porifera*, and constituting the simplest type of multicellular animals or *Metazoa*, being the first stage above the *Protozoa*. Though greatly varying in appearance, sponges are of strikingly uniform structure, they being destitute of organs, while their tissues are but little differentiated. Three layers of tissue may always be distinguished, a flattened layer of epithelial cells, forming the outer surface, a digestive layer of columnar cells, each with a delicate collar and a flagellum at its free end, and an intermediate layer, or mesoderm, in which arise the skeletal elements and the reproductive cells. These are arranged as a simple cup-form or in various more complicated forms. Canals traverse every part of the body, opening into inner chambers, and communicating with the exterior by minute openings through which water is drawn into the body of the *S.* The water, after its microscopic food contents have been absorbed, is driven from the body through larger canals and openings. Nearly all the sponges form a skeleton, whose elements are of two kinds, fibers and spicules. The spicules in some species are composed of carbonate of lime, in others of silica, each being the product of a single cell, while they greatly vary in form, producing figures of striking regularity. The fibers are laid down in a continuous network, and consist of a peculiar organic substance known as spongin. As a rule the spicules of *S.* are of silica, these being occasionally arranged with remarkable regularity, as in that very beautiful form known as "Venus's flower-basket." Sponges, except in the embryo state, have no power of motion, yet their cilia are constantly active, while sensitiveness is shown in the closing of their pores when disturbed. In digestion each collared cell acts like a protozoan individual, swallowing and digesting the food particles, while the nutritive material thus obtained passes from cell to cell. The sponges are very largely marine, though a considerable variety of fresh-water sponges have recently been discovered. They are found from the shore to great depths, and from their fixity and mode of growth they were long regarded as plants. Sponges multiply both by budding and by sexual reproduction. In the former the products of the buds remain continuous with the parent body. In sexual reproduction the ova and spermatozoa are produced from the mesoderm, the egg arising from the union of these two. The result of growth is a hollow sphere, swimming by ciliary action, and becoming invaginated to form a two-layered cup-shaped gastrula. This becomes fixed at its mouth end, pores open in the walls, an exhalant orifice is formed at the apex, and it begins life as a mature sponge. The species of *S.* are numerous, the fibrous framework of a number of them being in use for economical purposes. Two species are chiefly brought from the Levant, and a very inferior one from the W. Indies and coast of Florida. The trade in *S.* is very considerable; it is carried on chiefly by the Turks and the inhabitants of the Bahama Islands. The *S.* is obtained by diving, sometimes at great depths. The *S.* of the Bahamas and other West Indian islands are of a larger size and coarser quality; but large quantities are gathered. The *S.* are torn from the rocks by a fork at the end of a long pole. To get quit of the animal matter, they are buried for some days in the sand, and then soaked and washed. Fossil *S.* are found in the Trenton limestone and Potsdam sandstone, and probably were in existence long before the oldest Silurian epoch.

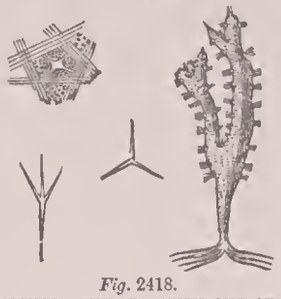


Fig. 2418.
SPONGIA OCULATA, WITH ONE OF THE PORES AND TWO SPICULÆ MAGNIFIED.

—Any instrument of soft substance, used for wiping and cleansing; a sponge.— Soft dough for bread.—One who hangs on others for a maintenance. — The hinder part of a horse-shoe.

Sponge, *v. a.* To wipe or cleanse with a sponge; to wipe out with a sponge, as letters or writing; to wipe out completely; to extinguish or destroy; to harass by extortion; to drain, as by a sponge; to get by mean arts.

—*v. n.* To suck in or imbibe, as a sponge; to gain by mean arts, by intrusion, or hanging on; — followed by *upon.*

Sponge'-cake, *n.* A very light and porous kind of sweet-cake.

Sponge'-crab, *n.* (*Zoöl.*) See DROMIA.

Spon'ger, *n.* One who uses a sponge; one who hangs on others for a maintenance; a hanger-on.

Spon'giform, *a.* That has the form of a sponge.

Spon'giness, *n.* Quality or state of being spongy, or porous like sponge.

Spon'giole, *n.* (*Bot.*) The lax cellular tissue and mucus situated at the extremities of roots, having the property of absorbing fluid like a sponge; whence the name.

Spon'giose, Spong'oid, *a.* Resembling sponge; spongy.

Spon'gy, *a.* Resembling sponge; soft and full of cavities; of an open, loose, pliable texture; full of small cavities; soaked and soft, like sponge; having the quality of imbibing fluids.

Spon'sal, *a.* [Lat. *sponsalis*, from *spondeo, sponsus*, to promise solemnly, to promise in marriage.] Relating to betrothal, espousal, or to a spouse.

Sponsion, (*spŏn'shun,*) *n.* [Lat. *sponsio*, from *spondeo.*] A solemn promise or engagement; act of becoming surety for another.

(*International Law.*) An engagement made on behalf of a state by an agent not specially authorized, or exceeding the limits of the authority under which it purports to be made, and which, to be valid, must be confirmed by express or tacit ratification, as the official act of an admiral or a general suspending or limiting hostilities, capitulations of surrender, cartels of exchange, &c.

Spon'sor, *n.* [Lat., from *spondeo.*] One who answers for an infant at baptism, that the child be brought up in the Christian faith; — particularly, a god-father or god-mother; also, a surety.

Sponso'rial, *a.* Pertaining to a sponsor.

Spon'sorship, *n.* State of being a sponsor.

Spontaneity, Sponta'neousness, *n.* [Fr. *spontanéité.*] The quality of being spontaneous, or of proceeding or acting from nature, feeling, impulse, or temperament, without compulsion or external force; willingness.

Sponta'neous, *a.* [Lat. *spontaneus*, from *sponte*, of one's own accord, willingly, freely.] Being of one's own motion or free will; voluntary; proceeding from internal native feeling, proneness, or temperament, without compulsion or constraint; acting by its own impulse, energy, or natural law, without external force; not mechanical.— Produced without being planted, or without human labor, as a result of the unaided activity of nature, as a growth of weeds.

Sponta'neously, *adv.* Of one's own internal or native feeling; of one's own accord; by its own force or energy; without the impulse of a foreign cause.

Spontini, GASPARO, a distinguished musical composer, was B. at Majolatti, near Jesi, in the Roman States, 1778. He was educated at the Consevatorio de la Pietà of Naples, and began his career when 17 years of age, as the composer of an opera, *I Puntigli delle Donne.* This was followed by some 16 operas, produced within 6 years, for the theatres of Italy and Sicily, but not a note of which has survived. In 1803, *S.* went to Paris; in 1807, he was appointed music-director to the Empress Josephine; and in 1808, he produced his most famous work, *La Vestale*, with brilliant and decisive success. His *Fernando Cortez* appeared in 1809; and the next year witnessed his appointment to the directorship of the Italian Opera in Paris, which he held for ten years. In 1820, the magnificent appointments offered by the court of Prussia tempted him to leave Paris for Berlin, in which capital his three grand operas, *Nourmahal* (founded on "Lalla Rookh"), *Alcidor*, and *Agnes von Hohenstauffen*, were produced with great splendor. *S.* continued to reside as first chapel-master in Berlin till the death of the king, in 1840. The latter period of his sojourn at Berlin was embittered by professional disputes; and in 1842 he repaired to Paris, where, in 1839, he had been elected one of the five members of the Académie des Beaux Arts. D. at the place of his birth, 1851.

Spool, *n.* [Ger. *spule.*] A piece of cane or reed, or a hollow cylinder of wood with a ridge at each end, used by weavers for winding their yarn; a bobbin.

—*v. a.* To wind on a spool, as thread or yarn.

Spoom, *v. n.* [Probably from *spume*, a foam.] (*Naut.*) To go on swiftly.

Spoon, (*spōn.*) *n.* [A. S. *spon*; Ger. *span.*] A small domestic utensil, with a bowl or concave part, and a handle, used for taking up liquids, &c., at table, and for dipping; also, something in the shape of a spoon.

—*v. a.* To take up or out with a spoon or ladle.

Spoon'-bill, *n.* (*Zoöl.*) The common name of the grallatorial birds comprising the family *Plataleidæ.* In their general structure and habits they are allied to the storks and herons; but their beak, from which their name is derived, is long, flat, and broad throughout its

Fig. 2419. — ROSY SPOON-BILL, (*Platella ajaja.*)

length, widening and flattening more particularly at the end, so as to form a round spatula-like disc. The genus *Platella* comprises the only American species, the Rosy Spoon-bill, *P. ajaja*, of the S. Atlantic and Gulf States, which is 30 inches long, and the bill 7; color rose-red.

Spoon'drift, *n.* (*Naut.*) The light spray blown off the waves in a violent wind.

Spoon'ful, *n.* As much as a spoon contains, or is able to contain; a small quantity of a liquid.

Spoon'-meat, *n.* Food that is, or must be, taken with a spoon; liquid food; slops.

Spoon River, in *Illinois*, rises in the W.N.W. of the State, and flows into the Illinois River near Havana, in Mason co., after a S.W. course of abt. 100 m.

Sporades, (*spor-a-dēez'*,) called also the *Scattered Islands*, a subdivision of the Grecian Archipelago, belonging partly to Turkey and partly to Greece. They surround the Cyclades.

Sporad'ic, *n.* [Gr. *sporadikos*, scattered.] (*Med.*) A term applied to diseases of an uncertain seat or variable origin, including hemorrhage, cancer, dropsy, and diseases of special systems and origins, as meningitis, paralysis, mania, tetanus, &c.

Sporan'gium, *n.*; *pl.* SPORANGIA. [Gr. *sporos*, a seed, and *aggeion*, a vessel.] (*Bot.*) One of the cases in which

the spores of flowerless plants are formed. In ferns it is applied to the little cysts with their elastic ring (Fig. 2321); in pseudo-ferns, to the organs immediately containing the spores, whether naked or contained in a common receptacle; in mosses, to the urn-shaped bodies, which are often called *capsules* and *thecæ*. When the case is so small as to become microscopic, it is sometimes called *Sporangiolum*.

Spore, *n.* (*Bot.*) One of the reproductive bodies formed by flowerless plants instead of seeds. A spore generally consists of a single cell, composed of two or more membranes, inclosing granular matter. Having no embryo, it can not have a cotyledon, which is an essential part of the embryo; consequently, plants producing *S.* are said to be acotyledonous.

Sport, *n.* [O. Fr. *deporter;* It. *diporto;* Sp. *deporte*, diversion, merriment.] That which diverts and makes merry. — Contemptuous mirth; mockery; jeer. — That with which one plays, or which is driven about. — Idle jingle. — In a special sense, fowling, hunting, fishing, and the like. — In the U. States, one given to sporting.

—*v. a.* To divert (with a reciprocal pronoun); to make merry. — To represent by any kind of play; to exhibit or bring out in public.

—*v. n.* To indulge in sport; to play; to frolic; to jest; to wanton. — To practise the diversions of the field; to be engaged in hunting, racing, fishing, &c. — To trifle. — To form or run into varieties.

Sport'er, *n.* One who sports.

Sport'ful, *a.* Merry; frolicsome; full of jesting; indulging in mirth or play; ludicrous; done in jest or for mere play.

Sport'fully, *adv.* With sport; merrily.

Sport'fulness, *n.* Playfulness; frolicsomeness.

Sport'ing, *a.* Indulging in sport; practising the diversions of the field; hence, also, rakish; loose; dissolute.

Sport'ing Hill, in *Pennsylvania*, a village of Cumberland co.

Sport'ive, *a.* Indulging in sport or play; gay; playful; merry; jocund; jesting; ludicrous; inclined to mirth.

Sport'ively, *adv.* Gaily; merrily; playfully.

Sport'ling, *n.* A bird or other creature that sports or plays.

Sports'man, *n.*; *pl.* SPORTSMEN. One who pursues the sports of the field; one who hunts, fishes, and fowls; one skilled in the sports of the turf, prize-ring, &c.

Sportsman'ship, *n.* The practice of sportsmen.

Spor'ule, *n.* (*Bot.*) A little spore.

Spot, *n.* [Dan. *spætte.*] A mark on a substance made by foreign matter; a place discolored; a stain; a flaw; a speck; a blot. — A small extent of place; place; site; locality; any particular place. — A place of different color from the ground. — A dark place on the disc or face of the sun, or of a planet. — A lucid place in the heavens. — A stain on character or reputation; something that spoils purity; disgrace; reproach; fault; blemish.

—*v. a.* To make a visible mark with some foreign matter; to discolor; to stain. — To patch by way of ornament. — To stain or blemish: to taint; to disgrace; to tarnish, as a reputation.

—To note, so as to again recognize; as, to *spot* a criminal. (Colloq.)

Spot'less, *a.* Free from spots, foul matter, or discolorations; free from reproach or impurity; unspotted; pure; immaculate; irreproachable.

Spot'lessly, *adv.* In a spotless manner; purely; blamelessly.

Spot'lessness, *n.* The state or quality of being spotless; freedom from spot or stain; freedom from reproach.

Spot'ted, *a.* Marked with spots or places of a different color from the ground. (Fever. See Putrid Fever.)

Spot'tedness, *n.* The state or quality of being spotted.

Spot'tedville, in *Virginia*, a village of Stafford co., 79 m. N. of Richmond.

Spot'ter, *n.* One who makes spots; one who marks or notes.

Spot'tiness, *n.* The state or quality of being spotty.

Spotts'ville, in *Kentucky*, a post-village of Henderson co., on Green River, 6 m. from its mouth.

Spotts'wood, in *New Jersey*, a post-village of Middlesex co., 26 m. E.N.E. of Trenton.

Spottsylva'nia, in *Virginia*, an E. co.; *area*, 400 sq. m. *Rivers.* Rappahannock, N. Auna, and Mattapony. *Surface*, diversified; *soil*, fertile. *Min.* Gold, granite, and freestone. *County-seat*, Spottsylvania Court-House.

Spottsylvania Court-House, in *Virginia*, a post-village, cap. of the above co., 65 m. N. of Richmond.

Battle of S. See WILDERNESS.

Spot'ty, *a.* Full of spots; marked with discolored places.

Spous'al, *a.* Pertaining to espousal or marriage; nuptial; matrimonial; conjugal; connubial; bridal.

—*n.* Marriage; nuptials;—commonly used in the plural.

Sponse, *n.* [Fr. *épouse;* It. *sposa*, from Lat. *sponsus.*] One joined in wedlock; a married person, husband or wife.

—*v. a.* To espouse; to marry. (R.)

Spouse'less, *a.* Wanting a husband or wife.

Spout, *n.* [Dn. *spuit*, from *spuiten*, to spout.] A pipe, or a projecting mouth of a vessel, useful in directing the stream of a liquid poured out; a nozzle.—A pipe conducting water from another pipe, or from a trough on a house. —A violent discharge of water raised in a column at sea like a whirlwind, or as by a whirlwind.

—*To put, or shove up the spout*, to pledge at a pawnbroker's. (Cant.)

—*v. a.* To throw out, as liquids, through a narrow orifice or pipe. — To throw out words with affected gravity; to mouth. — To pawn.

Spout, *v. n.* To issue with violence, as a liquid through a narrow orifice, or from a spout.—To harangue.

Sprag, *v. a.* (*Mining* and *Railways.*) To stop, as a car, by putting a sprag in the spokes of the wheel, when on a steep grade.

Sprague, (*sprāg,*) in *Connecticut*, a township of New London co., 5 m. N. of Norwich.

Sprague'ville, in *Iowa*, a post-village of Jackson co., abt. 48 m. N. by E. of Davenport.

Sprain, *v. a.* To stretch forcibly, as the muscular or tendinous tissues beyond their natural length; to overstrain, as the muscles or ligaments of a joint; to stretch, as the muscles or ligaments, so as to injure them, but without dislocation.

—*n.* A violent strain of the muscles or ligaments of a joint without dislocation; the weakening of the motive power of a part by violent exertion.

Spra'ker's Basin, in *New York*, a post-village of Montgomery co., 48 m. N.W. of Albany.

Sprat, *n.* [Du. *sprot.*] (*Zoöl.*) *Clupea sprattus*, or *Harengula sprattus*, a fish of the family *Clupeidæ*, very abundant in the N. parts of the Atlantic, and which was formerly confounded by naturalists with the young of the herring. It is now, however, generally admitted to be a good and distinct species. Its characteristics are as follows:—Proportions nearly the same as those of the herring, but the depth of the body is greater in proportion than in the young of that species; the gill-covers are not veined; the teeth of the lower jaw are so minute as to be scarcely perceptible to the touch. The dorsal fin is placed farther back, and the keel to the abdomen is more acutely serrated than in the herring. They inhabit the deep water round our S. coast during the summer months, and, like the other species of the genus *Clupea*, they are wanderers; the shoals are capricious in their movements, and extremely variable in their numbers.

Sprawl, *v. n.* [Dan. *sprælde, sprælle;* Du. *spartelen*, to sprawl.] To struggle, as in the convulsions of death. — To tumble or creep with much agitation and contortions of the limbs.

Spray, (*sprā,*) *n.* [A. S. *spregan.*] A twig; a small shoot or branch of a tree; a collective body of small branches.

—[L. Ger. *spranjan*, to bedew.] (*Naut.*) The water that is driven from the top of a wave by wind, and which spreads and flies in small particles like dew.

Spread, (*spred,*) *v. a.* (*imp.* and *pp.* SPREAD.) [A. S. *spreadan.*] To make broad or wide; to extend in length and breadth, or in breadth only; to stretch or expand to a broader surface; to set; to place; to pitch; to cover by extending something over; to divulge; to propagate; to publish; to circulate; to disseminate, as news or fame; to cause to be more extensively known; to send forth; to cause to affect great numbers, as an infection; to emit; to diffuse; to send forth, as emanations or effluvia; to disperse; to scatter over a larger surface; to prepare; to set and furnish with provisions.

—*v. n.* To extend itself in length and breadth, in all directions, or in breadth only; to shoot to a greater length in every direction, so as to fill or cover a wider space. — To be extended or stretched. — To be extended by drawing or beating.—To be propagated or made known more extensively. — To be propagated from one to another.

—*n.* Extent; compass; expansion of parts.

Spread'-eagle, *n.* (*Her.*) An eagle with the wings extended. See EAGLE.

Spread Eagle, in *Pennsylvania*, a post-village of Chester co., abt. 18 m. W.N.W. of Philadelphia.

Spread'er, *n.* One who, or that which, spreads.

Spread'ing, *a.* Extending, or extended, over a large space; wide.

—*n.* Act of extending, dispersing, or propagating.

Spread'ingly, *adv.* In a spreading manner.

Spree, *n.* A merry frolic, especially one attended with drinking.

Spree, (*sprē,*) a river of Germany, rising in the kingdom of Saxony, and, after a course of 220 miles, joins the Havel at Spandau. It is connected with the Oder by Frederick-William's Canal.

Srem'berg, a town of Prussia, on an island in the Spree, 15 m. from Cottbus; *pop.* 5,823.

Sren'gel, CURT, a learned German physician and botanist, b. in Pomerania, 1766. In 1789 he was named extraordinary, and six years later ordinary, professor of medicine at Halle, and this post, as well as the chair of botany, soon given to him, he filled till his death. He published a great number of works, esteemed for their learning as well as for original observations in science. Among them are to be noted his *History of Medicine*, *Institutiones Medicæ*, *Antiquitates Botanicæ*, *Historia rei Herbariæ*; *Flora Halensis*; a German translation of *Theophrastus*, &c. *S.* was an honorary member of many learned societies. His reputation is based on his knowledge of medicine, and of the anatomy and functions of plants. Died in 1833.

Sprig, *n.* [A. S. *spranca.*] A spray; a small shoot or twig of a tree or other plant; the representation of a small branch in embroidery; an offshoot; a relative.

(*Min.*) Applied to a crystal of quartz found in the form of a hexangular column, adhering at one end to the stone, and at the other terminating in a point.

—*v. a.* To work with sprigs; to mark or adorn with the representation of small branches.

Sprigged, (*sprigd,*) *a.* Growing in sprigs.

Sprig'gy, *a.* Full of sprigs or small branches.

Spright, Sprite, (*sprīt,*) *n.* [A contraction of *spirit.*] A spirit; a shade; a soul; an incorporeal agent; a walking spirit; a ghost; an apparition.

Sprightless, *a.* Spiritless.

Sprightliness, *n.* Quality of being sprightly; liveliness; life; briskness; vigor; activity; gaiety; vivacity.

Sprightly, *a.* Full of spirit; full of life and activity; lively; brisk; animated; airy; gay; active; agile: alert.

Spring, *v. a.* (*imp.* SPRANG, or SPRUNG; *pp.* SPRUNG.) [A. S. *springan, aspringan;* Du. and Ger. *springen.*] To cause to leap or break forth; to raise; to start or rouse, as game; to cause to rise from the earth, or from a covert; to produce quickly or unexpectedly; to start; to contrive, or to produce or propose on a sudden; to produce unexpectedly; to cause to explode; to burst; to cause to open; to crack; to cause to rise from a given spot or part; to cause to close suddenly, as the parts of a trap.

—*v. n.* To leap or break forth; to bound; to jump; to issue into sight or notice; to fly with elastic power; to start; to start or rise suddenly from a covert; to shoot; to issue with speed and violence; to proceed or issue, as from a fountain or source; to issue or proceed, as from ancestors, or from a country; to vegetate and rise out of the ground; to begin to grow, as vegetables; to germinate; to proceed, as from a cause, reason, principle, or other original; to arise; to appear; to begin to appear or exist; to grow; to thrive.

—*n.* A leap; a bound; a jump, as of an animal.—A flying back; the resilience of a body recovering its former state by its elasticity; elastic power or force; a body which, when bent or forced from its natural state, has the power of recovering it.—Any active power; that by which action or motion is produced or propagated. — A fountain of water; an issue of water from the earth, or the basin of water at the place of its issue; the place where water usually issues from the earth, though no water is there; a source. —That from which supplies are drawn; rise; original; cause.

(*Astron.*) One of the four seasons of the year. For the northern hemisphere, the spring season begins when the sun enters Aries, the first of the northern signs, or about March 21, and ends at the time of the summer solstice.

(*Mech.*) A piece of mechanism, formed of tempered steel or some other elastic substance, applied mostly for the purposes of producing resistance, or of preventing a shock from the collision of hard bodies, or of giving motion to mechanism by its effort to unbend itself.

(*Naut.*) A rope or hawser passed from the stern of a ship and made fast to the cable or anchor from the bow by which she is riding. The object is to vary at will the direction in which she rides, an object of importance when the broadside has to be brought to bear on any given point.

Spring, in *Pennsylvania*, a township of Berks county. — A township of Centre county. — A post-village and township of Crawford county, 18 miles north-west of Meadville.—A township of Perry county.

Spring Arbor, in *Michigan*, a post-village and township of Jackson county, 11 miles west south-west of Jackson.

Spring'-back, *n.* (*Book-binding.*) A curved or semi-circular false back, made of thin sheet-iron or of stiff pasteboard fastened to the under side of the true back, and causing the leaves of a book thus bound to spring up and lie flat; — commonly used in binding ledgers and other blank-books.

Spring'-balance, *n.* An instrument for determining the weight of bodies, consisting of a spiral spring, with an index, and pointed.

Spring Bay, in *Illinois*, a post-village and township of Woodford co., on Peoria Lake, abt. 13 m. N.N.E. of Peoria.

Spring'bok, Spring'buck, *n.* (*Zoöl.*) A graceful species of antelope (*Antilope euchore*), which inhabits in almost inestimable multitudes the vast wilds in the interior of South Africa.

Spring'borough, in *Ohio*, a post-village of Warren co., 37 m. N.E. of Cincinnati.

Spring Brook, in *Iowa*, a post-village of Jackson co., 70 m. E.N.E of Iowa City.

Spring Brook, in *Wisconsin*, a township of Dunn co.

Spring Creek, in *Arkansas*, a township of Phillips co.—A township of Lee co.

Spring Creek, in *Georgia*, rises in Early co., and flowing S. enters Flint River in Decatur co.

Spring Creek, in *Iowa*, a township of Black Hawk county.—A thriving post-village and township of Tama county.

Spring Creek, in *Ohio*, a township of Miami county.

Spring Creek, in *Pennsylvania*, enters Bald Eagle Creek from Centre co. — A village of Dauphin co., 12 m. E. of Harrisburg. — A post-township of Warren co., 20 m. W. of Warren.

Spring Creek, in *Tennessee*, a post-village of Madison co., 137 m. W.S.W. of Nashville.

Spring Creek, in *Texas*, a tributary of San Jacinto River, forming the boundary between Harris and Montgomery cos.

Spring Dale, in *Iowa*, a post-village and township of Cedar co., about 13 m. E. of Iowa City.

Spring Dale, in *Michigan*, a township of Manistee co.

Spring Dale, in *Minnesota*, a village of Houston co., abt. 5 m. W. of Brownsville.

Spring Dale, in *Mississippi*, a post-village of Lafayette co., abt. 15 m. S.W. of Oxford.

Spring Dale, or SPRINGFIELD, in *Ohio*, a post-village of Hamilton co., 15 m. N. of Cincinnati.

Spring Dale, in *Wisconsin*, a post-township of Dane co.

Springe, (*sprinj,*) *n.* [From *spring.*] A gin; a noose, which, being fastened to an elastic body, is drawn close with a sudden spring, by which means it catches a bird. —*v. a.* To catch by means of a springe; to insnare.

Spring'er, *n.* One who springes; one who rouses game. — A jumper. — A name given to the grampus. — A variety of the dog, differing little in figure from the setter. (*Arch.*) Same as SPRINGING, *q. v.*

Spring'ersville, in *Indiana*, a village of Fayette co., 64 m. S.E. of Indianapolis.

Spring'field, in *Alabama*, a post-village of Greene co., 112 m. W.N.W. of Montgomery.

Springfield, in *Arkansas*, a post-village, cap. of Conway co., abt. 40 m. N.W. of Little Rock.

Springfield, in *California*, a village of Tuolumne co., abt. 4 m. N. of Sonora.

Springfield, in *Georgia*, a post-village, cap. of Effingham co., 27 m. N.W. of Savannah.

Springfield, in *Illinois*, a city, cap. of the State, and seat of justice of Sangamon co., 188 m. S.W. of Chicago, 97 m. N.N.E. of St. Louis, and 4 m. S. of Sangamon River; Lat. 39° 48′ N., Lon. 87° 33′ W. Situated on a beautiful prairie, and handsomely built, *S.* has been termed the "Flower City," from the shade-trees which adorn its streets and the beauty of the surroundings of the city. Its public buildings are handsome and substantial, conspicuous among them is the new and splendid State-House (Fig. 1367). *S.* has iron foundries, flouring-mills, factories of woollen goods, &c., and is the point of shipment for immense quantities of produce and live-stock. The remains of Pres. Lincoln repose near *S.*, at Oak Hill Cemetery, under a handsome monument completed in 1877. *Pop.* (1880) 19,746. (1890) 24,852.

Springfield, in *Indiana*, a township of Allan county. —A post-village and township of Franklin county, 80 miles E.S.E. of Indianapolis.—A township of La Grange county.—A township of La Porte county.—A village of Noble county, 22 miles E.S.E. of Goshen.—A village of Whitley county, 95 miles N.E. of Indianapolis.

Springfield, in *Iowa*, a township of Cedar county.—A post-village of Keokuk county, 55 miles S.W. of Iowa City.—A village of Muscatine county, 25 miles south-east of Iowa City.—A township of Winneshiek county.

Springfield, in *Kentucky*, a post-village, cap. of Washington co., 40 m. S.W. of Frankfort.

Springfield, in *Louisiana*, a village of De Soto parish, abt. 15 m. N.E. of Mansfield.—A post-village, former cap. of Livingston parish, abt. 50 m. E. of Baton Rouge.

Springfield, in *Maine*, a post-township of Penobscot co., 115 m. N.E. of Augusta.

Springfield, in *Massachusetts*, a fine city and seat of justice of Hampden co., on the E. bank of Connecticut River, 98 m. S.W. of Boston; Lat. 42° 6′ 4″ N., Lon. 72° 35′ 45″ W. It is an important commercial depôt, and contains manufactories of locomotives, railroad cars, and various kinds of machinery, fire-arms, harness, woollen goods, &c.; also, an extensive U. S. arsenal, giving employment to about 2,800 workmen, who manufacture 1,000 muskets a day. The City Hall, a noble building in the Romanesque style, contains, besides the city offices and a large public hall, a library of over 8,000 vols., with which is conuected a scientific and historical museum. *S.* was first settled in 1637, but it is only since the opeuing of the Western Railroad, in 1838, that it began to iucrease rapidly. It was made a city in 1852. *Pop.* (1890) 44,164; (1895) 51,534.

Springfield, in *Michigan*, a township of Oakland co., 12 m. N.W. of Pontiac.

Springfield, in *Minnesota*, a village of Olmsted co., abt. 10 m. S.E. of Rochester.

Springfield, in *Mississippi*, a village of Choctaw co. — A village of Madison co., 40 m. N.N.E. of Jackson.

Springfield, in *Missouri*, a village of Callaway co., 46 m. N.E. of Jefferson City.—A city, cap. of Greene co., 130 m. S.W. of Jefferson City. On Aug. 10, 1861, at David's and Wilson's creeks, the first 9 and the second 15 m. from Springfield, the Nationals, under Gen. Lyon, attacked a Confederate force in superior numbers, under Gens. McCulloch and Price. After 6 hours' severe fighting, the National troops remained in possession of the camp, but with the loss of Gen. Lyon and about 1,000 killed or wounded. After the battle, Gen. Sigel, taking the chief comuand, was obliged to fall back on *S.*, and the next day to Rolla, to await reiuforcements. *S.* was the scene of several other important movements during the war.

Springfield, in *New Hampshire*, a township of Sullivan co., 38 m. N.W. of Concord.

Springfield, in *New Jersey*, a towuship of Burlington county, 18 miles S.S.E. of Trenton.—A post-village and township of Union county, 8 miles west of Newark.

Springfield, in *New York*, a post-village and township of Otsego county, 11 miles north-east of Cooperstown.

Springfield, in *Ohio*, a city, cap. of Clarke co., 43 m. W. of Columbus. It is beautifully situated near the junction of Lagonda Creek with Mad River, and at the junction of several railroads. It is well laid out, handsomely built, and contains manufactories of cotton, wool, paper, machiuery, agricultural implements, &c. the annual value of the manufacture of the latter reaches abt. $5,350,000. *Pop.* (1897) 40,000.—A township of Gallia co.—A post-township of Hamilton co.—A township of Jefferson co.—A township of Lucas co.—A township of Mahoning co.—A township of Muskingum co.—A township of Richland co.—A village and township of Ross co., 4 miles N. of Chillicothe.—A towuship of Summit co.—A towuship of Williams co.

Spring'field, in *Oregon*, a post-village and precinct of Lane co.

Springfield, in *Pennsylvania*, a post-township of Bradford co., 16 miles W.N.W. of Towanda.—A township of Bucks county.—A township of Delaware county.—A village and township of Erie county, 21 miles south-west of Erie.—A township of Fayette co.—A township of Greene co.—A township of Huntingdon co.—A village and township of Mercer co.—A townsnip of Montgomery co.—A towuship of York co., about 9 m. S. of York.

Springfield, in *Tennessee*, a post-town, cap. of Robertson co., 25 m. N. of Nashville.

Springfield, in *Texas*, a village, former cap. of Limestone county, 140 miles N.E. of Austiu City.

Springfield, in *Vermont*, a post-village and township of Windsor co., 73 m. S. of Montpelier. *Manuf.* Cottou and woollen goods, plows, &c.

Springfield, in *Virginia*, a village of Fairfax co., 9 m. W. of Alexandria.

Springfield, in *West Virginia*, a post-village of Hampshire co., 197 m. N.W. of Richmond.

—A village of Monroe co., about 245 m. W. of Richmond.

Springfield, in *Wisconsin*, a township of Dane co.— —A township of Jackson co.—A township of Marquette co.—A post-village of Walworth county, 34 miles W. of Racine.

Spring Garden, in *Illinois*, a post-village of Jefferson co., 145 m. S.E. of Springfield.

Spring Garden, in *Pennsylvania*, a township of York co.

Spring Garden, in *Virginia*, a post-village of Pittsylvania co., 135 m. W.S.W. of Richmond.

Spring Green, in *Wisconsin*, a post-village and towuship of Sauk co., 36 m. W. of Madison.

Spring Grove, in *Illinois*, a post-township of Warren co., 6 m. N. of Monmouth.

Spring Grove, in *Minnesota*, a post-township of Houston co., abt. 36 m. S. of Winona.

Spring Grove, in *Wisconsin*, a post-township of Green co.

Spring'-head, *n.* A fountain; the original source.

Spring Hill, in *Alabama*, a village of Mareugo co., 71 m. S.W. of Tuscaloosa.

Spring Hill, in *Arkansas*, a township of Drew co.—A post-village of Hempstead co., 14 m. S. of Washington.

Spring Hill, in *Illinois*, a post-village of Whitesides co., 65 m. S.S.E. of Galena.

Spring Hill, in *Indiana*, a post-village of Decatur co., abt. 50 m. E.S.E. of Indiauapolis.

Spring Hill, in *Kansas*, a post-vill. and township of Johnson co., abt. 28 m. E.S.E. of Lawrence.

Spring Hill, in *Mississippi*, a village of Tippah co., 25 m. N.W. of Ripley.

Spring Hill, in *Missouri*, a post-vill. of Livingston co.

Spring Hill, in *Pennsylvania*, a post-township of Fayette co.

Spring Hill, in *Tennessee*, a post-village of Manry co., 30 m. S. of Nashville.

Spring Hill, in *Texas*, a village of Navarro co., abt. 145 m. N.N.E. of Austin City.

Spring Hill, in *Virginia*, a post-village of Mecklenburg co., abt. 56 m. S.W. of Petersburg.

Spring Hills, in *Ohio*, a post-village of Champaign co., abt. 13 m. N.N.W. of Urbana.

Spring'-hook, *n.* (*Locomotive Engines.*) One of the hooks fixing the driving-wheel spring to the frame. A screw on the end of the hook regulates the weight on the driving wheels.

Spring'iness, *n.* Quality or state of being springy; elasticity; —also, the power of springing; the state of abounding with springs; wetness; sponginess, as of land.

Spring'ing, *n.* Act of one who springs, or of that which springs; act or process of leaping, arising, issuing, or proceeding; growth; increase.

(*Arch.*) The impost or point at which an arch unites with its support. The bottom stone of an arch, which lies immediately upon the impost, is sometimes called a *springer* or *springing-stone.*

Spring Lake, in *Illinois*, a village and township of Tazewell co., on the Illinois River, abt. 7 m. S.W. of Pekin.

Spring Lake, in *Michigan*, a post-township of Ottawa county, on Lake Michigan, opposite Grand Haven.

Spring Lake, in *Minnesota*, a township of Scott county.

Spring Lake Villa, in *Utah*, a village of Utah co., 24 m. S. of Provo City.

Spring Mill, in *Pennsylvania*, a vill. of Montgomery co., on the Schuylkill River, 12 m. N.W. of Philadelphia.

Spring Mills, in *New Jersey*, a village of Hunterdon co., 18 m. S. of Belvidere.

Spring Mills, in *Pennsylvania*, a post-village of Centre co., 82 m. N.N.W. of Harrisburg.

Spring Moun'tain, in *Pennsylvania*, is situated in the W. of Carbon co.

Spring'-pin, *n.* (*Locomotive engines*) One of the iron rods fitted between the springs and the axle boxes, to sustain and regulate the pressure on the axles.

Spring Place, in *Georgia*, a post-town, cap. of Murray co., 230 m. N.W. of Milledgeville.

Spring Place, in *Tennessee*, a village of Marshall co., 66 m. S. of Nashville.

Spring'port, in *Michigan*, a township of Jackson co., about 14 m. N.W. of Jackson.

Springport, in *New York*, a township of Cayuga co., on the E. of Cayuga Lake.

Spring Prairie, in *Wisconsin*, a post-village and township of Walworth county, 31 miles S.W. of Milwaukee.

Spring River, in *Arkansas*, a township of Lawrence co.

Spring River, in *Missouri*, rises in Howell co., and flowing S.E. falls into Black River in the S.W. of Randolph co., Arkansas. — A village and township of Lawrence co., 140 m. S.E. of Independence.

Spring Rock, in *Iowa*, a township of Clinton county.

Spring Run, in *Pennsylvania*, a post-village of Franklin co., 166 m. W. of Philadelphia.

Spring'-tide, *n.* The tide which happens at, or soon after, the new and full moons, which *springs* or rises higher than common tides. — The time or season of spring.

Spring'town, in *New Jersey*, a village of Morris co., 45 m. N. of Trenton.

Springtown, in *Pennsylvania*, a post-village of Bucks co., 45 m. N.N.W. of Philadelphia.

Spring'vale, in *Maine*, a post-village of York co., 86 m. S.W. of Augusta.

Springvale, or SPRINGDALE, in *N. Carolina*, a post-village of Sampson county, about 56 miles N. of Wilmington.

Springvale, in *Wisconsin*, a township of Columbia co.—A township of Fond du Lac co.

Spring Valley, in *Minnesota*, a post-village and township of Fillmore county, about 27 m. S. E. of Rochester.

Spring Valley, in *New Jersey*, a village of Morris co., 4 m. S.E. of Morristown.

Spring Valley, in *Ohio*, a post-village of Greene co., 58 m. N.E. of Cincinnati.

Spring Valley, in *Oregon*, a village and precinct of Polk co., abt. 10 m. N.N.W. of Salem.

Spring Valley, in *Pennsylvania*, a village of Lancaster co.

Spring Valley, in *Wisconsin*, a township of Rock co.

Spring'ville, in *Alabama*, a post-village of St. Clair co., 140 m. N. of Montgomery.

Springville, in *Illinois*, a post-village of Coles co., 10 m. S.W. of Charleston.

Springville, in *Indiana*, a village of Laporte co., 10 m. E. of Michigan City. — A post-village of Lawrence co., 11 m. N.W. of Bedford.

Springville, in *Iowa*, a post-village of Linn co., 9 m. E. of Marion.

Springville, or **South Portsmouth,** in *Kentucky*, a post-town of Greenup co., on the Ohio river, opposite Portsmouth, Ohio.

Springville, in *Michigan*, a post-village of Lenawee co., 12 m. N.W. of Adrian.

Springville, in *Missouri*, a village of Wayne co., 110 m. S.W. of St. Louis.

Springville, in *New York*, a post-village of Erie co.

Springville, in *Oregon*, a village of Multnomah co., 6 m. N. of Portland.

Springville, in *Pennsylvania*, a village of Chester co., 33 m. N.W. of Philadelphia.—A village of Lancaster co.—A post-village and township of Susquehanna co., 10 m. S. of Montrose.

Springville, in *Utah*, a city and precinct of Utah co., 6 m. S. of Provo City. *Pop.* (1895) 3,168.

Springville, in *Wisconsin*, a post-village of Vernon co.

Spring'water, in *New York*, a post-village and township of Livingston county, 50 miles south-east of Batavia.

Spring Water, in *Wisconsin*, a post-township of Waushara county, abt. 45 miles N.W. of Fond du Lac.

Spring Wells, in *Michigan*, a village of Wayne county, on Detroit River, immediately S.W. of Detroit.

Spring'y, *a.* [From *spring.*] Having the quality of springing, or of a spring; elastic; possessing the power of recovering itself when extended, bent, or twisted; having great elastic power; having the power to leap; able to leap far. — Abounding in springs or fountains; wet; spongy.

Sprin'kle, *v. a.* [A. S. *sprengan.*] To shoot or throw forth in small drops or particles; to scatter; to disperse, as a liquid or a dry substance composed of fine separable particles; to disperse on in small drops or particles; to besprinkle; to bedew; to wash; to cleanse; to purify.

—*v. n.* To perform the act of scattering a liqnid, or any fine substance, so that it may fall in small drops or particles; to rain moderately.

—*n.* A small quantity scattered.

Sprink'ler, *n.* One who sprinkles. — A utensil for sprinkling: a watering-pot.

Sprink'ling, *n.* Act of scattering in small drops or particles; a small quantity falling in distinct drops or parts, or issuing moderately.

Sprit, *n.* [A. S. *spreot.*] (*Naut.*) A small boom, pole, or spar which crosses the sail of a boat diagonally from the mast to the upper aftmost corner of the sail, which it is used to extend and elevate.

Sprite, *n.* A spirit; an incorporeal agent. (Used in poetry.)

Sprit'-sail, *n.* (*Naut.*) The sail that belongs to the bowsprit.

Sprock'et-wheel, *n.* (*Naut.*) A wheel armed with pointed studs, round which the chain-cable of a capstan passes. The studs afford a firmer bite on the cable.

Sprottau, (*sprot'tou,*) a town of Prussian Silesia, on the Bober, 71 m. from Breslau; *pop.* 5,620.

Sprout, *v. n.* [A. S. *sprytan.*] To bud; to burst forth, as the seed of a plant; to germinate; to push out new

shoots; to shoot into ramifications; to grow like shoots of plants.

Sprout, *n.* The shoot of a plant; a shoot from the seed, or from the stump, or from the root of a plant or tree; a shoot from the end of a branch.

Sprout'ing, *a.* Shooting in vegetation; germinating.

Spruce, (*sprös,*) *a.* [Said to be a corruption of *Prussian* (Ger. *Preusse*), and to have been originally applied to those who dressed after the fashion of Prussia.] Neat without elegance; nice, trim; finical; foppish.

—*v. n.* To dress with affected neatness; to prink.

—*v. a.* To trim; to deck; to dress.

—*n.* (*Bot.*) A name commonly applied to several species of the genus *Abies*, or fir.

Spruce, in *Missouri*, a post-township of Bates co., 65 m. S.S.E. of Independence.

Spruce'-beer, *n.* A liquor, made of treacle or molasses, and tinctured with the essence of the spruce fir (*Abies excelsa*), well boiled in water and fermented.

Sprung, *imp.* and *pp.* of SPRING, *q. v.*

Spry, *a.* Lively; nimble; quick in action. (Prov. Eng., colloq. U. S.)

"She is as *spry* as a cricket."—*Judd.*

Spud, *n.* [A. S. *spad.*] An implement resembling a large chisel with a long handle, used for cutting up weeds.—Anything short and thick, in contempt.

Spue, *v. a.* and *v. n.* [Lat. *spuo.*] To vomit. See SPEW.

Spume, (*spūm,*) *n.* [Lat. *spuma*, from *spus*; It. *spuma*: A. S. *speowian.* See SPUE.] Froth; foam; scum; frothy matter thrown up or raised to the surface of liquors or fluid substances by boiling, effervescence, or agitation.

—*v. n.* To froth: to foam.

Spumes'cence, *n.* The quality or the state of foaming.

Spumif'erous, *a.* That produces spume or froth.

Spum'iness, *n.* Quality of being spumy.

Spum'ous, Spum'y, *a.* [Lat. *spumens.*] Consisting of spume, or of froth or scum; foamy.

Spun, *imp.* and *pp.* of SPIN, *q. v.*

Spunk, *n.* [A. S. *sponge*, a sponge.] The Tonchwood, a species of fungus, *Polyporus fomentaria*, with which is made the AMADOU. *q. v.*

Spunk'y, *a.* Spirited; fiery. (Low.)

Spun'-yarn, *n.* (*Naut.*) A cord formed by twisting together two or three rope-yarns.

Spur, (*sper.*) *n.* [A. S. *sparu, spova*; Fr. *éperon.*] An instrument having a rowel or little wheel, with sharp points, worn on horsemen's heels, to prick horses for hastening their pace.—Incitement; instigation; stimulus; that which excites.—The largest or principal root of a tree.—Hence, perhaps, the short wooden buttress of a post.—The hard, pointed projection on a cock's leg, which serves as an instrument of defence and attack.—Something that projects.—A smaller mountain that shoots from any other mountain, or range of mountains.—Something that resembles a spur.

(*Ship-building.*) A piece of timber fixed on the bilgeways, and the upper end bolted to the ship's side above water, for security to the bilgeway.

(*Fort.*) A wall that crosses a part of the rampart and joins to the town-wall.

(*Bot.*) Any tubular projection resembling a spur.—An ergot;—so called from its resemblance to the spur of a cock. See ERGOT.

—*v. a.* To prick with a spur, or spurs; to incite to a more hasty pace;—hence, to incite; to instigate; to urge or encourage to action, or to a more vigorous pursuit of an object; to impel; to drive; also, to put spurs on.

—*v. n.* To travel with great expedition; to press forward.

Spur'-clad, *a.* Wearing spurs.

Spur'-gall, *v. a.* To gall with the spur.

—*n.* A wound or hurt caused by the use of the spur.

Spurge, (*sperj,*) *n.* (*Bot.*) See EUPHORBIA.

Spu'rious, *a.* [Lat. *spurius.*] Not proceeding from the true source, or from the source pretended; counterfeit; false; not genuine.—Illegitimate; bastard.

Spu'riously, *adv.* In a spurious manner; falsely.

Spu'riousness, *n.* State or quality of being spurious, or of being counterfeit, false, or not genuine.—Illegitimacy; state of being bastard, or not of legitimate birth.

Spurl'ing-line, *n.* (*Naut.*) A line communicating between the wheel and the tell-tale.

Spurn, *v. a.* [A. S. *spurnan*, to spurn, to strike.] To kick: to drive back or away, as with the foot.—To reject with disdain; to scorn to receive or accept; to treat with contempt.

—*v. n.* To kick or toss up the heels.—To manifest disdain in rejecting anything; to make contemptuous opposition; to manifest disdain in resistance.

—*n.* Disdainful rejection; contemptuous treatment.—A kick or blow with the foot.

Spurn'er, *n.* One who spurns.

Spurred, (*spurd,*) *a.* Wearing spurs, or having shoots like spurs.

Spur'rer, *n.* One who uses spurs.

Spur'rier, *n.* One who makes spurs.

Spurt, *v. a.* [Written also *spirt.*] To throw out, as a liquid, in a jet or stream; to drive or force out with violence, as a liquid from a pipe or small orifice.

—*v. n.* To gush or issue out in a stream, as liquor from a cask; to rush from a confined place in a small stream.

—*n.* A sudden or violent ejection or gushing of a liquid substance from a tube, orifice, or other confined place; a jet

Spurzheim, JOHN GASPAR, (*spurts'hime,*) a famous name in the history of phrenological science, was born at Longwich, near Treves, in 1776, and became acquainted with Dr. Gall at Vienna, where he studied medicine. From 1805 till 1813 he was the constant companion of Gall in his travels and scientific researches, and subsequently became an active promulgator of the new doctrins in England and France. He died in 1832, a few months after his arrival in Boston, U. S. One of his distinct claims is that of having demonstrated the fibrous structure of the brain.

Sputa'tion, *n.* [Fr., from Lat. *sputare*, to spit.] The act of spitting.

Sput'ter, *v. n.* [Dan. *sprutte*; Ger. *sprudeln*, to sputter.] To spit, throw out, or emit saliva from the mouth in small or scattered portions, as in rapid speaking.—To throw out moisture in small detached parts.—To fly off in small particles with some crackling or noise.—To utter words hastily and indistinctly.

—*v. a.* To throw out with haste and noise; to utter with indistinctness.

—*n.* Moist matter thrown out in small particles.

Sput'terer, *n.* One who sputters.

Sput'um, *n.*; *pl.* SPUTA. [Lat., from *spuere*, to spit.] The secretion ejected from the mouth in the act of spitting. It is composed of saliva, and of the mucus secreted by the mucous membrane of the nasal fossæ and fauces, and often by the membrane of the larynx and bronchia; spit; spittle.

Spuy'ten Duy'vil, in *New York*, a former post-village of Westchester co., on the Hudson river, now included in New York city.

Spy, *n.* [It. *spia*; Fr. *espion*; Du. *spion*; Ger. *spähen.*] One who observes or watches the conduct of others.

(*Mil.*) A scout: a person sent into an enemy's camp or country, to gain intelligence to be communicated secretly to the proper officer; a secret emissary.

—*v. a.* To gain sight of; to discover at a distance, or in a state of concealment.—To discover by close search or examination.—To explore; to view, inspect, and examine secretly.

—*v. n.* To search narrowly; to scrutinize.

Spy'-boat, *n.* A boat sent out for intelligence.

Spy'-glass, *n.* A small telescope for viewing distant objects.

Spy'ism, *n.* The business of spying. (R.)

Spy'-money, (*-mun-y,*) *n.* Money paid to a spy for his services.

Squab, (*skwob,*) *a.* [Ger. *quabbelig*, from *quabbeln*, to shake, to be flabby.] Fat; thick; plump; bulky.—Unfledged; unfeathered; as, a *squab* pigeon.

—*n.* [Ger. *quappe.*] An unfledged bird; a young pigeon or dove.—A kind of sofa or couch; a stuffed cushion.—A person with a stout, short figure.

—*adv.* With a heavy, sudden fall; plump and flat. (Vulgar.)

Squab'bish, *a.* Thick; heavy; fleshy.

Squabble, (*skwab'bl,*) *v. n.* [Du. *kibbelen*, to wrangle.] To contend for superiority; to wrangle; to scuffle.—To debate peevishly; to dispute.

—*v. a.* (*Print.*) To disarrange or mix, as lines of type, by forcing them horizontally out of their place.

—*n.* A scuffle; a wrangle; a brawl; a petty quarrel.

Squab'bler, *n.* One who squabbles.

Squab'by, *a.* Squabbish.

Squab'-chick, *n.* A young, unfledged chicken.

Squab'-pie, *n.* A pie made of squabs.

Squad, (*skwod.*) *n.* [Fr. *escouade*, corrupted from *escadron*, squadron.] (*Mil.*) A small party of men assembled for drill or inspection.—Any small party.

Squad'ron, *n.* [Fr. *escadron*; It. *squadra*, square, *squadrone*, a squadron.] A square, or a square form: hence, a square body of troops; a body drawn up in a square. (R.)

(*Mil.*) The principal division of a regiment of cavalry, usually from 100 to 200 men.

(*Naut.*) A division of a fleet; a detachment of ships of war, employed on a particular expedition.

Squad'roned, *a.* Formed into squadrons. (R.)

Squalid, (*skwol'id,*) *a.* [Lat. *squalidus*, from *squalere*, to be foul or dirty.] Foul; filthy; extremely dirty.

Squalid'ity, *n.* The state of being squalid.

Squal'idly, *adv.* In a squalid, filthy manner.

Squal'idness, *n.* The state or quality of being squalid.

Squall, (*skwawl,*) *v. n.* [Ger. *schallen*; Du. *schellen.*] To cry out; to scream or cry violently, as a woman frightened, or a child in anger or distress.

—*n.* A loud scream; a harsh cry.

—A sudden and violent gust of wind.

Black squall, a *S.* attended with a dark cloud, diminishing the usual quantity of light.—*A white squall*, a *S.* which produces no diminution of light.—*A thick squall*, a *S.* accompanied with hail, sleet, &c.

Squal'idæ, *n. pl.* (*Z öl.*) The Shark family, comprising cartilaginous fishes, allied to the Rays, and celebrated for the size and voracity of some of the species. The form of the body is elongated, and the tail is thick and fleshy. The mouth is large, generally situated beneath the snout, and is armed with several rows of compressed, sharp-edged, and sometimes serrated teeth; these are movable at the will of the animal, and are usually laid down and directed backwards, but become erect at the moment he is seizing his prey. The skin is usually very rough, covered with a multitude of little osseous tubercles; and that of some species forms the substance called *shagreen.* They devour with indiscriminating voracity almost every animal substance, whether living or dead. They often follow vessels for the sake of picking up any offal that may be thrown overboard; and, in hot climates especially, man himself frequently becomes a victim to their rapacity. No fish can swim with such velocity as the shark, nor is any so constantly engaged in that exercise; he outstrips the swiftest ships, and plays round them, without exhibiting a symptom of strong exertion or uneasy apprehension; and the depredations he commits on the other inhabitants of the deep are truly formidable. The eggs of sharks are few and large, in comparison with those of bony fishes; they are enveloped in a hard, horny, semi-transparent shell, terminated at the four angles with long filaments. The genus *Alopias* contains the Long-tailed or Thresher Shark, *A. vulges*, also called Sea-ape and Sea-fox, which inhabits the Atlantic, is 12 or 15 feet long, and has the upper lobe of the tail about as long as the body. The genus *Lamna*, containing the Mackerel Shark, or Green-backed Shark, *L. punctata*, has the snout pyramidal, with the nostrils under the base. The genus *Mustelus*, containing the Dog Shark, *M. canis*, has the teeth blunt, forming a closely compacted pavement in each jaw. The gen. *Acanthias* contains the Dog-fish (*q. v.*). The genus *Zygæna*, containing the Hammer-headed Shark, *Z. vulgaris*, which attains the length of 12 feet (Fig. 2420), and has the head flattened horizontally, with the sides much extended laterally. The genus *Pristis* contains the Saw-fish (*q. v.*). The genus *Cestracion*, which, with some naturalists, constitutes a distinct *Cestracionidæ*, contains nevertheless only two species, the Port-Jackson Shark or Nurse (*C. phillippi*) of the Australian seas, and the Cat Shark of Japan and China (*C. zebra*).

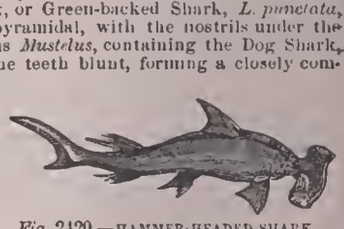


Fig. 2420.—HAMMER-HEADED SHARK, *Zygæna vulgaris.*

Squal'ler, *n.* One who squalls; a screamer.

Squal'ly, *a.* Abounding with squalls; disturbed often with sudden and violent gusts of wind.

(*Weaving.*) Faulty or uneven, as cloth.

Squaloid, *a.* [Lat. *squalus*, a shark, and *eidos*, form.] Resembling a shark.

Squa'lor, *n.* [Lat.] Foulness; filthiness; coarseness.

Squama'ceous, SQUAMATE, SQUAMATED, *a.* Same as SQUAMOSE. *q. v.*

Squam Bay, (*skwom,*) in *Massachusetts*, an inlet of the Atlantic, in Essex co., 4 m. long, between Cape Ann and Castle Neck.

Squamel'late, *a.* (*Bot.*) Furnished with little scales; squamose.

Squa'miform, *a.* [Fr. *squamiforme*, from Lat. *squama*, a scale, and *forma*, a form.] Formed like a scale.

Squamigerous, (*-mij'-.*) *a.* [From Lat. *squama*, a scale, and *gerere*, to bear.] Having scales.

Squam Lake, in *New Hampshire*, on the border of Grafton and Carroll cos., nbt. 8 miles long and 4 wide. It contains a number of islands. The surplus waters are discharged through Squam River into the Pemigewasset.

Squammagon'ic, now GONIC, in *New Hampshire*, a post-village of Strafford co., 2 m. S. of Rochester.

Squa'moid, *n.* [Lat. *squama*, scale, and Gr. *eidos*, form.] Resembling a scale; scaly.

Squa'mose, Squam'ous, Squam'ulate, Squam'ulous, Squam'ulose, *a.* (*Nat. Hist.*) Scaly; covered with scales; resembling, pertaining to, or composed of, scales.

Squam'scot River, in *New Hampshire*. See EXETER.

Squan (*skwon*), now MANASQUAN, in *New Jersey*, a post-town of Monmouth co., on the Atlantic, between Manasquan Inlet and Metetecunk river. *Pop.* (1895) 1,427.

Squan'der, *v. a.* [Ger. *verschwenden*, to squander, *schwinden*, to vanish.] To spend lavishly or profusely; to spend prodigally or without economy or judgment.

Squan'derer, *n.* One who squanders; a spendthrift; a prodigal; a waster; a lavisher.

Squan'deringly, *adv.* By squandering.

Squan'kum, in *New Jersey*, a village of Ocean co., 38 m. S.E. of Trenton.

Squan'nacook River, in *Massachusetts*, falls into the Nashua River from Middlesex co.

Square, (*skwair,*) *a.* [O. Fr. *esquarre*, a square; It. *squadra*, from Lat. *quadrare*, to make square.] Forming a right angle.—Having a straight front, or a frame formed with straight lines.—That does equal justice; exact; fair; honest.—Even; leaving no balance.—Exactly suitable; true.—Strong; stout.

(*Naut.*) Applied to the yards, and implying that they are at right angles to the masts. *Square-rigged* means that the rig includes yards which can be set square. A *square-sail* is a quadrilateral sail never borne as a fore-and-aft sail.

All square. All right; all satisfactory.—*Square measure.* (*Math.*) The relative magnitude of squares of given dimensions.—*Square numbers.* (*Arith.*) The product of a number multiplied by itself. Thus, the squares of the natural numbers 1, 2, 3, 4, 5, &c., are respectively 1, 4, 9, 16, 25, &c. Among the properties of square numbers, the following may be mentioned:—Every odd square number is of the form $8n + 1$, or when divided by 8 leaves 1 for the remainder. Every even square number is of the form $4n$, or is divisible by 4. Every square number ends with one or other of the following digits,—0, 1, 4, 5, 6, 9.—*Square root.* (*Arith.*) A quantity which, being taken twice as a factor, will produce the given quantity. Thus, the square root of 25 is 5, because $5 \times 5 = 25$. When the square root of a number can be expressed in exact parts of 1, that number is a perfect square, and the indicated square root is said to be commensurable. All other indicated square roots are incommensurable.

—*n.* (*Geom.*) A four-sided rectilineal figure, of which all the angles are right angles, and all the sides equal.

(*Arith.*) The product of a number multiplied by itself.

(*Mil.*) A formation of troops. A *solid square* is formed to resist cavalry; and the men all face outward. A *hollow square* is formed to hear orders read, &c.; and the troops face inward.

—**An open area of four sides in a town or city, with houses on each side.** — A rule or instrument by which workmen ascertain whether an angle is a right angle or not. — Level; equality; rule; conformity; accord.

Magic square. See MAGIC. — *On the square*, or *upon the square*, a fair, honest procedure, or mode of action. — *On* or *upon the square with*, to be even, or on an equality with. — *To be at square*, to be in a state of quarrelling. — *To break square*, to depart from the usual routine.

Square, *v. a.* To form with equal sides and four right angles. — To reduce to a square; to form to right angles. — To reduce to any given measure or standard. — To adjust; to regulate; to mould; to shape; to accommodate; to fit. — To make even, so as to leave no difference or balance.

—*v. n.* To take the attitudes of a boxer; to spar.

Square'ly, *adv.* In a square manner or form.

Square'ness, *n.* The state of being square.

Squar'er, *n.* The person who, or that which, squares.

Square'-rigged, *a.* (*Naut.*) Said of a ship that has long yards at right angles with the length of the deck, in contradistinction to sails extended obliquely by stays, or lateen yards.

Square'-sail, *n.* (*Nmt.*) A sail extended by a yard, distinguished from others extended by booms, stays, lateens, and gaffs.

Squar'ish, *a.* Nearly square.

Squarrose', *a.* [Lat. *squarrosus.*] (*Nat. Hist.*) Cut into deep segments, that are elevated above the plane of the surface.

(*Bot.*) Applied to those parts of plants which are covered with bodies spreading at right angles, or at a greater angle, from the surface which bears them, or being so arranged, as the leaves of some mosses.

Squar'rulose, *a.* (*Bot.*) Slightly squarrose.

Squash, (*skwosh,*) *v. a.* To crush; to beat or press into pulp or flatness.

—*n.* Something soft and easily crushed. — Something unripe or soft. — A sudden fall of a heavy, soft body.

(*Bot.*) See CUCURBITA.

Squash'-bug, *n.* (*Zoöl.*) See COREIDÆ.

Squash'er, *n.* A person who, or that which, squashes.

Squash'y, *adv.* Like a squash; also, muddy.

Squat, (*skwot.*) *v. n.* [It. *acquattare.*] To sit down upon the hams or heels, as a human being. — To sit close to the ground; to cower, as an animal; to stoop or lie close to escape observation, as a partridge or rabbit.

—*a.* Sitting on the hands or heels; sitting close to the ground; cowering; short and thick, like the figure of an animal squatting.

—*n.* The posture of one who sits on his hams, or close to the ground.

Squat'ter, *n.* One who squats or sits close. — One who settles on the public land without any legal authority. (U. States.)

Squat'terville, in *California*, a town of Contra Costa co.

Squaw, (*skwaw,*) *n.* The name given by N. American Indians to a woman; — more especially to a wife.

Squaw Grove, in *Illinois*, a post-township of De Kalb co.

Squeak, (*skwēk,*) *v. n.* [Ger. *quicken.*] To utter a sharp, shrill cry, usually of short duration; to cry with an acute tone, as an animal, or to make a sharp noise, as a pipe or quill, a wheel, a door, and the like. — To break silence or secrecy for fear or pain; to speak.

—*n.* A sharp, shrill sound, suddenly uttered.

Squeak'er, *n.* One who, or that which, squeaks. — A young pigeon.

Squeak'ing, *a.* Crying with a sharp voice; making a sharp sound: as, a *squeaking* wheel.

Squeal, (*skwēl,*) *v. n.* [This is simply a different orthography of *squall.*] To cry with a sharp, shrill voice; — used of animals only, and chiefly of swine.

Squeal'ing, *a.* Uttering a sharp, shrill sound or voice.

Squeam'ish, *a.* [Probably corrupted from *qualmish.* See QUALM.] Having a stomach that is easily turned, or that readily nauseates at anything; nice to excess in taste; easily disgusted; apt to be offended at trifling improprieties; fastidious; dainty; scrupulous.

Squeam'ishly, *adv.* In a fastidious manner; with too much niceness.

Squeam'ishness, *n.* State or quality of being squeamish; excessive niceness; vicious delicacy of taste; fastidiousness; excessive scrupulousness.

Squeez'able, *a.* That may be squeezed.

Squeeze, (*skwēz,*) *v. a.* [A. S. *cwysan.*] To crush; to press; to compress; to press between two bodies; to press closely; to oppress with hardships, burdens, and taxes; to harass; to embrace closely; to hug; to force between close bodies; to compel or cause to pass.

—*v. n.* To press; to urge one's way; to pass by pressing; to crowd.

—*n.* Pressure; compression between bodies; a close hug or embrace.

Squeez'ing, *n.* Act of squeezing or of pressing; compression, oppression; that which is forced out by pressure; dregs.

Squeteague, (*skwe-tēg'.*) *n.* (*Zoöl.*) *Labrus squeteague*, a fish of the genus *Labrus*, q. v., common in Long Island Sound.

Squib, (*skwib,*) *n.* [It. *schioppo*, a musket, a sort of gun; *scoppio*, a crackling noise.] A little pipe or hollow cylinder of paper, filled with powder or combustible matter and sent into the air, burning and bursting with a crack; a cracker. — A sarcastic speech, or short, censorious writing published; a petty lampoon; a diatribe.

—*v. n.* To throw squibs; to utter sarcastic or severe reflections; to contend in petty dispute.

Squid, *n.* (*Zoöl.*) The common name of the family *Teuthidæ* (genus *Loligo* of Linnæus), comprising cephalopodous fishes with an elongated body, fins short, broad, and mostly terminal; the internal shell, or *gladius*, consisting of three parts — a shaft and two lateral expansions. Their ink-bag is well developed, and its secretion jet black. They are sometimes called *Calansaries*, from their internal pen-like bone and ink-bag, and the general cylindrical form like an ancient escritoire.

Squier, EPHRAIM GEORGE, an American author and archæologist, b. in Bethlehem, Albany co., N.Y., 1821. Having for some time acted as a teacher in a school and studied engineering, he went to Albany in 1840, and began writing for the press. In 1844, he removed to Chillicothe, Ohio, to assume the editorship of the *Scioto Gazette*. His attention being attracted to the antiquities of the Scioto Valley, he made an exploration of similar monuments through the Mississippi Valley, an account of which was published in 1848, forming the first volume of the *Smithsonian Contributions to Knowledge*. He made similar explorations in New York and Connecticut; and on being appointed *chargé d'affaires* to Guatemala and other states of Central America, he used his official position as a means of making extensive geographical and archæological explorations in those interesting regions. On visiting Europe in 1851, he received the gold medal of the French Geographical Society, and was made a member of other learned societies. Returning to America (1853), he surveyed a railway route through Honduras, and drew up the treaty between that country and England for the retrocession of the Bay Islands. In addition to the afore-mentioned works, *S.* has written *Nicaragua, its People, Scenery, Ancient Monuments, and Proposed Inter-Oceanic Canal*, and *The Serpent Symbol, or Worship of the Reciprocal Principles of Nature in America* (1852); *Notes on Central America, &c.* (1854); *Waikna, or Adventures on the Mosquito Shore*, under the *nom de plume* of "Samuel A. Bard" (1855); *Question Anglo-Américaine, &c.*, at Paris (1856); *The States of Central America, &c.* (1857); *Report of the Survey of the Inter-Oceanic Railway* (1859); *Translation, with Notes, of the Letter of Don Diego de Palacio* (1571) *to the Crown of Spain, on the Provinces of Guatemala, San Salvador, &c.*, and *Monograph of Authors who have written on the Aboriginal Languages of Central America* (1860); and *Tropical Fibers and their Economic Extraction* (1861); *Peru* (1877). Many of his works have been translated into French, Spanish, and German. Died April 17, 1888.

Squill, (*skwil,*) *n.* [Fr. *squille*; Lat. *squilla, scilla.*] (*Bot.*) See SCILLA.

(*Zoöl.*) The common name of the genus *Squilla*, or Mantis Crabs, composed of crustacea, belongs to the division *Stomapods*. Its carapace only covers the anterior half of the thorax, the hinder being formed of rings like those of the abdomen. It is provided with enormous claws, terminating in a sharp hook, the last joint furnished with 6 sharp projecting spines, and the preceding joint with 3, and so hollowed as to render this claw a most efficient instrument of prehension, bearing a considerable resemblance to the fore-legs of the orthopterous genus *Mantis*; hence the more popular name applied to the species of this genus.

Fig. 2421. — SPOTTED MANTIS-CRAB, (*Squilla maculata.*)

Squint, (*skwint,*) *a.* [Du. *schuin*, oblique, *schuinte*, declivity.] Wry; oblique; looking obliquely; not having the optic axes of both eyes coincident.

—*n.* Act or habit of squinting; an oblique look.

(*Arch.*) A narrow aperture cut in the walls of churches (generally about 2 feet wide), to enable persons standing in the aisles to see the high altar. These openings are always in the direction of an altar.

—*v. n.* To see obliquely; to look obliquely, or with the eyes differently directed; to have the axes of the eyes not coincident; to slope. — To deviate from a true line.

Fig. 2422. — SQUINT, (Mayor's Chapel, Bristol.)

Squint'er, *n.* One who squints.

Squint'-eyed, (*-id.*) *a.* Having eyes that squint; afflicted with strabismus.

Squint'ing, *n.* [Lat. *strabismus*] (*Surg.*) A disease of the eyes, in which they do not move in harmony with each other; hence the optic axes are not parallel, and a disturbance of vision is the consequence. *S.* may be confined to one eye, or it may affect both, and it may be in any direction. If the sight of both eyes is equally good, or nearly so, then all objects are seen double; but if the sight of one is much better than that of the other, the mind only attends to the more vivid impression, and disregards the weaker. *S.* is owing to some affection of the nerves or muscles of the eye. In most cases it admits of cure by the operation of dividing the muscle by which the distortion is produced.

—The act or habit of looking squint.

Squint'ingly, *adv.* With a squint look; by side glances.

Squire, (*skwīr,*) *n.* An abbreviated term for ESQUIRE, *q. v.*

Squireen', *n.* In Ireland, a petty squire; a gentleman of small estate.

Squirm, *v. n.* To wriggle or twist about, as an eel; to writhe.

Squirrel, (*skwir'el,*) *n.* [Gr. *skiouros*; Fr. *ecureuil.*] (*Zoöl.*) See SCIURIDÆ.

Squirt, (*skwert.*) *v. a.* [O. Fr. *esquarter*, to scatter.] To eject or drive out of a narrow pipe or orifice in a stream.

—*v. n.* To throw out words: to let fly.

—*n.* An instrument with which a liquid is ejected in a stream with force; a syringe; also, a small quick stream.

Squirt'er, *n.* One who squirts.

S.S.E. Abbreviation of *south-south-east.*

S.S.W. Abbreviation of *south-south-west.*

St. Abbreviation of *saint* and *street.*

Staats'burg, in *New York*, a post-village of Dutchess co., 60 m. S. of Albany.

Stab, *n.* [A. S. *staf.*] The thrust of a pointed weapon; an injury given in the dark; a sly mischief.

—*v. a.* To pierce with a pointed weapon; to wound mischievously or mortally; to kill by the thrust of a pointed instrument; to injure secretly or by malicious falsehood or slander.

—*v. n.* To give a stab or wound with a pointed weapon; to give a mortal wound.

Stabat-Ma'ter, *n.* [Lat., the mother stood.] (*Mus.*) This celebrated Latin hymn, performed in the Roman churches during Holy Week, was written by a monk named Jacopone in the 14th century. It has been put to music by nearly all the greatest composers.

Stab'ber, *n.* One who stabs; an assassin.

Stab'bing, *n.* Act of piercing with a pointed weapon; act of wounding or killing with a pointed instrument.

Stabil'ity, *n.* [Fr. *stabilité*; Lat. *stabilitas*, from *stabilis.*] State or quality of being stable; firmness; steadiness; immovability; fixedness; strength of character; strength of resolution or purpose; constancy; firmness of mind.

Sta'ble, *a.* [Fr.; Lat. *stabilis*, from *sto*, to stand.] That stands; firm; fast; steady; firmly established; not to be easily moved, shaken, or overthrown; constant; firm in purpose or resolution; not easily diverted from a purpose; not fickle or wavering; strong; durable; not subject to be overthrown or changed.

—*n.* [Fr. *étable*; L. Fr. *estable*; Lat. *stabutum*, from *sto.*] A stall; an abode for animals; a house, shed, or apartment for beasts, especially horses, to lodge and feed in.

—*v. a.* To put or keep in a stable.

—*v. n.* To dwell or lodge in a stable; to dwell in an inclosed place; to kennel.

Sta'ble-boy, Sta'ble-man, *n.* One who attends in the stable.

Sta'bleness, *n.* The state or quality of being stable.

Sta'ble-room, *n.* Room or place for stabling cattle.

Sta'bling, *n.* The act of keeping cattle in a stable. — A house, shed, or room for keeping horses and cattle.

Sta'bly, *adv.* Firmly; fixedly; steadily.

Stacca'to, *a.* [It., separated.] (*Mus.*) A term denoting that the notes to which it is affixed are to be detached in a marked way from each other, much like *spiccato.*

Stack, *n.* [Sw.; Dan. *stak*; Ir. *staca, sticca*; O. Ger. *stacchan*, to crowd or press together.] A large conical heap or pile of hay, grain, or straw, sometimes covered with thatch. — A large pile of wood. — A number of funnels or chimneys standing together. — The chimney of a steam-vessel or locomotive; as, a smoke-*stack.*

Stack of arms. (*Mil.*) A number of muskets or rifles placed together with their breeches on the ground, and the bayonets crossing each other, so as to form a conical pile. — *Simmonds.*

—*v. a.* To lay, as grain or hay, in a conical or other pile. —To pile wood, poles, arms, &c.

Stack'et, *n.* A stockade.

Stack'-guard, *n.* A protection or covering for a stack.

Stackhousia'ceæ, *n. pl.* (*Bot.*) A small order of plants, alliance *Rhannales.* — DIAG. Monopetalous flowers, and episepalous stamens. It consists of two genera of herbaceous plants native of Tasmania, the properties of which have not been studied.

Stack'ing-band, Stack'ing-belt, *n.* A rope used for binding straw or thatch upon a stack.

Stack'-yard, *n.* A yard for stacks of hay, unthreshed corn, &c.

Stac'te, *n.* [Lat. *stacte, stacta*; Gr. *stakte*, from *stazlin*, to drop.] The gum that distils from the tree that produces myrrh.

Staddle, (*stad'dl.*) *n.* [A. S. *stathel*, from *standen*, to stand.] Anything which serves for support; the frame or support of a stack of hay or grain. — A young tree left standing or uncut, when others are cut down.

—*v. a.* To furnish with staddles, or to leave the staddles, when a wood is cut down. (R.)

Stad'dle-roof, *n.* The covering of a stack.

Stade, *n.* A landing or shipping place.

Stade, a fortified place of Hanover, on the Schwinge, 22 m. from Hamburg; *pop.* 7,000.

Sta'dium, *n.*; *pl.* STADIA. (*Antiq.*) A measure of length in use among the ancient Greeks and other nations. It was equal to 600 Greek or 625 Roman feet, or to 125 Roman paces. Hence the *S.* contained 606 ft. 9 inches, English.

Stadtholder, (*stat'-.*) *n.* [Du. *stadhouder*, from *stad*, a city, and *houder*, a holder.] Formerly the chief magis-

trate of the United Provinces of Holland; — a title which, in 1814, was exchanged for that of king.

Stadt'holderate, Stadt'holdership, *n.* The office or dignity of a stadtholder.

Sta'ël-Holstein, ANNE LOUISE GERMAINE, BARONESS DE, a French authoress, b. in Paris in 1766, where her father, M. Necker, afterwards the celebrated minister of France, was then a banker's clerk. At the age of twenty she became the wife of Baron De Staël-Holstein, the Swedish ambassador at Paris; and the strong literary turn which she had already exhibited, now developed itself still further, and produced, in the course of her life, a series of works embracing almost every sort of composition in prose or verse. At first sanguine in the cause of the Revolution, she soon became warmly interested in the sufferings of its victims, especially the Queen, whom she had the courage to defend in print. In 1800 she began the series of her works on speculative philosophy, by publishing her essay *De La Littérature, considérée dans ses rapports avec les Institutions Sociales*; and her very equivocal novel *Delphine* appeared in 1802. In that year her husband died. Madame de Staël was much too independent to be acceptable to Napoleon, who banished her from Paris, and afterwards ordered her to confine herself to her château at Coppet, on the Lake of Geneva. From 1803 till 1815 she travelled much in Germany, Italy, and England, and visited Sweden and Russia. Her *Corinne*, in form a novel, and the most eloquent of all tributes to the antiquities and scenery of Italy, appeared in 1807. Her most ambitious work, *De L'Allemagne*, printed at Paris in 1810, was seized by the police, and only published in London some years later. After the second restoration she lived chiefly in Switzerland, where she contracted a secret marriage with M. De Rocca. She died in 1817. After her death, useful contributions were made to the history of the times, by the publication of her *Considérations sur la Révolution Française*, and her *Dix Années d'Exil*.

Staff, *n.*; *pl.* STAVES, or STAFFS. [A. S. *staf, stæf*; Dan. *stav*; Lat. *stipes*, a branch of a tree; Gr. *stupos*.] A stick carried in the hand for support or defence by a person walking; a stick or club used as a weapon. — A long piece of wood; a stick; the long handle of an instrument; a pole or stick used for many purposes. — An ensign of authority; a badge of office. — The round of a ladder. (a.) — A pole erected in a ship to hoist and display a flag.

(*Mus.*) The five lines and the spaces on which music is written.

(*Mil.* and *Nav.*) The body of naval or military officers intrusted with the direction of the several departments of an army or navy. — Also, the establishment of officers in various departments attached to a commander-in-chief, or general officer in the field.

To have or *keep the staff in one's own hands.* To retain possession of one's property.

Staff, *n.*; *pl.* STAVES. A stanza; a series of verses regularly disposed, so as that, when the series is concluded, the same order begins again.

Staff-angle, *n.* (*Arch.*) A square rod of wood or cement, standing flush with the finished plastering of the wall on either side, at the external angles of the plastering of the rooms, in order to oppose the tendency of the usual rendering to chip.

Stachys, (*stā'kis,*) *n.* (*Bot.*) A genus of plants, order *Lamiaceæ*, containing a great number of species, mostly European, having a ten-ribbed calyx, with five nearly equal teeth, the upper lip of the corolla entire, and the lower lip three-lobed. Several species are natives of the U. States. *S. aspera* is very common in shady places, a coarse herbaceous plant, sometimes called *Hedge Nettle*, or *Wound-wort*, with stem 2–3 feet high, ovate heart-shaped leaves on long stalks, whorls of purple flowers, and unpleasant smell.

Staffa, a small Basaltic island, in the W. of Scotland, one of the inner Hebrides, in Argyleshire, 15 m. W. of the island of Mull. See BASALT, and Figs. 298, 299.

Stafford, a noble family belonging to the Norman aristocracy of England. The principal historical names are: HUMPHREY, a partisan of Henry VI., created Duke of Buckingham, 1465. — HENRY, his grandson, a favorite of Richard III., beheaded 1483. — EDWARD, beheaded on an accusation of treason by Henry VIII., 1521.

Stafford, an inland county of England, nearly in the centre of the kingdom, bounded N. by Cheshire and part of Derbyshire, E. by Derbyshire and Warwickshire, and between these, for a short way, by Leicestershire, S. by Worcestershire, and W. by Shropshire and Cheshire. *Area*, 1,184 sq. m. The most elevated portion of the co. is the N., where wild moorlands in long ridges, separated by deeply cut valleys, extend from N.W. to S.E., and subside as they near the valley of the Trent. The surface is low or undulating in the midland regions, but becomes hilly again in the S. New red-sandstone occupies the whole of the central parts; the Potteries' coal-field occupies the N., and the Dudley coal-field, remarkable also for its abundant and rich iron-ores, occupies the south. The Trent is the chief river. The climate is cold and humid, and though three-fourths of the area are arable, much of the soil is cold and clayey, and agriculture is in a backward condition. The Potteries lie around Stoke, Burslem, and Hanley, and here most extensive manufactures of china and earthenware are carried on. In the S., iron is very largely manufactured in all its branches, from mining to the production of articles in iron and steel. *Pop.* (1897) 1,150,140.

STAFFORD, the cap. of the above co., stands on the Sow, 25 m. N. N. W. of Birmingham. *Manuf.* Boots and shoes. *Pop.* (1897) 23,720.

Stafford, in *Connecticut*, a post-town of Tolland co., 28 m. N. E. of Hartford, containing the post-villages of Stafford, Staffordville, West Stafford, and Stafford Springs. The latter, situated on the Willimantic River, is celebrated throughout the United States for the excellent medical properties of its chalybeate springs.

Staf'ford, in *Indiana*, a township of De Kalb co.—A township of Greene co.

Stafford, in *New Jersey*, a township of Ocean co., 53 m. S.E. of Trenton.

Stafford, in *New York*, a post-village and township of Genesee co., 6 m. E. of Batavia.

Stafford, in *Ohio*, a post-village of Monroe co., abt. 25 m. N.N.E. of Marietta.

Stafford, in *Virginia*, an E. co., bordering on the Potomac; *area*, 250 sq. m. *Rivers.* Rappahannock and Potomac, and Aquia and Accokeek creeks. *Surface*, hilly; *soil*, fertile along the Potomac, in other parts sandy. *Min.* Granite, freestone, and some gold. *Cap.* Stafford Court-house.

Stafford Court'-house, in *Virginia*, a post-village, cap. of Stafford co., 76 m. N. of Richmond.

Stafford Village, in *New York*, a post-village of Genesee co.

Staff'-tree, *n.* (*Bot.*) *Celastrus scandens.* See CELASTRACEÆ.

Stag, *n.* [A. S. *stician.*] (*Zoöl.*) See DEER.

(*Com.*) Among stockholders, an outside, irregular jobber or broker in stocks, shares, &c. — A getter up of sham companies, or one who tries fraudulently to obtain shares.

Stag'-beetle, *n.* (*Zoöl.*) See LUCANIDÆ.

Stag'-boar, *n.* (*Zoöl.*) See BABYROUSSA.

Stag'-dance, *n.* A dance in which men only are engaged. (U. S.)

Stage, *n.* [Fr. *étage*; A. S. *stigan*; Ger. *steigen*, from Gr. *steicho*, to go up, to mount.] A floor or platform of any kind elevated above the ground or common surface, as for an exhibition of something to public view. — The floor on which theatrical performances are exhibited; the theatre; the place of scenic entertainments; theatrical representations. — A place where anything is publicly exhibited; a place of action or performance. — A place of rest on a journey, or where a relay of horses is taken. — The distance between two places of rest on a road. — A single step; a degree of advance; degree of progression. — A large vehicle running between stations, for the accommodation of the public.

Stage'-box, *n.* A box or inclosure near the stage in a theatre.

Stage'-coach, *n.* A coach that passes and repasses regularly on certain days, for the accommodation of passengers.

Stage'-door, *n.* The private door of the theatre, used by actors, employés, &c.

Stage'-lights, *n. pl.* The lights in the front of the stage in a theatre, usually called *foot-lights.*

Stage'-play, *n.* A theatrical entertainment.

Stage'-player, *n.* One who publicly represents characters on the stage; an actor.

Stag'er, *n.* A player. (R.) — One who has long acted on the stage of life; a practitioner; a person of experience.

Stage'-evil, *n.* (*Far.*) A kind of palsy in the jaw of a horse.

Stage'-wagon, *n.* A wagon running between stations for the conveyance of passengers or goods.

Stag'ger, *v. n.* [Belg. *staggeren.*] To reel; to totter; to vacillate; to move to one side and the other in standing or walking; not to stand or walk with steadiness; to fail; to cease to stand firm; to begin to give way; to hesitate; to begin to doubt and waver in purpose; to become less confident or determined.

—*v. a.* To cause to reel; to cause to doubt and waver; to make to hesitate; to make less steady or confident; to shock.

Stag'gering, *a.* Causing to reel or to waver; reeling; vacillating.

—*n.* Act of reeling.

Stag'geringly, *adv.* In a staggering or reeling manner.

Stag'gers, *n. pl.* (*Far.*) A popular term applied to several diseases of horses. *Mad* or *sleepy staggers* is inflammation of the brain, a rare but fatal complaint, marked by high fever, a staggering gait, violent convulsive struggling, usually terminating in stupor, and treated by bleeding, full doses of physic, and cold water applied to the head. *Grass* or *stomach staggers* is acute indigestion, usually occasioned by overloading the stomach and bowels with tough, hard grass, vetches, or clover, a full meal of wheat, or other indigestible food. It is most common in summer and autumn, is indicated by impaired appetite, distended abdomen, dull aspect, unsteady gait, and is remedied by full doses of purgative medicine, such as six drachms of aloes and a drachm of calomel rubbed down together, and given in a quart of thin, well-boiled gruel. Frequent clysters, with hand-rubbing and hot water to the belly, are likewise useful. Where the dulness increases, stimulants should be freely given.

Stag'hound, *n.* A hound used in hunting the stag or deer.

Stag'ing, *n.* The management of, or the act of travelling in, stage-coaches. — A stage or platform for support, as of workmen; a scaffolding. (U. S.)

Stag'nancy, *n.* State of being stagnant; stagnation.

Stag'nant, *a.* [Fr.; Lat. *stagnans*, from *stagno.*] Standing; not flowing; not running in a current or stream; motionless; still; not agitated; not active; dull; not brisk.

Stag'nantly, *adv.* In a still, motionless, inactive manner.

Stag'nate, *v. n.* [Lat. *stagno, stagnatus*, from *stagnum*, a place of standing water.] To stand; to stand still; to cease to flow; to be motionless; to stop; to rest; to cease to move; not to be agitated; to cease to be brisk or active; to become dull.

Stagna'tion, *n.* [Fr.] Act of stagnating; state of being stagnant; the cessation of flowing or circulation of a fluid, or the state of being without flow or circulation; the state of being motionless; the cessation of action or of brisk action; the state of being dull.

Stahl, (*stāl,*) GEORG ERNST, a German chemist and physiologist, b. at Anspach, 1660. He was educated at Jena, where he took his doctor's degree in 1683; but, upon the establishment of the University of Halle, in 1694, he was appointed Professor of Anatomy and Chemistry there. Acquiring great reputation in this office, he was, in 1716, invited to Berlin, and made counsellor of the court and physician to the king. Stahl was more eminent in chemistry than in medicine, because he was less fanciful. He made many important discoveries, the chief being his theory of phlogiston, which, although erroneous in itself, led to the discovery of great truths in chemistry. He composed a number of learned works in Latin upon medical science and upon chemistry. His phlogistic theory, which held its ground for nearly a century, was given in a work entitled *Zymotechnia Fundamentalis.* D. 1734.

Stahlstown, in *Pennsylvania*, a post-village of Westmoreland co., 50 m. S.E. of Pittsburg.

Staid, *a.* Sober; grave; steady; composed; regular; sedate.

Staid'ly, *adv.* Calmly; soberly.

Staid'ness, *n.* The state or condition of being staid; sobriety; gravity; steadiness; regularity; constancy; firmness; stability.

Stain, *v. a.* To discolor by the application of foreign matter; to make foul; to spot. — To tinge with a different color; to dye. — To impress with figures, in colors different from the ground. — To mark with guilt or infamy; to bring reproach on; to disgrace.

Stained glass. See GLASS.

—*n.* A discoloration from foreign matter; a blot; a spot. — A natural spot of a color different from the ground. — Taint of guilt; pollution; tarnish. — Cause of reproach; infamy; shame.

Stain'er, *n.* One who stains, blots, or tarnishes; a dyer.

Stain'less, *a.* Free from stains or spots. — Free from the reproach of guilt; free from sin.

Stair, *n.* [A. S. *stæger*; Dan. *stige*; Sw. *stege.*] A stone, or a frame of boards or planks, by which a person rises one step; a flight of steps.

—*pl.* A series of steps by which persons ascend to a higher story in a building.

Below stairs, in the lower portion or basement of a dwelling.—*A flight of stairs, a pair of stairs*, the stairs from one story to another. — *Stair carpet*, the carpet which covers a flight of stairs, or intended for that purpose. — *Up-stairs*, in the upper or higher rooms of a house.

Staircase, (*stair'kās,*) *n.* (*Arch.*) A term applied to the whole set of stairs, with the walls supporting the steps leading from one story to another. The same staircase frequently conducts to the top of the building, and thus consists of as many stories as the edifice itself. —The part of a building which contains the stairs.

Stair'-head, *n.* The top or upper part of a staircase.

Stair'-rod, *n.* A metallic rod used to fasten or hold stair-carpet on a stair.

Stair'way, *n.* A staircase.

Stair way Brook, in *Pennsylvania*, a village of Wayne co., 107 m. N.W. of New York city.

Staith, *n.* [A. S. *stādh.*] A line of rails on a stage or platform, generally near navigable waters, from which vessels are loaded.

Stake, *n.* [A. S. *stace*; Du. *staak.*] A small piece of wood or timber, sharpened at one end, set or fixed in the ground, or prepared for setting, as a support to something; a piece of long, rough wood. — The piece of timber to which a martyr was fastened when about to be burned; — hence, figuratively, martyrdom. — That which is pledged or wagered. — A small anvil to straighten cold iron, or to cut or punch upon with a cold chisel or punch.

(*Ship-building.*) One of the regular ranges or planks on the bottom and sides of a ship, reaching from the stem to the stern.

At stake, hazarded; in danger; at risk.

Stake and rice, a fence formed by stakes driven into the ground, and closely interwoven with branches and twigs.

—*v. a.* To fasten, support, or defend with stakes. — To mark the limits of by stakes.—To wager; to pledge; to put at hazard upon the issue of competition, or upon a future contingency. — To pierce with a stake. (R.)

Stake'-head, *n.* (*Rope-making.*) A stake with wooden pine in the upper side, to keep strands apart.

Stake'-holder, *n.* One with whom the stakes are deposited when a wager is laid.

Stalac'tic, Stalac'tical, *a.* Relating to, or resembling, stalactite.

Stalac'tiform, *a.* Resembling a stalactite.

Stalac'tite, *n.* [Gr. *stalaktos*, trickling or dropping, from *stalasso*, or *stazo*, to let fall drop by drop.] (*Min.*) A conical or cylindrical concretion of carbonate of lime attached to the roofs of calcareous caverns, and formed by the gradual dropping of water holding the carbonate in solution.

Stalactit'ic, Stalactit'ical, *a.* [Gr. *stalaktikos.*] Having the character of a stalactite; having the form of an icicle.

Stalactit'iform, *a.* Stalactiform.

Stalag'mite, *n.* Stalactical formations of carbonate of lime found upon the floors of calcareous caverns, and caused by the evaporation of water falleu from the surface.

Stalagmit'ic, Stalagmit'ical, *a.* Having the form of stalagmites.

Stalagmit'ically, *adv.* In the manner or form of stalagmites.

Stal'der, *n.* A frame to set casks on.

Stale, *a.* [A. S. *steal, stal,* a place.] Worn out by use; common; trite; having lost its uovelty or power of pleasing. —Old; worn out; decayed.—Vapid or tasteless from age; having lost its life, spirit, and flavor from being kept too loug.—Not fresh; not newly made, as bread.

S. demand, a claim which has been for a long time undemanded; as, for example, when there has beeu a delay of 12 years unexplained.

—*n.* The handle of any thing, as of a broom.

—*v. n.* To make water; to discharge uriue, as horses aud cattle.

Stale'-mate, *n.* (*Chess-playing.*) The position of a king when he is not in check, but canuot he moved without being checked.

Stale'ness, *n.* State of being stale.

Staleybridge, (*stal'le-bridj,*) a market-town and municipal borough of England, in Lancashire and Cheshire, 6 m. from Stockport. *Manuf.* Cotton goods. *Pop.* 28,576.

Stalk, (*stawk,*) *n.* [A. S. *stel, stele;* Ger. *stiel;* Dan. *stilk.*] The stem or axis of a plant. — The pedicel of a flower, or the peduncle that supports the fructification of a plant. — The stem of a quill.

(*Arch.*) An ornament in the Corinthian capital resembling a stalk. — A chimney carried up to a great height above the roofs of the buildings with which it is connected.

—*v. n.* To walk with high and proud steps; — usually implying the affectation of dignity. — To steal or creep along; to walk softly and warily. — To walk behind a stalking horse, or behind a cover.

—*v. a.* To approach by stealth, or under cover, as deer.

Stalked, (*stawkt,*) *a.* Having a stalk.

Stalker, (*stawk'er,*) *n.* One who walks with a proud step.

Stalk'ing-horse, *n.* A horse, real or factitious, behind which a fowler conceals himself from the sight of the game which he is aiming to kill. — Hence, a mask; a pretence.

Stalk'less, *a.* Without a atalk.

Stalk'y, *a.* Hard as a stalk; resembling a stalk.

Stall, (*stawl,*) *n.* [A. S. *steal, stæl;* Du. *stal;* Sw. *stall.*] A stand or place where a horse or an ox is kept and fed; the division of a stable, or the apartment for one horse or ox. — A stable; a place for cattle. — A bench, form, or frame of shelves in the open air, where anything is exposed for sale; a small house or shed in which an occupation is carried on. — The seat of an ecclesiastical dignitary in the choir of a church.

—*v. a.* To put into a stall or stable, or to keep in a stable. —To set or fix into mire, so as to be unable to proceed.

—*v. n.* To kennel. — To be set or fixed, as in mire.

Stall'age, *n.* The right of erecting stalls in pairs; also, rent paid for a stall.

Stall'-feed, *v. a.* To feed in a stall, or on dry fodder.

Stallion, (*stal'yun,*) *n.* [Fr. *élalon;* It. *stallone.*] A horse kept for mares; a stone horse; a seed horse; a male horse not castrated.

Stal'lon, *n.* A scion; a cutting, as of a plant.

Stal'wart, Stal'worth, *a.* Strong; robust; brave.

Sta'men, *n.; pl.* Stamens, or Stamina. [Lat., from Gr. *stemōn,* from *histemi,* to stand.] The warp in the upright loom of the ancients.—Texture; foundation; basis.

—*pl.* The fixed, firm part of a body, which supports it or gives it its strength and solidity; whatever constitutes the principal strength or support of anything.

(*Bot.*) The male reproductive organ of a flowering plant. It consists essentially of a case or bag, called the *anlher,* containing a powdery substance, called the *pollen,* which is discharged at certain periods through

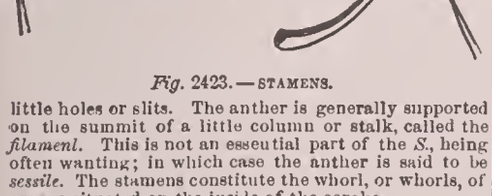


Fig. 2423. — STAMENS.

little holes or slits. The anther is generally supported on the summit of a little column or stalk, called the *filament.* This is not an essential part of the *S.,* being often wanting; in which case the anther is said to be *sessile.* The stamens constitute the whorl, or whorls, of organs situated on the inside of the corolla.

Stamened, (*sta'mend,*) *a.* Furnished with stamens.

Stam'ford, a town of England, in Lincolnshire, on the Welland, 10 m. from Peterborough; *pop.* 9,772.

Stam'ford, in Upper Canada, a village and township of Welland county, about 3 miles N.W. of Niagara Falls.

Stamford, in *Connecticut,* a post-borough and township of Fairfield co., at the entrance of Mill River into Long Island Sound, 36 m. N.E. of New York. It is a favorite residence and summer resort of many opulent New Yorkers, and the surrounding are embellished with many handsome dwellings. *Manuf.* locks, woollens, &c.

Stamford, in *New York,* a post-village and township of Delaware co., abt. 60 m. W.S.W. of Albany.

Stam'ford, in *Vermont,* a post-township of Bennington co., 116 m. S.W. of Montpelier.

Sta'min, *n.* A slight sort of woollen cloth.

Stami'na, *n. pl.* of Stamen, *q. v.*

Stam'inal, *a.* Belonging to stamens.

Stam'inate, *a.* (*Bot.*) Consisting of, or furnished with, stamens.

—*v. a.* To endue with stamina or first principles.

Stamin'eal, Stamin'eous, *a.* Belonging to, or having, stamens.

Staminif'erous, *a.* Bearing, or having, stamens.

Stam'inode, Stamino'dium, *n.* (*Bot.*) An abortive stamen, or an organ resembling an abortive stamen.

Stam'mel, *n.* A species of red color paler than scarlet.

—*a.* Of a pale, reddish color.

Stam'mer, *v. n.* [A. S. *stamer;* Du. *stameraar,* a stammerer.] To stop in uttering syllables or words; to stutter; to hesitate or falter in speaking; and hence, to speak with stops and difficulty.

—*v. a.* To utter or pronounce with hesitation or difficulty.

—*n.* The act of one who stammers.

Stam'merer, *n.* One who stutters or hesitates in speaking.

Stam'mering, *n.* A term commouly used in a somewhat wide and indefinite aeuse to signify all kinds of defective utterance. Strictly, however, it denotes a difficulty or inability to enunciate certain elementary sounds; while stuttering is an inability fluently to enunciate words and sentences. The former may be regarded as mainly an organic or aymptomatic affection; the latter chiefly an idiopathic or fuuctional one. Defective utterance may arise from malformation of the organs of speech, inflammation or enlargement of the tonsils, or such like, or from some general or local affection of the nerves of the vocal organs. Frequently, also, it is the result of bad habit or imitation. In stuttering, the stoppage generally takes place at the first syllable of a word, but sometimes it may be at the second or third. It is uot a little remarkable that most atuttcrers can sing without difficulty; the reason being that so frequent changes do not take place in tbo vocal organs. Hence we have an important means for tho cure of this intractable affliction. The stutterer should commence by giving leisurely and fully every word. To aid in this, some have recommended motions of the hands or feet to accompany each aound. In fact, the art of speaking has to be really learned from the beginning, from syllables up to words and aentences. Cheerful society, healthy mental occupation, athletic sports, and attention to the general laws of health, are of the utmost importance in such cases. As a general rule, everything that increases the control of the miud over the muscles improves the speech, and *vice versa.*

Stam'meringly, *adv.* In a stammering manner.

Stamp, *v. a.* [Du. *stampen;* Ger. *stämpeln,* to mark with a stamp; It. *stampa,* a stamp, impression.] To striko or beat forcibly, as with the bottom of the foot, or by thrusting the foot downward. — To impress with some mark or figure; to impress; to impriut; to fix deeply; to fix, as a mark, by impressing it; to make by impressing a mark; to coin; to miut; to form; to cut into various forms with a stamp. — To crush by the downward actiou of a kind of pestle, as ore in a stamping-mill.

—*v. n.* To strike the foot forcibly downward.

—*n.* Any instrument for making impressions on other bodies. — A mark imprinted; an impressiou; that which is marked. — A thing stamped; a picture cut in wood or metal, or made by iuipression; a cut; a plate. —A mark or seal set upon paper or parchment in regard to things chargeable with duty to government, as evidence that the duty is paid.—An instrument for cutting out materials, as paper, leather, &c., into various forms by a downward pressure.—A character of reputation, good or bad, fixed on anything. — Authority; current value derived from suffrage or attestation; make; cast; form; character.

(*Law.*) An impression made by order of the government on paper, which must be used in reducing certain contracts to writing, for the purpose of raising a revenue. A paper bearing an impression or device authorized by law, and adapted for attachment to some subject of duty or excise. The Internal Revenue acts of the United States of 1862, and subsequent years, required stamps to be affixed to a great variety of objects, under severe penalties in the way of fines, and also under penalty of invalidating written instruments and rendering them incapable of being produced in evidence. Only a few articles now require to be stamped.

Stampede', *n.* [Sp. *estampeda,* a crackling; It. *stampita;* L. Ger. and Du. *stampen.*] A sudden fright which sometimes seizes droves of cattle or horses, causing them to run for miles.—Any sudden fright caused by a panic.

—*v. a.* To drive away or disperse by reason of a sudden fright, as a herd of cattle.

Stamp'er, *n.* An instrument for pounding or stamping.—One who affixes a stamp or post-mark.

Stampers Creek, or **Stamper,** in *Indiana,* a township of Orange co.

Stamp'ing Ground, in *Kentucky,* a post-village of Scott co., 21 m. N.W. of Lexington.

Stamp'ing-machine, *n.* A machine or apparatus for stamping metals.

Stamp'ing-mill, *n.* (*Metal.*) A machine, consisting of several movable pillars of wood, for crushing or bruising ores.

Stamp'-note, *n.* A memorandum delivered by a shipper of goods to the searcher, which, when stamped by him, permits the goods to be sent by lighters to the ship, and is the captain's authority for receiving them on board.

Stan'ardsville, in *Virginia,* a post-village, cap. of Greene co., 92 m. N.W. of Richmond.

Stanch, *v. a.* [Fr. *étancher,* from L. Lat. *stancare.*] To stop or hinder from running, as blood.

—*v. n.* To stop, as blood; to cease to flow.

—*a.* Firm; steady; sound; strong and tight. — Firm in principle; constant and zealous; hsarty; — written also *staunch.*

Slanch-hound, one that follows the scent without error or remissness.

Stanch'el, *n.* Same as Stanchion, *q. v.*

Stanch'er, *n.* One who stops the flow of blood.

Stanchion, (*stan'shun,*) *n.* [O. Fr. *estanson,* from *estancher,* to stop, to stay.] (*Arch.*) A proper support; a piece of timber or iron in the form of a stake or post, used for a support.

(*Ship-building.*) A small pillar of wood or iron, used to prop and support the decks, awnings, &c.

Stanch'less, *a.* Not to be stopped; insatiable.

Stanch'ness, *n.* The state or quality of being stanch; soundness; firmness in principle; closeness of adherence.

Stand, *v. n.* [A. S. *standan;* O. Ger. *stantan;* Lat. *stare,* to stand.] To be upon the feet in an erect position, as a man, or a beast; not to sit, kneel, or lie. — To be erect, supported by the roots, as a plant. — To be on its foundation; not to be overthrown or demolished; — said of an edifice. — To be placed or situated; to have a certain position or location, as a town or city. — To stop; to halt; not to proceed; to be at a stationary point without progress or regression. — To be in a state of fixedness; hence, to continue; to endure; to make resistance to whatever tends to injure or impair. — To be fixed and steady; not to vacillate; to be in or to maintain a posture of resistance or defence. — To be placed with regard to order or rank. — To be in any particular atate; to be, emphatically expressed, that is, to be fixed or set. — To continue unchanged or valid; not to fail or become void.—To consist; to have its being and essence; to be in any state.—To maintain one's ground; not to fail; to be acquitted; to be safe. — To offer one's self as a candidate; to place one's self; to be placed. — To stagnate; not to flow. — To agree; to consist.

(*Naul.*) To hold a course at sea.

(*Law.*) To abide by a thing; to submit to a decision; to comply with an agreement; to have validity; as, the judgment must *stand.*

To sland against, to resist. — *To sland by,* to be present, without being an actor. — To support; to defend; not to desert. — To repose on; to rest in.

(*Naut.*) To he ready to proceed.

To stand fast, to be immovable or unshaken. — *To sland firmly on,* to be convinced of. — *To stand for,* to propose one's self as a candidate.—To maintain: to profess to support. — To represent; to be the substitute of. (*Naut.*) To direct the course toward. — *To stand from.* (*Naut.*) To shape the course from. — *To stand in hand,* to be at one's service. — *To stand off,* to keep at a distance. — To forbear friendship or intimacy. — Not to comply. — To appear protuberant or prominent; to have relief. — *To stand off and on.* (*Naut.*) To remain near a coast by sailing toward and from it alternately. — *To stand on,* to continue on the same course. —*To sland one in,* or *to stand out,* to be prominent or protuberant. — Not to comply; to secede; to hold resolution; to hold a post; not to yield a point. — *To stand to,* to ply; to persevere. — To remain fixed in a purpose. —To abide by a contract or an assertion.—To be consistent with. — Not to yield. — *To stand together,* to agree. — *To stand to sea.* (*Naut.*) To direct the course to the open sea. — *To stand under,* to undergo; to sustain. — *To stand up,* to erect one's self; to rise from sitting. — To arise in order to speak or act. — To make a party. — *To stand up for,* to defend; to support. — *To stand upon,* to concern; to interest.—To value; to take pride in.—To insist. — *To stand with,* to be in accordance with.

—*v. a.* To endure; to sustain; to bear. — To resist without yielding or receding.—To abide; to await; to suffer; to abide by.

To sland fire, to receive the discharge of fire-arms without yielding. — *To stand it,* to endure bravely. (Colloq.) — *To stand one's ground,* to maintain one's ground or position. — *To stand trial,* to sustain the trial of a cause.

—*n.* A place or post where one stands, or a place convenient for persons to remain in for any purpose — An erection or raised station for spectators, as at a horse-race. — A station where carriages, cabs, &c., wait to be hired. — Station; rank; post; standing. (R.) — The act of opposing. — A stop; a halt; act of stopping or standing. — Something on which a thing rests or is laid. — The place where a witness stands to testify in court. — A small table; a frame on which vessels of any kind may be laid; as, a *stand* for music. — A young tree usually reserved when the other trees are cut.

Stand of arms. (*Mil.*) A complete set of arms for one soldier. — *To be at a stand,* to be perplexed; to stop, owing to some difficulty or doubt. — *To make a stand,* to stop, for the purpose of opposing resistance to an enemy.

Stand'ard, *n.* [A. S. *standard,* from *standan,* to stand; Fr. *étendard.*] An ensign of war; a staff with a flag or colors, standing upright. — That which is established by sovereign power, as a rule or measure by which others are to be adjusted. — That which is established as a rule or model by the authority of public opinion, or by custom; criterion; test. — A standing tree or stem; a tree not supported or attached to the wall.

(*Coinage.*) The proportion of weight of fine metal and alloy established by authority.

(*Carp.*) An upright support, as the poles of a scaffold

(*Ship-building.*) A timber in the form of a knee, with one arm on the deck, and the other fayed to a ship's side.

Stand'ard, *n.* (*Bot.*) The vexillum, or upper part of a papilionaceous corolla (Fig. 65).
—*a.* Having a fixed value; as, a *standard* work.
Stand'ard-bearer, *n.* An officer of an army, company, or troop, who bears a standard; an ensign of infantry or a cornet of horse.
Stand'el, *n.* A tree of long standing.
Stand'er, *n.* One who, or that which, stands.
Stand'er-by, *n.* One present; a mere spectator.
stand'ing, *a.* Settled; established either by law or by custom, &c.; continually existing; permanent; not temporary. — Lasting; not transitory; not liable to fade or vanish. — Stagnant; not flowing, as water. — Fixed; not movable. — Remaining erect; not cut down.
Standing rigging. (*Naut.*) Stationary rigging, as shrouds, stays, backstays, &c.
—*n.* The state of being erect upon the feet; stand. — Continuance; duration or existence. — Possession of an office, character, or place. — Station; place to stand in. — Power to stand. — Condition in society; rank.
Stand'ing Stone, in *Pennsylvania*, a post-township of Bradford co., 7 m. E. of Towanda.
Standing Stone Creek, in *Pennsylvania*, enters the Juniata River from Huntingdon co.
Stand'ish, *n.* A stand or case for pen and ink.
Stand'ish, in *Maine*, a post-township of Cumberland co., 58 m. S.W. of Augusta.
Stand'-point, *n.* Place of standing; position; point of view; basis.
Stand'-still, *n.* A stop; act of standing erect.
Stan'ford, in *Indiana*, a post-village of Monroe co., 60 m. S.W. of Indianapolis.
Stanford, in *Kentucky*, a post-village, cap. of Lincoln co., 50 m. S. of Frankfort.
Stanford, in *New York*, an unimportant village of Dutchess co.
Stan'fordville, in *Georgia*, a village of Putnam co., 22 m. N.W. of Milledgeville.
Stanfordville, in *New York*, a post-vill. of Dutchess co., 20 m. N.E. of Poughkeepsie.
Stan'hope, Lady Hester, a very highly accomplished, but no less eccentric, English lady, whose remarkable life on Mount Lebanon may be numbered among the most interesting romances of biography. Born in 1766, she was daughter of Charles, Earl Stanhope, and niece of the celebrated William Pitt. Soon after the death of that great statesman, with whom she lived, and with whose pursuits she so much sympathized as to act upon some occasions as his private secretary, she went to Syria, assumed the dress of a male native of that country, and devoted herself to astrology, in which she was a most implicit believer. She had a large pension from the English government, and for many years was possessed of considerable influence over the Turkish pacha, which, however, when habitual carelessness in money matters had deprived her of the means of bribing, she so entirely lost as to be in actual danger of her life. So completely anti-national were the prejudices of this high-souled lady, that, though at the time of her death she had no fewer than 23 domestics, not one of them was English; and her last sigh was breathed among foreigners and hirelings. Her permanent abode was in Mount Lebanon, about 8 m. from Sidon, where she died, 1839.
Stanhope, Philip Henry, Earl, an English historian, b. 1805, and better known to literature as Lord Mahon, his title before succeeding to the earldom. His greatest work is his *History of England from the Peace of Utrecht to the Peace of Aix-la-Chapelle.* He has also written a *History of the War of the Spanish Succession*, and other works. As Lord Mahon he entered Parliament in 1830, and has held minor offices in several conservative administrations.
Stanhope, a seaport-town of Prince Edward Island, in Queen's co., on the Gulf of St. Lawrence; Lat. 46° 22′ N., Lon. 63° 10′ W.
Stanhope, in *N. Carolina*, a post-village of Nash co., 32 m. N.E. of Raleigh.
Stanhope, in *New Jersey*, a post-village of Sussex co., 52 m. N.E. of Trenton.
Stanhope, in *Pennsylvania*, a village of Monroe co., 128 m. N.E. of Harrisburg.
Stanislaus I., Leczinski (*stan'is-laws,*) King of Poland, b. 1677, was the son of the grand-treasurer of that kingdom. In 1704 he was deputed by the assembly at Warsaw to Charles XII. of Sweden, who had just conquered Poland. That monarch caused him to be crowned king at Warsaw in 1705; but when Charles was defeated, in 1709, Stanislaus was obliged to leave his kingdom. On the death of Augustus, in 1733, he returned, in hopes of being acknowledged; but the power of the Emperor of Germany and the Empress of Russia prevailed against him, and he was again obliged to fly. He was the author of some productions in French and Polish, which were printed under the title of *The Works of the Liberal Philosopher.* He died in consequence of his night-gown taking fire, 1766.
Stan'islaus, in *California*, a river which rises in the Sierra Nevada, on the boundary of Calaveras and Tuolumne cos., and flowing S.W. falls into San Joaquin River, abt. 25 m. S.E. of Stockton. — A central co.; *area,* 1,450 sq. m. *Rivers.* San Joaquin, Tuolumne, and Stanislaus. *Surface,* traversed by the Coast Range in the S.W., elsewhere diversified; *soil,* generally fertile. *Min.* Gold and copper. *Cap.* Modesta. *Pop.* (1897) 12,150.
Stan'islaus City, in *California*, a village of Stanislaus co., abt. 24 m. S. of Stockton.
Stan'islaus, (St.,) (Order of.) A Polish order of knighthood, founded by Stanislaus, King of Poland, in 1765, and renewed by the Emperor Alexander in 1815.
Stan'islawow, a fortified town of Austrian Poland, 75 m. from Lemberg.
Stank, *pp.* of Stink (*q. v.*).
Stan'ley, in *North Carolina*, a S.W. central co.; *area,* 390 sq. m. *Rivers.* Yadkin and Rocky. *Surface,* mountainous; *soil,* fertile in the valleys. *Products.* Cereals, potatoes, tobacco, &c. *Min.* Gold and silver. *Cap.* Albemarle. *Pop.* (1897) 14,050.
Stan'ley, (Port,) in Canada, a port of entry of Elgin co., on Lake Erie, 110 m. S.W. of Hamilton.
Stan'nary, *a.* [From Lat. *stannum,* tin.] Relating to tin-mines, or to tin-works.
—*n.* A tin-mine, or tin-works.
Stan'nate, *n.* (*Chem.*) A salt formed by the union of stannic acid with a base. — The *S. of soda,* prepared on a large scale for use as a mordant by calico-printers, crystallizes in hexagonal tables.
Stan'nic Acid, *n.* (*Chem.*) Peroxide of tin.
Stan'nine, *n.* (*Min.*) An opaque, brittle mineral, variously colored, but having frequently the appearance of bronze, whence its common name of *bell-metal ore. Comp.* Sulphur 29·6, tin 27·2, copper 29·3, iron 6·5, zinc 7·5 = 100.
Stan'notype, *n.* [Lat. *stannum,* tin, and Gr. *typos,* impression.] A photograph taken upon a tin plate.
Stan'nous, *a.* Relating to, or containing, tin.
Stan'stead, in prov. of Quebec, a town, cap. of a co. of same name, 100 m. S.E. of Montreal; *pop.* abt. 1,000.
Stan'ton, Edwin, an American statesman, b. in Steubenville, Ohio, 1814. After receiving a good education, he studied for the bar under Benjamin Tappen, senator for the State of Ohio, who took him into partnership, and thus gave him a good start in his legal career. He continued to practise in Ohio until 1847, when he removed to Pittsburg, Pa., where he was associated in several important cases with Messrs. R. J. Walker and Abraham Lincoln. In the winter of 1857–'58, *S.* was selected by President Buchanan to manage an important case connected with Mexican grants, and conducted it to a successful issue, and in 1858 he began to practice in the Supreme Court at Washington, but held aloof from politics. Towards the close of President Buchanan's term of office, in 1860, *S.* reluctantly accepted the post of attorney-general; and while holding it, he tried hard to prevail on the president to send reinforcements to Fort Sumter. Mr. Cameron resigned his post as head of the War Dept., Jan. 13, 1862, when the vacant place was offered to *S.*, and accepted. The change was looked upon by the people as advantageous to the cause of abolition; and Judge Holt, in a letter to the Governor of Ohio, characterized the appointment as "an immense stride in the direction of the suppression of the rebellion." Indeed, the vigorous manner in which *S.* set about the reform of the War Dept. confirmed the sanguine expectations of his friends, and the beneficial results that attended his appointment soon became evident in the increased efficiency of the various branches of the military establishment of the Union. After Lincoln's death, *S.* was retained in the cabinet by President Johnson, but his firm opposition to the *personal policy* of the President soon made him obnoxious to Mr. Johnson, who finally requested him to resign; and, on his refusal to comply, notified him (August 5, 1867) that he had suspended him from office and appointed Gen. Grant as secretary of war *ad interim. S.* gave up the office under protest; but when Congress reassembled in November, the Senate declared that the suspension was not justifiable, and that the secretary must be reinstated. Gen. Grant immediately surrendered the office to him. On the 21st of Feb., 1868, President Johnson notified *S.* that he had removed him, and appointed Adj.-Gen. Lorenzo Thomas Secretary *ad interim.* This last act led to the famous impeachment of the President. On May 26, the Senate having acquitted Mr. Johnson, *S.* resigned his office. After leaving the War Dept., *S.* devoted himself to his profession; but his health had been so seriously impaired by his enormous and protracted labors as head of the War Dept., that he was not able to work with his former energy. In Dec., 1869, President Grant nominated him for an Associate Justice of the Supreme Court, and he was readily confirmed by the Senate, but his commission had not yet been made out when his friends had to mourn his sudden death, Dec. 19, 1869.
Stan'ton, in *Del.*, a p.-vill. of New Castle co., 6 m. S.W. of Wilmington; in *Ill.*, a twp. of Champaign co.; in *Ind.*, a p.-vill. of Clay co., 12 m. N.E. of Terre Haute; in *Iowa*, a twp. of Plymouth co.; in *Kan.*, a twp. of Linn co.; in *Kan.*, a p.-vill and twp. of Miami co., abt. 33 m. S.E. of Lawrence; in *Ky.*, a p.-vill. cap. of Powell co., abt. 42 m. E.S.E. of Lexington; in *Mich.*, a p.-vill., cap. of Montcalm co., abt. 42 m. N.E. of Grand Rapids; or Staunton, in *Mo.*, a p.-vill. of Franklin co., 65 m. S.W. of St. Louis; in *Neb.*, an E. central co.; in *N. J.*, a p.-vill. of Hunterdon co., abt. 30 m. N. of Trenton; in *Tenn.*, a dist. of Haywood co.
Stan'tonsburg, in *North Carolina*, a village of Wilson co., 50 m. E.S.E. of Raleigh.
Stan'tonville, in *South Carolina*, a village of Anderson dist.
Stan'tonville, in *Tennessee*, a district of McNairy co.
Stanza, *n.* [It.; Sp. *estancia;* Fr. *stance.*] (*Poet.*) A series or number of verses connected with each other in a poem, of which the metre is constructed of successive series similar in arrangement. The stanza, however, must be understood to form a shorter division than the classical strophe, to which this definition would be equally applicable. It is so called from terminating with a full point or pause.
Stanza'ic, *a.* Consisting in stanzas. (R.)
Stapelia, *n.* (*Bot.*) A genus of plants, order *Asclepiadaceæ,* chiefly remarkable for the curious, wrinkled, tond-like appearance of their handsomely marbled or mottled star-shaped flowers, and the disgusting carrion-like scent emitted by most of them.
Sta'pes, *n.* (*Anat.*) A bone of the ear. See Ear.
Staphylea, *n.* (*Bot.*) A genus of plants, order *Staphyleaceæ. S. trifolia,* the Bladder-nut, is a handsome shrub, 6–8 feet high, found in moist woods and thickets from Canada to Carolina and Tennessee. Leaflets oval-acuminate, serrate, pale beneath, with scattered hairs; flowers white, in a short, drooping raceme. The most remarkable feature of the plant is its large, inflated capsules, which are 3-sided, 3-parted at top, 3-celled, containing several hard, small nuts or seeds, with a bony, smooth, and polished testa.
Staphylea'ceæ, *n. pl.* (*Bot.*) A small order of plants, alliance *Sapindales,* included by many botanists in the order *Sapindaceæ,* as a tribe distinguished by the stamens being inserted outside instead of inside the disc, and by albuminous seeds. They consist of trees or shrubs, which are natives of Europe, Asia, and northern and tropical America.
Staphylin'idæ, *n. pl.* (*Zoöl.*) See Brachelytra.
Staphylo'ma, *n.* [Gr., from *staphylē,* a bunch of grapes.] (*Med.*) A disease of the eyeball, in which the cornea becomes opaque and tumid, forming a white projection, sometimes resembling a grape in shape; it occasionally increases to a great extent, and requires to be removed by an operation.
Staphyloplas'tic, *n.* [Gr. *staphylē,* and *plassein,* to form.] (*Surg.*) Applied to the operation for replacing the soft palate when it has been lost.
Staphylor'aphy, *n.* [Fr. *staphylorraphie,* from Gr. *staphylē,* and *raphē,* a seam, from *raptein,* to sew.] (*Surg.*) The operation of uniting a cleft palate.
Staple, (*sta'pl,*) *n.* [A. S. *stapel, stapul;* Dn., Ger., and Sw. *stapel;* Dan. *stabel;* Fr. *étape*] A principal commodity or production of a country or district. — The material or substance of a thing. — The thread or pile of wool, cotton, or flax. — A loop of iron, or a bar of wire, bent and formed with two points to be driven into wood, to hold a hook, pin, &c.
—*a.* Relating to, or constituting, a market or staple, for commodities. (R.) — Established in commerce; settled. — Regularly produced or made for market; chief; principal. — According to the laws of commerce. (R.)
Sta'pler, *n.* A dealer in commodities.
Sta'pleton, in *Iowa*, a post-township of Chickasaw co., abt. 90. m. W.N.W. of Dubuque.
Stapleton, in *New York*, a post-village of Richmond co., on the N.E. of Staten Island, 7 m. S.W. of New York.
Star, *n.* [A. S. *steorra;* Ger *stern;* Lat. *stella;* Gr. *aster.*] (*Astron.*) A general term applied to any celestial body, including the planets. In astronomy, however, the word is used to designate only those self-shining bodies which are situated beyond the limit of solar attraction. They are also called *fixed stars,* to distinguish them from the planets, comets, satellites, &c. Astronomy inquires into the distance, number, magnitude, nature, and motion of the fixed *S.* In appearance, the magnitudes of the *S.* seem to differ greatly; but this variation is attributed to that of their distances. It is impossible to tell the number of the fixed *S.* In order to establish a gradation among them, and for convenience in description or reference, astronomers divide them into classes or orders, called *magnitudes.* The most brilliant are called *S.* of the *first magnitude;* those less brilliant are styled of the *second magnitude;* and so on to the sixth or seventh, when they become invisible to the naked eye. The *S.* are very irregularly distributed throughout the heavens; in some parts considerable regions are to be found with scarcely a single *S.*, while other portions, like the Milky Way, are crowded. In all ages, the distance of the fixed *S.* from the earth has been a subject of interest and inquiry. In determining the question of *parallax,* the *S.* 61 Cygni was selected as being a *S.* with a large proper motion. The experiment turned out favorably, and the parallax was discovered, and with it roughly the distance of the *S.* from the solar system. This was estimated at about 592,000 times the mean radius of the earth's orbit. See Milky Way; Nebulæ; and Section II.
—The figure of a star; an asterisk, thus (*); — used as a mark of reference. — The figure of a star worn as a badge of rank. — A person of brilliant and attractive qualities on some public occasion; an eminent theatrical performer.
—*v. a.* To set or adorn with stars, or bright, radiating bodies; to bespangle.
—*v. n.* To shine as a star; to perform on the stage, as an actor or singer of eminence.
Star, in *Kansas*, a township of Coffey co.
Star, or Starr, in *Texas*, a S. co., bordering on the Rio Grande, which separates it from Mexico; *area,* 2,570 sq. m. *Surface,* mostly prairies, which support large droves of wild horses and cattle. *Cap.* Rio Grande City. *Pop.* (1897) 11,650.
Star, in *Wisconsin*, a post-township of Vernon co., 12 m. E. of Viroqua.
Staraja Russa, (*sta'ra-ya,*) a town of European Russia, 137 m. from St. Petersburg.
Star'-anise, *n.* (*Bot.*) See Illicium.
Star'-apple, *n.* (*Bot.*) See Chrysophyllum.
Star'-blind, *a.* Seeing obscurely.
Star'board, *n.* (*Naut.*) See Larboard.
Star'-bow'lines, *n. pl.* (*Naut.*) A term for the men in the starboard watch.
Star'bruck Island, in the S. Pacific; Lat. 5° 20′ S., Lon. 155° 56′ W.
Starch, (*startsh,*) *n.* [A. S. *stearc.*] Chemically speaking, *S.* consists of $C_6H_{10}O_5$. It is readily distinguished from other similar substances by the deep-blue color it assumes on the addition of free iodine to its solution.

Boiled with dilute sulphuric acid, it becomes converted into dextrine, without any change in its chemical composition. It then gradually assumes the elements of water, becoming changed into *glucose*, or *grape sugar*. *S.* consists of a number of ovoid grains, built up of a series of skins, one over the other, like an onion. With cold water *S.* forms only a granular paste, but with hot water the granules burst and dissolve, giving rise to a glutinous viscid solution, which, when dry, forms a translucent horny mass. Hence its use in stiffening linen. In the manufacture of *S.* from potatoes and cereal grains, advantage is taken of its insolubility in cold water. Commercially, there are two classes of starch — those used for food, and those used for manufacturing purposes. The former are treated under ARROW-ROOT, *q. v.*; the latter are chiefly made from wheat, rice, and potatoes; but in addition, large quantities of sago-starch are prepared in India, and small quantities are from time to time prepared from other sources, such as the fruit of the horse-chestnut, &c.

—A formal manner.

Starch, *a.* Stiff; precise; rigid. (R.)

—*v. a.* To stiffen with starch.

Star'-chamber, *n.* (*Eng. Hist.*) A celebrated court of justice, so called from the ornaments of the ceiling of the room in which it one period it sat. This court, of very ancient origin, was under the direction of the chancellor, and consisted of divers lords, spiritual and temporal, being privy councillors, with two judges of the courts of common law. It had jurisdiction in cases of forgery, perjury, riot, conspiracy, fraud, and libel; but its power came afterwards to be much extended, so as to render it a most odious and unjust instrument in the hands of a despotic administration. Its process was summary and often iniquitous, and the punishment which it inflicted often arbitrary and cruel. It became particularly odious in the reign of Charles I., and was at length abolished by 16 Car. I. c. 10, to the great joy of the people.

Starched, (*starcht,*) *a.* Stiffened with starch. — Stiff in manner; precise; formal.

Starch'edness, Starch'ness, *n.* The state of being starched; formality; stiffness.

Starch'er, *n.* One who starches, or whose occupation is to starch; as, a clear-*starcher*.

Starch'ly, *adv.* With stiffness of manner; formally.

Starch'y, *a.* Consisting of, or resembling, starch. — Stiff in manner; precise; formal.

Star City, in *Nevada*, a post-village of Humboldt co., 12 m. N. of Unionville.

Stare, (*stār,*) *v. n.* [A. S. *starian*; Ger. *starren.*] To gaze, or to look with fixed eyes wide open; to fix or fasten an earnest look on some object.

—*v. a.* To stare at; to affect or influence by staring; to gaze at earnestly.

To stare in the face, to be unmistakably apparent; to be, as it were, before the eyes; as, ruin *stares* him *in the face*.

—*n.* A fixed look with eyes wide open.

Star'er, *n.* One who stares or gazes earnestly.

Star'-finch, *n.* (*Zoöl.*) Same as REDSTART, *q. v.*

Star'-fish, *n.* (*Zoöl.*) See ASTERICIDÆ, *q. v.*

Star'-fort, *n.* (*Fortif.*) A fort possessing external projecting angles.

Star'gard, (New,) a town of Prussian Pomerania, on the Ihna, 21 m. from Stettin. *Manuf.* Woollens, toys, and tobacco.

Star'-gazer, *n.* One who gazes at the stars; a seer; hence, an astrologer; also, a visionary;—employed in a contemptuous sense.

(*Zoöl.*) See URANOSCOPUS.

Star'-grass, *n.* (*Bot.*) See HYPOXIDACEÆ.

Star'ingly, *adv.* With a fixed, steady gaze.

Stark, *a.* (*comp.* STARKER; *superl.* STARKEST.) [A. S. *stearc.*] Stiff; strong; rugged; as, a *stark* corpse. — Confirmed or established; mere; gross; sheer; entire; absolute; as, the thing is a *stark* absurdity.

—*adv.* To the utmost degree; wholly; entirely; absolutely; as, the man is *stark* mad.

Stark, in *Illinois*, a N.W. central co.; *area*, 290 sq. m. It is intersected by the Spoon River, a tributary of the Illinois. *Surface*, level, and partly timbered; *soil*, fertile. *Cap.* Toulon.

Stark, in *Indiana*, a N.W. co.; *area*, 432 sq. m. *Rivers.* Yellow and Kankakee. *Surface*, level; *soil*, generally fertile. *Cap.* Knox.

Stark, in *New Hampshire*, a post-township of Coos co., 90 m. N. of Concord.

Stark, in *New York*, a thriving township of Herkimer county.

Stark, in *Ohio*, a N.E. co.; *area*, 570 sq. m. *Rivers.* Tuscarawas, and Nimishillen, Sugar, and Sandy creeks. *Surface*, undulating; *soil*, excellent. *Min.* Stone-coal and limestone. *Cap.* Canton.—A township of Noble co.

Star'key, in *New York*, a post-village and township of Yates co., 32 miles N. of Elmira.

Stark's, in *Illinois*, a village of Kane co., on the C. & P. R. R.—In *Maine*, a post-township of Somerset co., 33 m. N.W. of Augusta.

Stark's'borough, in *Vermont*, a post-village and township of Addison county, 24 miles south-west of Montpelier.

Starks'ville, in *New York*, a village of Rensselaer co.

Stark'ville, in *Georgia*, a village, former cap. of Lee co., 115 m. S.S.W. of Milledgeville.

Starkville, in *Mississippi*, a post-town, cap. of Oktibbeha co., 125 m. N.E. of Jackson.

Starkville, in *New York*, a post-village of Herkimer co., 60 m. W.N.W. of Albany.

Star'less, *a.* Having no starlight, or no stars visible; as, a *starless* sky.

Star'light, *n.* The light issuing from the stars.

—*a.* Lighted by the stars; as, a *starlight* night.

Star'like, *a.* Stellated; radiated like a star; as, a *starlike* flower. — Bright; lustrous; as, *starlike* eyes.

Star'ling, *n.* [A. S. *sturo, stearn*; Lat. *sturnus.*] (*Zoöl.*) See STURNIDÆ.

(*Arch.*) A large pile of woodwork placed on the outside of the foundation of the piers of bridges, &c., to break the force of the water, and protect the stone-work.

Starodub, (*sta-ro-doob',*) a town of European Russia, govt. of Tchernigov, on the Babinza.

Star'-of-Beth'lehem, *n.* (*Bot.*) See ORNITHOGALUM.

Star'ost, *n.* [Pol. *starosta.*] In Poland, the proprietor of a starosty.

Star'osty, *n.* [Pol. *starostwo.*] In Poland, a castle and demesne granted to noblemen for life by the crown.

Star Prairie, in *Wisconsin*, a post-township of St. Croix co.

Starred, (*stard,*) *a.* Gemmed or studded with stars.

Star'riness, *n.* State of being starry.

Star'ry, *a.* [From *star.*] Abounding with stars; gemmed with stars; as, the *starry* sky. — Stellar; stellary; consisting of, or proceeding from, the stars; as, *starry* light, *starry* influence. — Resembling, or beaming like, stars; as, *starry* eyes.

(*Bot.*) Stellate.

Star'-spangled, (*-spăng'gld,*) *a.* Studded with stars.

Star-spangled banner, the flag of the U. States; the stars and stripes.

Star'-stone, *n.* (*Min.*) A variety of sapphire, which, when cut in a certain direction, presents a reflection of light in the form of a star.

Start, *v. n.* [Ger. *stürzen*, to precipitate.] To move suddenly, as if by a twitch; to move instinctively, as by an involuntary shrinking from sudden fear or alarm; to move with sudden quickness, as with a spring or leap; as, he *started* aside. — To wince; to shrink. — To set out; to commence a race, as from a barrier or goal; to begin a journey or enterprise; as, they *start* for home to-morrow. — To move or shift from its place; as, the hoops of the cask were *started*.

To start after, to follow; to pursue; to chase; to run after.—*To start against*, to enter into competition with; to act as a rival candidate against.—*To start for*, to run as a candidate.—*To start up*, to rise suddenly, as from a seat or sitting posture. — To come into sudden notice or importance.

—*v. a.* To rouse suddenly, as from concealment; to startle; to move or disturb suddenly; to cause to flee or fly. — To call forth; to raise; to bring into sudden motion; to produce suddenly to view or notice; as, to *start* a controversy. — To invent or discover; to bring within pursuit; as, to *start* a pastime. — To dislocate; to move suddenly from its place; as, to *start* a bone out of its socket.

(*Naut.*) To pour out; to empty, as liquor from a cask; as, to *start* a butt of water.— To give a start to, or cause to move with quickness, by chastising with a rope's end, as for refractoriness or dilatoriness.

—*n.* A sudden motion, as from alarm; a quick spring; a darting; a sudden rousing to action.—A sudden motion followed by intermission; a spastic affection; a sudden twitch, or convulsive motion or spasm; as, he does everything by fits or *starts*. — A sudden spring, motion, or effusion; an impulsive fit; a sally; as, the *start* of spleen. — Act of setting out; commencement of a journey or enterprise; first motion from a place; as, a *start* in life. — *To get* or *have the start*, to begin before another; to have the advantage over another.

—[A. S. *steort.*] A projection; a horn; a tail. — In England, the long haft or handle of anything; as, the *start* of a plough.

Start'er, *n.* One who starts; one who shrinks from his purpose. — One who suddenly moves a question or raises an objection. — One who places men, horses, or dogs in order for running. — A dog that rouses game.

Start'ful, *a.* Apt or inclined to start; skittish.

Start'fulness, *n.* Disposition to start.

Star-thistle, (*-thĭs't,*) *n.* (*Bot.*) An annual plant of the genus CENTAUREA, *q. v.*

Start'ing-bar, *n.* (*Mach.*) The hand-lever which serves to start a steam-engine.

Start'ingly, *adv.* By sudden fits or starts.

Start'ing, *n.* Act of moving suddenly.

Start'ing-point, *n.* The point from which anything moves or starts.

Start'ing-post, *n.* A post, place, or barrier from which competitors in a race make their start.

Start'ish, *a.* Apt to start or shy; skittish; — said of a horse. (Colloq.)

Startle, (*stär't'l,*) *v. n.* [Intensive of *start.*] To shrink; to wince; to move suddenly, or be excited, on feeling a sudden alarm.

—*v. a.* To start; to shock: to frighten; to alarm; to surprise; to impress with fear; to excite by sudden alarm, surprise, or apprehension.

—A sudden motion or shock caused by an unexpected alarm, surprise, or apprehension of danger; a sudden impression of fright or terror.

Start'lingly, *adv.* In a manner to startle or affright suddenly.

Starue'ca, in *Pennsylvania*, a post-borough of Wayne co., 180 m. N.E. of Harrisburg.

Starue'ca Creek, in *Pennsylvania*, rises in Wayne co., and flows S.W. into the Susquehanna River.

Starvation, (*-vā'shun,*) *n.* Act of starving, or state of being starved.

Starve, *v. n.* [A. S. *steorfan, steorfian.*] To perish or die with cold; to suffer extreme cold. (Rare in the U. S.) — To perish with hunger; to suffer extreme hunger or destitution. — Hence, to be extremely indigent; to lack the necessaries of life.

Starve, *v. a.* To kill or reduce with cold. — To kill with hunger; — hence, to distress or subdue by famine; as, to *starve* a city into a surrender. — To destroy by want; as, to *starve* plants by deprivation of nutriment. — To deprive of force or vigor; as, "The powers of their minds are *starved* by disuse."—*Locke.*

Starve'ling, *a.* Hungry; lean; meagre; starving from lack of nutriment; as, "a *starveling* bard." *Swift.*

—*n.* An animal or plant that is rendered thin, lean, and weak through want of nutritious aliment.

Star'wort, (*-wûrt,*) *n.* (*Bot.*) A popular name applied to plants of the genera *Aster* and *Stellaria*.

Sta'tant, *a.* [From Lat. *stare*, to stand.] (*Her.*) In a standing position; as, a stag *statant*.

State, *n.* [Fr. *état*; Lat. *status*, from *sto.*] Condition or circumstances of a being or thing at any given time; situation; case; predicament; plight; as, the present *state* of things cannot last long. — Rank; quality; condition; as, the *state* of fame. — Appearance of pomp, dignity, or greatness; condition of wealth or prosperity; as, his majesty received him in *state* — A political body, or body politic; the whole body of people united under one government; — more usually, a commonwealth or body politic having a representative legislature; as, a *state* without a ruler. — A body of men professionally united, or constituting a community of a specific or particular character; as, in England, the two grand divisions — civil and ecclesiastical — Church and *State*.

—In the U. States, one of the commonwealths or bodies politic. — The people of the States, collectively, make up the body of the entire nation.

—*pl.* The bodies that constitute the legislature of a country; as, the *States*-general of Holland.

State paper, a paper relating to the political or diplomatic interests of a state.

State trial, a trial of a person, or persons, for a political offence.

—*v. a.* To set forth, as the position, condition, or circumstances under which anything exists or subsists; to set in order; to settle; to express, as the particulars of anything in writing; to set down in detail or in gross; to express, as the particulars of anything verbally; to represent fully in words; to recite; to narrate.

—*a.* Pertaining, or having reference, to the state or nation; public; grand; pompous; ceremonial; royal; as, a *state* pageant.

State'craft, *n.* Art of managing or conducting affairs of state.

State'-criminal, *n.* An offender against the dignity or well-being of a state or commonwealth; one guilty of treason.

Stat'ed, *a.* Settled; established; regular; occurring at regular times; not occasional; as, to attend on a *stated* occasion. — Fixed; established; specified; as, he was engaged at a *stated* salary.

Stat'edly, *adv.* Regularly; at certain or specified times; not occasionally.

State'-house, *n.* The building wherein the sittings of a state legislature are held.

State'lily, *adv.* In a stately manner.

State Line, in *New York*, a village of Columbia co., 38 m. S.E. of Albany. — A village of Washington co.

State'liness, *n.* Quality of being stately; grandeur; loftiness of mien, or majestic or dignified appearance; also, semblance of pride; affected dignity.

State'ly, *a.* (*comp.* STATELIER; *superl.* STATELIEST.] According to state, high rank, quality, or condition; august; grand; majestic; lofty; dignified; magnificent; elevated in style or sentiment; as, a *stately* air, a *stately* building, a *stately* form, &c.

—*adv.* Loftily; majestically; with dignity.

State'ment, *n.* Act of stating, presenting, or reciting verbally or on paper. — A series of facts or particulars expressed on paper; a detail of facts or figures verbally recounted; recital of the circumstances of a transaction; a formal embodiment in language of facts or opinions.

State-monger, (*-mŭng'ger,*) *n.* A dabbler in politics or statecraft.

Stat'en Island, off the extreme S.E. coast of Terra del Fuego, 45 m. long, separated from King Charlee's Land by Le Maire Strait; Lat. of Cape St. John, on its E. extremity, 54° 42′ 8″ S., Lon. 63° 43′ 5″ W.

Staten Island, in New York Bay, separated by the Narrows from Long Island, and from New Jersey by Staten Island Sound. It is 14 m. long and 8 wide, and formerly comprised the co. of Richmond. It now constitutes, under the title of RICHMOND, a part of New York city as reorganized under the new charter, on Jan. 1, 1898.

State'-prison, *n.* A public prison, penitentiary, or jail.

State'-prisoner, *n.* A prisoner held in durance for a political offence.

Stat'er, *n.* One who states, or makes a statement.

—[Gr.] (*Numis.*) The principal coin of republican Greece. The Attic golden stater weighed 2 drachms, and is estimated at 20 silver drachms, or equivalent to about $5.50.

State'-room, *n.* A magnificent room in a palace or great house.

(*Naut.*) A small private apartment on shipboard.

States'borough, in *Georgia*, a village, cap. of Bulloch co., 53 m. N.W. of Savannah.

States'burg, in *S. Carolina*, a post-village of Sumter dist., 35 m. S.E. of Columbia.

States'-general. (*Hist.*) A term employed in France before the first Revolution to express the national parliament, or assembly of the three orders of the state — the clergy, nobility, and commonalty. The *S.-G.* had not been convened for a hundred years, when Louis XVI., in the hope of allaying public discontent, called them together in 1787; but the parliament, instead of

addressing itself to the vital state of the country, commenced quarrelling about precedence and the privileges of their orders, till the exasperated nation terminated the dispute by a revolution that swept all orders and precedence from the country. In Holland, the *S.-G.* is the congress of the two chambers, or the legislative body.

States'man, *n.; pl.* STATESMEN. A man versed in public or state affairs, or in the arts of government; usually, one eminent for political or diplomatic abilities; a politician; one versed in statecraft. — A person employed in public affairs. — In the north of England, a petty landholder; as, a Cumberland *statesman.*

States'manlike, States'manly, *a.* Having the manner, wisdom, or experience of statesmen; befitting a statesman.

States'manship, *n.* The qualifications or employments of a statesman.

States of the Church, (It. *Stati della Chiesa,* or *Stati Pontificè,*) a territory, or rather a group of states, in Central Italy, formerly united into one sovereignty, with the Pope for its head, and now annexed to the kingdom of Italy. The States of the Church being no more a geographical denomination, we must confine this article to a rapid sketch of their history from their formation till their absorption into the Italian nationality. During the rule of the Goths and Lombards in Italy, the inhabitants of Rome, and all who desired to live free from the barbarian yoke, feeling that the Greek empire was incapable of protecting them, and at the same time observing the pertinacity and energy with which the Pope asserted the importance and dignity of Rome, naturally looked up to him as, in some sort, a protector; and it is to the gradual growth and spread of this feeling that the important position subsequently taken by the popes as authorities in temporal matters is chiefly due. About 720 A. D., Gregory III., having quarrelled with the Emperor Leo the Isaurian, declared the independence of Rome. In 726, Pepin le Bref compelled the Lombard king to hand over Ravenna, Rimini, Pesaro, Fano, Cesena, Urbino, Forli, Comacchio, and fifteen other towns, to the Pope, who now assumed the state of a temporal sovereign. Pepin's example was followed by his son, Charlemagne. In the 11th century, the Normans greatly aided to increase the Papal temporal authority, and in 1053 the duchy of Benevento was annexed. In 1102, the Countess Matilda of Tuscany left to the Pope her fiefs of Parma, Mantua, Modena, and Tuscany; but these were immediately seized by the German empire, and of this magnificent bequest only a few estates came into the Pope's hands. In 1278, the Emperor Rodolph I. defined authoritatively the boundaries of the Papal States, and acknowledged the Pope's exclusive authority over them, by absolving their inhabitants from their oath of allegiance to the empire. The States of the Church at this time included Perugia, Bologna, Bertinoro, the duchy of Spoleto, the exarchy of Ravenna, and the march of Ancona. Sixtus IV., Alexander VI., and Julius II., increased the Papal States by the addition of the Romagna, Pesaro, Rimini, Faenza, Parma, Piacentia, and Reggio. In 1830, the people of Ancona and Bologna rose in rebellion. They were put down by the aid of an Austrian army; but the abuses in the administration were so flagrant, that even Austria urged the necessity for reform. Her remonstrances, however, were not attended to, and the Bolognese again rebelled. This second revolt supplied Austria with a pretext for occupying the northern legations, and the French at the same time garrisoned Ancona. Occasional risings took place from time to time up to 1846, when the present Pope, Pius IX., assumed the tiara, and burst upon the astonished world in the new character of a reforming Pope. His projects were of a most liberal character, and were put in force with great energy, despite the opposition of Austria; but, alarmed at the spread of revolution in Europe during 1848, he halted in his career, just at the critical moment when to halt was to be lost. The people rose, and Pius IX. fled to Gaëta, while Rome was proclaimed a republic. He was restored, and his subjects reduced to submission, by the arms of France, Austria, Naples, and Spain. The Austrians held the legations in subjection to the Pope's authority till 1859, but the French continued to occupy Rome (see ROME). In July, 1859, the 4 northern legations (the Romagna) threw off the Papal authority and proclaimed their annexion to Sardinia. Their example was followed, in 1860, by Pesaro, Urbino, Ancona, and the other provinces known as the Marches. In July, 1870, the Emperor Napoleon III. having withdrawn the French troops from Rome, the small territory still belonging to the Pope, comprising Rome with the Comarca, the legation of Velleti, and the delegations of Civita Vecchia, Frosinone, and Viterbo, were invaded by the Italian troops, and annexed to the kingdom of Italy, against the solemn protest of the Pope and of the entire Roman Catholic Church.

States'ville, in *North Carolina,* a city, the cap. of Iredell co., 47 m. N. of Charlotte. *Pop.* (1897) 2,620.

Statesville, in *Tennessee,* a post-village of Wilson co., 17 m. S.E. of Lebanon.

Stat'ic, Stat'ical, *a.* [Gr. *statikos,* causing to stand.] Pertaining to statics; belonging or relating to bodies at rest or in equilibrium. — Resting; acting by mere weight; as, *statical* pressure.

Statical electricity, electricity caused by friction.

Sta'tice, *n.* (*Bot.*) A genus of plants, order *Plantaginaceæ,* characterized by its leaves radical or cauline, dilate, mostly entire. *S. limonium,* the Marsh Rosemary, is found in salt marshes from Rhode Island to Maryland. Its scape is about a foot high, with several lanceolate, clasping bracts, and supporting at the top a broad, branching panicle, composed of close, secund spikes of sessile, blue flowers. The root is large, ligneous, strongly astringent, and much valued in medicine.

Statics, (*stat'iks,*) *n. sing.* [Gr. *statice:* Fr. *statique.*] That subdivision of mechanics which treats of bodies at *rest,* in opposition to *dynamics,* which treats of bodies in *motion.* The two great propositions of *S.* are the principle of the *lever,* and the principle of the *composition of forces.* Archimedes demonstrated the first, namely, the equilibrium of a straight horizontal lever loaded at its extremities with weights which are reciprocally proportioned to their distances from the fulcrum. The second general principle consists in this, that any two forces acting together upon the same point of a body are equivalent to a single force, represented in intensity and direction by the diagonal of a parallelogram, of which the two given forces are represented by the sides. This principle was not known to the ancients. Newton proved it to be true generally, and shows how the laws of equilibrium may be deduced from it, in the second corollary to the third laws of motion. See GRAVITY, MECHANICS, FORCE, PHYSICS.

Station, (*stā'shun,*) *n.* [Fr.: Lat. *statio,* from *sto.*] The spot or place where a person or thing stands, particularly, where he or it habitually stands, or is appointed to remain for a time; as, the *station* of a coastguard; — hence, specifically, a place on a railroad where trains make a halt, for the purpose of receiving or discharging passengers, freight, and the like; a depôt. — The position of a ship of war; as, she was sent to the Mediterranean *station.* — The place assigned to the assembling of a police force when off duty; also, a house of temporary detention for offenders. — (Generically, a term applied to fixed points or places, of which a series is included in any extended works, arrangements, or organizations; as, a post-office *station,* a telegraph *station,* a fire-engine *station,* &c.) — Office; post or position assigned; the part or department of a public duty which a person is appointed or commissioned to perform. — Situation, position; as, "To single *stations* now what years belong." — *Creech.*

— Business; avocation; employment; occupation; as, "The common size of human understanding is fitted to some *station* or other." (*Swift.*) — Character; state; rank, or condition of life.

> "The post of honour is a private *station.*" — *Addison.*

(*Eccl.*) One of certain points in the narrative of the passage of Christ from the judgment-seat to the cross, which are selected by the Romanists as subjects for meditation, and are well known through the pictorial representations common in Roman Catholic churches.

(*Ship-building.*) Same as room and space. See ROOM.

(*Surveying.*) The place selected for planting the instrument with which an angle is to be measured.

(*Zoölogical Geog.*) The particular place or kind of situation in which a species naturally occurs.

—*v. a.* To assign a station to; to place; to set; to appoint to the occupation of a post, place, or office; as, to *station* troops in California, to *station* a missionary, sentry, &c.

Stational, (*stā'shun-al.*) *a.* [Lat. *stationalis.*] Belonging, or having reference, to a station.

Sta'tionariness, *n.* State or quality of being stationary.

Sta'tionary, *a.* [Fr. *stationnaire;* L. Lat. *stationarius,* from *statio.*] Standing; fixed; not moving; not progressive or regressive; stable. — Not appearing to move; as, a *stationary* planet. — Not advancing, in a moral sense; not improving; not growing wiser, greater, or better; as, *stationary* ideas, *stationary* diseases.

(*Med.*) Certain diseases which depend upon a particular state of the atmosphere, and which prevail in a district for a certain number of years, and thus give way to others.

Stationary contact. (*Geom.*) The curve of intersection of two surfaces which touch each other has, in general, a double point at the point of contact, the tangents at which are distinct. When these tangents coincide, there is a cusp or stationary point on the curve of intersection, and the contact of the surfaces is then said to be *stationary.* — *Stationary engine.* (*Mach.*) A form of steam-engine for drawing carriages on railroads by means of a rope; — so called in distinction from a *locomotive engine.* — *Stationary point.* (*Geom.*) Same as CUSP, *q. v.*

—*n.* One who, or that which, stands still.

Sta'tion-bill, *n.* (*Naut.*) A list assigning to each person his proper station in the navigation of a ship.

Stationer, (*stā'shun-er,*) *n.* Originally, a bookseller, from his occupying a stand or station; in modern parlance, a vender of paper, quills, inkstands, and the various paraphernalia belonging to writing.

Sta'tionery, *n.* The articles commonly sold by stationers, as paper, ink, pens, &c.

—*a.* Belonging, or relating, to a stationer.

Sta'tion-pointer, *n.* (*Surveying.*) An instrument used in marine surveying for expeditiously laying down on a chart the position of a place from which the angles subtended by three distinct objects, whose positions are known, have been observed.

Sta'tion-staff, *n.* (*Surveying.*) An instrument for taking angles.

Sta'tist, *n.* [From *state.*] A statesman; one skilled in statecraft or government; a politician; also, a political writer.

Statis'tic, Statis'tical, *a.* [Fr. *statistique.*] Pertaining, or having reference to, or containing, statistics; belonging to social or political economy.

Statis'tically, *adv.* In a statistical manner.

Statistician, (*-tish'an,*) *n.* [Fr. *statisticien.*] One versed in the science of statistics.

Statis'tics, *n. sing.* [Fr. *la statistique;* It. *statistica,* from Lat. *status,* a condition, from *sto,* to stand.] A collection of facts, arranged, tabulated, and classified, respecting the state of society or condition of the people in a nation or country — the health, longevity, domestic economy, arts, resources, political strength, &c.; also, the science which treats of such subjects.

Statistol'ogy, *n.* [Eng. *statistics,* and Gr. *logos,* treatise.] A discourse or treatise upon statistics.

Statius, PUBLIUS PAPINIUS, (*stat'shi-us,*) a Roman poet, was born at Naples, A. D. 61. His principal productions are two epic poems, — the *Thebais,* in twelve books, and the *Achilleis,* in two books, which he left unfinished, — and the *Silvæ,* occasional poems on various subjects, and the most pleasing of his works. D. 96.

Sta'tive, *a.* [Lat. *stativus.*] Belonging to a fixed camp or military station.

Statoc'racy, *n.* [Eng. *state,* and Gr. *kratein,* to govern.] A government conducted by political power only, in distinction from a government ruled or largely controlled by ecclesiastical power.

Stat'uary, *n.* [Fr. *statuaire,* from Lat. *statuarius* — *statuo;* root *sto,* to stand.] (*Fine Arts.*) The art of carving images, or making statues or images, as representatives of real persons or things; — a branch of sculpture. — Statues taken collectively. — One who professes or practises the art of carving images or making statues.

Statue, (*stăt'yu,*) *n.* [Fr.; Lat. *statua,* from *statuo,* to set, place.] A work of plastic art, executed in marble, bronze, clay, or other suitable material, and representing a living being; an image. — An *equestrian statue* is one which represents the figure on horseback.

—*v. a.* (*imp.* and *pp.* STATUED,) (*stăt'yūd.*) To form a statue of; to place, as a statue.

Statuesque, (*-ĕsk',*) *a.* Partaking of, or expressing, the characteristics of a statue; as, a *statuesque* pose.

Statuette', *n.* [Fr.] A statue formed on a small scale.

Stature, (*stăt'yur,*) *n.* [Fr.; Lat. *statura* — *statuo,* to set, fix, place.] The natural height of the human figure; as, a man of tall *stature.*

Stat'ured, *a.* Arrived at full stature. (R.)

Sta'tus, *n.* [Lat.] State; degree; rank; condition.

Sta'tus quo, Sta'tu quo, *n.* [Lat.] (*Pol.*) A treaty between two or more belligerents, which leaves each party in possession of the territories, fortresses, &c., which it occupied before hostilities broke out; or, in *statu quo ante bellum,* i. e., in the same state as before the war.

Stat'utable, *a.* [From *statute.*] Made or introduced by statute; proceeding from legislative enactment; as, a *statutable* offence, a *statutable* remedy. — Made or being in conformity to statute; as, a *statutable* measure.

Stat'utably, *adv.* In a manner conformable to statute.

Statute, (*stăt'yūt,*) *n.* [Fr. *statut;* Lat. *statutum,* from *statuo.*] A fixed or established law, decree, or edict; a positive law or enactment; an act of the legislative body of a state commanding or prohibiting something; also, a special act of the supreme power, of a private nature, or intended to operate only on an individual or a company. — The act of a corporate body, or of its founder, designed as a permanent rule or law; as, the *statutes* of a university.

—*pl.* The whole municipal law of a particular state or country, from whatever source originating.

Statute fair, in some parts of England, a kind of fair held for the hiring of domestic and farm servants, &c. — *Statute labor,* a definite amount of labor required for the public service in making roads, streets, bridges, and other improvements in certain British colonies. (*Simmonds.*) — *Statute of limitations.* (*Law.*) A statute indicating a certain time, after which rights or claims cannot be enforced by legal action.

Stat'ute-book, *n.* A record or digest of laws or legislative enactments.

Stat'utory, *a.* Enacted by statute; resting on a legislative statute for its legitimacy or authority; as, a *statutory* provision.

Staunch, *a.* An orthography of STANCH (*q. v.*), in frequent use.

Staun'ton, in *Illinois,* a post-village and township of Macoupin co., 26 m. N.E. of Alton.

Staunton, in *Ohio,* a post-village of Fayette co., 42 m. S.W. of Columbus. — A township of Miami co.

Staunton, in *Virginia,* a river which rises in Montgomery co., and unites with the Dan to form the Roanoke river at Clarksville, after an E.S.E. course of 200 m. — A city, cap. of Augusta co., 120 m. W.N.W. of Richmond. It was incorporated in 1749, and is the site of the Western State Lunatic Asylum, and the Deaf and Dumb and Blind Asylum. *Pop.* (1897) 7,460.

Stau'rolite, *n.* [Gr. *stauros,* a cross, and *lithos,* a stone.] (*Min.*) The mineral called *Cross-stone.* It is a silicate of alumina, with about one-third of the alumina replaced by peroxide of iron, and forms small rhombic prisms, often intersecting and crossing each other at right angles. *S.* generally occurs imbedded in mica-slate, talc-slate, and clay-slate; sometimes in gneiss.

Stau'rotide, *n.* [Gr. *stauros.*] (*Min.*) The prismatic garnet, or *Grenatite.* It occurs in imbedded crystals in primary rocks, and is distinguished from garnet by its crystalline form and infusibility.

Stau'rotypous, *a.* [From Gr. *stauros,* a cross, and *typos,* type.] (*Min.*) Having its spots in the form of a cross.

Stavanger, (*sta-rang'ger,*) an old seaport-town of Norway, 85 m. from Christiansand; *pop.* 9,616.

Stave, *n.* [From *staff;* Fr. *douve.*] A thin, narrow piece of timber, of which casks are made.

— (*Mus.*) [Icel. *stef,* a strophe.] A staff or metrical portion; a part of a psalm appointed to be sung in churches.

—*v. a.* (*imp.* and *pp.* STAVED, or STOVE.) To thrust through

with a staff; to break a hole in; to burst; as, to *stave* a cask. — To push, as with a staff; — bolore *off*; as, "The condition of a servant *staves* him *off* to a distance." (*South.*) — To delay forcibly; to drive away; as, to *stave off* an unpleasant task. — To suffer to be lost, as by the breaking of a cask. — To give solidity to by compressing with a pointed or edged tool.

Staves-acre, (*stāvz-ā'kr,*) *n.* [From Gr. *staphis*, a dried grape, and *agrios*, wild.] (*Bot.*) See RANUNCULACEÆ.

Staves'-wood, *n.* (*Bot.*) Same as QUASSIA, *q. v.*

Stav'ropol, a town of European Russia, cap. of a govt. of same name, on the chief highway from Europe to Caucasus, 200 m. S.E. of Rostov; *pop.* 19,427.

Staw, *v. n.* To be fixed, set, or stayed; — (an English provincialism.)

Stay, *v. n.* (*imp.* and *pp.* STAID, or STAYED.) [O. Fr. *estayer*, to stay.] To remain; to continue in a place; to abide for any indefinite time; to stop; to stand still; as, he *stays* with his friends. — To continue in a state. — To wait; to attend; to forbear to act; as, I cannot *stay* longer than a few minutes. — To dwell; to tarry. — To rely; to rest; to confide: to trust; — frequently before *on* or *upon*; as, "They . . *stay* themselves *upon* God." *Isa.* xlviii. 2.

(*Naut.*) To tack; to be in stays.

—*v. a.* To cause to stand or cease from motion; to stop; to hold; as, to *stay* the outbreak of one's temper. — To delay; to obstruct; to hinder or hold from proceeding; to keep from departure; as, business *staid* him a month in New York. (R.) — To prop; to support; to hold up; to stop from motion or falling; as, to *stay* a vine. — To sustain with strength; to support or keep from sinking; to appease in part; as, he *staid* his stomach with a sandwich.

(*Naut.*) To tack about, as a ship.

—*n.* Abode for a time indefinite; sojourn; continuance in a place; as, what *stay* do you make in Philadelphia? — Stop; stand; obstruction; hinderance from progression or motion; as, matters appear to be at a *stay*. — One who, or that which, serves as a prop, support, or bulwark; as, integrity is man's main *stay*.

—*pl.* A bodice, corset, or sort of stiffened vest worn by females to support the body or keep it firm.

(*Naut.*) A set of strong ropes leading forward and downward from a ship's mastheads to prevent the spar from falling aft; they take the name of the mast they help to support; as, the fore-*stay*, main-topmast *stay*, &c. See BACKSTAYS.

Outside stays, in locomotive engines, sling-stays binding the boiler and frame together. — *Inside boiler stays*, in locomotive engines, rods of iron binding together the flat ends of the boilers. Without these stays, they could not resist the pressure of the steam against so large a surface. — *Inside frame stays*, strong stays placed below the boiler, firmly fixed at one end to the fire-box, and at the other end to the smoke-box; they support the inside bearings of the driving axle and other parts of the machinery.

In stays, or *hove in stays*. (*Naut.*) To be in the act of tacking, as a ship. — *To miss stays*, said of a ship that fails in attempting to tack. — *Triatic stay*, a stay secured at the ends to the heads of the fore and main masts with thimbles spliced to its bight to hook stay-tackles to.

Stay'-bolt, *n.* (*Mach.*) A rod or stay connecting opposite plates, so as to hinder them from being bulged out.

Stay'-busk, *n.* See BUSK.

Stay'er, *n.* One who, or that which, stays, props, upholds, supports, or restrains.

Stay'-lace, *n.* A lace used for fastening women's stays or corsets.

Stay'-maker, *n.* One who makes stays, corsets, &c., for women's wear.

Stay-sail, (*stā'sl,*) *n.* (*Naut.*) Any sail extended on a stay.

Stay-tackle, (*stā'-tăk'l,*) *n.* (*Naut.*) A large tackle attached to the triatic stay by means of a pendant, and used to hoist heavy bodies, as boats, butts of water, and other objects.

Stay-wedges, (*-wĕj'-,*) *n. pl.* (*Mach.*) In locomotive engines, wedges fitted to the inside bearings of the driving axles, to keep them in their proper position in the stays.

Stead, (*stĕd,*) *n.* [A. S. *stede, styde;* Du. *stede;* Icel. *stadr.*] Place or room which another had, or might have; — noting substitution, replacing, or filling the place of another; as, another man was appointed in his *stead*.

To stand in stead, to be of great use, avail, or advantage; as, this thing will *stand in stead* of a better.

Steadfast, (*stĕd'-,*) *a.* [A. S. *stedfæst.*] Fast fixed; firmly placed or established; as, "this *steadfast* globe of earth." (*Spenser.*) — Constant; firm; resolute; immutable; steady; not fickle or wavering; as, a *steadfast* friend.

Stead'fastly, *adv.* Firmly; with constancy or steadiness of mind.

Stead'fastness, *n.* State or quality of being steadfast; firmness of standing; fixedness in place; stability or steadiness of mind or purpose; fixedness in principle; constancy; irresolution; immutability; unchangeableness.

Steadily, (*stĕd'-,*) *adv.* In a steady manner; with firmness of standing or position; without tottering, shaking, or leaning; without wavering, inconstancy, or irregularity; without deviating.

Steadiness, (*stĕd'-,*) *n.* [A. S. *stedignys.*] State or quality of being steady; firmness of standing or position; a state of being not tottering or easily moved or shaken; firmness of mind or purpose; consistent uniform conduct; constancy; resolution.

Steading, (*stĕd'-,*) *n.* Same as FARMSTEAD or HOMESTEAD, *q. v.*

Steady, (*stĕd'y,*) *a.* (*comp.* STEADIER; *superl.* STEADIEST.) [O. Ger. *stâtig*, stable.] Firm in standing or position; fixed; stable; not tottering or shaking; as, a *steady* table. — Constant in mind, purpose, or pursuit; not fickle, changeable, or wavering; not easily moved or induced to alter a purpose or intention; constant in direction or progress; as, he is a good, *steady* conservative in politics. — Uniform; regular; not fluctuating or deviating; as, a *steady* breeze of wind.

—*v. a.* (*imp.* and *pp.* STEADIED,) (*stĕd'ĕd.*) To make steady; to hold or keep from shaking, reeling, or falling; to support; to render or keep firm.

—*v. n.* To move steadily; to be firm; to maintain an equilibrium, or an upright position; as, he *steadies* himself with difficulty.

Stead'y-rest, *n.* (*Mach.*) Same as BACK-REST, *q. v.*

Stead'y Run, in *Iowa*, a village and township of Keokuk county, 45 miles south south-west of Iowa City.

Steak, (*stāk,*) *n.* [A. S. *stycce.*] A piece, slice, or collop of flesh, broiled, or cut for broiling; as, a beef-*steak*, ramp-*steak*, tender-loin *steak*, &c.

Steal, (*stēl,*) *v. a.* (*imp.* STOLE; *pp.* STOLEN.) [A. S. *stelan;* Ger. *stehlen.*] To take and carry away feloniously, as the personal property of another; to pilfer; to purloin; as, to *steal* money from the person. — To withdraw or convey without notice, or surreptitiously; as, he *steals* away without speaking. — To gain or win by address or adroitness, or by gradual and imperceptible means; as, to *steal* a woman's affections. — To try to pass privily or secretly; to accomplish in a stealthy or unnoticed manner; as, to *steal* a kiss.

To steal a march, to gain an advantage in a covert or unobserved manner; to march in a stealthy way; as, to *steal a march* over one's creditors.

—*v. n.* To withdraw or pass silently or privily; to slip in, along, or away, unperceived; to abscond; as, she *stole* away with her lover. — To take feloniously; to practise theft; as, to be guilty of *stealing*.

—*n.* A stalo or handle.

Steal'er, *n.* A thief; a purloiner; a pilferer.

Steal'ing, *n.* Act of taking the goods of another feloniously and surreptitiously; thett. — (*pl.*) Stolen goods.

Stealth, (*stĕlth,*) *n.* Clandestine practice; secret act; means unperceived employed to gain an object; way or manner not noticed or observed; as, to do good by *stealth*.

Stealth'ily, *adv.* By stealth; in an underhand or claudestine manner.

Stealth'iness, *n.* Same as STEALTH, *q. v.*

Stealth'y, *a.* (*comp.* STEALTHIER; *superl.* STEALTHIEST.) Accomplished in a claudestine or surreptitious manner; done or performed by stealth; secret; private; underhand; sly; as, he gave her hand a *stealthy* squeeze.

Steam, (*stēm,*) *n.* [A. S. *stem;* Du. *stoom.*] The vapor given off by water when its temperature is raised to such a degree as to cause it to pass into a state of ebullition. The mechanical properties of *S.* are similar to those of gases in general. In its natural state it is transparent and colorless; its visibility in air is caused by its partial condensation. In the case of *S.*, the most important mechanical property to be considered is the elastic pressure. When confined in a close vessel, a gas or vapor will press upon the interior surface of the vessel with a power arising from the elasticity of the fluid. This pressure is uniformly distributed over every part of the inner surface of the vessel in which the fluid is contained. All the mechanical force of *S.* arises from this property. The following general laws affect the formation of *S.*: — First, the temperature of the boiling-point of a liquid is the same at all times under the same pressure, and in a vessel of the same substance. Second, the temperature of the liquid remains constant during ebullition, provided the pressure remains the same; and if a greater quantity of heat be applied to the vessel containing the liquid at one time than another, the only result will be that a larger quantity of *S.* will be given off; the temperature of the liquid will not be increased. Third, the volume of the *S.* will be much greater than that of the liquid which supplies it, and the volume of the vapor of water will be about 1,700 times greater than that of the water itself. Water evaporates at all temperatures; but the law with respect to ebullition was ascertained by Dalton. It lays down that "the elastic force of the vapor given out during the process is equal to the external pressure." This allows us to calculate the elastic force of the *S.* from the temperature at which ebullition takes place, from tables showing the elastic force of *S.* at different temperatures. The boiling-point of a liquid is not affected by substances held in suspension; but when substances are held in solution, they produce very decided effects. Salts dissolved in water retards its ebullition. The boiling-point of water is 212°; while that of sea-water, containing 1-33 of its own weight of chloride of sodium, boils at 213·2° in the open air. After the production of *S.*, it acts according to fixed laws. First, under ordinary atmospheric pressure, a cubic inch of water is converted into a cubic foot of *S.* Second, under the same pressure, a cubic inch of water, evaporated, gives a mechanical force equal to that which would raise a ton weight to the height of one foot. The following facts have also been ascertained within very small limits of error: Under the pressure of 35 lbs. on the square inch, and at the temperature of 261°, *S.* exerts a force equal to a ton weight raised one foot; under the pressure of 15 lbs., and at 213°, it is 2,086 lbs., or nearly 7 per cent. less; and under 70 lbs., at 306°, it is 2,382 lbs, or nearly 6½ per cent. more than a ton raised a foot. The relations between the elasticity, temperature, and density of *S.* have long been important subjects of philosophical research.

—Visible vapor; the mist formed by condensed vapor; — popularly so called. — Any exhalation; as, the *steam* of a savory dinner. — *High steam*, or *high-pressure steam*, steam at a temperature considerably above the boiling-point. — *Low steam*, or *low-pressure steam*, steam at the boiling-point. — *Saturated steam*, or *wet steam*, steam holding water in a state of suspension mechanically. — *Dry steam*, steam so condensed that it holds little water in suspension.

Steam, *v. n.* To rise or pass off in vapor by means of heat; to fume. — To rise in steam-like vapor or exhalations; as, smoke *steamed* from every fissure of the crater. — To pass, move, or travel, by means of steam; as, the squadron *steamed* out of port on a cruise. — To evaporate; to exhale. — To expose to steam; to apply steam to, for softening, dressing, or preparing; as, to *steam* potatoes.

Steam'-boat, Steam'er, Steam'-ship, Steam-vessel, *n.* (*Naut.*) A ship or vessel propelled through the water by steam.

Steam'-boiler, *n.* See BOILER.

Steam'-car, *n.* A car drawn or propelled by steam-power.

Steam-carriage, *n.* A carriage propelled by steam, intended to be run on common roads at a considerable rate of speed. The only species of steam vehicle now used on common roads is a kind of steam wagon called a TRACTION-ENGINE, *q. v.*

Steam'-casing, *n.* A space or compartment filled with steam, surrounding any pipe, vessel, &c., to prevent the loss of heat by radiation.

Steam'-chamber, Steam'-room, *n.* (*Mach.*) The space in a boiler appropriated to the storage of the steam, and which includes the whole contents of the boiler except that occupied by the water and flues.

Steam'-chest, VALVE'-CHEST, VALVE'-BOX. *n.* (*Mach.*) In locomotive engines, a box attached to the cylinders, into which the steam is admitted by the regulator; the slide-valve works in this box over the steam-ports, which open into it from the cylinder.

Steam'-chest cocks, *n. pl.* In locomotive engines, oil-cups placed conveniently for lubricating the faces of the steam-ports and slide-valve.

Steam'-chim'ney, *n.* In the U. States, an annular chamber around the chimney of a boiler-furnace, for drying steam.

Steam'-coal, *n.* (*Min.*) A variety of coal, intermediate between bituminous and anthracite, burning with a good flame, and lasting for a long time without being consumed.

Steam'-colors, *n. pl.* (*Calico-printing.*) Colors in which the chemical reaction fixing the coloring matter to the fibre is produced by steam.

Steam'-crane, *n.* A crane worked by a steam-engine attached, and used in the lifting or removal of heavy weights.

Steam'-cylinder, (*-sĭl'-,*) *n.* In steam-engines, the cylinder which contains the piston.

Steam'-dome, *n.* A chamber upon the top of a steam-boiler, from which steam passes to the engine.

Steam'-dredger, (*-drĕj'r,*) *n.* A dredging-machine worked by steam-power.

Steam'-engine, *n.* A machine in which the elastic force of aqueous vapor, or steam, is used as motive force. In the ordinary engines the alternate expansion and condensation of steam imparts to a piston an alternating rectilinear motion, which is changed into a circular motion by means of various mechanical arrangements. *S.-E.* vary in their size, in their proportions, and in their form, as well as in the mechanical details by which the power of steam is adapted to their action. The fact that the application of heat would generate steam from water, and that the steam so generated would issue with much force from a small aperture in the vessel employed to generate it, must have been known at a very early period. The æolipile of Hero of Alexandria was a small machine in which a motion of continued rotation was given to an axis by the reaction of steam issuing from lateral orifices in arms placed at right angles to the revolving axis. The date of this machine is about 100 B. C. Some other similar mechanisms were well known among the Egyptians, Greeks, and Romans. The idea of employing the impulsive force of æolipile seems to have been the only one which had been formed for using steam as a source of motion before the time of Solomon de Caus, a French engineer, who, in 1615, published, in his *Raisons des Forces Mouvantes*, the statement that by fire water is dissolved into an air with such violence as to burst a closed copper ball containing a small quantity of it, and highly heated; and he described the propelling of a jet of water, by pressure on its surface in the vessel, of steam generated from it. The Marquis of Worcester, in a work published in 1663, entitled *A Century of the Names and Scantlings of Inventions*, describes a method of employing the pressure of steam for raising water to great heights. Towards the close of the 17th century, Papin, a French engineer, who was professor of mathematics at Marburg, began to observe the properties of steam, and conceived the idea of obtaining a moving power by introducing a piston into a cylinder, and producing a vacuum under it by the gradual condensation of steam by cold. But if Papin was the true inventor of the *S.-E.*, Thomas Savery, an Englishman, has the credit of having made the first actual working *S.-E.* of which we have any account. According to the patent granted to him in 1698, his machines were only *pumps* for raising water, and were employed for a long period in England. Passing over a number of the earlier *S.-E.*, which are unimpor-

tant, we come to that of Newcomen, a smith of Dartmouth, England, who, in conjunction with Cawley, a plumber in the same place, obtained a patent for a *S.-E.* in 1705. The novelty of this construction consisted entirely in condensing the steam below an air-tight piston, in a cylindrical vessel having an open top; and the idea was probably taken from the idea of Papin, for it appears that Newcomen was in correspondence with Dr. Hook on the subject, to whom the speculations of Papin were well known, but the mode of effecting the condensation was entirely different from Papin's. It consisted in admitting steam below a piston, and at first the steam was condensed by applying cold water to the outside of the cylinder; but it was soon found that injection of cold water by a jet into the interior was a much more effective method, and is said to have been discovered by accident. This engine was called the *atmospheric engine*, and was improved by Beighton, Smeaton, and other engineers, previous to Watt's time. It was in general use during the last century, but only for pumping water. James Watt was a mathematical instrument-maker in Glasgow, and in 1763 it chanced that the lecturer upon natural philosophy at the university intrusted to him, for repairs, the model of an atmospheric engine. In making experiments with this model, Watt was struck with the fact that the quantity of steam it consumed for each stroke of the piston was many times more than the contents of the cylinder. This led him to further observations, by which he soon arrived at some of the most important phenomena connected with the evaporation of water. Full of astonishment at his own researches, he repaired to Dr. Black, then professor of natural philosophy in the university, and communicated his discoveries to him. From this meeting dated Watt's improvements of the *S.-E.* The first and most important of these consisted in effecting the condensation in a separate vessel communicating with the cylinder, and called the *condenser*. This vessel being filled with steam from the boiler at the same time with the cylinder, the jet of cold water, admitted into the former only, effected the condensation of the whole volume of steam, both of that in the cylinder as well as of that in the condensor, in conformity with the principles in physics that an action originated in any part of a homogeneous fluid is almost instantaneously communicated throughout its mass. Watt also placed his condenser in a cistern, in order to further still more this separate condensation. The temperature of this cistern was kept constant by a fresh supply of cold water; for otherwise, the heat given out by the condensing steam would, by heating the vessel and the water surrounding it, have retarded the rapid condensation necessary for the effective work of the engine. The second of Watt's improvements in the atmospheric engine consisted in closing the cylinder at the top, the piston-rod being made to pass through a cylindrical neck in the top, called a *stuffing-box*, from the passage being rendered steam-tight by a stuffing of tow saturated in grease, by the lubrication of which the additional friction was lessened. This alteration had for its object the admission of the elastic force of steam, in order to impel the piston downwards, instead of the simple pressure of the atmosphere. To effect this, steam was admitted from the boiler above the piston at the same moment that the condensation took place in the condenser. For this purpose the steam passage was made double, so that the communication with the condenser could be cut off when that with the cylinder was opened, alternately. As in the atmospheric engine, when the piston had descended to the bottom of the cylinder, the counterpoise raised it again; but to permit this motion, it was necessary to remove the steam which was above the piston; and this was effected by causing it to pass under the piston and into the condenser by a passage opened at the exact time for this purpose. Such constitutes the principal features of Watt's *single-acting S.-E.* Not long afterwards, the counterpoise at the end of the pump-rod was done away with, an arrangement which had added much to the unproductive work of the engine, since this weight had to be raised in addition to that of the water. The stroke of the piston upwards was now produced by admitting the steam underneath to act by its elasticity, and the engine became *double-acting*. This principle it has ever since maintained, although in detail it has been considerably improved by other engineers. Watt's changes and improvements created the necessity for two pumps, and sometimes three, which are worked by rods attached to the beam. The hot-water or air-pump is intended to remove the air, condensed water, and steam from the condenser, which would otherwise accumulate and stop the action of the engine. The second is a force-pump, used to force back to the boiler the water drawn from the condenser by the first pump. The third is the cold-water pump. By a patent taken out in 1782, Watt included many contrivances, and in the next year, for a smoke-consuming furnace, the governor, steam-gauge, condenser-gauge, and indicator. Cartwright was the next engineer who proposed an important modification of the *S.-E.* His proposal was to condense the steam by means of cold water applied to the external surface of the condenser. His condenser consisted of two cylinders, one inclosed in the other, the cold water flowing through the inner and enveloping the outer. The valves to change the steam were placed in the piston, so that the condenser was always open. Although this engine was ingenious, it did not come into use. We are, however, indebted to Cartwright for the metallic piston used in his engine; it may fairly take its place as one of the greatest improvements in the *S.-E.* One of the next important advances was the four-way cock, originally invented by Leupold, a German, and afterwards improved by Bramah and others; it was introduced as a substitute for the valves, the cock always turning in one direction. As early as 1720, Leupold had also proposed a high-pressure engine, and Watt had afterwards projected a similar machine, but the first complete and practically working non-condensing or high-pressure engine was constructed in 1785 or 1787, by Oliver Evans, of Philadelphia, who thus paved the way, by economy of space and comparative simplicity of the mechanism required, for the locomotive-engine, and the adaptation of steam to the purposes of land-carriages. Since that time, a numberless quantity of inventions, of which it would be impossible to give here even the mere enumeration, have been introduced, intended to improve the form, the working, or the economy, of the *S.-E.*, or to adapt it to specific purposes.

Every *S.-E.* consists essentially of two distinct parts: the apparatus in which the vapor is produced, or the boiler, and the engine proper. *Boiler* will be found described at that word. Its office is to make the steam that drives the engine, and the engine and boiler may be made in one machine, as is the case with many small sizes, or as separate mechanisms, connected by a steam-pipe, which is the more usual plan. The principal parts of a *S.-E.* are the cylinder, piston, steam-chest, valves, crank, connecting-rod, fly-wheel, and governor. The *cylinder* and *steam-chest* are commonly enclosed together, and contain the *piston* and *valves*, which combination includes the essential working parts, necessary to a correct understanding of its operation, and is made the subject of illustration (Fig. 2426). Steam is admitted from the boiler into the steam-chest (*S.-C.*), being free to flow into the open space in the valve (*V.*). This is a slide-valve, and has a short motion to the right and left, as determined by the stroke of the valve-stem (*V.-S.*). In the position shown in the illustration the valve is closed, and no steam can flow into the steam-ports (*S.*). It will be seen, however, that when the valve is drawn slightly to the left, or front end of the steam-chest, the steam has access to the port on that side, and may flow down into the end of the cylinder, and exert its pressure against the front end of the piston; and when the valve is drawn to the right the admission of the steam in front is cut off, and it is allowed to flow into the back port, and against the back end of the piston, driving it the other way, so that a uniform reciprocating motion of the piston is caused, which is conveyed by the *piston-rod* to a *connecting-rod*, and thence to the *crank*, turning a shaft and fly-wheel. Since the consumption of a given quantity of steam means the burning of a certain amount of fuel, it becomes essential that the *S.-E.* should be constructed so as to be as economical as possible of steam. As outlined above, without other mechanism, a *S.-E.* would be extremely wasteful, as it would use all the steam the cylinder would hold at every stroke, and in releasing it lose all the heat and expansive power that it still possessed. It is in the mechanism for retaining these that modern steam-engines are superior to the early types. The first material saving to be obtained is securable by condensing the steam at every stroke. If the steam be used at a pressure of 100 pounds, and the atmospheric pressure be reckoned at 15 pounds, then the effective pressure on the piston will be 85 pounds. If a vacuum were instantaneously produced on one side of the cylinder just as the pressure of steam is admitted at the other side, the whole pressure of 100 pounds would be available. Steam condenses the instant its temperature is brought below 212°, normal pressure, and in returning to water loses volume to such an enormous extent that an approximate vacuum is created, so the pressure in the condensed chamber may be reduced to 3 pounds or less, with the result that an effective pressure of 97 pounds of steam may be obtained from 100 by condensing. The injecting of cold water into a steam space or the bringing of the steam into contact with cold surfaces suffices to condense it almost instantly, and thus a material saving is effected.

The condensation of the steam to secure the benefit of a vacuum is not done in the steam cylinder itself, but in a nearby vessel, called the *condenser*, which is more easily subjected to cooling water, and from which the hot water of the condensed steam, at a temperature of perhaps over 200, may be conducted back and fed into the boiler to be reheated, thus effecting a still further saving, as but a slight increase of temperature is required to reconvert it into steam. There are two common types of condensers: the jet condenser, in which the exhaust steam is met by a jet of cold water, coming in with atmospheric pressure; and the surface condenser, in which the steam comes in contact with the surfaces of a set of brass tubes containing cold water, and is condensed into water. The surface condenser is preferred in marine engines, because it allows the condensed steam to pass back to the boilers uncontaminated by mixture with any other water, and once the boiler-water is purified it may be used over and over again without danger of incrusting the boilers. With this form of condenser it is also possible to use sea-water or any waste water in the condensers, the only requirement being that it shall be cool.

After condensation, there is yet another loss in the *S.-E.*, in that the steam condensed has further expansive power, which should not be discarded. If steam be admitted to a cylinder at 100 pounds effective pressure, and allowed to drive the piston its full stroke before its admission is cut off by the valve, the cylinder will contain steam of 100 pounds pressure at the instant of condensing. But suppose that the valve in the steam-chest cuts off the admission of the steam when the piston has made half its stroke; then the pressure is, theoretically speaking, for the first half of the stroke 100 pounds, and at the end of the full stroke, being expanded one-half, 50 pounds. At three-quarter stroke it is 75 pounds, or the mean pressure for the whole stroke is 87½ pounds, and the amount of steam used but half what it was when 100 pounds of pressure was obtained—a theoretical gain of 75 per cent. In actual operation the result obtained is considerably less, as the steam is constantly cooling, and the operation of the valves is not absolutely perfect, so that the effective pressure of steam which leaves the boiler at 100 pounds is not more than 75 in good engines. But the more perfect and scientific the construction, the better the results obtained. Calculating theoretically, it would be best to cut off the stroke at one-quarter or one-eighth, as still further expansion is thus obtained. In practice, however, cut-off at about half stroke secures the best results. A still further gain is to be had by taking the steam when half expanded and, instead of condensing it, carrying it to another cylinder for further expansion. To obtain the best results from this system of double expansion, it is best to secure a high initial pressure of steam, and boiler pressures of 200 pounds are becoming common, while 300 and 400 pounds are talked of, and would be used, but for difficulties in construction and lubrication at such high pressures. If an initial pressure of 200 pounds is used, and the steam cut off at one-half, a pressure of about 90 pounds can be obtained for admission to another cylinder, and after this second cylinder has used the steam at a similar cut-off, about 40 pounds pressure is available for a third cylinder, and about 15 pounds for a fourth, and about 5 pounds for a fifth cylinder, in which there may be a further gain of about 12 pounds by condensing the steam and securing the benefit of most of the atmospheric pressure. When the steam is used in two cylinders in this way, the engine is called *compound;* if three, the system is called *triple expansion*, or three-stage expansion, and so with four and five cylinders, *quintuple expansion* being the highest that has been tried, and this with dubious results, most engineers at the present stage of boiler pressures favoring triple expansion for large engines, as on ocean steamers, and double expansion for locomotives and large stationary engines. For a description of the arrangement of compound cylinders, see LOCOMOTIVE; of the triple-expansion system, see MARINE ENGINE.

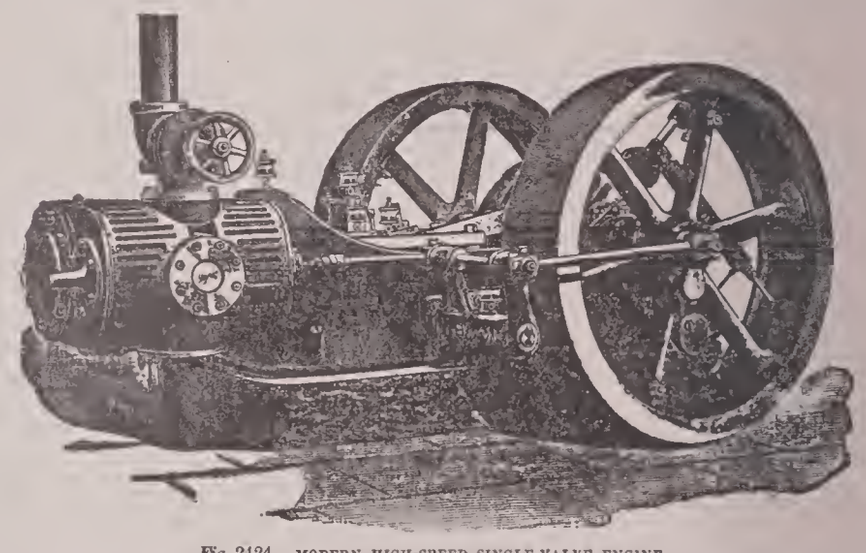


Fig. 2424.—MODERN HIGH-SPEED SINGLE-VALVE ENGINE.

The variable *cut-off* of steam according to the demand upon the engine for power is another form of economy extensively practiced. If a stationary engine in a factory be arranged to run so as to give the shutting a speed of 150 revolutions a minute, and if the machines make a demand on the engine of sometimes 100 horse-power, and sometimes only 25 horse-power, the changes being sudden, as from the starting or stopping of several large machines at the same instant, some means must be provided for maintaining an even speed in the engine, and a saving of the steam when there is a call for only a fraction of the rated amount of power. The automatic cut-off is well exemplified in the Corliss engine, which employs a *wrist-plate*, or oscillating disk, having attached to it four rods, each connected with a valve, two inlet-valves and two exhaust-valves. The wrist-plate is oscillated by *eccentrics* on the main shaft, in such manner that a very slight increase of speed, as from a lighter load of work, causes the inlet-valves to cut off the steam sooner, thus keeping down the speed and saving the steam. When a greater load is applied to the shafting and tends to slow down the engine, the wrist-pin is oscillated so as to allow the valves to remain open longer, introducing more steam, and giving an increase of power. For the further regulation of the speed of an engine, and the prevention of racing, or extreme speed when the demand for power is withdrawn, the *fly-wheel* is partially useful, and the *governor* still more so. (See GOVERNOR, where the common form of ball-governer is illustrated.) Another form of governor is shown here in the illustration of the modern high-speed single-valve engine. It is contained in the fly-wheel, and the weights are normally held near the center, under the control of springs and a suction mechanism called a *dash-pot*. The fly-wheel is essential to most forms of *S.-E.*, and sometimes it is found convenient to use two fly-wheels, as in the illustration, to secure better balance. As soon as an engine acquires speed the fly-wheel stores up a certain amount of the energy developed, and should there be a sudden demand for more power this energy is drawn upon under the law of inertia. The heavier the fly-wheel the greater its inertia, and the more energy will it be able to give forth in emergency. It is also useful in overcoming the dead center, or point in the crank-movement where

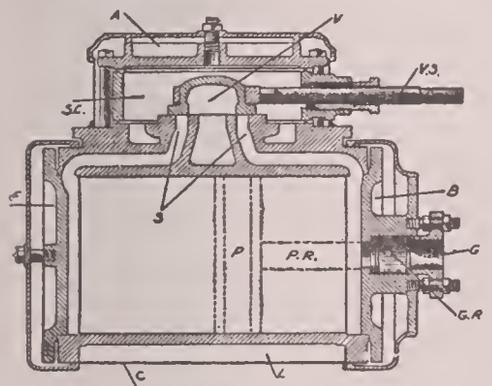


Fig. 2426.

PRINCIPAL WORKING PARTS OF A STEAM-ENGINE.

A, cap of steam-chest; *S-C*, steam-chest; *V*, valve; *V-S*, valve-stem; *S*, steam-ports; *P*, piston; *P-R*, piston-rod; *F*, front head; *B*, back head; *G*, cylinder-gland; *G-R*, gland-ring; *L*, lagging; *C*, casing.

the piston, connecting-rod, and crank are all in a direct line, and a thrust on the piston has no tendency at all to start the engine.

The *horse-power* of an engine is calculated from measurements of the area of the cylinder. The standard horse-power is 33,000 foot-pounds moved in one minute, which for convenient figuring under the metric system is reduced to 32,549 foot-pounds. Then if P equals the pressure on the piston-head, per square inch of area, and if A equals the area of the piston, and S equals the stroke or distance travelled by the piston, and N equals the number of strokes per minute, it follows that P + A equals the number of pounds, and that P + A + S equals the number of foot-pounds developed at each cylinder-stroke, and that P + A + S + N equals the foot-pounds per minute, and that the horse-power of the engine is PASN, divided by 33,000. Figured in this way the horse-power is called nominal, for it is apparent that it would be the same for an engine well designed as for one poorly designed, or having leaks in the steam-chambers, or suffering from a lack of lubrication, &c. The real measure of efficiency in an engine is judged by the indicated horse-power, which is commonly abbreviated to i. h. p. This is obtained from a recording device called an *indicator*, mounted on the engine, and making a diagram on a smoked paper of the mean pressure per square inch actually existing. The proper figure being taken from this diagram, and used in the calculation as the quantity expressed by P, a correct figure is obtained of the actual horse-power of the engine.

Steam-engines having the piston-rod and connecting-rod directly attached are called *direct-acting*; when having a walking-beam mounted on a post, so that one end is connected to the piston-rod and the other to the crank, the name *beam engine* is applied. The *Cornish engine*, much used at mines, is an illustration of this type, which is also commonly seen on river steamboats, the walking-beam projecting above the deck-house. Engines are also named from the position of the cylinder, as *upright*, *horizontal*, and *inclined*. The latest types of marine engines are upright, while the most common forms of stationary engine are horizontal. Where two cylinders are used side by side, the name *twin-compound* is commonly applied; or if one cylinder is above the other, *steeple engine*; or if one is horizontally in front of the other, *tandem compound*. *Rotary engines* have a cylinder in which the piston turns around instead of reciprocating, being constructed like a vane in a cylinder. The arrangement is very simple, but does not afford opportunity to use the steam expansively, hence is little used. The *oscillating engine* is one having no connecting-rod, so that the piston-rod is made fast to the crank. As a result the cylinder must be mounted on trunnions and allowed to oscillate to accommodate itself to the changing positions of the piston-rod. In the *trunk engine* the piston-rod is dispensed with and one end of the cylinder is left open, so that the connecting-rod can be directly attached to the piston. Only one stroke of the piston is effective in such an engine, the return being lost motion. The *binary engine* is one in which the exhaust from one cylinder is used to volatilize a fluid, which latter is thus made to exert pressure by its expansion in another cylinder. When the stroke of an engine is made of the same length as its piston-diameter it is called a *square engine*. —*Steam Turbine*, an engine built on the principle of the turbine water-wheel, steam replacing water as the propelling power. In this the escaping steam impinges on a long series of rings of moving blades, between which are rings of fixed blades which act to divert the steam against the moving ones. The latter are mounted on a revolving drum, which is set in rapid rotation by the steam pressure against the blades. In this way a shaft can be made to rotate with great velocity and power. These engines have been variously utilized and have proved very effective in navigation, they being recently employed in two large ocean steamships.

Steam'er, *n.* A vessel or utensil in which articles are subjected to the action of steam, as in washing or cooking.—A fire-engine, the pumps of which are worked by steam-power. See FIRE-ENGINE; STEAM-BOAT.

Steam'-gas, *n.* Superheated steam;—so called from its resemblance to a perfect gas.

Steam'-gauge, (*-gāj*), *n.* (*Mach.*) A contrivance to show the exact amount of pressure of steam; it consists of a siphon-tube with equal legs, half filled with mercury; one end is cemented into a pipe, which enters that part of the boiler which contains the steam: the other end is open to the atmosphere. A stop-cock is usually provided between this gauge and the boiler, so that it may be put in communication with the boiler at pleasure. When the stop-cock is open, the steam acting on the mercury in one leg of the gauge presses it down, and the mercury in the other leg rises. The difference between the two columns is the height of mercury, which corresponds to the excess of the pressure of the steam in the boiler above the pressure of the atmosphere; or, in other words, to the effective pressure on the safety-valve. If half a pound per inch be allowed for the length of this column, the effective pressure of the steam, in pounds per square inch, is obtained.

Steam'-hammer, *n.* (*Mach.*) See HAMMER.

Steam'iness, *n.* Quality or condition of being steamy; vaporousness.

Steam'-jacket, *n.* Same as STEAM-CASING (*q. v.*).

Steam'-jet, *n.* A jet of steam suffered to escape from a pipe, and employed either to accelerate the flow of smoke up a chimney, by being projected upward in the manner in which the waste steam is projected through the blast-pipe into the chimney of a locomotive, or it may be employed to cause a current of air for purposes of ventilation. The arrangement is suitable for ventilating steam-ships, by sucking the vitiated air from the cabins.

Steam'-packet, *n.* A packet or vessel propelled by steam-power, and plying periodically between certain ports.

Steam'-pipe, *n.* Any pipe for conducting steam; specifically, in locomotive engines, one of the pipes which collect and convey the steam to the steam-chest; they commence inside the boiler.

Steam'-plow, *n.* (*Agric.*) A plow worked by steam-power.

Steam'-power, *n.* The motive force of steam practically applied to the accomplishment of results.

Steam'-trap, *n.* A contrivance to permit the passage of water, and prevent the escape of steam.

Steam'way, *n.* In steam-engines, a passage leading from a port to a cylinder.

Ste'arate, *n.* (*Chem.*) See STEARIC ACID.

Stear'ic Acid, *n.* [Gr. *stear*, fat.] (*Chem.*) A fatty acid liberated during the saponification of most animal, and many vegetable, fats. (See FATTY ACIDS.) It may be obtained pure by saponifying mutton-suet and decomposing the hot solution of the soap with hydrochloric acid. The oily and fatty acids separated are next submitted to pressure between hot plates, by which means the oleic acid is separated. Recrystallization from alcohol and ether, three or four times, gives the pure acid separated from its congeners. The stearates of the alkalies are soluble in water. Stearate of soda is the basis of ordinary hard soap; stearate of potash, on the contrary, is soft. The other stearates are insoluble. Stearate of lead is one of the constituents of lead or diachylon plaster. *S. A.* is insoluble in water, but is soluble in ether and alcohol, from which it crystallizes in beautiful colorless transparent rhombic plates. Its solution reddens litmus. Ordinary so-called *stearic candles* consist of *S. A.*, combined more or less with palmitic acid, according to the raw material used in their manufacture.

Ste'arin, Ste'arine, *n.* [Gr. *stear*, tallow.] (*Chem.*) A white crystalline neutral fat, existing in most oils and fats.

Stearns, In *Minnesota*, a central co., bordering on the Mississippi; *area*, 1,334 sq. m. It is intersected by Sauk river. *Surface*, undulating; *soil*, very productive. *Cap.* St. Cloud. *Pop.* (1895) 39,925.

Ste'atite, *n.* [Fr., from Gr. *steatos*, tallow.] (*Min.*) Soa SOAPSTONE.

Steato'ma, *n.* [Lat., from Gr. *steatos*, fat, tallow, suet.] (*Med.*) A tumor, the contents of which are of the appearance and consistency of hard fat.

Steed, *n.* [A. S. *stede*; Swed. *stod*, a stallion.] A horse or mare from the stud or stand; a horse of high mettle for state or war;—used chiefly in poetical composition.

Steel, *n.* [A. S. *style*; Swed. *stål*; Ger. *stahl.*] A compound of iron and carbon, usually including less than three per cent. of carbon, and very much tougher and stronger than pure iron, and malleable at a high temperature. It is the strongest material known, and admits of being alloyed with manganese, nickel, chromium, &c. When the quantity of carbon is small it is known as *soft steel*, and may be more easily worked. *Mild steel* is another term used for steel that is somewhat low in carbon, and *hard steel* for a compound in which the quantity of carbon is high. The hardest steel is required for cutting tools and parts of machines subjected to great wear. Mild steel is ordinarily used for structural purposes, in tall buildings, bridges, &c. Molded or cast-steel is more brittle and has less strength than rolled steel.

Steel was originally made from wrought-iron, which was itself made from cast-iron by the puddling process. (See IRON.) It is now largely made by the process developed by Sir Henry Bessemer, in which an air-blast is utilized to eliminate the carbon and silicon from the molten pig-iron. He melted the cast-iron in a cupola and ran it off into a vessel having blow-holes in the bottom, through which a heavy blast of air was sent before the molten iron flowed in, and maintained until the carbon and silicon were completely burned out by the great increase of temperature caused in the mass by the presence of the air. Ferromanganese and spiegeleisen were afterward added to determine the quantity of carbon in the steel. A converter is now used for this process, and an illustration of it appears at iron (*q. v.*). The presence of phosphorus in the iron was a serious difficulty, however, until Sidney Gilchrist-Thomas discovered that by lining the converter with bricks containing lime and magnesia, and throwing in a little lime, the phosphorus was removed. This has become known as the basic Bessemer process. The Siemens-Martin open-hearth method of making steel was introduced about 1860, the Siemens regenarative gas-furnace being used. The three chambers of this are piled with loose fire-brick, and the products of combustion are made to pass through the chambers, first one way and then the other, by means of switching valves. This causes a reheating or regenerating, which results in an economy of fuel, while the pig-iron is decarbonized in the furnace by melting in combination with scrap-iron and ore-iron. What is known as the basic open-hearth process is now widely used, as it permits a most effective control of the product. The processes of making steel castings have been much improved within recent years. Soft steel castings for plate-armor were first made in the United States about 1886. At first they were quite porous, but the use of silicon for solidifying has remedied this difficulty. Silica molding-sand mixed with molasses is commonly used for the purpose.

In a modern steel-making plant, operating the Bessemer process, the pig-iron is first melted in cupolas, receiving blasts of air from mammoth tuyeres, and arranged to deliver to a car or ladle, which delivers the metal to the converter. When the heating has properly eliminated the carbon and silicon, and the molten mass becomes steel, the converter is tipped on its trunnions, and poured into a great ladle, which pours it into molds for ingots. The molds as soon as poured go to heating-pits, or soaking-pits, as they are sometimes termed. These are artificially heated in the first place, and usually retain a high enough temperature to preserve the heat of the ingots sufficiently for their rolling in the blooming-mill, which is the next operation. In the manufacture of armor-plates the ingots are subjected to great hydraulic pressure to assist homogeneity. At the South Bethlehem works, in Pennsylvania, is a press which delivers to the ingots a pressure of 7,000 pounds per square inch. The Harvey process of surface-hardening has been largely used of late years for all armor-plate. See NICKEL STEEL below.

Great progress has been made in studying the microstructure of steel within a few years. According to Howe, it is found that all carbon steels, when examined by the microscope, show: ferrite (pure iron); cementite, which is iron combined with cement-carbon (carbon, as it appears in unhardened steel, being a carbide); pearlite, a granular or lamellar mixture of ferrite and cementite; and martenite, a constituent retained by sudden cooling, and productive of hardness. This theory associates pearlite with all soft steels and martenite with all hard steels. This investigation renders it easier to calculate the physical constituents and qualities of a steel, of which the percentage of carbon is known.

The steel production of the world, in tons, during 1901, was as follows:

United States	13,689,173
Great Britain	5,080,000
Germany and Luxembourg	6,394,222
France	1,465,071
Belgium	526,670
Austria-Hungary	1,142,000
Russia	1,815,000
Sweden	269,897
Spain	122,954
Italy	120,000
All other countries	405,000
TOTAL,	31,029,987

MANGANESE STEEL.—Manganese is present in all combinations of iron and steel, but often in infinitesimal quantities. If the alloy be increased, some remarkable and useful combinations result. If the quantity of manganese is between 1¼ and 3½ per cent., there result decreased strength and ductility; but if 3½ to 5 per cent. are introduced the steel becomes hard and brittle; above 6½ per cent. is noted a return to ductility and toughness; and as it approaches 13 per cent. its magnetism is lost; when used for castings the maximum of strength is found at 14 per cent.; if forged, 13 or 14 per cent. gives the most tenacity and ductility, and 5 per cent. the greatest brittleness. The use of this alloy for castings is found in screw-propellers, car-wheels, stumps and dies, crushing-rolls, &c.

NICKEL STEEL.—Within the past ten years it has come to be generally appreciated by makers of steel that alloying with nickel adds valuable qualities of toughness and elasticity, as well as materially increases the tensile strength of the steel. Various alloys are now being used, containing, as a rule, from 2 to 4 per cent of nickel. In the manufacture of armor-plate the alloy has been specially valued, and the celebrated Harveyized plates are made of nickel steel, exhibiting a resistance 43·8 per cent. superior to the best all-steel non-Harveyized. Large forgings of nickel steel have shown tensile strengths of 95,000 pounds per square inch, with an elastic limit of 60,000 pounds. The alloys used always contain other metals in minute quantities, and a variety of combinations have been tried. These will serve as an illustration: I.—Iron, 93; carbon, 4; nickel, 2; chromium, 1. II.—Iron, 96; nickel, 3·21; carbon, 0·28; silicon, ·08; phosphorus, ·03; manganese, trace; sulphur, trace.

CHROME STEEL.—The use of chromium as an alloy with steel is confined to application as a third element in some other alloy, being introduced to insure hardness. It is of much value in making projectiles.

—Figuratively, a weapon; particularly, an offensive weapon, as a sword, spear, &c.; as, "Foemen worthy of their *steel*."—Specifically, an instrument of steel for giving an edge to table-knives.—Anything conveying the idea of extreme hardness, sternness, or rigor.

Steel, *v. a.* To edge, point, or overlay with steel; as, to *steel* an axe, sword, or razor.—To harden; to make hard, or extremely hard; to make obdurate or insensible; as, his heart is *steeled* to pity.—To cause to resemble steel in its more characteristic qualities.

Steele, SIR RICHARD, an English essayist and dramatic author of the last century, B. in Dublin in 1671, and who commenced his literary career in 1702 by writing for the stage, and produced *The Funeral, or Grief à la Mode*, *The Tender Husband*, *The Lying Lover*, and *The Conscious Lovers*, his best work. In 1709 he began the *Tatler*, and four years later assisted with the *Spectator* and *Guardian*, and soon after entered the House of Commons as member for Stockport, but was expelled for writing a satire, supposed to be a breach of privilege. Upon the accession of George I. he was knighted, given several lucrative posts, and returned to Parliament for Boroughbridge. D. 1729.

Steele, in *Indiana*, a twp. of Daviess co.

Steele, in *Minnesota*, a S.E. co.; *area*, 432 sq. m. It is drained by Straight River, a branch of Cannon River. *Surface*, undulating; *soil*, excellent. *Capital City*, Owatonna.

Steel'-engraving, *n.* The art of engraving on steel. See ENGRAVING.

Steel'er, *n.* (*Ship-building.*) The foremost or aftermost plank in a strake, which is dropped short of the stern or stern-post of a vessel.

Steel'iness, *n.* [From *steely.*] A great degree of hardness or obduracy.

Steels'ville, in *Michigan*, a village of Ottawa co., 75 m. W.N.W. of Lansing.

Steel'-trap, *n.* A trap for snaring vermin or wild animals, consisting of two serrated iron jaws, which close by the agency of a powerful steel spring, worked by a catch.

Steel'ville, in *Missouri*, a post-village, cap. of Crawford co., 90 m. S.W. of St. Louis.

Steelville, in *Pennsylvania*, a post-village of Chester co., 20 m. S.W. of Westchester.

Steel'y, *a.* Made or consisting of steel; as, *steely* particles.—Hence, analogically, hard; firm; resembling the stubborn quality of steel; as, a *steely* nature.

Steel'yard, *n.* (*Statics.*) A sort of balance or weighing-machine (Fig. 2427), consisting of a lever with unequal arms, and the fulcrum in F. The short one, B, supports the substance to be weighed, and an invariable weight, P, is made to slide along the other till the two forces are in equilibrium; the weight required is then indicated on the graduated edge of the long arm.

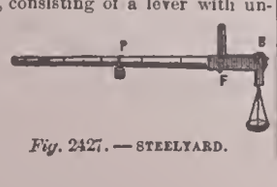


Fig. 2427. — STEELYARD.

Steen, Stean, Stein, *v. a.* (*Arch.*) To line with brick, stone, or other material, as a well.

Steen, in *Indiana*, a twp. of Knox co.

Steep, *a.* (*comp.* STEEPER; *superl.* STEEPEST.) [A. S. *steap.*] High; lofty; ascending or descending with great inclination; precipitous; approaching to an upright position; as, a *steep* hill.

—*n.* A precipitous place, hill, mountain, rock, or ascent; a precipice; an abrupt acclivity or declivity; as, a mountain *steep*.

—Something that is steeped, or employed in steeping; a fertilizing liquid for quickening the germination of seeds — In some parts of England, a rennet-bag.

—*v. n.* To become steep; as, the road *steepens* by degrees.

—*v. a.* [Probably formed from A. S. *dyppan*, by prefixing *s*; Icel. *steypa*, to pour, to melt.] To soak in a liquid; to macerate; to imbue; to drench; to keep anything in a liquid till it has thoroughly imbibed it.

Steep'er, *n.* A vessel, vat, cistern, or other utensil, in which articles are placed to steep.

Steep Falls, in *Maine*, a post-village of Cumberland co., 22 m. N.W. of Portland.

Steeple, (*stē'pl,*) *n.* [A. S. *stypel, stepel.*] (*Arch.*) The tower of a church, &c., including any superstructure, such as a spire or lantern, standing upon it. See SPIRE and TOWER.

Stee'ple-chase, *n.* (*Sporting.*) A race in which a number of horsemen ride at full speed across country, leaping over walls, fences, hedges, ditches, or whatever obstacles may face them in a direct course to a certain goal or winning-post;—a sport popularly practised in England and Ireland.

Steep'ly, *adv.* With steepness; in a steep manner; with precipitous declivity.

Steep'ness, Steep'iness, *n.* State of being steep; precipitous declivity; as, the *steepness* of a mountain.

Steer, *n.* [A. S. *steor*; Ger. *stier.*] A young castrated male of the ox kind, or common ox, especially one from two to four years old.

—*v. a.* [A. S. *styran.*] To govern; to direct or to guide; to show the way or course to;—particularly, to direct and govern, as a ship by the movements of the helm; as, to *steer* a straight course.

—*v. n.* To direct one's course; to direct or govern a ship or other vessel in its course.—To be directed and managed, with respect to course or motion; as, the vessel *steered* badly.—To conduct one's self; to take or pursue a course or way; as, he *steers* clear of temptations.

Steerage, (*steer'aj,*) *n.* Act or practice of governing or directing in a course; as, the *steerage* of a ship, the *steerage* of a national policy.

(*Naut.*) The effort of a helm, or its effect on the course of a ship; or, the peculiar manner in which an individual ship is affected by the helm.—Also, an apartment in the fore part of a ship, between decks, for the accommodation of an inferior class of passengers, as distinguished from the *chief cabin*.

—Direction; regulation; management; control: as, the *steerage* of one's course through life. (R.)—That which serves to direct a course.

Steerage passenger, a second- or third-class passenger in a ship, who is accommodated in the steerage.

Steer'age-way, *n.* (*Naut.*) That degree of progressive motion of a ship which renders her capable of direction by the helm.

Steer'er, Steers'man, *n.*; *pl.* STEERSMEN. One who steers; a helmsman; a pilot.

Steer'ing, *n.* Act or art of directing and governing a ship or other vessel in her course.

Steer'ing-wheel, *n.* (*Naut.*) A wheel to which the tiller-rope or rudder-chains are attached, for the convenience of steering a ship.

Steeve, *v. n.* (*Ship-building.*) To set the bowsprit so as to form an angle with the horizon, or with the line of a ship's keel.

—*v. a.* (*Ship-building.*) To cause to project at an angle with the horizon;—said of a ship's bowsprit.

—*n.* (*Naut.*) The angle at which a bowsprit is set with the horizon, or with the line of a ship's keel.—A long, heavy spar, with a place to fit a block at one end, used in stowing certain kinds of cargo which need be driven in closely.

Steev'ing, *n.* (*Naut.*) The elevation which a ship's bowsprit or cathead forms above the stem, or the angle which either makes with the horizon; steeve.

Stegan'ography, *n.* [From Gr. *stegein*, to cover closely, and *graphein*, to write.] The art or practice of writing in cipher or secret characters.

Stegnot'ic, *a.* [Fr. *stegnotique*; Gr. *stegnōtikos.*] (*Med.*) Having a tendency to cause constipation, or to diminish natural discharges generally.

—*n.* (*Med.*) A medicine which tends to produce costiveness.

Steilacoom (*sti-la-koom'*), in *Washington*, an unimportant village and post-office, former cap. of Pierce co., on Puget Sound, 120 m. N.E of Pacific City.

Stein, (*stīn,*) HEINRICH KARL, BARON VON, a Prussian statesman, B. in Nassau, 1759. After being educated at Göttingen, and studying public law at Wetzlar, he entered the Prussian civil service, and after filling several important offices, was, in 1786, appointed President of the Westphalian Chambers, which post he held till 1804, in which year he became Minister of Finance and Trade. In this capacity he laid the foundation of important social reforms; but, exciting the jealousy of Napoleon, *S.* was exiled to Prague. In 1812, he went to St. Petersburg, where he rendered great services to the Russian govt. during the French invasion. Subsequently returning to his own country, he was placed at the head of administrative affairs, from which position he retired in 1827. D. 1831.

Stein'bok, Stein'bock, Steen'bok, *n.* [Du. *steen*, stone, and *bok*, a buck.] (*Zoöl.*) A very graceful antelope (*Antilope tragulas*), which inhabits the stony plains and rocky hills of S. Africa; is particularly shy, and runs with remarkable swiftness. It is much hunted, on account of the delicacy of its flesh, which is esteemed excellent venison.

Stein'heilite, *n.* (*Min.*) A variety of iolite, found with copper pyrites at Orijerloi, in Finland. It is of a blue color, and is considered by jewellers an inferior variety of sapphire.

Stekene, (*stek'in,*) a market-town of Belgium, 18 m. from Ghent; *pop.* 5,646.

Stel'lar, Stel'lary, *a.* [Fr. *stellaire*; Lat. *stellaris* — *stella*, a star.] Pertaining, or having reference, to stars; astral; as, "*stellar* virtue." (*Milton.*)—Consisting of, or set with, stars; starry; as, a *stellar* world.

Stel'laria, *n.* (*Bot.*) A genus of plants, order *Caryophyllaceæ*, composed of small grass-like herbs, with flowers in forked cymes, found in moist, shady places. *S. media*, the Chickweed, is a common weed in almost every situation N. of Mexico. It gives small, white flowers from the beginning of spring to the end of autumn. The seeds are eaten by poultry and the smaller birds.

Stelliferous, *a.* [Lat. *stella*, a star, and *ferre*, to bear.] Possessing, or abounding with, stars.

Stel'liform, *a.* [Lat. *stella*, and *forma*, form.] Star-shaped; radiated.

Stel'lionate, *n.* [Lat. *stellionatus*, cozenage.] (*Civil Law.*) A general term, comprehending all sorts of frands committed in matters of agreement not designated by any more special appellation.

Stel'lular, Stel'lulate, *a.* [From Lat. *stellula*, dim. of *stella*.] Shaped like a little star; radiated; having a mark resembling a star.

Stel'lite, *n.* [Lat. *stella*, a star.] (*Min.*) A white, translucent variety of scolezite, crystallized in concentric stellar groups of delicate rhombic prisms.

Stem, *n.* [A. S. *stefn*, or *stemn.*] (*Bot.*) The ascending axis of a plant, or that part of the axis which, at its first development, takes an opposite direction to the root. *S.* have usually considerable firmness and solidity, but sometimes they are too weak to support themselves. When they trail on the ground, they are said to be *procumbent*; when they cling to other bodies by means of suckers, *climbing*, or *scandent*; and when they twist in a spiral manner round their supports, *twining*, or *volubile*. The four principal kinds of *S.* are: 1, the *caulis*, common to plants which are herbaceous, or die down annually — examples may be seen in most garden and roadside plants; 2, the *trunk*, the woody and permanent *S.* of a tree — it always springs from a dicotyledonous embryo; 3, the *culm*, common to most grasses and sedges — it is usually a tube, having joints or partitions at the points where the leaves arise; 4, the *stipe*, a fibrous *S.*, straight and cylindrical, being almost as thick at the summit as at the base — it is peculiar to acotyledonous plants, and may be observed in any of the palms or tree-ferns. For descriptions of the principal modifications of the *S.*, see BULB, CORM, RHIZOME, TUBER.

—The stock of a family; a race or generation of progenitors.

"Learn well their lineage and their ancient *stem*."—*Tickell.*

—Progeny; a descendant or branch of a race or family; as, "This is a *stem* of that victorious stock."—*Shaks.*

(*Mus.*) An upright or downright line added to the head of a musical note; the head being that part filled in black or left open, as the case may be.

(*Ship-building.*) A strong timber, forming in a ship the wedge-like front. It is united by a scarf to the keel, and rises nearly perpendicularly from it. The fore-ends of the planks of the side are firmly imbedded in the *S.* It is backed by the *apron* and *stemson*.

From stem to stern, from fore to aft, or from one end of the ship to the other; as, to rake a vessel *from stem to stern*.

—*v. a.* [Ger. *stämmen*, to bank up.] To oppose or resist, as a current; to make progress against, as a current; as, to *stem* the waves.—To stop; to check, as a stream or moving force; as, to *stem* the tide of public opinion.

Stem'-clasp'ing, *a.* (*Bot.*) Amplexicaul, as a leaf or petiole.

Stem'-leaf, *n.* A leaf springing from the stem.

Stem'less, *a.* Having no visible or obvious stem; acaulescent.

Stem'let, *n.* A small stem.

Stem'ple, *n.* (*Mining.*) A cross-bar of wood in the shaft of a mine.

Stem'son, *n.* (*Ship-building.*) A piece wrought on the aft part of the apron, continued as high as the middle or upper deck in small ships, the lower end lapping on or scarfing into the keelson.

Stench, *n.* [A. S. *stenc.*] An ill smell; an offensive odor; stink.

Stench'-trap, *n.* A contrivance for the prevention of the escape of effluvia from sinks and drains; formed on the same principle as a gasometer.

Stencil, (*stēn'sil,*) *n.* A piece of thin leather or oil-cloth, used in painting on walls. The pattern, cut out of such pieces, is laid flat on the wall, and the color is brushed over it.

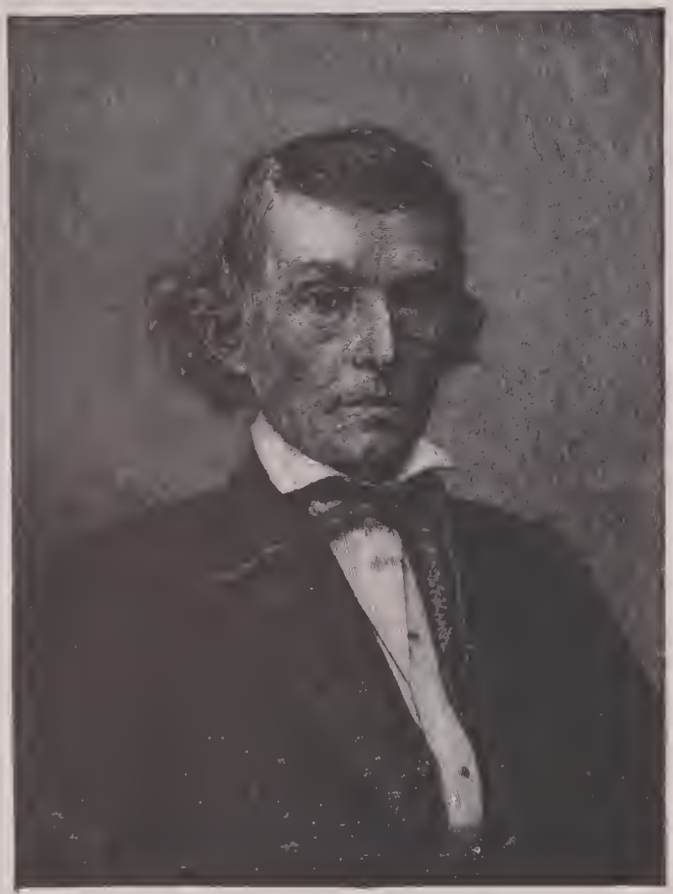
—*v. a.* (*imp.* and *pp.* STENCILLED,) (*stēn'sild.*) To paint, print, or mark by means of a stencil.

Sten'dal, a town of Prussia, on the Uchte, 62 m. from Berlin. *Manuf.* Woollens and leather. *Pop.* 9,114.

Stenocor'nis, *n.* (*Zoöl.*) A genus of coleopterous insects, family *Ceramlycidæ*, which has the wing-covers

Sir Richard Steele

1671–1729



Alexander Hamilton Stephens

1812–1883

narrow, and notched or armed with two little thorns at the tips, and the antennæ very long. The Oak-pruner, *S. villosus*, about half an inch long, lays its eggs in July, placing each one in the joint of a leaf-stalk, near the extremity of a branch. As soon as the larva is hatched, it penetrates to the pith, and then moves towards the body of the tree, devouring the pith as it goes. At the close of the summer it has moved several inches; and now, having arrived at its full growth, it cuts out all the wood at the lower extremity of its burrow, leaving only the bark to sustain the branch: then, retiring a little, it stops up the downward end of its burrow, and awaits the fall of the branch, which takes place during the first strong wind. Branches an inch in diameter, and several feet in length, are thus cut off. The larva goes into the pupa state in the spring, and comes out a mature insect in June.

Sten'ograph, *v. a.* (*imp.* and *pp.* STENOGRAPHED,) (*-grăft.*) To write or report in a stenographic manner.

Stenog'rapher, Stenog'raphist, (*-fist,*) *n.* One skilled in stenography, or short-hand.

Stenograph'ic, Stenograph'ical, *a.* [Fr. *stenographique.*] Pertaining, or having reference, to stenography; as, a *stenographic* report.

Stenog'raphy, *n.* [Fr. *sténographie*, from Gr. *stenos*, close, confined, and *graphē*, writing.] The art of writing in short-hand by using abbreviations or characters for entire words; —otherwise called *tachygraphy*.

Sten'tor, *n.* [Lat. and Gr.] A herald mentioned in Homer, possessing a voice like thunder; — hence, any person having a powerful voice.

Stento'rian, *a.* [Lat. *stentoreus;* Gr. *stentoreios.*] Pertaining, or relating, to a stentor; excessively loud; as, a *stentorian* voice.—Capable of uttering an extremely loud sound; as, *stentorian* lungs.

Step, *v. n.* (*comp.* and *pp.* STEPPED,) (*stĕpt.*) [A. S. *stepan, stæppan;* Ger. *stapfen.*] To move the foot; to advance or draw back by a movement of the foot or feet; as, to *step* forward. — To walk a short distance; as, he has just *stepped* over the way.— To walk gravely, slowly, or resolutely.

To step aside, to retire to a little distance. — *To step back*, to carry the mind or thoughts back; as, "They are *stepping* almost three thousand years *back* into remotest antiquity." — *Pope.*

To step forth, to move or come forth. — *To step in* or *into*, to move or advance suddenly into a place or state; as, *to step into* another person's shoes, that is, occupy the position formerly held by another. — To enter for a short space of time; as, I have just *stepped in* for a chat with you. — To take possession of without trouble; as, *to step into* a legacy.

To step out, to increase the length of the step or stride, without additional rapidity.— *To step short.* (*Mil.*) To curtail the length or rapidity of the step, according to established regulations.

—*v. a.* To set, as the feet. — To fix or erect in its place or socket; as, to *step* a mast.

—*n.* [A. S. *stæp, stap;* allied to Gr. *steibō*, to tread or stamp on.] A pace; an advance, recession, or movement made by one removal of the foot; as, to take a *step* forward. — One remove in ascending or descending a stair; as, a flight of *steps*. — The space passed by the foot in walking or running; as, he takes a long *step*. — A small space or distance; as, the place is not more than a *step* from here. — Gradation; degree; as, he won his present position *step* by *step*. — Progression; act of advancing; resultant gain, benefit, or advantage; as, reform would be a *step* in the right direction. — Footstep; track; print or impression of the foot; trace; vestige; as, he walks in the *steps* of his forefathers. — Gait; manner of walking; as, a cripple approaching may be known by his *step*. — Proceeding; measure; action; as, I shall take *steps* to gain redress. — The round, rung, or rundle of a ladder; as, he ascended cautiously *step* after *step*.

—*pl.* Walk; passage; as, he bent his *steps* homeward. — A portable wooden framework of stairs, used within-doors in reaching to something elevated.

(*Mach.*) A kind of bearing wherein the lower end of a spindle or vertical shaft revolves.

(*Mus.*) A term applied to one of the larger diatonic degrees or intervals of the scale.

(*Ship-building.*) A block of wood, or in large ships, a strong, solid, platform upon the keelson, supporting the heel of the mast, and equalizing the pressure. — (*pl.*) Stairs on the topsides for the convenience of getting aboard a ship.

—[A. S. *steop*, from *stepan;* Icel. *styfi*, to cut off.] A prefix used in the composition of certain words to express relationship by the marriage of a parent; as, a *step*-father, *step*-mother, *step*-son, *step*-daughter, &c.

Step'-brother, (*-brŭth'er,*) *n.* A brother by marriage of a parent.

Step'-child, *n.* A son or daughter by marriage only.

Step'-dame, *n.* A step-mother.

Step'-daughter, *n.* The daughter of one's wife by a former husband, or of one's husband by a former wife.

Step'-father, *n.* The husband of one's mother by virtue of a marriage subsequent to that of which the person spoken of is the offspring.

Step'-grate, *n.* (*Mach.*) A kind of grate for containing fuel, in which the bars present the appearance of a series of steps.

Stephanite, (*stef'-,*) *n.* (*Min.*) Native sulphide of silver and antimony, composed (when pure) of 70 per cent. of silver, 14 antimony, and 16 sulphur. It is a valuable ore of silver, of a dark, lead-gray, or iron-black color, with shining metallic lustre, and is found associated with other silver-ores.

Stephen I., (*stē'vn,*) Pope, ascended the pontifical chair after Lucius, in 253. He had a difference with St. Cyprian and Firmilian about rebaptizing repentant heretics, which practice this Pope condemned. D. 257.

STEPHEN II., was a native of Rome, and elected pope in 752. Astolphus, King of the Lombards, having menaced the city of Rome, *S.* implored the aid of Constantine Copronymus, Emperor of the East; but he, being engaged in a war, recommended his cause to Pepin, King of the Franks, who marched into Italy, and deprived Astolphus of the exarchate of Ravenna and several cities, which he gave to the Pope, thus laying the foundation of the temporal sovereignty of the Church of Rome. D. 757.

STEPHEN III., succeeded Paul I. in 768. Throughout his career he was at variance with the Lombards, and threatened to excommunicate Charles (afterwards Charlemagne) and Carloman, sons of Pepin, if they entered into an alliance with them, or intermarried with the daughters of the Lombard king. Charles, however, married Hermengarda, daughter of Desiderius, King of the Lombards, but put her away a year afterwards. He was succeeded by Adrian I. D. 772.

STEPHEN IV., succeeded Leo III. in 816, but died in the same year.

STEPHEN V., was elected in succession to Adrian III., in 885. He was a learned pontiff, and greatly contributed to relieve the people of Rome from the effects of a terrible famine which had desolated the country shortly before his accession. D. 891.

STEPHEN VI., became Pope in succession to Romanus in 897. He caused the body of Pope Formosus to be disinterred and cast into an ordinary grave, on the plea that the Pope had been excommunicated by John VIII. anterior to his elevation to the tiara. In 898 the partisans of Formosus burst into an insurrection, and, having seized Stephen, strangled him.

STEPHEN VII., was the successor of Leo V., and was elevated to the papacy in 929. There are no reliable records of his pontificate. D. 931.

STEPHEN VIII., was the successor of Leo VIII. At the time of his election, 939, Rome was governed by Alberic, son of Marozia (see MAROZIA), who styled himself "Prince and Senator of all the Romans." The records of his papacy are extremely untrustworthy; but it is stated by one authority that Stephen VIII. was, during a revolt of the Roman populace, rendered a cripple for life. His successor was Martin III. Stephen D. 942.

STEPHEN IX., was elected to the papacy in succession to Victor II. in 1057. He had previously fulfilled the office of papal legate at the court of Constantinople. After his elevation, he dispatched legates to Milan to enforce celibacy among the clergy of that church; the disputes upon which decree lasted during a quarter of a century. He was a learned and energetic pontiff, but too ambitious of worldly influence. D. 1058.

Ste'phen I., King of Hungary, succeeded his father Geisa in 997. He reformed the manners of his subjects, enacted excellent laws, and introduced Christianity into his kingdom. D. 1038. *S.* was canonized, and his memory is held in great veneration throughout S. Germany, where churches are met everywhere dedicated to his name.

STEPHEN II., King of Hungary, succeeded his father Koloman in 1114. He invaded Poland and Austria, and marched into Russia, but was unsuccessful everywhere. He abdicated in 1131, and retired to a monastery, where he died in the same year.

STEPHEN III., was crowned King of Hungary in 1161, but was almost immediately deposed by the nobles. He regained the crown, however, in 1165, and reigned till 1174.

STEPHEN IV., ascended the throne in 1161, but was defeated by the preceding in 1163, soon after which he died at Semlin.

STEPHEN V., reigned two years only, but gained an illustrious name by his victories over Ottocar, King of Bohemia, 1270–1272.

Ste'phen, King of England, was the son of the Count of Blois by his wife Adela, daughter of William the Conqueror, and B. 1105. Being in England on the death of Henry I., he seized on the crown and royal coffers, to the prejudice of Henry's daughter, Maud, the empress, and was crowned in 1135. Four years elapsed before Matilda was able to land with forces to dispute *S.*'s possession of the throne, and after a long civil war, that lasted nearly the whole reign, and in which *S.* was once taken prisoner, but released for Maud's brother, the Earl of Gloucester, it was finally decided that *S.* should retain the crown for his own life, on condition that Prince Henry, Maud's son by her first husband, should succeed. These terms were concluded in 1154; Stephen only lived a year after, dying in 1154, after a stormy reign of 19 years.

Ste'phen, King of Poland, surnamed BATHORI, was a noble Hungarian, B. 1532, elected Prince of Transylvania 1571, and succeeded to Henry of Valois as King of Poland, 1575. D. 1586.

Ste'phen, (St.,) *The Deacon*, called also the *Protomartyr*, or earliest of the Christian martyrs, was one of the seven deacons whose appointment is related in the 6th chapter of the Acts of the Apostles. The circumstances of his martyrdom are related in the same chapter. His festival is fixed during the festivals which accompany that of Christmas. It is kept with great solemnity, both in the east and in the west. His relics are believed to have been discovered in the beginning of the 5th cent., the "discovery" being commemorated by a festival held on the 3d of August.

Steph'ens, ALEXANDER HAMILTON, an American statesman, sometime Vice-President of the so-called Confederate States, B. in Taliaferro, Ga., 1812, was left an orphan at the age of 14, graduated at Franklin College in 1832, and having studied law, was admitted to practice in 1835. He was elected to the Lower House of the State Legislature in 1836, and served five years; was elected to the Senate of his State in 1842, and a representative in Congress for Georgia in 1843. After the nomination of Gen. Scott for the Presidency, *S.*, who had been a prominent leader of the Whig party in Georgia, became a supporter of the Democrats, and in August, 1860, delivered a speech before a convention in Georgia strongly in opposition to the secession of that State. When, however, he saw the rupture inevitable, he supported it, and was elected provisional Vice-President of the Confederate States. He was sent as commissioner to Virginia, which had passed the ordinance of secession, and through his agency a treaty was made with the State Convention, and the State was admitted into the new confederation provisionally formed at Montgomery. On the organization of the permanent government, *S.* was elected Vice-President by the vote of the people. After the failure of the Peace Conference in April, 1865, *S.* retired to Georgia, was arrested and confined in Fort Warren, Boston Harbor, but was released, Oct. 11, 1865, when he returned to Georgia. In December, 1865, he was elected Senator of the U. States Congress, but was not permitted to take his seat. In 1874, was elected representative to Congress, and served several terms. In 1882, was elected Gov. of Geo. D. March 4th, 1883. *S.* is author of a *Hist. of the War of Secession.* 1869.

Ste'phen's, (or Ste'ven's) Landing, in *Mich.*, a v. of Sanilac co., on L. Huron, abt. 6 m. S. of Lexington.

Stephensburg, in *Ky.*, a p. v. of Hardin co., 90 m. S.W. of Frankfort.—In *Va.*, a v. of Frederick co., abt. 9 m. S.S.W. of Winchester.

Ste'phen's Creek, in *New Jersey*, a village of Atlantic co., abt. 5 m. S. of May's Landing.

Ste'phenson, GEORGE, the founder of the railway system of Great Britain, and perfecter of the locomotive engine, was B. in Northumberland, 1781. At the age of 14, he joined his father in his work as fireman in a colliery, where, by a close attention to all he saw, and a constant study of every piece of mechanism that came in his way, he acquired a large amount of sound practical knowledge; while by mending boots, clothes, and cleaning clocks, he was enabled to add a trifle to his weekly earnings. In 1812 he was appointed engineer to the colliery, at a salary of $500 a year. Soon after this he built his first travelling engine to draw the wagons along the tramway, which, though clumsy and weak in power, was immensely superior to any engine then in use; the following year he constructed a second, as superior to his first as that had been to all others before it. From this time improvement followed on improvement in rapid succession, not only in the form of the locomotive, but in the rails and in every department to which steam was applicable, till, from mere tramways, the whole beautiful system of railway locomotion, with all its complications of stations, signals, tenders, and carriages, was at last completed by the opening of the Liverpool and Manchester Railway. In 1830 that great undertaking was opened, and from that time the name of *S.* became one of the most popular among men of science in Europe. In 1845 he retired from all railway undertakings, and devoted his time to his collieries and other sources of business, and, after having been instrumental in establishing all the foreign and home lines, he D. in 1848, leaving his fortune and his fame to his only son, ROBERT STEPHENSON, who, B. in 1803, joined his father in his complicated operations on the Liverpool line, became the permanent engineer of that company, surveyed several new lines, visited South America to inspect the gold and silver mines of that country, and long before his father's retirement from active operations had established a name as the first civil engineer in Europe. Among the great works with which Robert Stephenson's name is associated, are the High Level Bridge over the Tyne, the Tweed Viaduct, the Britannia Bridge over the Menai Straits, the Victoria Bridge at Montreal across the St. Lawrence, one of the grandest of engineering achievements, and the Alexandria and Cairo Railway. In 1847 he entered Parliament for Whitby; he was a Fellow of the Royal Society, and a member of nearly all the scientific societies of Europe. He published two valuable works—*The Locomotive Steam Engine*, and *The Atmospheric Railway System*. D. 1859.

Ste'phenson, in *Illinois*, a N.N.W. co., bordering on Wisconsin; *area*, 560 sq. m. *Rivers.* Pekatonica river, and Yellow and Richland creeks. *Surface*, undulating; *soil*, fertile. *Minerals.* Lead. *Cap.* Freeport. *Pop.* (1897) 33,830.

Ste'phensport, in *Kentucky*, a post-town of Breckenridge co., on the Ohio, 110 m. S.W. of Frankfort.

Ste'phensville, or STEVENSVILLE, in *Texas*, a post-village, cap. of Erath co., abt. 150 m. N.W. of Austin City.

Ste'phentown, in *New York*, a post-township of Rensselaer co.

Step'-mother, *n.* The wife of one's father by virtue of a marriage subsequent to that of which the person spoken of is the offspring.

Step'ney, in *Connecticut*, a post-village of Fairfield co., 20 m. W. of New Haven.

Steppe, (*stĕp,*) *n.* [Russ. *stepj.*] (*Geog.*) The name given to part of the low tracts of flat land in the N. parts of the Old World, traceable from the shores of the German Ocean through Holland and N. Prussia into Russia, thence into Siberia, and so at intervals to the coast of the Pacific in Behring's Straits. The area is estim. at 4,500,000 sq. m., a part of which is below the level of the ocean. The parts of the plain strictly denominated *Steppes* begin at the River Dnieper, and extend along the shores of the

Black Sea, including all the country N. and E. of the Caspian and the lowlands of Siberia. Hundreds of leagues may be traversed eastward of the Dnieper without variation of scene, and there is a dead level of thin but luxuriant pasture, bounded only by the horizon. While vegetation lasts, there are horses and cattle without number; but winter begins in October, and the whole area is then covered with snow. Fearful storms of wind often rage when the sky is clear and bright. In June, the Steppes are parched and the air is filled with dust; but at other times, and in many parts, wheat is cultivated, and the crops obtained are very large. On the whole, however, the Steppes must be regarded as barren, and part of the tract is even a desert. Between the Caspian Sea and the Sea of Aral there is, for the most part, a wide ocean of shifting sand, often driven by whirlwinds.

Step'ping, *n.* Act of walking or running by steps.

Step'ping-stone, *n.* A stone to raise the feet above the mud or water in walking. — Hence, by analogy, a means of progress or further advantage; as, application is a *stepping-stone* to success.

Step'-sister, *n.* A sister by marriage only.

Step'-son, *n.* The son of one's wife by a former husband, or of one's husband by a former wife.

Step'-stone, *n.* A stone laid as a stair to step on before entering the door of a house.

Stercoraceous, (*-ko-rā'shus,*) *a.* [From Lat *stercus,* dung.] Pertaining or relating to, or partaking of the nature of, dung.

Stercora'ranism, Stercora'rianism, *n.* (*Eccl. Hist.*) A nickname which seems to have been applied in the Western Church, in the fifth and sixth centuries, to a dogma that a change took place in the substance of the consecrated elements, so as to render the divine body subject to the act of digestion.

Ster'corary, *n.* [From Lat. *stercus,* dung.] A sheltered place for receiving dung.

Sterculia, (*ster-kū'le-a,*) *n.* (*Bot.*) The typical genus of the order *Sterculiaceæ.* The most interesting species is *S. acuminata,* the seeds of which, under the name of *Kola-nuts,* are used in Africa to sweeten water, which has become more or less putrid. They contain a large amount of mucilage. *S. tragacantha,* a native of Sierra Leone, received its specific name from yielding a gum

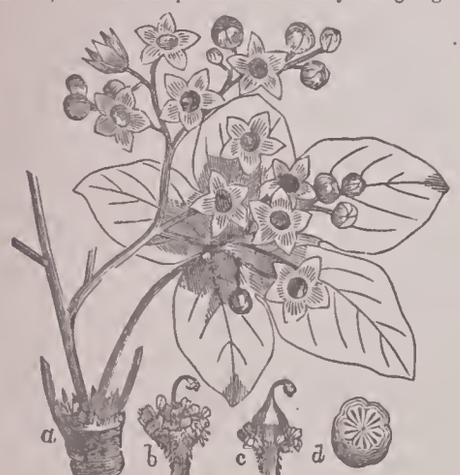


Fig. 2428. — CHICHA, (*Sterculia chicha*).

a, Branch with leaves and flowers; *b,* parts of fructification; *c,* pistil; *d,* transverse section of ovary.

resembling flaky tragacanth. *S. urens,* a native of Coromandel, yields a gum of a similar nature, which is known as *gum kuteera.* The seeds of all the species contain fixed oil, and many are eaten in different parts of the globe, among which are those of the Chicha, *S. chicha* of Brazil (Fig. 2428), which are roasted before being eaten. They are about the size of a pigeon's egg, and have a pleasant flavor.

Sterculia'ceæ, *n. pl.* (*Bot.*) The Silk-cotton family, an order of plants, alliance *Malvales.* DIAG. Columnous stamens all perfect, and 2-celled anthers turned outward. They consist of large trees or shrubs. There are 37 genera and 128 species, all natives of the tropics or of very warm climates. In their properties they resemble the *Malvaceæ,* being generally mucilaginous, demulcent, and emollient. Some produce seeds with a hairy or cottony covering, and others yield useful fibres. Many are remarkable for their prodigious size, height, and apparently enormous age. See BAOBAB, BOMBAX, DUAIO, STERCULIA.

Stère, *n.* [Fr., from Gr. *stereos,* firm, solid.] The French unit for solid measure, equivalent to a cubic metre, or 313 044 American cubic feet.

Stereobate, Sty'lobate, *n.* [Fr., from Gr. *stereos,* solid, and *basis,* base.] (*Arch.*) The lower part or basement of a building or column.

Stereochromic, (*-krōm'-,*) *a.* Pertaining, or having reference to, the art of stereochromy.

Stereochromy, (*-ōk'ro-my,*) *n.* [Gr. *stereos,* hard, solid, and *chromē,* color.] (*Fine Arts.*) A new process of creating durable pictures upon walls. The wall to be painted is first coated with a layer of ordinary lime-mortar, in order to equalize its unevenness. The sand employed, which may be either silicious or calcareous, must be of even grain and well washed beforehand. Lime must be sparingly employed, so as to render the cement rather poor than otherwise. In this and in all the subsequent operations, pure rain-water must be used. The plaster, thus prepared, must be well dried and exposed to the air for several days, so as to become entirely carbonated. Caustic lime would decompose the soluble glass. Fuchs, the inventor of *S.,* recommends the moistening of the wall several times with a solution of carbonate of ammonia, so as to accelerate the saturation of the lime. When dry, it is washed over several times with a moderately diluted solution of the so-called "double water-glass," allowing it to dry each time. The ground being thus prepared, the upper layer may be soon after added. It consists, like the lower one, of a lime-mortar, and is spread in the thickness of about one-tenth of an inch. The sand employed must be well washed, and of a grain not exceeding a certain size. When the coating is perfectly dry, it is sometimes rubbed with a sharp sandstone, in order to remove the layer formed of carbonate of lime. It is better, however, to accomplish this by means of diluted phosphoric acid. The phosphate of lime thus formed binds the soluble glass, a solution of which, when the coat is dry, is spread over the surface. The same is diluted with its equal bulk of water, and the operation is twice repeated. Too much water-glass prevents the ground from taking the colors. The ground being thus prepared, the painting may be at once proceeded with; some delay, however, increases the capacity for absorption. The colors to be used must be ground with pure water, (we shall speak of their preparation in a subsequent article,) and the wall has also to be frequently sprinkled with water, in order to displace the air from the pores, and to insure the adherence of the colors. Nothing further remains to be done than to fix the colors properly with a solution of the soluble glass referred to, which operation is accomplished by sprinkling the painting in the form of a fine shower or mist, then letting it dry, and repeating the operation until the colors adhere so firmly that they cannot be rubbed off by the fingor.

Ste'reograph, *n.* A photograph prepared for exhibition in the stereoscope.

Stereog'raphy, *n.* (*Geom.*) The act or art of delineating the forms of solid bodies on a plane; shaded geometric drawing.

Stereom'eter, *n.* [Gr. *stereos,* and *metron,* measure.] (*Hydrodynamics.*) An instrument for determining the specific gravity of liquid bodies, porous bodies, and powders, as well as of solids.

Stereom'etry, *n.* The art of measuring, and determining the solid contents of, solid bodies.

Stereomon'oscope, *n.* [Gr. *stereos,* firm, *monos,* single, and *skopeō,* to view.] (*Optics.*) An instrument having two lenses, whereby a stereoscopic effect may be obtained from a single picture.

Stereop'ticon, *n.* [Gr. *stereos,* and *optikos,* having reference to sight.] (*Optics.*) A kind of magic lantern for the exhibition of photographic pictures.

Ste'reoscope, *n.* [Gr. *stereos,* and *skopeō,* view.] (*Optics.*) An instrument by means of which two pictures taken from different points of view are shown as one picture of that object, having the almost magical appearance of solidity. The theory of the *S.* was first explained by Professor Wheatstone, who showed that the image of every solid object painted on the retina is different with every different position of the eye. To illustrate this by means of the common camera-obscura: — If the image of a picture be formed in this instrument, it is of no consequence in what position the instrument is fixed with regard to the picture, the relative position of all its points will be the same; but when a *solid object,* as a castle or a tree, is depicted in the camera, the case is far different. It will then be observed that the relative position of the several points of the solid image will vary every time the instrument is shifted. It is precisely similar with the eye; a different picture is painted on the retina every time the position of the eye is changed. In obedience to this law, two slightly different pictures of any solid object will be simultaneously impressed on the two eyes. That this is actually the case, we may convince ourselves by placing a lighted candle about three feet in front of the face, and holding up the fore-finger between the candle and the nose; the finger and candle will appear on the contrary sides of each other when seen by each eye separately. Professor Wheatstone showed that the combination of two dissimilar visual images, simultaneously depicted on the two retinæ, conveyed to the mind the perception of relief or solidity, and this fact he proved by explaining that if two pictures of an object be taken in the direction in which it would be viewed by the two eyes separately, upon these pictures being presented to the two eyes in such a way that their images might fall on corresponding portions of the retinæ, then the two views would be combined into one, and carry to the mind of the beholder the impression of actual solidity. The principle on which the instrument depends is not of modern invention; it was known to Euclid, B. C. 300, and was described by Galen in 174. The first *S.* was manufactured by Duboscq, of Paris, in 1851. The *lenticular S.,* which is the most generally useful, consists of two semi-lenses placed at such a distance that each eye sees the picture of a drawing opposite to it, through the margin of the semi-lens, or through parts of it equidistant from the margin. The distance of the two portions of the lens through which we look must be equal to the distance of the centres of the pupils, which, at an average, is two and a half inches. By this method the images are not only united, but magnified at the same time, which is in many cases advantageous. The *S.* now so commonly used for viewing photographs taken from two different points of view are constructed on this principle.

Stereoscop'ic, Stereoscop'ical, *a.* Pertaining, relating, or adapted, to the stereoscope; as, *stereoscopic* pictures; beheld through a stereoscope: as, *stereoscopic* views.

Stereos'copy, *n.* The art of applying the stereoscope, or of constructing such instrument.

Stereot'omy, *n.* [Gr. *stereos,* hard, solid, and *temnein,* to cut.] The art or science of cutting solids, or making sections thereof.

Ste'reotype, *n.* [Gr. *stereos,* firm, solid, and *typos,* a blow, a type.] (*Print.*) The surface of a page of types cast in one piece of type metal, about one-eighth of an inch in thickness. The art of stereotyping was invented by the celebrated printers MM. Didot, who, towards the close of the 18th century, printed a number of publications, as well as some of the Latin classics, by means of stereotyped plates. This plan was to "set up" the work in movable types of a harder substance than is usual, and with these to obtain a matrix by striking upon a mass of soft metal in an intermediate state between perfect fusion and perfect solidity, after the manner called at the present time in France *clichagé.* About the year 1813 the art was introduced crudely into America, and stereotype foundries were afterwards established in N. York, Philadelphia, Boston, and other cities. It has been successively improved, and the process of stereotyping, as at present practised, may be briefly described as follows: After the setting up of a page, or a number of pages, of movable types, according to the method described under the head of PRINTING, the types are passed on to the stereotyper, who proceeds to take a mould from them. He first of all moistens the surface by rubbing over it an oily composition to prevent the mould from adhering to it. The page is then fixed in a metallic frame, called a *flask,* and plaster of Paris in a semi-liquid state is poured evenly over the whole surface. The plaster soon settles into a solid mass, upon which it is carefully lifted from the surface of the types. Supposing it to be a good and perfect mould, it is then placed face downwards upon a plate of iron termed a *floater.* This last is contained in a cast-iron pan, the cover of this pan being placed above the back of the mould and firmly secured there by a screw. It should be observed that the corners of the lid of the casting-pan are cut off, in order that the metal may enter. The whole apparatus is next sunk into a large iron kettle containing melted metal, and the metal, running in through the open spaces at the corners of the pan-lid, insinuates itself into every hollow of the mould. After ten minutes' immersion the pan is raised, and when cold, the contents are removed, and a cast plate, the face of which is a perfect fac-simile of the types from which the mould was taken, is obtained. In order to insure the proper thickness, as well as an even surface, the back of the plate is shaved upon a shaving-machine. The most careful casting cannot prevent occasional defects in a plate, and it is the duty of the *finisher* to remove small globules of metal, which occasionally adhere to the letters, or to replace those letters that have been broken, by dexterously soldering in new ones. This mode, known as the Plaster process, is the most perfect, and the one mostly employed in stereotyping books. Another method, called the *Papier-Maché,* may be thus described: 4 or 5 sheets of moistened sized tissue-paper, called *papier-maché,* slightly pasted together on a sheet of plate paper, are placed upon the surface of the types. The whole is then struck with a heavy brush till the soft paper has taken a perfect impression of the type. On this matrix, as it is then called, a sheet of plate paper is next placed and again beaten with a brush. This paper mould is next dried and hardened by being placed upon a steam chest and a heavy screw pressure put on it in order to retain the perfect impression while drying. From this mould a cast may be taken by simply placing it in a flask and pouring upon it the molten metal. Several casts can be taken from the same mould. On account of the simplicity and rapidity of this paper process, many newspapers and publications having a large circulation have adopted it as the means of supplying plates, for the rapid production of the requisite number of copies. Still a third method of stereotyping, called the *Clay process,* has been recently invented, in which the mould of the type is made of clay, and by pressure as in electrotyping. The benefits afforded by *S.* are many; in the production of works of reference, of standard authors, and of books for which there is a continued demand, the process is of the greatest utility. Indeed, it is essential to the production of cheap books in large numbers, as it saves the publisher from printing more copies at a time than he needs; and when a new demand arises, there is no necessity to undergo a fresh expense in the new composition of the types.

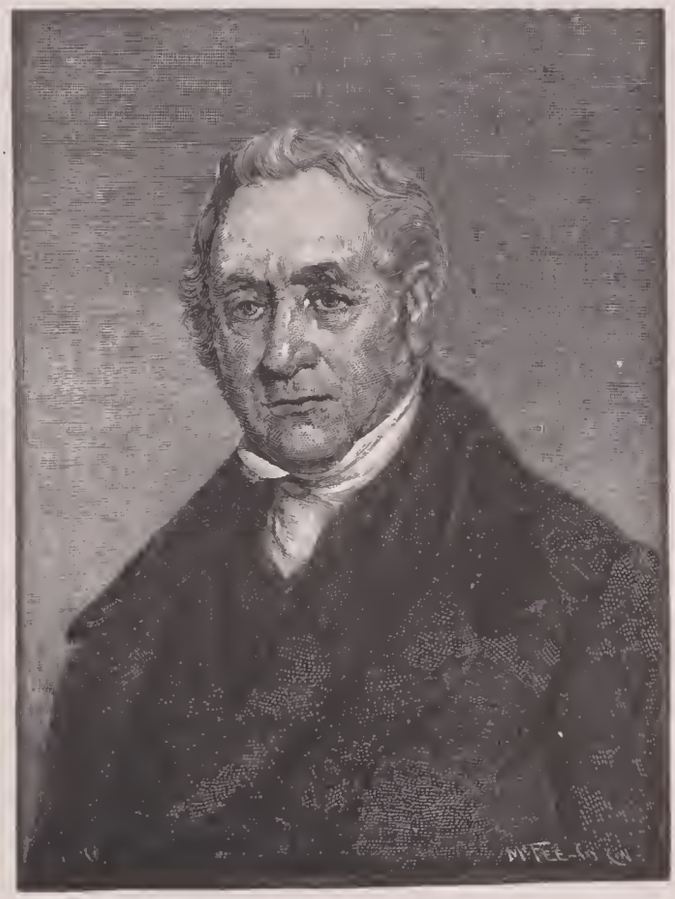
— *a.* Pertaining, or having reference, to fixed metallic types; executed on fixed metallic types, or plates of fixed type; as, a *stereotype* edition.

— *v. a.* (*imp.* and *pp.* STEREOTYPED, *stē're-o-tīpt.*) To print by the use of fixed metallic types; to make, as fixed metallic types or plates of type-metal, corresponding with the words and letters of a book; to compose, as a book in fixed types; as, to *stereotype* the works of Shakspeare.

Ste'reotyped, *p. a.* Formed on fixed metallic types, or plates of fixed types; as, a *stereotyped* work. — Hence, analogically, established in a fixed, unchangeable manner; as, *stereotyped* ideas.

Ste'reotyper, Ste'reotype-founder, Ste'reotypist, *n.* A maker of stereotype plates.

Stereotyp'ic, *a.* Belonging, or relating to, stereotype or stereotype plates.



George Stephenson

1781–1859

Stereotypog'raphy, *n.* [Gr. *stereos*, solid, *typos*, a type, and *graphē*, to write.] Art or practice of priuting in stereotype, or from stereotype plates.

Ste'reotypy, *n.* Art or occupation of making stereotype plates.

Sterile, (*stĕr'il,*) *a.* [Fr., from Lat. *sterilis*, barren; Gr. *sterros*, stony.] Barren; infertile: unfruitful; yielding little or no crop; as, a *sterile* soil, a *sterile* year.—Barren; unproductive of offspring; as, a *sterile* woman, a *sterile* beast.

—Lacking fecundity of ideas; destitute of imagination or sentiment; as, a *sterile* production, a *sterile* writer or speaker.

(*Bot.*) Bearing stamens only; as, a *sterile* plant.

Steril'ity, *n.* [Fr. *stérilité*; Lat. *sterilitas.*] Quality or state of being sterile, or of producing little or nothing; barrenness; unfruitfulness; unproductiveness; state of not producing young, as of animals. — Destitution or poverty of ideas or sentiments, as in writings; want of fertility, or of inventive power; mental instead of physical barrenness.

Ster'ilize, *v. a.* [Fr. *stériliser.*] To make sterile; to exhaust of productive power; to impoverish, as land. —To deprive of the power of propagation, as of young.

Ster'let, *n.* [Russ. *stĕrliadj.*] (*Zoöl.*) The smallest species of Sturgeon (*Acipenser ruthenus*), being from 2 to 3 feet in length; it is found chiefly in the Volga, and is considered a great delicacy. The caviare made from this fish is confined almost exclusively to the use of the royal table.

Ster'ling, *a.* [Probably from *Easterling*, the proper name, in past days, of Germaa traders in England, whose money was of the purest quality.] An epithet by which English coin or money of account is distinguished; as, a pound *sterling*, *sterling* value. — Heace, by implicatioa, of superior quality; genuine; pure; excellent; as, a work of *sterling* merit, a man of *sterling* reputatioa.

—*n.* English money of account.

Ster'ling, in *Arkansas*, a village of Philips co., abt. 9 m. N. of Helena.

Sterling, in *Connecticut*, a post-village and township of Windham co., 46 m. S E. of Hartford.

Sterling, in *Illinois*, a city and township of Whiteside co., on Rock river, and the Chicago & Northwestern and Chicago, Burliagton & Quincy R. Rs., 109 m. W. of Chicago. *Manuf.* Farming implements, flour, carriages, &c. The scenery about the city on Rock river is beautiful, and the river affords abundaat water-power. *Pop.* (1897) 6,500.

Sterling, in *Indiana*, a twp. of Crawford co.

Sterling, in *Massachusetts*, a post-village and twp. of Worcester co., 40 m. N.W. of Boston.

Sterling, in *Michigan*, a twp. of Macomb co.

Sterling, in *Minnesota*, a post-township of Blue Earth co., abt. 20 m. S.W. of Mankato.

Sterling, in *Missouri*, a village of Lincoln co., on the Mississippi River, abt. 50 m. N.N.W. of St. Louis.

Sterling, in *New York*, a post-village aud township of Cayuga co., 30 m. N. of Auburn.

Sterling, in *Ohio*, a village and township of Brown co., abt. 33 m. N.E. of Cincinnati.

Sterling, in *Pennsylvania*, a post-twp. of Wayne co.

Sterling, in *Vermont*, a township of Lamoille co.

Sterling, in *Wisconsin*, a towuship of Polk co.—A township of Veruon co.

Ster'ling City, in *Colorado*, a village of Park co., abt. 90 m. S.W. of Denver.

Ster'ling Hill, in *Connecticut*, a post-village of Windham co., abt. 18 m. N.E. of Norwich.

Ster'lingville, in *New York*, a post-village of Jefferson co., 155 m. N.W. of Albany.

Stern, *a.* (*comp.* STERNER; *superl.* STERNEST.) [A. S. *styrne.*] Fixed with an aspect of austerity, severity, or authority; rigid; as, a *stern* countenance, a *stern* gaze. — Noting severity of manners or disposition; harsh; unrelenting; cruel; austere; as, a *stern* parent, a *stern* will. — Immovable; rigidly decided or steadfast; as, a *stern* alternative, *stern* virtue.

—*n.* [A. S. *steorra*, a starer.] The hinder part of anything; — hence, humorously, the buttocks.

(*Naut.*) The aft or hiad part of a ship, boat, or other vessel: in contradistinction from the *stem* or *prow*.

By the stern, laden more deeply abaft than forward; — said of a ship.

Ster'na, *n.* (*Zoöl.*) The *Terns*, a genus of birds, order *Natatores*. They have a bill as long, or longer, than the head, almost straight, compressed, and pointed; the mandibles of equal length, the upper one slightly inclined towards the point; nostrils pierced towards the middle of the bill; legs small, naked to above the knee; three anterior toes, united by an indented web, the hind too free; wings very long and pointed; tail more or less forked. From the two latter characters, the species of *Sterna* are sometimes called *sea-swallows*. There are several American species, among which *S. paradisea*, the Roseate Tern (Fig. 2429), from New York to Florida, is 16 inches long.

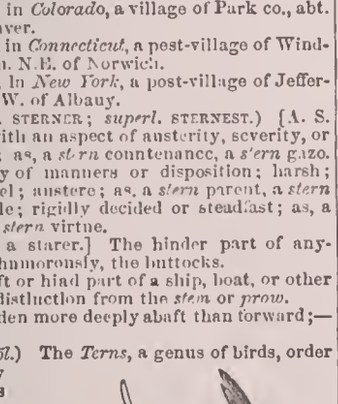


Fig. 2429.
ROSEATE TERN, (*S. paradisea.*)

Stern'berg, a town of Moravia, 10 m. from Olmutz. *Manuf* Woollens, linens, and canvas. *Pop.* 11,616.

Stern'bergite, *n.* (*Min.*) Flexible sulphide of silver and iron, composed of 30·38 per cent. of sulphur, 34·18 silver, and 35·44 iron. It generally occnrs in implanted rhombic crystals, which are attached to the matrix laterally, so as to form rose-like or fan-like aggregations, also massive. It is of a pinchbeck, brown color, with a violet-blue tarnish; is very sectile, and flexible in thin lamiaæ, which after being bent may be smoothed down again with the nail, like tin-foil.

Stern'-board, *n.* (*Naut.*) The lee-way, or retrogressive motion of a vessel; — hence, a loss of way in making tacks.

To make a stern-board, to recede from the point reached in the last tack.

Stern'-chase, *a.* A chase in which two vessels sail on one identical course, one pursuing in the wake of the other.

Sterne, LAURENCE, an English miscellaneous writer, of a very singular and original cast, was a grandson of Richard Sterne, archbishop of York, and B. in 1713, at Clonmel, in Ireland, where his father, a lieutenant in the army, was at that time stationed. He was educated at Jesus College, Cambridge, where he took his degree of M. A. in 1740. Having entered into orders, his uncle, Dr. Sterne, a wealthy pluralist, presented him with the living of Sutton, to which were afterwards added a prebend at York, the rectory of Stillington, and the curacy of Coxwold. For many years he was little known beyond the vicinity of his pastoral residences; but in 1759 appeared the first two vols. of his celebrated *Tristram Shandy*, which drew upon him praise and censure of every kind, and became so popular that a bookseller engaged for its completion on very lucrative terms. During the intervals of the publication of *Tristram Shandy*, the ninth volume of which appeared in 1767, he published three vols. of *Sermons*, with his own comic figure, from a painting by Reynolds, at the head of them. He then spent some years in travelling on the Continent, and, in 1768, he composed his *Sentimental Journey*, which, by a number of pathetic incidents, and vivid strokes of national and characteristic delineation, is rendered extremely entertaining, and acquired a more general reputation than even its predecessor. D. 1768.

Sterned, (*stĕrnd.*) *a.* (*Naut.*) Having a particular form of stern; — said of a ship; as, square-*sterned*, pink-*sterned*, round-*sterned*.

Stern'ly, *adv.* In a stern manner; with an austere or stern air or countenance; with severity or authority.

Stern'most, *a.* Furthest aft or astern; as, the *sternmost* ship in a squadron.

Stern'ness, *n.* Quality of being stern; severe or harsh manner or disposition; austerity; rigor; harshness.

Sterno-cos'tal, *a.* [Gr. *sternon*, the breast, and Lat. *costa*, a rib.] (*Anat.*) Belonging, or having reference, to the breast-bone and the ribs.

Stern'-post, *n.* (*Ship-building.*) The straight piece of timber at the aftermost part of a ship, and to which both sides of the vessel unite; the lower end is tenoned into the keel.

Stern'-sheets, *n. pl.* [*Stern* and *sheet.*] (*Naut.*) That part of a ship's boat which is contained between the stern and the hindermost seat of the rowers.

Stern'son, Stern'-knee, *n.* (*Ship-building.*) A timber bearing the same relation to the stern-post that the stemson bears to the stem.

Ster'num, *n.* [Lat., from Gr. *sternon.*] (*Anat.*) The breast-bone, an oblong, flat, irregularly-shaped bone placed at the fore part of the thorax (see Fig. 2258). In the young subject, it consists of a number of bones, which become united in the adult, when it consists of three, and sometimes of two, or even of one bone. It serves for the articulation of the seven upper or true ribs on each side, is of use in aiding respiration, and defends the heart and lungs.

Sternutation, (*-tā'shun,*) *n.* [Fr.; Lat. *sternutatio.*] The act of sneezing.

Sternu'tative, Sternu'tatory, *a.* Having the quality to excite or promote sneezing.

—*n.* Any substance that causes one to sneeze.

Stern'-way, *n.* (*Naut.*) The retrograde or backward movement of a ship, that is, stern foremost.

Ster'ret's Gap, in *Pennsylvania*, a post-village of Perry co.

Sterto'rious, Ster'torous, *a.* [Fr. *stertoreux*, from Lat. *stertere*, to snore.] Accompanied with, or characterized by, a deep snoring or heavy, labored breathing, as in apoplexy; — hence, breathing with hoarse inspirations; snoring.

Stethom'eter, *n.* [Gr. *stēthos*, chest, and *metron*, measure.] (*Med.*) An instrument for determining the differential mobility of the opposite sides of the chest in respiration.

Steth'oscope, *n.* [Gr. *stēthos*, the chest, and *skopein*, to explore.] (*Med.*) An instrument invented by M. Laennec, of Paris, in 1823, and is of valuable aid in the process of auscultation. It consists of a tube about ten inches in length, made of wood, or sometimes of gutta-percha, widening considerably at one end, and but slightly at the other. The wide end is applied to the chest, or other part of the patient, the physician putting his ear to the narrow end, and from the sounds emitted by the heart, lungs, &c., the state of these parts may be ascertained. These sounds vary according as they are examined at different parts of the chest or neck: thus, in the latter region, the sound heard is called *tracheal* respiration; at the upper part of the sternum, *bronchial* respiration; while in other parts of the chest it is called *vesicular* respiration. Besides these, — the usual sounds heard when the parts are moistened by their natural secretions, —there are other sounds given out when there is an increased resistance offered to the passage of the air, either by a contraction of the part, or by the greater density of the fluids; these sounds are called *rhonchi*, or rattles, and are either dry or moist — dry, when the mucous membrane is swollen, or there is a constriction of the tubes; and moist, when fluids of a thinner consistency are collected in the several parts of the lungs.

Stethoscop'ic, Stethoscop'ical, *a.* [Fr. *stéthoscopique.*] Pertaining, or relating, to a stethoscope; determined, or rendered, by means of a stethoscope.

Stet'son, in *Maine*, a post-township of Penobscot co., 56 m. N.E. of Augusta.

Stet'tin, an important town and river-port of Prussia, cap. of Pomerania, on the left bank of the Oder, 36 m. above where it unites with the Baltic. The town communicates, by a bridge, with a suburb on the right side of the river, and is very strongly fortified. It is well-built, and is the most ancient, as well as the principal, town of Pomerania. *S.* is the seat of an extensive and growing commerce, and the principal port of importation in Prussia. *Pop.* (1897) 132,450.—Stettin Haff is an enlargement of the Oder immediately N. of Stettin; *area*, 200 sq. m. It receives several rivers, and has communication with the Baltic by three outlets.

Stet'tin, in *Wisconsin*, a post-township of Marathon county.

Steuben, FREDERIC WILLIAM AUGUSTUS, BARON, an officer of the American Revolution, B. in Magdeburg, Prussia, 1730. He came to America in 1777, and his offer of service was readily accepted. Having received the appointment of inspector-general, with the rank of major-general, he proved of efficient service to the American army, in establishing a system of discipline and tactics, a perfect knowledge of which he had acquired as an officer under Frederick the Great. As generous in character as he was capable as an officer, he spent his whole fortune in clothing his men, and gave his last dollar to the soldiers. Congress made tardy reparation, and in 1790 voted him an annuity of $2,500 and a township of land in the State of New York, both of which he divided with his fellow-officers. D. on his estate, near Utica, N. Y., 1794. In 1870, the corner-stone of a monument to his memory was laid at the Schützen Park.

Fig. 2430. — BARON STEUBEN.

Steuben, in *Illinois*, a towuship of Marshall co. *Pop.* (1897) 1,120.

Steuben, in *Indiana*, a N.E. co., bordering on Ohio and Michigan; *area*, 330 sq. m. *Rivers.* Pigeon and St. Joseph's. *Surface*, diversified; *soil*, generally fertile. *Products.* Wheat, corn, oats, hay, dairy products, and live stock. *Cap.* Angola. *Pop.* (1897) 15,670.

—A township of Warren co.

Steuben, in *Maine*, a post-township of Washington co., 110 m. N.E. of Augusta.

Steuben, in *New York*, a S.W. co., bordering on Pennsylvania; *area*, 1,490 sq. m. *Rivers.* Conhocton, Canisteo, Tioga, and Chemung. *Surface*, hilly; *soil*, fertile. *Min.* Iron, alum, and building-stone. *Caps.* Bath and Corning. *Pop.* (1897) 88,730.

Steuben, in *Ohio*, a post-village of Huron co.

Steu'benville, in *Indiana*, a village of Randolph co.

Steubenville, in *Ohio*, a city and river-port, cap. of Jefferson co., on the Ohio River, 35 m. S.W. of Pittsburg, on the Cleveland and Pittsburg, and the P. C. & St. L. R. R. The latter crosses the river here on a bridge. *Manuf.* Extensive iron works are carried on, besides other manufactures. Bituminous coal is largely mined.

Steve, *v. a.* [Allied to *stow.*] To stow, as goods in a ship's hold.

Ste'vedore, *n.* One who is engaged in the loading and discharging of vessels; a lumper.

Ste'vens, THADDEUS, an American statesman and reformer, B. at Peacham, Caledonia co., Vt., 1793, graduated at Dartmouth College in 1814, removed to Pennsylvania, studied law, and was admitted to the bar in 1816. He was elected to the State Legislature in 1833, 1834, 1835, 1837, and 1841, was returned a member of the convention to revise the State constitution, but, being then, as always after, hostile to slavery, he refused to sign the document because it restricted suffrage on account of color. In 1848, he was elected to the Thirty-second Congress from the Lancaster district, and ardently opposed the repeal of the Missouri Compromise, the Fugitive Slave Law, and the Kansas-Nebraska Bill. In 1859, Mr. *S.* was again returned, and continued in Congress, by successive reëlections, and at the time of his death was serving his seventh term. In all these Congresses he was a recognized leader. Thoroughly radical in his views, hating slavery with all the intensity of his nature, believing it just, right, and expedient, not only to emancipate, but to arm the negro and make him a soldier, and after the war to make him a citizen and give him the ballot, he led off in all measures for effecting these ends. The Emancipation Proclamation was urged upon the President by him on all grounds of right, jus-

tice, and expediency; the Fourteenth Amendment to the Constitution was initiated and pressed by him. He advocated and carried, during the war, acts of confiscation, and proposed the most rigid and stern measures against the Southern people to the last day of his life. D. in Washington, 1868.

Ste'vens, in *North Dakota*, R W. central co.; *area*, 1,116 sq. m. *Surface*, rolling; a great portion of it rough. Indian reservation. Unorganized. *Pop.* 16.

Stevens, in *Washington*, a N. E. co., bordering on British Columbia. *Rivers*, Columbia, Wenatchee, and Okanagon. *Surface*, mountainous in the W., elsewhere undulating; *soil*, generally fertile. *Cap.* Fort Colville. *Pop.* (1897) 5,150.

Ste'venson, in *Alabama*, a post-village of Jackson co., 38 m. W.S.W. of Chattanooga.

Stevenson, in *California*, a village of Merced co., about 30 m. W.S.W. of Snelling.

Ste'ven's Point, in *Wisconsin*, R manufacturing city, cap. of Portage co., on Wisconsin Central R. R., 158 m. N.W. of Milwaukee. *Pop.* (1895) 8,995.

Ste'venstown, in *Wisconsin*, a post-village of La Crosse co., abt. 20 m. N. of La Crosse.

Ste'vensville, in *Pennsylvania*, a post-village of Bradford co.

Stevensville, in *Virginia*, a post-village of King and Queen co., 31 m. N.E. of Richmond.

Stew, (*stū,*) *v. a.* [Fr. *étuver*; It. *stufare*; Sp. *estufar*, to stew.] To seethe or gently boil; to boil slowly in a moderate manner, or with a simmering heat; as, to *stew* meat or vegetables.

—*v. n.* To be seethed in a slow, gentle manner, or in heat and moisture.

—*n.* [Fr. *etuvée*, stewed meat; A.S. *stofa*, a stove.] A hot place; — hence, a bagnio; a brothel. — A dish that has been cooked by stewing; as, an oyster *stew*, Irish *stew*, &c. — A state of bewilderment, confusion, difficulty, or worry; as, In case of failure, what a *stew* shall I be in!

Steward, (*stū'ard,*) *n.* [A.S. *stiward.*] One who manages the domestic concerns of a large family; as, a house *steward.* — A land-agent; one who has the control and charge of a large estate; in Scotland, a factor. — In England, an officer who superintends the concerns of the kitchen in colleges. — A fiscal manager of certain bodies or institutions; as, the *steward* of a hospital.

(*Naut.*) An officer on shipboard who has the management of the table and of serving the provisions.

Steward, Lord High, of England, anciently the first officer of state; it was hereditary in the family of Hugh Grentmesnil, who was Lord High Steward in the reign of Henry II.; it passed by marriage to the Earls of Leicester, and reverted to the crown in 1265 on the death and attainder of Simon de Montfort; it was then granted to the son of Henry III. Since the reign of Henry IV., who at his succession held the position, it has fallen into abeyance. A temporary *Lord High Steward* is appointed at coronations and at trials of peers.

Steward, High, of Scotland, was formerly an office of great dignity, dating back from the 12th to the 15th cent. It was hereditary, and became the origin of the royal family name of Stewart or Stuart, by the accession of Robert, the 7th high Stewart, to the Scottish throne. In 1469 the title of high Stewart of Scotland, became a title of the eldest son of the king, hence is now taken by the Prince of Wales.

Stew'ardess, *n.* A female attendant on shipboard.

Stew'art, ALEXANDER, a Scottish clergyman and author, B.1781. Among his works are, *Cornelius Nepos, with Notes, &c.*, 1819; *Compendium of Modern History, &c.* D. 1862.

Stew'art, ALEXANDER TURNEY, an American merchant, B. in Ireland 1802, educated for the ministry, and was a man of considerable literary attainment. He came to New York, in 1819, with very little means, and taught school for a time. In 1825 he started his business career as a retail dry-goods merchant with a capital of less than $1,500; from this small beginning his business extended into one of the largest mercantile houses in the world. He projected the Working-Women's Home, upon which several millions were spent in erecting buildings; the project was abandoned, after his death, as a failure, and the edifice turned into a hotel. D. 1876.

Stew'art, CHARLES, an English oriental scholar, B.1770, edited several works on Eastern literature, *History of Bengal*, 1813, *&c.* D. 1840.

Stew'art, CHARLES, an American naval officer, B. in Philadelphia, 1778, was sent to sea, at the age of thirteen, as a cabin boy, rose rapidly to the position of captain in the merchant marine, and entered the service of the U. S. as a lieutenant in 1798. As commander of the brig *Siren* he participated in the celebrated bombardment of Tripoli, Aug. 3, 1804, and received the praise of Decatur for his gallantry on that occasion. In 1806, he was promoted to the rank of captain. In 1812, he was placed in command of the frigate *Constitution*, and during the year following, though closely pressed by the British fleet, succeeded in eluding the enemy and bringing his ship safely to Norfolk. Subsequently he put to sea on a cruise, which was barren of result until the 20th of Feb., 1815, when he fell in with the British ships *Cyane* and *Levant*, and although they were vastly superior to the frigate, promptly attacked them. A severe engagement in the moonlight, lasting three hours, took place, at the end of which both vessels of the enemy struck their colors and surrendered, having been badly damaged, and losing 77 men in killed and wounded. The *Constitution* was but little injured, so admirably was she managed. Her loss was but 3 killed and 12 wounded. The news of this glorious feat was received with the wildest manifestations of joy by the people of the U. S. On the return home of Capt. *S.*, numerous honors were paid him. The Common Council of New York gave him the freedom of the city in a gold box, and the State of Pennsylvania presented him with a gold-hilted sword, and officially thanked him for the victory. Congress also voted him the thanks of the nation, together with a gold medal commemorative of his exploit, which was, undoubtedly, one of the most brilliant in our naval history. Capt. *S.* continued in active service till 1843, when he was placed on the retired list. In 1862 he was commissioned a rear-admiral, and D. Nov. 7, 1869.

Stew'art, DUGALD, a Scotch philosopher, B. at Edinburgh, 1753, received his education at the University of Glasgow, under Reid. In 1785, he was called to the chair of Moral Philosophy, previously filled by Ferguson. This post he held till 1810, when ailing health compelled him to resign. *S.* was very popular as a professor and lecturer: his teaching, like his master's, was a protest against the extreme results of the sensualist philosophy. He first appeared as an author in 1792, when he published the first volume of his *Elements of the Philosophy of the Human Mind.* The second did not appear till 1814, and the third followed in 1827. Among his other works are, *Philosophical Essays*, which passed through several editions; *Outlines of Moral Philosophy*, a preliminary dissertation, for the "Encyclopædia Britannica," on the progress of Metaphysical, Ethical, and Political Science, which appeared in two parts in 1815 and 1821, and had a great run for a time; and biographies of Adam Smith, Dr. Reid, and Dr. Robertson. D. 1828.

Stewart, in *Georgia*, a W.S.W. co., bordering on Alabama; *area*, 450 sq. m. *Rivers*, Chattahoochee River, and Hannahatchee, Kinchafoona, and Patsula creeks. *Surface*, diversified; *soil*, fertile. *Cap.* Lumpkin. *Pop.* (1897) 16,260.

Stewart, in *Pennsylvania*, a township of Fayette county.

Stewart, in *Tennessee*, a N.N.W. co., bordering on Kentucky; *area*, 500 sq. m. *Rivers*, Cumberland and Tennessee. *Surface*, diversified; *soil*, generally fertile. *Cap.* Dover. *Pop.* (1897) 13,130.

Stew'art Islands, a group in the Pacific Ocean. — Also, an island of New Zealand.

Stew'artsburg, in *Tennessee*, a village of Rutherford co., 20 m. S.E of Nashville.

Stew'art's Fork, a river of *Texas*, rises in Cook co., and falls into the W. Fork of Trinity River in Tarrant co.

Stew'art's Mills, in *Illinois*, a village of Crawford co.

Stew'artson, in *Pennsylvania*, a township of Potter co.

Stew'artstown, in *New Hampshire*, a post-township of Coos co., 130 m. N. of Concord.

Stewartstown, in *Pennsylvania*, a village of Allegheny co., 5 m. N.E. of Pittsburg.

Stewartstown, in *W. Virginia*, a post-village of Monongalia co.

Stew'artsville, in *Minnesota*, a post-village of Olmsted co., abt. 13 m. S. of Rochester.

Stewartsville, in *Missouri*, a post-town of De Kalb co., 21 m. E. of St. Joseph.

Stewartsville, in *New Jersey*, a post-village of Warren co., about 10 m. S. of Belvidere.

Stewartsville, in *North Carolina*, a township of Richmond co., 107 m. S.W. of Raleigh.

Stewartsville, in *Pennsylvania*, a village of Westmoreland co., 19 m. E.S.E. of Pittsburg.

Stew'ish, *a.* Suiting a stew, bagnio, or brothel.

Steyer, (*stire,*) a town of Upper Austria, at the confluence of the rivers Steyer and Enns, 19 m. from Linz. *Manuf.* Cotton and woollens, but chiefly iron goods. *Pop.* 11,740.

Sthen'ic, *a.* [From Gr. *sthenos*, strength.] (*Med.*) Applied to one of those diseases which are the result of inflammatory or increased action, as opposed to *asthenic*, or diseases of debility.

Stiacciato, (*stē-at-cha'to.*) *n.* [It.] (*Sculp.*) A very low relief adopted by sculptors for works which could be allowed little projection from the surface or base line chosen.

Stib'nite, *n.* [Lat. *stibium.*] (*Min.*) A native tersulphide of antimony, occurring in long prismatic or acicular crystals, or in fibrous form, of a lead-gray color inclining to steel-gray, and sometimes with an iridescent tarnish. It is the ore from which most of the antimony of commerce is obtained. *Comp.* Antimony 72·88, sulphur 27·12 = 100.

Sticca'do, *n.* (*Mus.*) An instrument consisting of small lengths of wood, flat at the bottom and rounded at the top, and resting on the edges of a kind of open box. They are unequal in size, gradually increasing from the smallest to the largest, and are tuned to the diatonic scale.

Stich, (*stick,*) *n.* [Gr. *stichos*, a row, line.] A verse, of whatever measure or number of feet. (O.) — A line in the Scriptures. (O.) — An American localism for a stitch of land.

Stichom'etry, *n.* [Gr. *stichos*, and *metron*, measure.] Measurement of books, as ascertained by their lineal contents. — A division of the text of a book into lines.

Stick, *n.* [A. S. *sticca.*] A piece of wood, long, slender, and pointed, or tapering to a point, originally used as a goad. — The small shoot or branch of a tree or shrub cut off; a rod; a staff. — Any stem of a tree, of any size, cut for fuel or timber. — Anything in the form of a stick; as, a *stick* of sealing-wax. — A stab; R prod; a thrust with a sharp-pointed instrument.

(*Print.*) See COMPOSING.

—*v. a.* (*imp.* and *pp.* STUCK.) [Dan. *stikke.*] To pierce or prod with a pointed instrument; to stab; to puncture; hence, to slay by piercing; as, to *stick* an ox in slaughter. — To infix; to thrust in; to fasten or cause to remain by piercing; as, to *stick* a pin in one's scarf. — To set; to fix in. — To set with something sharp or pointed; as, to *stick* cards. — To fix on the point of a weapon or instrument; as, to *stick* a potato on a fork, pig-*sticking*, &c. — To cause to attach by adhesive application; as, to *stick* plaster on a cut finger.

Stick, *v. a.* (*Print.*) To arrange in a composing-stick; as, to *stick* type; — used in a colloquial sense.

To stick out, to cause to project or appear prominent.

—*v. n.* To adhere; to hold to by cleaving to the surface, as by tenacity or attraction; as, tar *sticks* to the fingers. — Hence, to stay or remain fixed or united; to cling fast to, as something reproachful; to abide; to rest with the memory; as, a nickname often *sticks* to a person — To be impeded by adhesion or obstruction; to be stopped or hindered from proceeding; to be arrested in a course; to stop; to be prevented from making progress; as, the answer *stuck* in his throat, a cart-wheel *sticks* in the mud. — To hesitate: to be embarrassed, perplexed, or puzzled; as, to *stick* in a dilemma. — To cause difficulties, scruples, or doubts; to entertain hesitancy; as, he is a man who *sticks* at nothing to gain his ends. — To be closely allied; to adhere in intimate friendship and affection; as, old friends ought to *stick* together. — *To stick by*, to be firm and steadfast in adhesion or support; as, he *stuck by* his party to the last. — To be irksome by adherence; as, sad memories sometimes *stick by* one. — *To stick to*, to be constant and resolute in keeping or adhering to; as, he *sticks to* his word. — *To stick upon*, to dwell upon; not to discard or forsake; as, an unavenged insult *sticks upon* the memory. — *To stick in one's gizzard*, figuratively, to be retained in the thoughts, as something disagreeable or unpalatable; as, the necessity for a woman to hold her tongue on occasions is apt to *stick in her gizzard.* (Colloq.)

Stick'er, *n.* One who, or that which, sticks. — A curt, pointed remark intended to snub or put down an offensive person. (Colloq.) — In the U. States, an article of merchandise which hangs on hand, and does not meet with a ready sale.

Stick'iness, *n.* State or quality of being sticky; glutinousness; adhesiveness; viscosity; tenacity; as, the *stickiness* of gum.

Stick'ing-plaster, *n.* An adhesive plaster for closing wounds, cuts, &c.; court-plaster.

Stickle, (*stik'l.*) *v. n.* [From the practice of pugilists, who formerly placed seconds with *sticks* or *staves*, to interpose occasionally.] — To espouse or take part with one side or the other. — To contend, dispute, contest, or altercate, in an intrusive manner, on frivolous grounds: as, to *stickle* for precedence. — To trim; to play fast and loose; to go turn about from one side to the other.

Stic'kleback, *n.* (*Zoöl.*) The common name of the genus *Gasterosteus*, comprising acanthopterygious fishes, consisting of many species, several of which are American, which differ principally in their number of spines, and are named accordingly. They are seldom above 2½ inches in length.

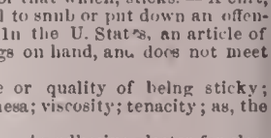


Fig. 2431.
THREE-SPINED STICKLEBACK,
(*Gasterosteus aculeatus.*)

Stick'ler, *n.* Originally, a sidesman to fencers or pugilists; a second; an umpire in an affair of honor. — Specifically, one who obstinately contends for some frivolous thing; as, old maids are *sticklers* for fine-drawn propriety.

Stick'y, *a.* (*comp.* STICKIER; *superl.* STICKIEST.) Having the quality of sticking, or of adhering to a surface; adhesive; viscous; gluey; gummy; viscid; tenacious; glutinous.

Stic'ta, *n.* (*Bot.*) A genus of lichens. *S. pulmonaria*, commonly known as Tree Lung-wort, or Oak-lungs, possesses tonic and nutritious properties. In Liberia it is used instead of hops for imparting bitterness to beer. A brown dye is produced from it in France.

Stlernoe, (*steer-ne(r.*) two islands of Norway, one at the entrance of the Skager-Rack, and the other in Finmark, between Altengaard and Hammerfest.

Stiff, *n.* In England, a cant term for a bank-note; as, a bit of *stiff.*

—*a.* (*comp.* STIFFER; *superl.* STIFFEST.) [A. S. *stif.*] Rigid; strong; inflexible; not ductile or pliant; not flaccid; not easily bent, as, *stiff* paper. — Not soft nor hard; not liquid or fluid; inspissated; as, a *stiff* paste. — Violent; strong; sustained in impetuous motion; as, it blows a *stiff* gale. — Pertinacious; stubborn; obstinate; resolute; not easily shaken or subdued; firm in perseverance or resistance; as, a man of *stiff* opinions or prejudices, they made a *stiff* fight of it, &c. — Constrained; affected; not natural and easy; harsh or formal in manner; starched; stuck-up; as, he maintained a *stiff* reserve.

(*Naut.*) Supporting a press of canvas without rolling much, as a ship; — the antithesis of *crank.*

Stiffen, (*stif'n.*) *v. a.* [A. S. *stifian*; Ger. *steifen.*] To make stiff or rigid; to make less pliant, ductile, or flexible; as, to *stiffen* linen with starch. — To make more thick or viscous; to inspissate; as, to *stiffen* putty. — To make torpid; as, "*stiffening* grief." (*Dryden.*) — To make more steady, in order to maintain the due equilibrium; as, to *stiffen* a ship.

—*v. n.* To become stiff; to become more rigid or less pliant or flexible; as, boxing *stiffens* one's biceps muscles. — To be inspissated; to become more thick or hard, or less soft; as, milk *stiffens* by coagulation. — To grow more pertinacious or obstinate; to become less ductile, tender, or yielding; to become less susceptible of impression; as, adversity *stiffens* some natures.

Stiffening, *n.* Something that is applied to a substance to make it more rigid or less soft.
Stiffening-order, *n.* (*Com.*) A permission granted by the department of customs to take on board heavy goods as ballast, to steady the ship.
Stiff Joint. (*Med.*) See CONTRACTURA.
Stiffly, *adv.* Firmly; strongly; rigidly; obstinately.
Stiff-necked. (*-nĕckt,*) *a.* Stubborn; contumacious; inflexibly obstinate; unyielding.
Stiffness, *n.* State or quality of being stiff; rigidness; lack of ductility, pliableness, or flexibility; the firm texture or consistence of a substance which renders it difficult to bend; as, the *stiffness* of teak timber. — Thickness; spissitude; a state or condition of being neither hard nor soft; as, the *stiffness* of liquid glue. — Tension; not laxity; as, the *stiffness* of a rope. — Inaptitude to motion; torpidness; as, *stiffness* of the limbs from intense cold. — Rigorousness; harshness; severity; as, *stiffness* of punishment. — Obstinacy; stubbornness; inflexibility; contumaciousness; as, *stiffness* of temper, *stiffness* of prejudice. — Formality of manner; constraint; assumed or affected preciseness; as, *stiffness* of etiquette. — Affected, constrained, or stilted manner of speech or writing; want of fluency, or of natural simplicity and ease; as, *stiffness* of epistolary style.
Stifle, (*sti'fl,*) *v. a.* [Fr. *étouffer.*] To choke; to suffocate; to stop, as the breath or action of the lungs, by crowding something, as smoke, into the wind-pipe, or by infusing a substance into the lungs, or by other means; as, to *stifle* one with dust.—To stop; to quench; to smother; to deaden; to extinguish; as, to *stifle* a fire.—To suppress; to hinder from transpiring or spreading; to check, or restrain and destroy; to suppress or repress; to conceal; to withhold from manifestation or publicity; as, to *stifle* a report, to *stifle* evidence, to *stifle* one's passion or conscience, &c.
—*n.* (*Far.*) That joint in a horse's hind-leg which corresponds to the knee in man.—A disease in the knee-pan of a horse. — *Stifle-bone,* a small bone in the hind-leg of a horse which corresponds to the knee-pan in man.
Stigliano, (*steel-ye-a'no,*) a town of S. Italy, 28 m. from Matera; *pop.* 5,115.
Stig'ma, *n.*; *pl.* STIGMATA. [Lat.; Gr., from *stizō,* to prick.] A brand; a tattoo; a mark made with a burning iron. — Hence, any mark or sign of infamy; any reproachful act or course of conduct which sullies the purity of moral character or reputation; as, the *stigma* of treachery or cowardice.
(*Path.*) A small red pustule on the skin.
(*Bot.*) The upper extremity of the style without a cuticle, in consequence of which it has almost uniformly a humid and papillose surface (Fig. 2014). It is the part upon which the pollen, when it falls thereon, is stimulated into the production of the pollen tubes, which are indispensable to the act of impregnation.
—*pl.* (*Zoöl.*) The spiracles.
(*Theol.*) In the Roman Catholic Church, the term applied to the marks of the wounds of the Saviour on the cross.
Stigmat'ic, Stigmat'ical, *a.* Marked or branded with a stigma, or other indelible token of reproach or disgrace. — Impressing with reproach or infamy.
(*Bot.*) Pertaining, or having reference, to the stigma.
Stig'matize, *v. a.* [Fr. *stigmatiser,* from Gr. *stigmatizō,* to brand.] To mark with a brand or stigma. — To set a mark of shame or disgrace on; to impress with some sign or token of reproach or infamy; as, he was *stigmatized* as a traitor.
Stig'matose, *a.* (*Bot.*) Pertaining, or relating, to the stigma.
Stilaginaceæ, (*stil-a-gin-ai'se-e,*) *n.* (*Bot.*) The *Stilago* family, an order of plants, alliance *Urticales,* consisting of trees or shrubs, with alternate simple leathery leaves, having deciduous stipules, minute unisexual flowers, growing in scaly spikes, and drupaceous fruits. There are 5 genera and about 20 species, natives of Madagascar and India. Their fruits are commonly subacid and edible.
Sti'lar, Sty'lar, *a.* Belonging, or having reference to, a sun-dial.
Stilbaceæ, (*stil-bai'se-e,*) *n.* (*Bot.*) A small order of plants, alliance *Gentianales.* There are 3 genera and 7 species, natives of the Cape of Good Hope. They are shrubby plants, without any known uses.
Stil'bite, *n.* [From Gr. *stilbein,* to shine.] (*Min.*) An anhydrous lime-oligoclase, composed of 58·2 per cent. of silica, 16·1 alumina, 8·8 lime, and 16·9 water. It generally occurs in broad prismatic crystals, clustered into sheaf-like aggregations and diverging groups; also, massive and in fibrous aggregates. It is white, but sometimes yellow, gray, red, or brown, with a vitreous lustre, and is translucent to transparent at the edges.
Stile, *n.* [A. S. *stigel.*] A step, or a set of steps, for ascending and descending, in passing a wall, hedge, or fence.
(*Arch.*) The upright piece in panelling or framework.
(*Dialling.*) See STYLE.
Stiles, in *Wisconsin,* a post-township of Oconto co.; *pop.* abt. 900.
Stiles'ville, in *Indiana,* a post-village of Hendricks co., 27 m. S.W. of Indianapolis.
Stilet'to, *n.* [It., dim. of *stilo,* a dagger; Lat. *stilus.*] A small, round, pointed dagger; a dirk. — A kind of bodkin or pointed instrument for making eyelet-holes, in working lace, &c.
—*v. a.* To apply a stiletto to; to stab with a stiletto.
Stilicho, FLAVIUS, (*stil'i-ko,*) a Vandal of great genius and bravery, who distinguished himself at the declining period of the Roman empire, was advanced to the highest dignities of the state by Theodosius the Great, and married Serena, the Emperor's adopted daughter, besides being intrusted, in 394, with the guardianship of his two sons, Arcadius and Honorius. On the division of the empire, *S.* became virtual governor of the West, in the character of first minister to Honorius, while the same power in the East was exercised by Rufinus, under Arcadius, the other emperor. The military genius of *S.,* after this period, was exhibited in the reduction of Africa, which had been led into a revolt by Eutropius, the successor of Rufinus at the Eastern court, and subsequently in the great contests with Alaric and Radagasius. In the year 403 he routed the former near Verona, and in 406 put the hosts of the latter to flight, and killed their commander. While *S.* lived he sustained the fortunes of the Roman name, but he was accused of having a secret understanding with Alaric, and treacherously put to death in 408. The wives and children of 30,000 Germans who were in his service were massacred at the same time.
Still, *v. a.* [A. S. *stillan, gestillan,* to be mute or quiet.] To silence; to hush; to put a stop to, as noise. — To put a stop to, as motion, turmoil, or agitation; to lull; to make quiet; as, to *still* a tempest. — To pacify; to appease; to allay; to calm, as turbulence, agitation, or excitement; as, to *still* the emotions.
—*a.* (*comp.* STILLER; *superl.* STILLEST.) Silent; hushed; uttering no sound; as, his wife's tongue is *still* for once. —Calm; quiet; tranquil; serene; not disturbed by noise or agitation; as, the air was *still.* — Motionless; as, to sit *still.*
—*n.* Calm; silence; repose; quietude; as, the *still* of night; — used only in poetry.
—*adv.* Till now; to this time; up to and during the time now present; as, I *still* believe him to be no fool.—Habitually; regularly; uniformly; continuously; always; as, he is *still* as good a fellow as I ever thought him. — By an increased degree; with additional efforts; as, more *still* was said about me. — Hence, nevertheless; notwithstanding; in spite of all and everything;—sometimes employed conjunctively; as, he *still* persists in getting inebriated now and then. — After that; after what is stated or declared; as, he felt it *still* to be a hardship.
—*v. a.* [Lat. *stillo,* to distil. See DISTIL.] To cause to fall in drops. — To effuse spirit from by heat, and to condense it in a refrigeratory; to distil.
—*n.* See DISTILLATION.
Still'age, (*-lij,*) *n.* A stand or framework for the support of casks.
Stillatitious, (*-tish'us,*) *a.* Falling in drops; also, poured from a still.
Still'-birth, *n.* State of being born dead; a thing dead-born.
Still'-born, *a.* Dead at the birth; as, a *still-born* child. — Abortive; as, a *still-born* project.
Still'-burn, *v. a.* (*imp.* and *pp.* STILL-BURNT, or STILL-BURNED.) To burn during the process of distillation; as, to *still-burn* gin.
Still'er, *n.* One who, or that which, calms or quiets.
Still'-house, *n.* A building in which distillation is carried on; a distillery.
Still'iform, *a.* Drop-shaped.
Still'ing, *n.* Act of calming, hushing, or quieting.
Stillin'gia, *n.* (*Bot.*) A genus of the order *Euphorbiaceæ.* The species *S. sebifera* is called the Chinese Tallow-tree, from its seeds being covered by a white sebaceous substance, which, when separated, is found to be a pure vegetable fat; it is used for making candles. *S. sylvatica,* Queen's root, is employed as an emetic, cathartic, and alterative.
Still'-life, *n.* (*Paint.*) A term applied to that class of pictures representing fruit, flowers, groups of furniture, dead game, or a variety of other articles which generally form adjuncts to a picture only, and none of which have animate existence.
Still'ness, *n.* State of being still; freedom from noise, motion, agitation, excitement, perturbation, and the like; calmness; quiet; silence; hush; as, the *stillness* of the midnight hour. — Taciturnity; habitual silence.
Still'-room, *n.* An apartment in which distillation is carried on. — A room in a house where liqueurs, conserves, and similar delicacies are kept.
Still Valley, in *New Jersey,* a post-village of Warren co., 13 m. S.W. of Belvidere.
Still'water, in *Maine,* a post-office of Penobscot co.
Stillwater, in *Minnesota,* an important city, cap. of Washington co., on St. Croix river and 5 R. Rs., 20 m. E.N.E. of St. Paul. *Pop.* (1895) 12,004.
Stillwater, in *New Jersey,* a post-village and township of Sussex co., 60 m. N.W. of Trenton.
Stillwater, in *New York,* a post-village and township of Saratoga county, on the Hudson, 24 miles North of Albany.
S., Battle of. See SARATOGA SPRINGS.
Still'water Creek, in *Ohio,* rises in Darke co., and flowing S.E. unites with Greenville in Miami co. — A creek which rises in Belmont co., and flows N.W. into the Tuscarawas.
Still'y, *a.* Still; calm; quiet; tranquil; as, the *stilly* night.
—*adv.* Silently; without noise or sound. — Quietly; calmly; tranquilly; without disturbance.
Stilpnom'elane, *n.* [Gr. *stilpnos,* beaming, and *melanos,* black.] (*Min.*) A hydrated silicate of alumina and protoxide of iron, which occurs in blackish-green masses, with a granular or radiating and filiated structure, in Silesia.
Stilpnosid'erite, *n.* [Gr. *stilpnos,* shining, and *sideros,* iron.] (*Min.*) Same as LIMONITE, *q. v.*
Stilt, *n.* [Du. *stelt;* Swed. *stylta;* allied to A. S. *styla,* to mount, climb.] A prop or support for the foot; a long pole of wood, often with a shoulder, to raise the foot above the ground in walking; a crutch; — generally in the plural; as, to walk on *stilts.* — A root which is elevated above the surface of the ground.
Stilt, *v. a.* To elevate; to raise on stilts.—To raise by unnatural means.
Stilt'-bird, *n.* (*Zoöl.*) See HIMANTOPUS.
Stilt'ed, *p. a.* Elevated as if on stilts; — hence, unreasonably or ridiculously uplifted; pompous; grandiose; stilty; as, *stilted* language, a *stilted* style.
Stilt'ify, *v. a.* To stilt; to raise or elevate as if upon stilts; as, to *stiltify* words.
Stilt'y, *a.* Radically the same as STILTED, *q. v.*
Stim'ulant, *a.* [Fr., from Lat. *stimulans.*] Tending to stimulate.
—*n.* That which stimulates, provokes, or excites; as, hope is a *stimulant* to success.
(*Med.*) Any agent which produces a quickly-diffused and transient increase of vital energy and force of action in the heart and arterial system.
Stim'ulate, *v. a.* [Lat. *stimulo, stimulatum,* to urge on, from *stimulus,* a goad.] To rouse up; to urge on; to excite to action or more vigorous exertion by some powerful motive, or by dint of persuasion; as, to *stimulate* one by the promise of reward.
(*Med.*) To produce an exaltation of vital force and activity in the animal system.
Stimulation, (*-lā'shun,*) *n.* [Lat. *stimulatio.*] Act of stimulating or exciting to effort.
(*Med.*) An increase of organic action in the animal system.
Stim'ulative, *a.* Having the property of stimulating.
—*n.* That which stimulates; that which excites into more vigorous action.
Stim'ulator, *n.* One who stimulates.
Stim'ulus, *n.*; *pl.* STIMULI. [Lat.] A goad; — hence, by implication, something that stirs up the mind or spirits; as, the hope of future fame is a powerful *stimulus* to a young author.
(*Med.*) Same as STIMULANT, *q. v.*
Stines'ville, in *Indiana,* a post-village of Monroe co., 14 m. N.N.W. of Bloomington.
Sting, *v. a.* (*imp.* and *pp.* STUNG.) [A. S. *stingan,* to stab.] To pierce with the sharp-pointed process with which certain animals are furnished, such as bees, mosquitoes, scorpions, and the like. — To pain acutely; to pierce with mental anguish; as, his vanity was *stung* by the taunt.
—*n.* [A. S. and Dan.] A sharp-pointed instrument by which certain animals, especially the females of hymenopterous insects, are armed by nature for their defence. —Act of stinging; — also, the thrust of a sting into the flesh; as, the *sting* of a scorpion. — That which causes acute mental pain or mortification; as, the *stings* of self-reproach. — The gist or point of an epigram, retort, satire, and the like; as, the *sting* of a lampoon, the *sting* of a piece of invective.
Sting'er, *n.* One who, or that which, stings, or causes acute pain. — A sharp retort; a biting sarcasm.
Stingily, (*stinj'-,*) *adv.* [From *stingy.*] In a stingy or niggardly manner; with mean parsimoniousness.
Stinginess, (*stin'ji-,*) *n.* [From *stingy.*] Quality of being stingy; niggardliness; extreme parsimoniousness; mean avarice or sordidness.
Sting'less, *a.* Destitute of a sting; as, a *slingless* serpent, a *stingless* satire.
Stin'go, *n.* [From *sting,* owing to the pungency of the taste.] In England, a term applied colloquially to old and strong ale; as, a pint of the real *stingo.*
Sting'-ray, *n.* See TRYGON.
Sting'y, *a.* Possessing stinging or pain-giving properties; as, a *stingy* taunt, a *stingy* critique.
Stingy, (*slin'jy,*) *a.* (*comp.* STINGIER; *superl.* STINGIEST.) [W. *ystanger,* to straiten.] Strait or close-fisted; meanly close and covetous; extremely avaricious or sordid; niggardly; narrow-hearted; as, a *stingy* fellow.
Stink, (*stingk,*) *v. n.* (*imp.* STANK, or STUNK; *pp.* STUNK.) [A. S. *stincan,* to perfume.] To emit a strong, offensive smell, commonly a smell of putrefaction.
—*n.* A strong, offensive smell.
Stink'ard, *n.* A mean, stinking, paltry fellow.
(*Zoöl.*) The *Mydaus meliceps* of Cuvier, a carnivorous animal of the Weasel family, allied to the skunk, and emitting, when disturbed, an almost intolerable odor from the anal glands.
Stink'-pot, *n.* An earthen jar, charged with materials of an offensive and suffocating smell, sometimes used in boarding an enemy's vessel.
Stink'stone, *n.* (*Min.*) A bituminous carbonate of lime, which exhales a fetid smell, like that of sulphuretted hydrogen gas, when rubbed or crushed.
Stint, *v. a.* [A different form of *stunt.*] To shorten; to curtail; to restrain within certain limits; to hound; to confine; to limit. — To assign a task or piece of work to; to be performed in a definite time. (U.S.)
—*n.* Limit; bound; restraint. — A portion or quantity assigned. — An allotted task or performance.
Stint'edness, *n.* State of being stinted.
Stint'er, *n.* He who, or that which, stints or cramps.
Stint'ing, *n.* Act of restraining or confining.
Stipa, *n.* [Lat., a foot-stalk.] The Feather-grass, a genus of plants, order *Graminaceæ.* The Rush-leaved Feather-grass of the West, is abt. 2 ft. high, has a pungent stripe, which, when in fruit, adheres to all that comes in its way. An immense quantity is used in papermaking; known in commerce as Alfa or Esparta grass.
Stipe, *n.* [Fr., from Gr. *stypos.*] (*Bot.*) The stem of a fungus or mushroom.—The stalk of a pistil.—The base of a frond, as of a fern.
Sti'pel, *n.* (*Bot.*) The stipule of a leaflet.

Stipel'late, *a.* (*Bot.*) Having stipels.
Sti'pend, *n.* [Lat. *stipendium.*] Allowance; salary; wages; settled pay for services, whether daily, weekly, or monthly wages, or an annual salary.
Stipend'iary, *a.* [Lat. *stipendiarius.*] Receiving stipend, wages, or salary; performing services for a stated price or rate of compensation.
—*n.* One who performs services for a stipend or settled compensation, either by the day, month, or year.
Stipend'iate, *v. a.* [Lat. *stipendiari — atum.*] To provide with a stipend.
Sti'pendless, *a.* Lacking a stipend or compensation.
Stipple, (*stip'pl,*) *v. a.* [Du. *stippelen,* to dot.] To engrave by means of *dots,* as distinguished from engraving in *lines.*
—*n.* A mode of engraving in imitation of chalk drawings, in which the effect is produced by dots instead of lines; each dot when magnified is, however, a group of smaller ones.
Stip'pling, *n.* (*Fine Arts.*) In engraving and miniature-painting, a mode of execution whereby the effect is produced by a succession of dots or small points instead of lines.
Stip'ulate, *v. n.* [Lat. *stipulor, stipulatus.*] To contract; to state or settle terms; to bargain; to engage; to make an agreement or a covenant with any person, or company of persons, to do or forbear anything.
—*a.* Having stipules; as, a *stipulate* leaf.
Stipulation, (*-lā'shun,*) *n.* [Fr.; Lat. *stipulatio.*] Act of stipulating, or of agreeing and covenanting; a contracting or bargaining. — An agreement or covenant made by one person with another for the performance or forbearance of some act; a contract or bargain.
(*Law.*) A material article of an agreement.
(*Bot.*) The position and structure of the stipule.
Stip'ulator, *n.* One who stipulates, contracts, or covenants.
Stip'ule, *n.* [Fr.; Lat. *stipula.*] (*Bot.*) See LEAF.
Stir, (*imp.* and *pp.* STIRRED,) (*stėrd.*) [A. S. *styran, gestyran;* Ger. *stören.*] To move; to change the place of in any manner; as, to *stir* the hand or foot. — To bring into action; to agitate; to disturb; to move into debate; as, to *stir* a controversial question.—To incite; to rouse; to stimulate; to provoke; to prompt; to instigate; as, to *stir* the passions.
To stir up, to disturb; as, to *stir up* the lees of wine. —To animate or excite thoroughly; as, to *stir up* troops to mutiny.—To begin; to put into action; as, to *stir up* strife or discord. — To quicken; to enliven; to make more sprightly or vigorous; as, to *stir up* the ideas.
—*v. n.* To move one's self; to go or be carried in any manner: to change one's position; not to be still; as, he had not power to *stir.* — To be active; to be in motion. —To become the object of notice, remark, or observation.—To rise in the morning; as, the inmates were not yet *stirring.* (Colloq.)
—*n.* Commotion; agitation; tumult; bustle; noise or various movements; as, what is all this *stir* about? — Seditious uproar; tumultuous strife or commotion; popular turbulence or disturbance; as, certain demagogues raised a public *stir.* — Agitation of thoughts; conflicting passions.
Stir'about, *n.* In England, an appellation given to oatmeal-porridge, or thickened water-gruel.
Stir'iated, *a.* [From Lat. *stiria,* icicle.] Furnished with pendants in the form of icicles.
Stirk, *n.* A young ox or heifer. (Prov. Eng.)
Stir'less, *a.* Without stirring; quiet; still.
Stir'ling, WILLIAM ALEXANDER, EARL OF, a British poet, b. 1580, published several tragedies and poems which were highly thought of. He obtained many royal favors, including a grant of Nova Scotia by James I., and of the lordship of Canada by Charles I.; was made Earl of Stirling in 1633. Died in 1640.
Stirling, a town of Scotland, cap. of a co. of the same name, and irregularly built on the sloping ridge of a rock, the precipitous end of which, towards the W., is occupied by a castle, 31 m. from Edinburgh. *Manuf.* Cotton and woollen goods, &c. *Pop.* 10,563.
Stirling, in *Minnesota,* a village of Mille Lacs co., on Lake Mille Lacs, abt. 60 m. N.N.E. of St. Cloud.
Stir'rer, *n.* One who, or that which, stirs, or is in motion.—One who, or that which, puts in motion.—A riser in the morning.—An inciter or exciter; an agitator; an instigator; as, a *stirrer* of the will or passions.
Stir'ring, *n.* Act of moving or putting in motion.
Stirrup, (*stėr'rup,*) *n.* [A. S. *stirap, stige-rap.*] An iron hoop or rest, suspended from the saddle by a strap, in which the horseman sets his foot when he mounts or rides.
(*Mach.*) That which resembles in shape and functional office the stirrup of a saddle.
(*Naut.*) A rope secured to a yard, with a thimble in its lower end, for reeving a foot-rope.
Stir'rup-cup, *n.* A parting cup of liquor taken by a horseman in the saddle.
Stir'rup-iron, (*-i'urn,*) *n.* The hoop or ring of steel or iron depending from the stirrup-strap to receive the foot.
Stir'rup-leather, Stir'rup-strap, *n.* The leathern strap which sustains a stirrup.
Stitch, *v. a.* [A. S. *stician.* to pierce.] To form stitches in; to pierce with a needle, as cloth; to sew with a back puncture of the needle, so as to double the thread; as, to *stitch* a garment. — To sew or unite together; as, to *stitch* leaves of printed matter into the form of a book or pamphlet.
(*Agric.*) To set land into ridges.
To stitch up, to close up with a needle and thread; as, to *stitch up* a wound.
—*v. n.* To practise stitching.
Stitch, *n.* [A. S. *stice.*] A single thrust or pass of a needle in sewing; also, the loop or turn of the thread thus made. —A link of yarn; a single turn of the thread round a needle in knitting; as, to take up a *stitch.* — An acute, lancinating pain, like the puncture made by a needle; as, a *stitch* in the side. — A space between double furrows or ridges in ploughed land.
Stitch'el, *n.* A kind of hirsute wool.
Stitch'ery, *n.* Sewing; needlework, in contempt.
Stitch'ing, *n.* Act of one who stitches. — Work done by sewing in a particular manner.—The setting of land into ridges and divisions.
Stith'y, *n.* An anvil; also, a smith's shop; a smithy.
Stive, *v. a.* [Allied to Lat. *stipare,* and Gr. *steibein.*] To stuff up close. — To make hot, close, or sultry. — To stew; to simmer; as, to *stive* vegetables.
Sti'ver, *n.* [Du. *stuiver.*] In Holland, a coin and money of account, equivalent to about two cents.
Stoak, *v. a.* (*Naut.*) To stop up; to choke.
Stoat, *n.* (*Zoöl.*) See ERMINE.
Stocca'do, *n.* [Fr. *estocade.*] A stab or thrust with a rapier or pointed sword; also, a stockade.
Stock, *n.* [A. S. *stoc, stocce,* a trunk.] That which is set or fixed, as a trunk; the stem or main body of a tree, shrub, or plant. — The stem in which a graft is inserted, and which is its support. — A post or pillar; something fixed, solid, and senseless; as, "Our fathers worshipped *stocks* and stones." (*Milton.*) — Hence, a person very stupid, dull, or senseless. — The chief supporting part, the part in which others become inserted, or to which they are attached; as, specifically, (1.) The part of a tool for boring wood with a crank, whose end rests against the breast of the workman. (2.) The wood in which the barrel of a musket or other fire-arm is fixed; also, a part of a gun-carriage. (3.) The piece of timber in which the shank of an anchor is infixed. (4.) A die-stock. (5.) The part of a tally struck in the Exchequer, forming the counterfoil.
—The original progenitor; also, family; lineage; race; the progonitors of a family line and their direct descendants; as, he comes of an old English *stock.* — A fixed fund; principal; capital; money or goods invested or employed in trade, manufactures, insurance, banking, &c.; money funded in government securities, called also the *public funds.* — Supply; provision; store; accumulation; as, a *stock* of commodities. — A kind of neckcloth or stiffened cravat; as, a black silk *stock.*
(*Cookery.*) Meat boiled down for the making of gravies.
(*Agric.*) In farming phraseology, the animals maintained upon a farm are called *live-stock,* in contradistinction from the implements and carriages employed thereon, which are termed *dead-stock.*
(*Ship-building.*) The ways or frame-work of timbers on which a vessel rests while building, and from which she is launched.
(*Com.*) In book-keeping, the account in a ledger or stock-book which is credited with all sums or values contributed or added to the capital of the concern, and debited with whatever is at any time subducted therefrom.
(*Bot.*) See MATTHIOLA.
—*pl.* In the U. States, property consisting of shares in joint-stock companies or corporations, or in the obligations of a government for its funded debt; — in England, the former are termed *shares,* and the latter only, *stocks.* —A machine consisting of two pieces of timber, in which holes were cut to receive the legs of culprits or criminals confined therein by way of punishment for petty offences. This mode of punishment, now disused, was formerly so common as to have given the ordinary name to a chain of any kind in several languages.
Paper stock, rags and other material for the manufacture of paper.
Stock in trade, the goods for sale kept on hand by a tradesman; the fittings and appliances of a workman; as, brains were his only *stock in trade.* — *To take stock,* to make an inventory of stock or goods on hand.
—*v. a.* To lay; to put aside for future use, as merchandise, &c. — To store; to supply; to fill with sufficient material requisites or appliances; as, to *stock* a shop, to *stock* a farm, &c. — To pack; to put into a pack, as cards. — To suffer to retain milk for a certain period before sale or transfer, as cows.—To place in the stocks. (R.)
To stock an anchor. (*Naut.*) To fit with a stock. — *To stock down,* to sow, as ploughed land with grass-seed. —*To stock up,* to uproot; to dig up.
—*a.* Standard; permanent; fixed for use or constant service; as, a *stock* play, a *stock* writer or actor.
Stock, in *Ohio,* a twp. of Harrison co.; *pop.* abt. 1,000.
Stock'ade, Stocca'do, *n.* [Fr. *estocade.*] (*Civ. Engin.*) A defence for the banks of rivers exposed to the erosion of the current.
(*Fortif.*) A strong timber wall 8 or 9 feet high, loop-holed for musketry fire, and sometimes having a ditch in front and banquette in rear. — A corral; an inclosure or pen made with posts and stakes; as, a *stockade* for horses or cattle.
—*v. a.* To surround or fortify with sharpened posts stuck in the ground; to defend or protect by means of a stockade.
Stock'-breeder, Stock'-farmer, Stock'-raiser, *n.* Same as GRAZIER, *q. v.*
Stock'bridge, in *Massachusetts,* a post-township of Berkshire co., 120 m. S.W. of Boston.
Stockbridge, in *Michigan,* a post-village and twp. of Ingham co., 30 m. S.E. of Lansing.
Stockbridge, in *New York,* a township of Madison co., 25 m. W.S.W. of Utica.
Stockbridge, in *Vermont,* a post-township of Windsor co., 36 m. S.W. of Montpelier.
Stockbridge, in *Wisconsin,* a post-village and township of Calumet county, about 22 miles N.E. of Fond du Lac.
Stock'-broker, *n.* A broker who deals in the purchase and sale of stocks or shares in the public funds.
Stock'dale, in *Indiana,* a post-village of Miami co., abt. 12 m. N.W. of Wabash.
Stock'-dove, *n.* (*Zoöl.*) The common Wild Pigeon, *Columba œnas.* From it, it was once supposed that most of the beautiful varieties of the *Columbidæ,* which in a state of domestication are dependent upon man, derived their origin; hence the name *Stock-dove.* It is, however, now believed that the Rock-dove (*Col. livia*) is the parent stock. The *S.-D.* is 14 inches in length, the bill very pale, legs and feet red, claws black. Its native colors are much variegated, and the pigeon-fancier's art has been carried so far as to produce an almost endless variety of tints among the various domesticated species.
Stock'-exchange, (*-chānj.*) *n.* [Fr. *bourse.*] (*Com.*) A building or room in which stock-brokers meet to transact their business of purchasing or selling stocks. In large cities, as New York and London, the stock business is transacted through the medium of the members of the board of brokers, governed by rules and regulations made by themselves, to which all the members are obliged to subject themselves. Admission is procured by ballot, and a member defaulting in his obligations forfeits his seat. A regular register of all the transactions is kept by an officer of the association, and questions arising between the members are generally decided by an arbitration committee. The official record of sales is the best evidence of the price of any stock on any particular day. The stocks dealt in at the session of the board are those which are placed on the list by a regular vote of the assoc.; and when it is proposed to add a stock to the list, a committee is appointed to examine into the matter, and the board is generally guided by the report of such committee.
Stock'-fish, *n.* Unsalted cod dried in the sun.
Stock'-gold, *n.* Gold laid by to form a hoard or fund.
Stock'holder, *n.* [*Stock* and *holder.*] A shareholder or proprietor of stock in the public funds, or in the funds of a bank or commercial corporation.
Stock'holm, a celebrated city of the N. of Europe, the cap. of Sweden, at the junction of Lake Mælar with the Baltic, 440 m. W. by S. of St. Petersburg. *S.* is very strikingly situated, partly on a number of islands, at the entrance of the lake, and partly on the mainland, upon both sides of the strait. On the islands, and more particularly on those called *Stockholm* (Isle of the Castle), *Ridderholm* (Knight's Isle), and *Helgeandsholm* (Isle of the Holy Spirit), all so near each other that they are united by short bridges, stand the king's palace, the great cathedral, the bank, the hall of the diet, and most of the more conspicuous ornaments of the city; but the larger proportion of the private houses are built on the mainland, which on the N. side, called Nörrmalm, or N. suburbs, slopes gradually backwards from the shore; but on the S. side, on the Södermalm,

Fig. 2432. — STOCKHOLM.

rises in bold abrupt cliffs, where the white houses nestle beautifully among shading trees. *S.* is the principal emporium of Sweden. The entrance of the harbor from the Baltic is intricate; but the water is deep, and the harbor itself capacious and excellent, the largest vessels lying close to the quays. *Manuf.* Woollen cloths, cottons, linens, silk, glass, iron-works, &c. *Exp.* Iron, timber, and deals. *S.* has several distinguished academies, including the Academy of Sciences, founded about 1740, with an admirable museum of zoölogy; the Swedish Academy, founded by Gustavus III.; the Academy of Painting and Sculpture; that of literature, a college of medicine, schools of navigation and drawing, with societies of agriculture, commerce, and philosophy. *S.* was founded in the 13th century, and became cap. of Sweden in the 17th century. *Pop.* (1891) 243,500; (1897) about 267,260.
Stockholm, in *New York,* a post township of St. Lawrence co., 18 m. E.N.E. of Canton.
Stockholm, in *Wisconsin,* a post-village of Pepin co., on Lake Pepin, abt. 15 m. N.W. of Wabasha.
Stockholm Depot, in *New York,* a post-village of St. Lawrence co., 36 m. E. of Ogdensburg.
Stock'horn, a mountain of Switzerland, 18 m. from Bern. It has two conical peaks, one of which attains an elevation of 7,211 feet above the sea.
Stock'ing, *n.* A knitted or woven covering for the foot and leg; as, a pair of *stockings.*

Stock'ing-frame, *n.* A machine for weaving stockings, or other articles of hosiery.

Stock'ington, in *New Jersey*, a village of Salem co., 9 m. E. of Salem.

Stock'ish, *a.* Stupid; blockish; thick-headsd; as, a *stockish* lout.

Stock'-jobber, *n.* One who dabbles or speculates in the public stocks or funds for gain; one whose occupation is to buy and sell stocks.

Stock'-jobbing, *n.* Act. art, or business of dabbling or dealing in stocks or the public funds.

Stock'-list, *n.* A list or register of the prices of public stocks.

Stock'-lock, *n.* A lock imbedded in a wooden case, box, or frame.

Stock'-market, *n.* A market for the buying and selling of cattle.

(*Com.*) Same as STOCK-EXCHANGE.

Stock'port, a market-town and borough of England, in Cheshire, on the Mersey, 7 m. from Manchester. *Manuf.* Principally cotton, silk, and woollen weaving, and machinery, brass and iron goods, brushes, and shuttles.

Stockport, in *New York*, a post-village and township of Columbia county, on the Hudson, 24 miles south of Albany.

Stockport, in *Pennsylvania*, a village of Wayne co., on the Delaware River, 159 m. N.W. of New York.

Stockport Station, in *New York*, a post-village of Delaware co., 160 m. W.N.W. of New York.

Stock'-purse, *n.* (*Mil.*) Money saved out of the expenses of a troop, company, or regiment, and applied to objects of common interest, or to purposes in which all participate.

Stock'-still, *a.* Still as a stock or fixed post; perfectly still; as, "Our preachers stand *stock-still* in the pulpit." — *Addison.*

Stock'ton, in *Alabama*, a post-village of Baldwin co., 30 m. N.N.E. of Mobile.

Stockton, in *California*, a city, cap. of San Joaquin co., abt. 50 m. S.E. of Sacramento; Lat. 37° 37′ N., Lon. 121° 14′ 26″ W.

Stockton, in *Illinois*, a post-township of Jo Daviess co., abt. 21 m. E.S.E. of Galena.

Stockton, in *Indiana*, a township of Greene county.

Stockton, in *Maine*, a post-village and township of Waldo co., at the mouth of the Penobscot River, abt. 12 m. E.N.E. of Belfast.

Stockton, in *Minnesota*, a post-village of Winona co., abt. 7 m. W. of Winona.

Stockton, in *Missouri*, a post-town, cap. of Cedar co., about 50 m. N.N.W. of Springfield.

—A village of Macon co., about 86 m. W. of Hannibal.

Stockton, in *New Jersey*, a township of Camden co., on the Delaware, just above Camden.

Stockton, in *New York*, a post-township of Chatauqua co., 14 m. S. of Dunkirk.

Stockton, in *Wisconsin*, a post-township of Portage co., abt. 4 m. E. of Staunton.

Stock'ton-on-Tees, a market-town and seaport of England, co. of Durham, 11 m. E.N.E. of Darlington, on the left bank of the Tees. *Exp.* Coal. Ship-building, chiefly in iron, is here carried on to a great extent.

Stock'well, in *Indiana*, a post-village of Tippecanoe co., 12 m. S.E. of Lafayette.

Stock'y, *a.* Short and thick.

Stod'dard, in *Missouri*, a S.E. co.; *area*, 840 sq. m. *Rivers.* St. Francis, Castor, and Whitewater. *Lakes.* Stoddard, Castor, Micota, and Nicormy. *Surface*, level; *soil*, generally fertile. *Cap.* Bloomfield. *Pop.* (1897) 18,430.

Stoddard, in *New Hampshire*, a post-township of Cheshire co., 35 m. W.S.W. of Concord.

Stod'dardsville, in *Pennsylvania*, a post-village of Luzerne co., 18 m. S.W. of Wilkesbarre.

Sto'ic, *n.* [Gr. *stōikos*, from *stoa*, a porch.] One of a sect of philosophers, called *Stoics* from their founder, Zeno, who taught under a porch or portico at Athens, B.C. 300. Alarmed at the scepticism which seemed inevitably following speculations of a metaphysical kind, Zeno, like Epicurus, fixed his thoughts principally upon morals. His philosophy boasted of being eminently practical, and connected with the daily duties of life. The aim of man's existence is to be virtuous, and virtue consists not in a life of contemplation, but of action. The *S.* took their stand upon common sense, and showed that reason was unable to distinguish between appearance and certainty. Sense, they maintained, furnished all the materials of our knowledge, and by reason these materials were fashioned. Nature they regarded as composed of two elements, — the primordial matter from which things are formed, and the active principle by which they are formed, *i. e.*, Reason, Destiny, God. As reason was the great moving power in the outer world, to live conformably with reason, or to live harmoniously with nature, was, with them, the great law in morals. Hence the pleasures and pains of the body are to be despised as unworthy to occupy the attention of man. To be above pain they thought to be manly; and hence they contemned pain, and despised death. Stoicism as a reaction against effeminacy may be applauded: but as a doctrine, it is one-sided and false. Apathy, which by them was considered as the highest condition of humanity, is, in truth, its lowest.

Hence, an apathetic or phlegmatic person, or one not easily excited or impressed by pleasure or pain.

Sto'ic, Sto'ical, *a.* [Fr. *stoique.*] Pertaining or relating to, or resembling, the Stoics, or their doctrines.— Hence, unimpressionable: impassible; insensible; unfeeling; not affected by passion; manifesting indifference, whether real or assumed, to pleasure or pain; as, a *stoical* temperament.

Sto'ically, *adv.* In a stoical manner.

Sto'icalness, *n.* State of being stoical; real or assumed insensibility to pleasure or pain.

Stoicheiol'ogy, *n.* [Gr. *stoicheion*, and *logos.*] The doctrine of elements; pure logic.

Stoichiomet'rical, *a.* Belonging or relating to stoichiometry.

Stoichiom'etry, *n.* [Gr. *stoicheion*, a first principle, and *metron*, measure.] (*Chem.*) The science of chemical equivalents.

Stoicism, (*stō'i-kĭzm,*) *n.* [Fr. *stoïcisme.*] The doctrinal opinions and maxims of the ancient Stoics. — Insensibility; a real or assumed indifference to pleasure or pain; as, the *stoicism* of a red Indian.

Stoke, *v. n.* To poke, stir up, or feed with fuel, as a fire, and attend to its combustion.

Stoke'-hole, *n.* The mouth to the grate of a furnace; also, the space in front of a furnace, where the stokers stand.

Stok'er, *n.* One who tends and feeds a fire with fuel, particularly that of a locomotive, or marine steam-engine.

Stokes, in *N. Carolina*, a N. co. bordering on Virginia; *area*, 550 sq. m. *Rivers.* The Dan River and its affluents. *Surface*, hilly; *soil*, generally fertile. *Min.* Iron. *Cap.* Danbury.

Stokes, in *Ohio*, a township of Logan co.; *pop.* abt. 900. — A township of Madison co.

Stoke-upon-Trent, a town of England, in Staffordshire, on the Trent, 16 m. N. by W. of Stafford, in the centre of what is commonly called the *Potteries.* It has many very enterprising manufactories of china and earthenware.

Stok'ing, *n.* The operation of replenishing a furnace with fuel, and of keeping it in proper order, by clearing away the ashes and clinkers, so as to maintain a vigorous combustion.

Sto'la, *n.*; *pl.* STOLÆ. (*Roman Antiq.*) The characteristic dress of the Roman matrons, as the toga was of the men; it was worn over the tunic, and came as low as the ankles or feet, being fastened round the body by a girdle. It had either short or long sleeves, and was fastened over the shoulder by a fibula, and had a flounce sewed to the bottom; the ample pallium was thrown over it, and brought over the head when walking, or in winter. The *S.* was not allowed to be worn by courtesans, or by women who had been divorced from their husbands.

Fig. 2433. — STOLA.

Stole, *imp.* of STEAL, *q. v.*

Stole, *n.* [It. and Lat. *stola*; Gr. *stolē*, a robe, garment.] A long, loose garment extending to the feet. — The sucker or shoot of a plant.

(*Eccl.*) In the Roman Catholic Church, a narrow band of silk or stuff, sometimes enriched with embroidery and jewels, worn on the left shoulder of deacons, and across both shoulders of bishops and priests, pendent on each side nearly to the ground; — used in the administration of the sacraments and all other sacred functions.

Groom of the Stole, in the English royal household, the first lord of the king's bed-chamber, and, also, keeper of the robes of state.

Stoled, *a.* Wearing a stole or long garment; as, a *stoled* ecclesiastic.

Stolen, (*stōln.*) *pp.* of STEAL, *q. v.*

Stol'id, *a.* [Lat. *stolidus.*] Dull; foolish; hopelessly insensible; impassibly stupid or thick-headed.

Stolid'ity, Stol'idness, *n.* [Lat. *stoliditas.*] Dullness of intellect; stupidity; insensibility of mind; state of being stolid.

Sto'lon, *n.* [Lat. *stolo.*] (*Bot.*) A branch which, as of the currant, gooseberry, &c., naturally curves or falls down to the ground, where, favored by shade and moisture, it strikes root, and then forms an ascending stem, capable of drawing its nourishment directly from the soil, and, by the perishing of the portion which connects it with the parent stem, at length acquiring an entirely separate existence.

Stoloniferous, *a.* [Lat. *stolo, stolonis*, a sucker, and *ferre*, to produce.] (*Bot.*) Producing stolons or shoots; sending forth suckers.

Stol'pe, a town of Prussian Pomerania, on the Stolpe, and abt. 15 m. from its mouth, 64 m. from Dantzic; Lat. 54° 27′ 59″ N., Lon. 16° 55′ 15″. *Manuf.* Woollen and linen fabrics.

Sto'ma, *n.*; *pl.* STOMATA. [Gr. *stoma*, mouth.] (*Bot.*) One of certain passages through the epidermis of plants, having the appearance of areolæ, in the centre of each of which is a slit that opens or closes, according to circumstances, and lies over a cavity in the subjacent tissue. They are universally regarded as spiracles or breathing pores.

Stomacace, (*-măk'a-se,*) *n.* [From Lat. *stomachus.*] A fetor of breath, arising from ulcerated gums. Mouth-washes with tinctures of myrrh or borax, and the internal use of tonics, are the remedies which relieve it.

Stomach, (*stŭm'ăk,*) *n.* [Gr. *stomachos*, also *gaster*; Fr. *estomac.*] (*Anat.*) The large membranous receptacle, which receives the food from the œsophagus (Figs. 218 and 356), and within which it is acted upon by the gastric juice and converted into chyme. It is situated in the left hypochondriac and epigastric regions, and when distended, has the shape of an irregular cone, having a rounded base and being curved upon itself. The left extremity is the larger, and is called the greater spheric end of the *S.*, the right or small end being called the *pyloric.* The œsophagus terminates in the *S.* two or three inches from the great extremity by the cardiac orifices, while by the pyloric orifice at the other end the digested matter enters the duodenum. When moderately filled, the *S.* is about ten or twelve inches in length, and its diameter at the widest part about four inches. The walls of the *S.* consist of four distinct coats, held together by fine areolar tissue, and named, in order from without inwards, the *serous, muscular, areolar,* and *mucous coats.* By some the areolar is not reckoned a distinct coat. The first of them is a thin, smooth, transparent, elastic membrane derived from the peritoneum. The muscular coat is very thick, and composed of three sets of fibres, the longitudinal, circular, and oblique, which form three layers. The areolar and fibrous coat is a tolerably distinct layer placed between the muscular and mucous coats, and connected with both. The last is a smooth, soft, rather thick and pulpy membrane, loosely connected with the muscular coat, and covered with exhaling and inhaling vessels. At the pyloric orifice leading from the *S.* into the duodenum, there is a sphincter muscle which contracts the aperture, and prevents the passage of any matter into the intestines until properly digested. The food is propelled along the œsophagus, and enters the *S.* in successive waves through its cardiac orifice. It is there subjected to a peculiar peristaltic motion, having for its object to produce a thorough intermixture of the gastric fluid with the alimentary mass, and to separate that portion which has been sufficiently reduced from the remainder. This motion causes not only a constant agitation or churning of the contents, but also moves them slowly along from one extremity to the other. These revolutions are completed in from one to three minutes, being slower at first than after chymification has more advanced. The passage of the chyme or product of the gastric digestion through the pyloric orifice into the commencement of the intestinal tube is at first slow; but when the digestive process is nearly completed, it is transmitted in much larger quantities.—See DIGESTION, GASTRIC JUICE.

—Appetite; desire of food instigated by hunger. — Inclination; liking; predilection; desire; as, asking of favors goes against a proud man's *stomach.*

—*v. a.* To brook; to put up with; to receive or hear without visible repugnance; as, to *stomach* impertinence from another.

Stomachal, (*stŭm'-.*) *a.* [Fr. *stomacal.*] Cordial; invigorating; stomachic.

—*n.* (*Med.*) A cordial; a stomachic; a tonic.

Stomacher, (*stŭm'a-chẽr,*) *n.* The front body-piece of a dress worn by women; an ornament or support to the breast, forming part of a woman's attire; as, the lady wore a diamond *stomacher.*

Stomachic, Stomachical, (*sto-măk'ĭk,*) *a.* [Fr. *stomachique*; Gr. *stomachikos.*] Pertaining, or relating, to the stomach; as, the *stomachic* glands. — Strengthening, or exciting the action of the stomach; cordial; stomachal; as, a *stomachic* medicine.

Stomach'ic, *n.* (*Med.*) A medicine to invigorate and excite the action of the stomach; a cordial; a tonic.

Stomachless, (*stŭm'ak-,*) *a.* Born without a stomach. — Having no appetite or inclination for food.

Stomach-pump, (*stŭm'-,*) *n.* (*Med.*) A small pump or syringe with two apertures, the valves of which are so arranged as to admit of liquids being drawn out of, or injected into, the stomach, by means of a flexible tube.

Stom'apods, Stom'apoda, *n. pl.* [Gr. *stoma*, mouth, and *pous, podos*, foot.] (*Zoöl.*) A group of *Crustacea*, containing those decapods which have the viscera extending into the abdomen, and the feet mainly approximating the mouth. Their general form bears considerable resemblance to that of shrimps. They are all marine. *Squilla*, containing the *Sea Mantes*, is a characteristic genus.—See SQUILL.

Stomat'ic, *n.* (*Med.*) A remedy for diseases of the mouth.

—*a.* (*Bot.*) Belonging, or relating, to a stoma.

Stomati'tis, *n.* [From Gr. *stoma, stomatos.*] (*Med.*) Inflammation of the mouth.

Sto'mato-gas'tric, *a.* [Gr. *stoma, stomatos*, mouth, and *gaster*, stomach.] (*Med.*) Pertaining, or having reference, to the mouth and stomach.

Stone, *n.* [A. S. *stan, stœn*; Ger. *stein*; Icel. *stein*; root Sansk. *sthā*, to stand.] A hard mass of concreted, earthy, or mineral matter, varying greatly in size, and used for building, paving, millstones, grindstones, ornamental pumps, &c. — A gem; a precious stone; a jewel; as, *stones* of worth. (*Shaks.*) — Something made of stone; as, a tomb-*stone.* — A testicle. — The nut of a stone-fruit, or the hard covering inclosing the kernel; as, the *stone* of a peach. — Callousness; state of torpidness and insensibility; as, a heart of *stone.*

(*Med.*) See CALCULUS.

—In England, a weight legally reckoned at 14 lbs., but which varies in custom or practice; thus, the *stone* of butcher's meat or fish is held to be 8 lbs.; of cheese, 16 lbs.; of hemp, 32 lbs; of glass, 5 lbs.

(*Print.*) Same as IMPOSING-STONE, *q. v.*

(NOTE. *Stone* is prefixed to certain words, as a qualifier of their meaning; thus, *stone*-dead, *stone*-deaf,

stone-blind, *stone*-still, in the sense of lifeless, deaf, blind, and still, as a stone.)

Artificial stone, a manufactured substance made to resemble stone, and used to take the place of stone in various structures. Bricks and terra cotta, in this sense, may be classed as artificial stone, though not usually so considered. Artificial stone, as ordinarily understood, consists of a combination of hydraulic cement, sand, crushed stone, pebbles, &c. Portland cement, mixed either with sand alone or with sand and broken stone, forms one kind of artificial stone. (See CONCRETE.) Paving tiles with beautiful designs are made by inlaying this cement with small pieces of colored stone. It makes an effective product for external wall decoration. *Scagliola* is a polished plaster for internal decoration, somewhat similarly ornamented. Ransome's artificial stone is a hard substance formed by mixing sand with soluble glass, pressing it into moulds, and, when partially dry, soaking it in a bath of chloride of calcium. Chimney-pieces, vases, and architectural ornaments of various kinds can be made of this material. The strength and durability of artificial stone depend on the hardness ultimately attained by the hydraulic ingredients employed, the use of the highest grades of cement being necessary if a thoroughly durable product is desired. Artificial stone may be moulded into blocks to be used in the manner of cut stone in edifices, or may, if desired, be built up into immense monolithic masses by moulding the different parts in place. *Granolithic* is the name given a combination of cement and crushed granite, frequently used for sidewalks, curbs, &c. *Beton-Coignet* is a combination of hydraulic cement, hydraulic lime, and sand, much used for constructive purposes in France. Other varieties might be named.

Meteoric stones. See AEROLITE. — *Philosopher's stone.* See ALCHEMY.

To leave no stone unturned, to use all practicable means to effect an object. (Colloq.)

Stone, *a.* Made of stone, or resembling stone; as, a *stone* house.

—*v. a.* [A. S. *stænan.*] To pelt, beat, or kill with stones. — To harden, indurate, or cause to resemble stone. (R.) — To dispart the stones from; as, to *stone* fruit. — To face, wall, line, or fortify with stones; as, to *stone* a flooring. to *stone* a well.

Stone, in *Missouri*, a S.W. co., bordering on Arkansas; *area*, 500 sq. m. *Rivers.* White River and James' Fork. *Surface*, diversified: *soil*, fertile, forests of ash, hickory, pine, and walnut are numerous. *Min.* Iron and lead. *Cap.* Galena.

Stone Arabia, in *New York*, a post-village of Montgomery co., abt. 50 m. W.N.W. of Albany.

Stone'-blue, *n.* A compound, the basis of which is usually an impure starch, or mixture of starch and gluten, being the starch-maker's refuse, colored either by indigo or Prussian blue. It is used in the laundry to cover the yellow tint of linen.

Stone'-borers, *n. pl.* (*Zoöl.*) Same as LITHOPHAGI, *q. v.*

Stone'-brash, *n.* (*Agric.*) A sub-soil composed of small stones, or pulverized rock.

Stone'-bruise, (*-brūz.*) *n.* A sore place on the sole of the foot, as if from being bruised by a stone.

Stone'-chat, Stone-chat'ter, *n.* (*Zoöl.*) The common name of the insessorial birds composing the genus *Saxicola*, family *Turdidæ*. They are small birds common in the Old World, and one species inhabits Greenland, and is accidental in the northern portion of North America.

Stone'-coal, *n.* (*Min.*) A common name for ANTHRACITE, *q. v.*

Stone'-cold, *a.* Cold as a stone. (Tautological.)

Stone'-crop, *n.* [A. S. *stáncropp.*] (*Bot.*) See SEDUM.

Stone'-cutter, *n.* One who hews stones.

Stone'-cutting, *n.* The business or occupation of hewing and preparing stones for walls, steps, cornices, monuments, &c.

Stone'-falcon, *n.* (*Zoöl.*) See PEREGRINE FALCON.

Stone'-fruit, *n.* (*Bot.*) Same as DRUPE, *q. v.*

Stone'-gall, *n.* One of certain nodules of clay occurring in sandstone; they often fall out on exposure to weather, and render the stone unfit for architectural uses.

Stone'ham, in *Maine*, a township of Oxford co., 50 m. S.W. of Augusta.

Stoneham, in *Massachusetts*, a post-village and township of Middlesex county, 8 miles North of Boston.

Stoneham, in *Minnesota*, a village of Washington co., on the Mississippi River, abt. 5 m. N. of Hastings.

Stone'-hearted, *a.* Hard-hearted; pitiless; cruel; insensible to pity or mercy.

Stone'henge, (*-hĕnj,*) *n.* [A. S. *stân-heng.*] See CELTIC ARCHITECTURE.

Stone'-horse, *n.* An entire horse; a stallion.

Stone'house, a market-town of England, in Devonshire, between Devonport and Plymouth; *pop.* 13,200.

Stone'-jug, *n.* A cant name for a prison.

Stone Lick, in *Ohio*, a township of Clermont county, 22 m. E. by N. of Cincinnati.

Stone-lily, *n.* (*Pal.*) A name sometimes given to ENCRINITE, *q. v.*

Stone Mountain, in *Georgia*, a post-village of De Kalb county, 160 miles W. of Augusta.—Stone Mountain, in the vicinity, a dome shaped granite rock, rises about 2200 feet above the sea.

Stone-ochre, (*ō'kr,*) *n.* (*Paint.*) An earthy oxide of iron, forming a pigment of considerable permanence in oils or water-colors.

Stone'-oil, *n.* (*Min.*) Same as PETROLEUM.

Stone'-pit, *n.* A pit or quarry where stones are excavated.

Stone Ridge, in *New York*, a post-village of Ulster co., abt. 60 m. S.S.W. of Albany.

Stone, (Rosetta,) *n.* (*Hieroglyphics.*) A trilingual inscription in the hieroglyphic, demotic or enchorial, and Greek characters, which was discovered in 1799 by M. Boussard, a French officer of engineers, during the French occupation of Egypt, in an excavation made at Fort St. Julien, near Rosetta, and served as the key to the interpretation of the hieroglyphs. It is of black basalt, about 3 feet 7 inches in length, and 2 feet 6 inches in width, containing about one-third of the hieroglyphic, and nearly all the Greek and Roman portions, the upper part and portion of the side having been broken away. The contents of the inscription are a decree in honor of Ptolemy Epiphanes by the priests of Egypt assembled in a synod at Memphis, on account of his remission of arrears of taxes and dues owed by the sacerdotal body. It was set up 195 B. C.

Stone's-cast, Stone's-throw, *n.* [*Stone* and *cast.*] The distance which a stone may be flung or thrown by the hand.

Stonerstown, in *Pennsylvania*, a village of Bedford co., 100 m. S.W. of Harrisburg.

Stonesport, in *Missouri*, a village of Boone co., on the Missouri River, 6 m. W. of Jefferson City.

Stones River, in *Tennessee*, rises in Cannon co., and flowing N.W. enters Cumberland River, 6 m. N.E. of Nashville.

Stonesville, in *S. Carolina*, a village of Greenville dist., 97 m. N. of Columbia.

Stone Tavern, in *Pennsylvania*, a village of Cumberland co.

Stone Wall Mills, in *Virginia*, a post-village of Appomattox co., 108 m. S.W. of Richmond.

Stoneware, (*stone'wair,*) *n.* A very hard kind of pottery, with which are made jars, drain-pipes, and a variety of chemical utensils. It is constituted of plastic clay, united in various proportions with some felspathic mineral sands of different kinds, and in some cases with cement, stone, or chalk. These mixtures are then subjected to a heat sufficiently great to cause a partial fusion of the mass. This condition of semi-fusion is the distinguishing character of *S.* The finer varieties of *S.* are made from carefully selected clays, which when burnt will not have much color. These are united with some fluxing substance, by which the particular state of semi-fusion above mentioned is brought about. Formerly the glaze of *S.* was always a salt glaze; recently, however, it has been customary to glaze with a mixture of Cornish stone, flint, &c., as in the manufacture of earthenware.

Stone'-work, (*-wûrk,*) *n.* Work or wall constructed of stone; mason's work of stone.

Stone'-wort, *n.* (*Bot.*) A plant of the genus *Chara* (*C. sabulosa*), found in pools of clear water in the Middle States.

Stoniness, *n.* [From *stony.*] State or quality of being stony, or of abounding with stones; as, *stoniness* of land. — Hardness or obduracy of heart. (R.)

Stonington, in *Connecticut*, a post-borough, township, and port of entry of New London co., 63 m. E. of New Haven. It is built upon a peninsula, nearly a mile long, and has a commodious harbor, protected by a breakwater.

Stonington, in *Illinois*, a post-village of Christian co., abt. 34 m. E.S.E. of Springfield.

Stono, in *Missouri*, a post-village of St. Francois co., abt. 22 m. S.E. of Potosi.

Stony, *a.* [Ger. *steinicht, steinig.*] Made or consisting of stone; abounding with, or resembling, stone; as, a *stony* tract of country. — Petrific; converting into stone.—Hard; cruel; inflexible; unrelenting; obdurate; pitiless; insusceptible; perverse; morally hard; as, a *stony* heart.

Stony Brook, in *Massachusetts*, a village of Middlesex co., 12 m. W. of Boston.

Stony Brook, in *New Jersey*, rises in Hunterdon co., and flowing S.E. enters Millstone River abt. 3 m. E. of Princeton.

Stony Brook, in *New York*, a village of Suffolk co., Long Island, 50 m. N.E. of New York.

Stony Creek, in *Connecticut*, a post-village and seaport of New Haven co., 11 m. S.E. of New Haven.

Stony Creek, in *Indiana*, a township of Henry co.— A township of Madison co.—A township of Randolph co.

Stony Creek, in *Michigan*, enters Maple River from Clinton co.—Another, which flows into Lake Erie from Monroe co.—Another, which falls into Clinton River from Oakland co. — A post-village of Oakland co., 26 m. N.W. of Detroit.

Stony Creek, in *Pennsylvania*, enters the Conemaugh River at Johnstown, in Cambria co. — A creek which enters the Susquehanna River from Dauphin co. — A post-township of Somerset county, 12 miles east of Somerset.

Stony Creek, in *Virginia*, rises in Dinwiddie co., and flows into Nottaway River into Sussex co. — A village of Sussex co., 21 m. S.E. of Petersburg.

Stony Point, in *New York*, a fort in Orange co., on the Hudson, 42 m. N. of New York, the capture of which from the British by Gen. Wayne, in 1779, is regarded as one of the most brilliant exploits of the Revolutionary War.

Stony Point Mills, in *Virginia*, a post-village of Cumberland co., 61 m. W.S.W. of Richmond.

Stood, *imp.* of STAND, *q. v.*

Stool, *n.* [A. S. *stôl*; Du. *stoel*; Ger. *stuhl.*] A seat without a back, so distinguished from a *chair*; a little form or stand consisting of a board, round or square, with legs, intended as a seat for one person; as, a three-legged *stool.* — The seat used in evacuating the excrement of the bowels; hence, an evacuation; a fecal discharge; as, to go to *stool.* — In the U. States, a STOOL-PIGEON, *q. v.*

—*pl.* (*Naut.*) Pieces of plank fastened to a ship's side to receive the bolting of the gallery; also, small channels for the dead-eyes of the backstays.

(*Hort.* and *Arboric.*) A stemless mother-plant used for propagation by annually bending its branches into the soil; the branches so bent down forming layers, and the process being designated *laying* or *layering.*—Also, the root or stump of a timber tree, which throws up shoots.

—*v. n.* To shoot or send out stools or suckers.

Stool'-pigeon, (*-pij'un,*) *n.* A decoy robber, in the pay of the police, who brings his associates into a trap laid for them.

—In the U. States, a decoy-pigeon; — hence, a person used as a decoy-duck.

—*v. n.* To ramify, as grain; to shoot out suckers, as plants.

Stoom, *v. a.* To stum; to impart a factitious strength to, as thin liquor by the introduction of must, &c.

Stoop, *v. n.* [A. S. *stupian*; Belg. *stuypen.*] To lean or bend the body forward and downward; to bend the body and incline forward; to incline forward in standing or walking; as, his shoulders *stoop* naturally. — To bend or bow by compulsion; to yield; to submit; to succumb; as, "Henry the Fifth made the Dauphin and the French to *stoop.*" (*Shaks.*) — To descend from rank or dignity; to condescend; to become self-abased; to acknowledge inferiority; as, though of noble blood he yet *stooped* to marry a trader's daughter. — To swoop down on prey, as a hawk. — To fall; to sink to a lower place; as, "each bird *stooped* on his wing." — *Milton.*

—*v. a.* To sink; to cause to incline downward; as, to *stoop* a barrel of ale.

—*n.* Act of bending the body forward and downward; inclination forward. — Descent from dignity or superiority of natural condition; condescension; self-abasement; as, he made a *stoop* from his high estate. — Fall, swoop, or descent of a bird on his prey; as, the *stoop* of an eagle.—The steps of a doorway; also, the covered porch, having side-seats, before the door of a house.

Stoop, Stoup, *n.* [A. S. *stoppa.*] A flagon or measure of liquor; as, a *stoup* of harvest-ale.

Stoop'ingly, *adv.* With an inclination of the body forward.

Stoot'er, *n.* [Du.] In Holland, a small silver coin, worth about five cents American.

Stop, *v. a.* (*imp.* and *pp.* STOPPED.) (*stŏpt.*) [Du. *stoppen*, to fill, cram; Ger. *stopfen.*] To block, close, or fill up; to close, as an orifice or aperture, by filling or by obstructing; as, to *stop* a vent. —To close up, so as to render impassable; as, to *stop* a way, road, passage, or thoroughfare.— To obstruct; to impede; to shut in; to dam up; to hinder the passage; to arrest the progress of; as, to *stop* a carriage in the road, to *stop* the course of a river. — To hinder or restrain from action or practice; to check; to suppress; to repress; to suspend; to mar or prevent the effect or efficiency of; to put an end to; to intercept; as, to *stop* the encroachments of public vice, to *stop* the execution of an edict, &c.— To regulate the sounds of, as musical strings.—To point, as a manuscript; to punctuate; as, to *stop* a sentence.

(*Naut.*) To make fast; to stopper; as, to *stop* the hawse.

—*v. n.* To cease to move forward; to come to a stand; as, he *stopped* on a sudden. — To cease from any motion, procedure, or course of action; as, when the play goes against one it is time to *stop.* — To stay, tarry, or abide temporarily; to spend a short time; to sojourn; as, he has come to *stop* with me for a week or two.

—*n.* Act of stopping, or the state of being stopped; cessation of progressive motion; hindrance of progress or advance; obstruction or interruption of operation or action; check; as, to put a *stop* to invasion of one's rights. — That which obstructs, checks, or hinders; impediment; obstacle; as, to oppose some *stop* to the tirades of a scolding woman. — The instrument by which the sounds of wind-music are regulated; regulation of musical chords by the fingers.

(*Punctuation.*) A point or mark in writing, intended to distinguish the sentences, parts of a sentence, or clauses, and to indicate the proper pauses in reading. See PUNCTUATION.

Stop'-cock, *n.* [*Stop* and *cock.*] A turning cock, used to stop or to regulate the supply of water, gas, &c., which flows through pipes.

Stope, *n.* (*Mining.*) An horizontal bed or layer forming one of a series of steps, into which the upper surface of an excavation is cut.

—*v. a.* (*Mining.*) To excavate after the manner of stopes. — To fill in with rubbish, as an excavated place.

Stop'-gap, *n.* That which fills up an orifice, gap, hiatus, or chasm; as, luncheon is a *stop-gap* for the stomach between meals. — Hence, a temporary substitute or expedient. (R.)

Stop'ing, *n.* (*Mining.*) Act of forming stopes.

Stop'page, (*-paj,*) *n.* [L. Lat. *stupacium.*] Act of stopping or arresting action, progress, or motion; state of being stopped: that which stops; obstacle; obstruction; as, the *stoppage* of friendly relations between two countries. — The stopping of a railroad train at a station; as, an express train makes few *stoppages.* — A deduction made from pay; as, the *stoppage* of two dollars per diem.

S. in transitu. (*Law.*) A resumption by the seller of the possession of goods not paid for, while on their way to the vendee, and before he has acquired actual possession of them. For most purposes, the possession of the carrier is considered to be that of the buyer; but by virtue of this right, which is an extension of the right of lien, the vendor may reclaim the possession

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before they reach the vendee, in case of the insolvency of the latter.

Stop'per, *n.* One who stops, closes, shuts, or bluders; that which is an obstacle, obstruction, or impediment; that which closes or fills a vent, hole, or orifice in a vessel; a stopple, as of a bottle.

—*v. a.* To secure a stopper, as of a cable.

Stop'per-bolt, *n.* (*Naut.*) On shipboard, a large ring-bolt attached to the deck, to which the deck-stoppers are hooked.

Stop'ping-out, *n.* (*Etching.*) A plan adopted to give effect to lines, varying their darkness and breadth by allowing the acid to remain on some longer than on others, which is done by removing the acid, and *stopping-out* or covering with Brunswick-black, or some other composition impervious to acid, such lines as appear dark enough. The acid is again put on the other lines, which become in consequence broader and deeper; and the effect of great variety of tint and tone is thus produced from the same etching.

Stopple, (*stŏp'pl,*) *n.* [From *stop.*] That which stops or closes the mouth or orifice of a vessel or of a bottle; a cork; a stopper.

—*v. a.* To close by means of a stopple.

Stop'-watch, *n.* (*Horol.*) A watch whose hands can be stopped in order to calculate the time that has passed, as in timing a race.

Storage, (*stōr'aj,*) *n.* [From *store.*] Act of depositing in a store or warehouse for safe-keeping; or, the safe-keeping of goods in a store or magazine.—Rent charged or paid for the safe-keeping of goods in a store.

Sto'rax, *n.* (*Chem.*) See STYRAX.

Store, *n.* [A. S., Dan., and Swed. *stor.*] A stock provided; a large quantity for supply; that which is massed or accumulated together;—hence, ample abundance; a great number; a large aggregation; as, a *store* of provisions.—A store-house; a magazine; a warehouse; a depôt for large quantities or accumulations.—Hence, by implication, any place where commodities are sold, whether by wholesale or retail; as, a drug *store.*

—*pl.* Necessary articles accumulated or laid up for future use; supplies, as of provisions, arms, munitions, &c.; as, military or naval *stores*; supplies of different articles, provided for the use of the crew and passengers of a vessel; as, ship *stores*, cabin *stores*, &c.

In store, in a state of accumulation or amassment;—hence, in a state of preparedness; as, there is something *in store* for me yet.—*To set store by*, to esteem or value highly; to look upon with pride or fondness; as, he *sets* great *store by* his nationality. (Colloq.)

—*v. a.* To lay or hoard up; to amass; to gather together in quantities: to accumulate; to supply; to replenish; as, his brain is well *stored* with ideas.—To stock or furnish against a future time; as, a cellar well *stored* with drinkables.—To warehouse; to deposit in a store, magazine, or depôt, for safe-keeping or preservation; as, to *store* merchandise.

Store'-house, *n.* A building for housing or preserving goods or commodities of any kind; a warehouse; a magazine; a depôt; a repository.

Store'-keeper, *n.* One who has the care of a store.

Sto'rer, *n.* One who lays up or forms a store.

Store'-room, *n.* Room, or space in a warehouse, for the reception of commodities;—also, a room in which commodities are stored.

Store'-ship, *n.* (*Nav.*) A victualling ship; a vessel employed as a depôt for the distribution of provisions, naval stores, &c.

Store'ville, in *South Carolina*, a village of Anderson dist., 117 m. W.N.W. of Columbia.

Sto'rey, in *Nevada*, a W. co.; *area*, 250 sq. m. The Truckee River bounds it on the N.W. *Surface*, mostly barren hills and sandy deserts. *Min.* Gold and silver. *Cap.* Virginia City.

Stor'ge, *n.* [Gr.] Parental or instinctive affection.

Storied, (*stōr'ĕd,*) *a.* [From *story.*] Narrated in a story.—Possessing a history; venerable from antiquity or the associations of the past.—Furnished with stories;—used mainly in composition; as, a three-*storied* house.

Stork, *n.* [A. S. *storc.*] (*Zoöl.*) The common name of a family of large grallatorial birds, the *Cinconidæ*, including the Stork of the Old World, and the Jabirus of both hemispheres. They have the bill thicker than in *Ardeidæ*, and nearly equal membranes between the bases of the toes. The genus *Cinconia* comprises the White Stork, *C. alba*, of Europe, which is 42 inches long, white, with the quills of the wings black, and the feet and bill red. It is held in high estimation on account of its destruction of noxious reptiles. It prefers to build its nest in towers and steeples, and returns to the same spot year after year. The American Stork, *C. Americana*, chiefly found in Brazil, is about as large as the white species. The genus *Jabiru* comprises very large birds, which differ from the storks in having the extremity of the bill curved upward.

Fig 2434.—WHITE STORK, (*Cinconia alba.*)

Stork's'-bill, *n.* (*Bot.*) See PELARGONIUM.

Storm, *n.* [A. S., Du., L. Ger., Dan., and Swed.] The violent action of one or more of the elements, as wind, rain, snow, or thunder and lightning;—hence, frequently, a tempest; a downfall of rain or snow.—Hence, a violent civil, political, or domestic commotion or disturbance; sedition, insurrection, or war; popular clamor or tumult.—Extreme calamity; dire distress, adversity, or affliction; as, the *storms* of misfortune.

(*Mil.*) A violent assault on a fortified place; a furious attempt of troops to enter and take a fortified place.

—*v. a.* (*Mil.*) To assault or attack with violence, or by open force; to attack and attempt to take by scaling the walls, forcing gates or breaches, and the like.

—*v. n.* To raise a tempest.—To blow with violence; as, it *storms.*—To rage; to be in a violent agitation of passion.

Storm'-beat, *a.* Beaten or injured by storms.

Storm'ful, *a.* Containing, or abounding in, storms.

Storm'fulness, *n.* The state of being stormful.

Storm'iness, *n.* State of being stormy; tempestuousness; state of being agitated by violent winds.

Storm'-petrel, *n.* (*Zoöl.*) See PETREL.

Storm'y, *a.* [A. S. *stormig*; Ger. *stürmisch.*] Tempestuous; agitated with furious winds; boisterous.—Proceeding from violent agitation or fury.—Violent; passionate.

Storœ, (*stor'e(r,)*) an island of Norway, 30 miles from Bergen. It is 15 m. long, with a breadth of 7 m.

Storrs, in *Ohio*, a flourishing post-township of Hamilton county.

Storthing, (*stort-ing',*) *n.* [Nor. *storting*, from *stor*, great, and *ting*, court.] See NORWAY, § *Govt.*

Sto'ry, *n.* [A. S. *stær, ster*; It. *storia*; Fr. *histoire*; Gr. *historia.*] A verbal narration or recital of a series of facts or incidents; history; account of things past.—A petty tale; relation of a single event, or of trifling incidents.—A fiction; a fable.—A falsehood. (Colloq.)—A floor; a set of rooms on the same floor or level; a subdivision of the height of a house; a height that is ascended by one flight of stairs.

—*v. a.* To tell in history; to relate.—To range one under another.

Sto'ry, JOSEPH, an eminent American judge and juridical writer, was B. at Marblehead, in Massachusetts, 1779, studied at Harvard University, where he took his degree in 1798, was called to the bar in 1801, and soon acquired a distinguished reputation as a pleader. After representing Salem in the State legislature for 4 years, he was sent to Congress in 1809, where his talents as a forensic debater were so well appreciated that in 1811 he was appointed associate justice in the Supreme Court of the United States. In this capacity he displayed a thorough knowledge of the most intricate questions relating to international law, and earned such distinction as a jurist that his name has been carried far beyond the limits of this country. His *Commentaries on the Conflict of Laws* is looked upon as an authority in every state in Europe. His other principal works are: *Commentaries on the Constitution of the United States*, and treatises upon *Equity Jurisprudence*, the *Law of Bailments*, of *Bills of Exchange*, of *Promissory Notes*, and of *Partnership.* D. 1845.

Sto'ry, in *Iowa*, a central co.; *area*, 576 sq. m. *Rivers.* South Skunk River, and Walnut, Bear, and Indian creeks. *Surface*, undulating; *soil*, fertile. *Capital City*, Nevada.

Sto'ry City, in *Iowa*, a post-village of Story co., abt. 18 m. N.N.W. of Nevada.

Sto'ry-post, *n.* (*Arch.*) An upright piece of timber in a story for supporting the superincumbent part of the exterior wall.

Sto'ry-tell'er, *n.* One who tells stories; one who relates tales in conversation.—An historian;—in contempt.

Stonch'burg, in *Pennsylvania*, a post-village of Berks co., 34 m. N.E. of Harrisburg.

Stoughstown, (*stows'town,*) in *Pennsylvania*, a post-village of Cumberland co., 13 m. S.W. of Carlisle.

Stoughton, (*sto'ton,*) in *Massachusetts*, a post-village and township of Norfolk county 19 miles south-west of Boston.

Stough'ton, in *Wisconsin*, a city of Dane co., 16 m. S.E. of Madison. *Pop.* (1895) 2,936.

Stoup, (*stoop,*) *n.* A flagon; a stoop. (Local.)

(*Eccl.*) A vessel to contain consecrated water, such as is placed near the entrance of a Roman Catholic church, into which all who enter dip their fingers and cross themselves.—Also, a portable vessel for holding holy water.

Stourbridge, (*stoor'brĭdj,*) a town of England, in Worcestershire, on the Stour, near its junction with the Severn, 4 m. from Kidderminster. *Manuf.* Glass, earthenware, iron, cloth, &c. *Pop.* 9,000.

Stout, *a.* [Du., bold.] Strong; lusty.—Bold; intrepid; valiant; brave.—Large; bulky; corpulent. (Colloq.)—Proud; resolute; obstinate; pertinacious.

—*n.* A strong kind of beer.

Stout'ly, *adv.* Lustily; boldly; obstinately.

Stout'ness, *n.* State of being stout; strength; boldness.

Stouts'ville, in *New Jersey*, a village on the border of Hunterdon and Somerset cos., 13 m. S.W. of Somerville.

Stoutsville, in *Ohio*, a post-village of Fairfield co., abt. 14 m. S.W. of Lancaster.

Stove, *n.* [O. Fr. *estuve*; A. S. *stofa*; It. *stufa.*] A receptacle for the combustion of fuel for the purpose of heating houses, &c.

(*Hort.*) A structure in which tropical plants, requiring a considerably higher temperature than that of the open air in N. York and similar climates, are cultivated. Stoves are adapted for various purposes; but the principal are the *dry stove* and the *damp stove.* The dry stove is a structure the atmosphere of which is heated to the temperature of from 55° to 60° during winter, and in which the plants chiefly cultivated are succulents, such as species of *Cereus, Stapelia, Euphorbia*, and others having a similar habit. The damp stove, sometimes also called the *bark stove*, requires a temperature of between 60° and 70° during winter, with a proportionate increase during summer, accompanied, in both seasons, with a high degree of atmospherical moisture. This moisture is produced partly by evaporation from the bark-bed in which the plants are plunged, but chiefly by watering the floor of the house, and by syringing the walls and plants. The plants cultivated in the moist stove are exclusively those of the tropics; and those which require the highest degree of heat are chiefly monocotyledonous plants, such as the ginger, the plantain, the banana, the sugar-cane, palms, *Orchidaceæ*, &c., and such dicotyledonous plants as the bread-fruit, the yam, the mangosteen, and other East Indian plants.

Cooking-stove. A stove adapted to culinary purposes.

Stove, *v. a.* To heat, as in a stove.

Sto'ver, *n.* [O. Fr. *estover*, to furnish.] Fodder for cattle, as hay, straw, &c.

Stow, *v. a.* [A. S.; Dan. *stuve.*] To put in a suitable place or position; to lay up: to reposit.

Stow, in *Maine*, a post-township of Oxford co., 65 miles S.W. of Augusta.

Stow, in *Massachusetts*, a post-village and township of Middlesex co., 27 m. N.W. of Boston.

Stow, in *Ohio*, a township of Summit co.

Stow'age, *n.* Act or operation of stowing, or of placing in a suitable position, or the suitable disposition of several things together.—Room for the reception of things to be reposited.—The state of being laid up.—Money paid for the stowing of goods. (R.)

Stow Creek, in *New Jersey*, forms part of the boundary between Cumberland and Salem cos., and flows into the Delaware Bay, 4 m. N.W. of the mouth of Cohansey River.

—A township of Cumberland co.

Stowe, in *Vermont*, a post-village and township of Lamoille co., 20 m. N.N.W. of Montpelier.

Stowe, HARRIET BEECHER, an American authoress, daughter of the late Dr. Lyman Beecher, B. in Litchfield, Conn., June 15, 1814, was associated with her sister in the labors of a school at Hartford in 1829, afterwards removed with her relatives to Walnut Hills, near Cincinnati, and was married in 1835 to the Rev. C. E. Stowe, Prof. of Biblical History in the Lane Seminary, over which her father presided. During the earlier part of her married life, Mrs. Stowe wrote several tales and sketches for the magazines, which were afterwards collected under the titles of *The May Flower*, and *Two Ways of Spending the Sabbath.* Shortly after Prof. Stowe had accepted the chair of Biblical Literature at Andover, in 1850, his wife, an ardent Abolitionist, having made herself thoroughly acquainted with the workings of slavery, published first in the "Washington National Era," *Uncle Tom's Cabin.* It went through several editions, was republished in England, and was translated into various European languages. The *Key to Uncle Tom's Cabin*, explanatory of the incidents on which her book was founded, appeared in 1852. Accompanied by her husband and brother, she travelled in Europe in 1853, and, after her return to America, produced her travelling impressions in a work entitled *Sunny Memories of Foreign Lands.* In 1856 she published *Dred, a Tale of the Great Dismal Swamp*; in 1859, a work upon the social condition of the U. States, entitled *The Minister's Wooing*; and a tale, under the title of *Agnes of Sorrento*, which appeared simultaneously in the pages of the *Cornhill Magazine* and the *Atlantic Monthly* in 1861. Her article entitled *The True Story of Lady Byron*, published in the "Atlantic Monthly" in 1869, caused a great scandal in the literary world. Her late published work is *Progressive People: their Loves and Lives*, 1878. Mrs. Stowe's home was in Hartford, Conn., but she passed much of her time at Mandarin, Florida, where she had an orange grove. Died July 1, 1896.

Stoyestown, (*stois'town,*) in *Pennsylvania*, a post-borough of Somerset county, 70 miles east south-east of Pittsburg.

Strabane', a town of Ireland, co. Tyrone, 42 m. from Armagh. It is a place of considerable trade, and has a salmon fishery.

Strabane, in *N. Carolina*, a post-village of Lenoir co., 78 m. S.E. of Raleigh.

Strabane, in *Pennsylvania*, a township of Adams co., 10 m. N.E. of Gettysburg.

Stra'bism, Strabis'mus, *n.* [Fr. *strabisme*; L. Lat. *strabismus.*] (*Med.*) See SQUINTING.

Stra'bo, a Greek historian and geographer, who flourished in the 1st cent., B.C. He is the author of one of the most valuable relics of antiquity, being a description of nearly every part of the world known in his time, namely, the first century of the Christian æra. The work is indispensable to the elucidation of ancient history.

Strabom'eter, *n.* (*Med.*) An instrument used to measure the degree of deviation as well as the precise result obtained by tenotomy. The *S.* of Dr. Laurence had to be moved from one eye to the other in order to compare the degree of deviation. A *binocular S.*, invented in 1870 by Dr. Galezowski, does not present the same inconvenience; the two needles, which slide in the channel of a screw, are easily placed opposite to the

centrs of each cornea; and by the divisions which are marked upon the horizontal bar, the deviation is immediately noted.

Strabot'omy, *n.* [Gr. *strabos*, squinting, and *tomē*, cutting.] (*Surg.*) Removal of strabismus or squinting, by dividing the muscle or muscles which distort the eyeballs.

Straddle, (*strad'dl,*) *v. n.* To spread or part the legs wide; to stand or walk with the legs far apart.

—*v. a.* To place one leg on one side, and the other on the other side of anything.

—*n.* The act of standing or walking with the legs far apart. — The position of one who straddles.

Stock Ex. See PUT.

Stradel'la, a city of Italy, 10 m. S. E. of Pavia, situated on the slope of a hill; was formerly fortified.

Stradivarius, ANTONIO, (*străd-i-vair'i-us,*) a celebrated stringed-instrument maker, b. in Cremona, 1670, was the pupil of Amati; d. 1728. The violins made by him are highly esteemed, and have obtained as high a price as $2,000 each.

Straf'ford, THOMAS WENTWORTH, EARL OF, an English statesman, b. in London, 1593. He was at first one of the principal leaders of the popular party in the House of Commons against the unconstitutional measures of Charles I.; but was gained over to the court, made a peer, appointed Lord-Lieutenant of Ireland, and afterwards to the command of the army against the Scots. On the opening of the Long Parliament, his enemies in the Commons impeached him at the bar of the House of Lords, and he was ordered into custody. His trial lasted 18 days, and was carried on with unusual virulence. His defence made a deep impression upon the hearers, though it did not abate the energy of his prosecutors, who introduced a bill of attainder against him. The bill was passed in both houses of Parliament, and Charles I. was weak enough to give his assent to it. The king afterwards made some slight and fruitless attempts to save the life of the minister who had been his too zealous tool in the despotic measures which he attempted against the liberties of his subjects. On the day of execution, *S.* went forth to the block with the manner of "a general marching at the head of an army to breathe victory, rather than that of a condemned man, to undergo the sentence of death." Executed on Tower Hill, London, 1641.

Straf'ford, in *New Hampshire*, an E.S.E. co., bordering on Maine; *area*, 350 sq. m. *Rivers.* Cocheco, Lamprey, Isinglass, and Salmon Falls. *Surface*, diversified; *soil*, generally fertile. *Cap.* Dover.

—A post-vill. and township of the above co., 20 m. E.N.E. of Concord.

Strafford, in *Vermont*, a post-village and township of Orange co., 33 m. S.S.E. of Montpelier.

Straggle, (*strag'gl,*) *v. n.* [A. S. *strægan.*] To wander from the direct course or way; to rove. — To wander at large without any certain direction or object; to ramble. —To exuberate; to shoot too far; as, *straggling* branches. —To be dispersed or separated.

Strag'gler, *n.* One who straggles or departs from the direct or proper course. — A vagabond; a wandering, shiftless fellow. — Something that shoots beyond the rest, or too far; an exuberant growth. — Something that stands by itself.

Strag'glingly, *adv.* In a straggling manner.

Straight, (*strat,*) *a.* [A. S. *streht.*] Passing from one point to another by the nearest course; not deviating or crooked; as, a *straight* line. — Narrow; close; tight; —properly written *strait.*—Upright; accordant with justice and rectitude; not deviating from truth or fairness.

S. arch. (*Arch.*) The arch over an aperture, whose intrados is straight, but with its joints drawn concentrically, as in a common arch. (*Brande.*) — *S. line.* (*Geom.*) A line, the direction of which is not changed between any two of its points.

—*adv.* Immediately; directly; in the shortest time.

—*v. a.* To straighten. (R.)

Straight-edge, (*strāt-ĕj,*) *n.* A piece or strip of wood or metal having one edge straight, used for ascertaining whether a surface is perfectly even or level.

Straight'en, *v. a.* To make straight; to reduce from a crooked to a straight form. — To reduce to difficulties or distress.—To make narrow, tense, or close; to tighten.

Straight'ener, *n.* One who, or that which, straightens.

Straight'forward, *a.* Proceeding in a straight course; not deviating.

Straight'forwardness, *n.* Direction in a straight course.

Straight'-joint, *n.* (*Arch.*) Applied to a floor which has its boards so laid that their joints or edges form a continuous line throughout the direction of their length.

Straight'ly, *adv.* In a right line; not crookedly; tightly; closely.

Straight'ness, *n.* State or quality of being straight; rectitude. — Narrowness; tightness; tension.

Straight'way, *adv.* Directly; immediately; without loss of time; without delay.

Strain, *v. a.* [Ger. *anstrengen*, to strain: O. Fr. *estreindre*, to strain.] To draw with force; to extend with great effort; as, to *strain* a rope. — To injure by pressing with too much effort.—To put to the utmost strength. —To make tighter; to cause to bind closer. — To press or cause to pass through some porous substance; to filter. — To force; to constrain; to make uneasy or unnatural.

—*v. n.* To make violent efforts. — To be filtered.

—*n.* A violent effort; a stretching or exertion of the limbs or muscles. — An injury by excessive exertion, drawing, or stretching. — Style; continued manner of speaking or writing; manner of speech or action. — Stretch or elevation of voice or sound; song; note; sound, or a particular part of a tune. — Turn; tendency; inborn disposition. — Race; breed, as a body.

(*Mus.*) Any one of the periods into which a musical composition is divided by double bars, the *S.* being further subdivided into periods, sections, phrases, and feet.

Strain'er, *n.* A person who strains. — That through which any liquid passes for purification; an instrument for filtration or percolation.

Strain'ing, *n.* The act of one who strains. — That which is strained.

S. piece. (*Arch.*) A piece of timber designed to prevent the nearer approach of two pieces of timber in a framing. The collar of a queen-post roof (Fig. 2274) may be cited as an illustration of the meaning of a straining-piece.

Strait, *a.* [Lat. *strictus;* It. *stretto.*] Narrow; close; not broad.—Close; intimate. (a.)—Difficult; distressful.

—*n.* Distress; difficulty; direful necessity.

(*Geog.*) A narrow pass or passage, either in a mountain, or in the ocean between continents or other portions of land; — commonly in the plural; as, the *Straits* of Gibraltar.

Strait'en, *v. a.* To make strait, narrow, or contracted; to contract; to confine. — To make tense, or tight. — To distress; to perplex; to press with poverty or other necessity; as, *straitened* means.

Strait'-handed, *a.* Parsimonious; sparing; niggardly. (R.)

Strait'-laced, (*-lāst,*) *a.* Laced tight; griped with stays. — Stiff; constrained; as, a *strait-laced* person. — Rigid in opinion; strict; as, *strait-laced* morality.

Strait'ly, *adv.* Narrowly; closely; strictly; rigorously.

Strait'ness, *n.* The state or quality of being strait; narrowness; strictness; rigor; distress; difficulty; pressure from necessity of any kind, particularly from poverty.

Strait'-waisteoat, Strait'-jacket, *n.* A garment for restraining a lunatic person, or one laboring under violent delirium. It has long sleeves, which are tied behind the body, so that the arms cannot be extricated from them.

Strake, *n.* The iron band on the circumference of a wheel, defending the fellies; a tire.

(*Ship-building.*) A line of planking extending from the stem to the stern.

Stral'sund, a strongly fortified town of Prussia, Pomerania, long subject to Sweden, situate on the strait which separates the island of Rügen from the mainland, 85 m. from Stettin. Its harbor is capacious and safe. The aspect of the town is gloomy, the streets being narrow and indifferently paved. *Manuf.* Woollens, linens, tobacco, soap, and glass. *S.* was built about the year 1209, and became a member of the Hanseatic League. In 1628 it was besieged without success by Wallenstein, but was taken in 1678, 1713, and 1807. Since 1815 it has been made one of the strongest towns belonging to Prussia. *Pop.* 27,593.

Stram'ony, *n.* (*Bot.*) The Thorn-apple (*Datura stramonium*). See DATURA.

Strand, *n.* [A. S., Ger., Du. *strand*, shore.] The shore or beach of the sea or ocean, or of a large lake. — One of the twists, or parts of which a rope is composed.

—*v. a.* To drive or run aground on a shore or strand, as a ship. — To break, as one of the strands of a rope.

—*v. n.* To drift or be driven ashore; to run aground.

Strange, (*strānj,*) *a.* [Fr. *étrange;* O. Fr. *estrange;* Sp. *extraño;* Lat. *extraneus.*] Belonging to another country; foreign; not domestic.—New; not before heard, known, or seen. — Causing surprise; exciting curiosity; wonderful. — Not according to the common way; odd; unusual; irregular.

Strange sail. (*Naut.*) An unknown sail or vessel.

—*interj.* An exclamation of wonder.

Strange'ly, *adv.* In a strange manner; wonderfully; in a manner or degree to excite surprise or wonder. — With some relation to foreigners.

Strange'ness, *n.* Foreignness; the state of belonging to another country. — Distance in behavior; reserve; coldness; forbidding manner. — Remoteness from common manners or notions; uncouthness. — Mutual dislike; estrangement. — Wonderfulness; the power of exciting surprise and amazement; uncommonness that raises wonder by force of novelty.

Stran'ger, *n.* [O. Fr. *estranger;* Fr. *étranger.*] A foreigner; one who belongs to another country. — One of another town, city, state, or province in the same country; one unknown; one unacquainted. — A guest; a visitor.—One not admitted to any communication, communion, or fellowship.

(*Law.*) A person born out of the U. States; — more properly called *alien* until he becomes naturalized. — A person who is not privy to an act or contract.

Stran'ger, in *Kansas*, a post-township of Leavenworth co.; *pop.* abt. 1,200.

Strang'ford, (Lough,) a large inlet of the sea, between Belfast Lough and Dundrum Bay, Ireland. It is studded with numerous islets, and is shallow.

Strangle, (*strang'gl,*) *v. a.* [O. Fr. *estrangler*, from Lat. *strangulo;* Gr. *strungoloa*, or *stranggalizo.*] To choke; to stifle; to suffocate; to destroy the life of by stopping respiration. — To hinder from birth or appearance; to smother; to suppress.

Stran'gler, *n.* One who strangles.

Stran'gling, *n.* The act of killing by strangling or choking.

Strangles, (*strang'glz,*) *n. sing.* (*Farriery.*) A contagious eruptive disorder peculiar to young horses. It is ushered in by sore throat and cough, a muco-purulent nasal discharge, and the eruption of a swelling in the space between the branches of the lower jaw. In about ten days, this swelling comes to a head, bursts, and in favorable cases the patient is soon well again. From exposure to cold, poverty, or other causes, the swelling, however, occasionally appears in less favorable situations, as about the glands lying within the shoulder, in those of the groin, or even in those of the mesentery. Such irregular cases are apt to be protracted, accompanied by much weakness, and sometimes prove fatal.

Stran'gulated, *a.* (*Bot.*) Irregularly contracted.

S. hernia. (*Surg.*) A hernia whose aperture occasions more or less constriction on the protruded part.

Strangula'tion, *n.* [Fr., from Lat. *strangulatio.*] The act of killing by intercepting the breath. It is produced by forcibly compressing the anterior of the windpipe, or by drawing a rope tightly round the neck. Death is generally due to arrest of respiration, but it may be dislocation of the cervical vertebræ. See HANGING.

Stran'gury, *n.* [Gr. *straggouria*, from *stranx*, a drop, and *ouron*, urine.] (*Med.*) Painful difficulty in voiding urine.

(*Bot.*) A disease in plants, produced by tight ligatures.

Stranraer, (*străn-rar',*) a town of Scotland, in Wigtownshire, at the head of the bay of Loch Ryan, 6 m. from Port Patrick. *Manuf.* Weaving, and there are tanneries and nail-factories. The harbor is excellent. *Pop.* 6,542.

Strap, *n.* [A. S. and Sw. *stropp;* Ger. *strippe;* Lat. *strappus*, a band, thong; Gr. *strophos*, a twisted band, from *strepho*, to twist.] A long, narrow slip of cloth or leather or some similar material. — A strop; a slip of leather or other material used for sharpening a razor.

(*Bot.*) The flat part of the corolla of a ligulate floret.

(*Carp.*) An iron band fixed round two or more timbers, sometimes with brauches along each, to hold them all firmly together.

(*Naut.*) An iron bar of great strength forming part of the brake apparatus of a capstan on board ship.

—*v. a.* To beat or chastise with a strap. — To fasten or bind with a strap. — To rub on a strap for sharpening, as a razor.

Strappa'do, *n.* [It. *strappata;* Fr. *estrapade.*] A kind of rack; a very cruel species of military punishment formerly in vogue in most European armies; it consisted in tying the offender's hands behind his back, attaching a strong cord to the wrists, and then by means of a pulley drawing him rapidly up to a cross-beam many feet high, entirely suspended in this painful manner, and then allowing the tortured victim to fall by his own weight to the ground, the process being repeated till one or more of his bones were dislocated or fractured.

Strap'per, *n.* A person who uses a strap. — Any person or thing of unusual size. (Low.)

Strap'ping, *a.* Tall; lusty; bulky; large; as, a *strapping* fellow.

Strap'-shaped, *a.* (*Bot.*) Long, flat, and narrow, as a corolla; ligulate.

Strap'-work, *n.* (*Arch.*) A peculiar kind of ornament, much used in the 15th and 16th centuries as a general decorative enrichment, and which consists of a narrow fillet or band, folded and crossed, and occasionally interlaced with another; the convolution sometimes exhibiting much ingenious elaboration.

Stras'bourg, or **Stras'burg,** a fortified city of Germany, near its W. frontier, cap. of the German Reichsland, on the Ill, near the Rhine, 100 m. S.S.W. of Mentz, and 250 E. by S. of Paris. The city is of a triangular form, is inclosed by a bastioned line of ramparts, strengthened by numerous out-works, entered by

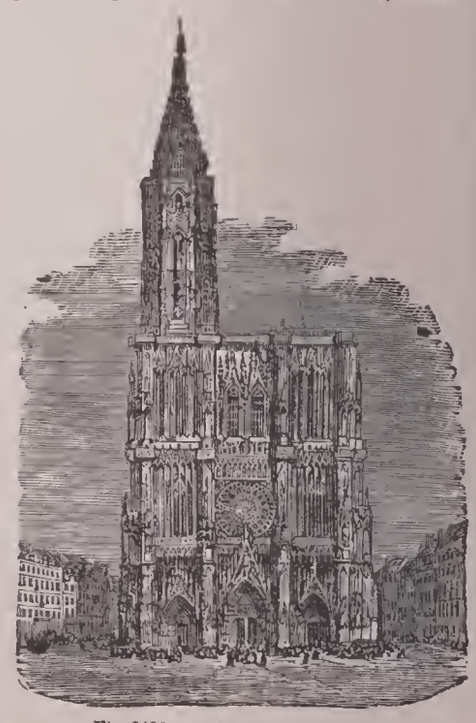


Fig. 2435. — STRASBURG CATHEDRAL.

gates, and has on its E. side a strong pentagonal citadel, built by Vauban. *S.* was, indeed, until toward the close of the year 1870, one of the strongest and most important fortresses and arsenals of France. Of its remaining public buildings, the principal is the Cathedral of Notre Dame, commenced in 1015, and completed in 1439, and which is justly classed among the most magnificent examples of Gothic architecture that exist (Fig. 2435). Its tower, 466 feet in height, is a masterpiece of architectural taste and skill, being built of hewn stone, cut with such delicate nicety as to give it at a distance some resemblance to lace, and combining the most elegant symmetry of parts with the most perfect solidity. *Manuf.* Flax, hemp, wine, liquors, linens, sail-cloth, blankets, carpets, hardware, leather, cotton, lace, snuff, jewelry, cutlery, bijouterie, chemicals, mathematical and musical instruments, and the famous *patés de foie gras* of *S. Pop.* (1897) 133,250.—*Hist.* *S.* is very ancient, and most probably existed previous to the Romans. It assumed the name of *Strateburguen* in the 6th century. On the first partition of the Frankish territory it was included in the kingdom of Austria, and on the second in Lorraine. In the 10th cent. it belonged to the German emperors, and subsequently became a free city of the empire, which it continued to be till 1681, when it was taken possession of by Louis XIV., and finally annexed to France. Shortly after the outbreak of the Franco-Prussian war in Aug., 1870, and following the disastrous capitulation of the Emperor Napoleon with his army at Sedan, *S.* was invested by a German force of from 60,000 to 70,000 men under Gen. Werder, who opened his first parallel on the night of 29–30 Aug., and the second on that of 1–2 Sept. The garrison, numbering abt. 17,000 men, under Gen. Uhrich, after a most heroic defence, surrendered on the 28th of the last-named month. The surrender was hastened by a desire to stop further effusion of blood, and to save this magnificent city from total destruction. During the bombardment the shells of the Prussians destroyed some of the principal public buildings and private residences. The city was finally incorporated with the German Empire in 1871. It has since been considerably enlarged, and new fortifications of great extent were completed in 1882. The famous library burnt during the bombardment has been replaced by a much larger one.

Stras'burg, in *Ohio*, a post-village or Tuscarawas co., 110 m. S.E. of Columbus.

Strasburg, in *Pennsylvania*, a post-borough and township of Lancaster co., 8 m. E.S.E. of Lancaster.

Strasburg, in *Virginia*, a post-town of Shenandoah co., 18 m. S.W. of Winchester.

Strasznitz, (*stras'nitz,*) a town of Austria, in Moravia, 12 m. from Hradisch; *pop.* 5,500.

Stra'ta, *n. pl.* of STRATUM, *q. v.*

Strat'agem, (*-jem,*) *n.* [Fr. *stratagème:* Lat. *strategema.*] An artifice, particularly in war; a plan or scheme for deceiving an enemy.—A trick by which some advantage is intended to be obtained; any artifice.

Stratarith'metry, *n.* [Gr. *stratos*, army, *arithmos*, number, and *metron*, measure.] The art of drawing up an army or body of men in a geometrical figure.

Strateget'ics, *n. sing.* (*Mil.*) Strategy. (R.)

Strateget'ic, Strateget'ical, *a.* [Fr. *stratégique.*] Relating to strategy.

Strateg'ically, *adv.* In a strategetic manner.

Strat'egist, (*-jist,*) *n.* [Fr. *stratégiste.*] A person skilled in strategy.

Strat'egy, *n.* [Fr. *strategie;* Lat. *strategia.*] (*Mil.*) The science of directing military movements on the theatre of the war, when not in actual contact with an enemy. It merges into *tactics* on the field of battle.

Strat'ford, a town of England, co. of Essex, on the Lea, 4 m. from London. *Manuf.* Chemicals.

Strat'ford, in prov. of Ontario, a town, cap. of Perth co.

Stratford, in *New Hampshire*, a post-township of Coos county, 117 m. N. of Concord.—In *Connecticut*, a p.-vill. and township of Fairfield co., at the mouth of the Housatonic River, Long Island Sound, 62 m. N.E. of New York. At the entrance of the harbor is the Stratford Point Light-house, with a revolving light; Lat. 41° 9′ N., Lon. 73° 6′ 36″ W.

Stratford, in *Ohio*, a village of Delaware co., 27 m. N. of Columbus.

Strat'ford-le-Bow, (*-le-bo',*) a town of England, in Middlesex, on the Lea, 3 m. from London; *pop.* 6,000.

Strat'ford de Red'cliffe, STRATFORD CANNING, VISCOUNT, an English statesman, B. in London, 1788; was a cousin of George Canning, and himself a distinguished diplomatist. As ambassador to Turkey, he had the management of the negotiations with the Russian ambassador previous to the Crimean war.

Strat'ford-upon-Av'on, a market-town of England, in Warwickshire, on the Avon, 9 m. from Warwick. It contains the house in which, it is said, Shakspeare was born; but that in which he died has long ago been razed to the ground by the proprietor. *Pop.* 3,500.

Strath'am, in *New Hampshire*, a post-twp. of Rockingham co., 39 m. E.S.E. of Concord.

Strathspey, (*străth'spe,*) *n.* A kind of Scottish national dance, slower than the reel, and which is said to derive its name from having been first practised in the district called Strathspey.

Stratifica'tion, *n.* [Fr.] (*Geol.*) The arrangement of the various materials of which the earth's crust is composed in *strata*, *beds*, or *layers*, reposing one on another, with more or less appearance of regularity. Rocks are said to be *stratified* or *unstratified*, to have *conformable* or *unconformable S.*, according as they present evidences of mechanical or chemical origin, and as they seem to have succeeded each other without or after disturbances altering the horizontality of strata previously placed.

Strat'iform, *a.* In the form of strata.

Strat'ify, *v. a.* [Fr. *stratifier.*] To form into a stratum or strata.—To lay in strata.

Stratio'tes, *n.* (*Bot.*) A genus of plants, order *Hydrocharideæ*, including the Water Soldier, *S. aloides* (Fig. 2436), which grows in lakes and ditches.—It has numerous strap-shaped leaves, which spring from the root, as does also the 2-edged flower-stem bearing the spathe with beautiful and delicate white flowers. It is a very ornamental aquatic plant.

Fig. 2436.—WATER SOLDIER, (*Stratiotes aloides.*)

Stratoc'racy, *n.* [Gr. *stratos*, an army, and *krateo*, to rule.] A military government.

Stratog'raphy, *n.* A description of armies, or of whatever relates to them.

Straton'ic, *a.* Relating to an army; warlike.

Strat'ton, in *Illinois*, a township of Edgar co., abt. 5 m. E.S.E. of Paris.

Stratton, in *Vermont*, a post-township of Windham co., 90 m. S.W. of Montpelier.

Strat'tonville, in *Pennsylvania*, a post-village of Clarion co., 3 m. E. of Clarion.

Stra'tum, *n.; Latin pl.* STRATA; *Eng. pl.* STRATUMS, (R.) (*Geol.*) A single bed or layer of rock as it lies in the earth. Several such layers together form a group of *strata*, and if compacted and in any way distinguishable from other similar groups, a group of strata forms a *stratified rock.*

Stra'tus, *n.* [Gr. *sterno*, *stratus*, to spread.] (*Meteor.*) See CLOUD.

Straubing, (*strou'bing,*) a town of Lower Bavaria, on the Danube, 27 m. from Regenshurg; *pop.* 11,214.

Straus'berg, a town of Prussia, prov. of Brandenburg, 20 m. from Berlin; *pop.* 4,500.

Strauss, DAVID FRIEDRICH, (*strouss,*) a German theologian, B. at Ludwigsburg, Würtemberg, 1808. In 1832, he became assistant teacher in the Theological Institute at Tübingen, and lectured on philosophy in the university there. In 1835, he produced his famous *Life of Jesus Critically Treated*, in which he attempted to prove the received gospel history to be a collection of myths gradually formed in the early Christian communities, and sought, by an analytical dissection of each separate narrative, to detect, where it existed, a nucleus of historical truth free from every trace of supernaturalism. The book made a real epoch in theological literature, and produced a violent excitement in and out of Germany, calling forth numberless replies from opponents, frightening many by its bold disregard of consequences back into the ranks of orthodoxy, and stirring up others to similar investigations. *S.* was dismissed from his appointment at Tübingen, and, in the following year, became a private tutor at Stuttgart. He replied to his critics, in 1837, in two *Friendly Addresses;* nevertheless, the feeling against him was so strong, that when, in 1839, he was appointed professor of divinity and church history at the University of Zurich, he was not only compelled instantly to resign, but the administration under which he had received the post was overthrown. He subsequently produced a biography of Schubert, the German poet, and *The Doctrine of the Christian Faith*, is a natural sequel to the purely critical investigation of the origin of Christianity in the first book. D. Feb. 8, 1874.

Straw, *n.* [A. S. *streow, streaw;* Ger. *stroh.*] The stalk or stem of certain species of grain, pulse, &c., chiefly of wheat, rye, oats, barley, buckwheat, and pease.—A mass of the stalks of certain species of grain when cut, and after being threshed.—Anything proverbially worthless.

Man of straw. A figure of straw, made to resemble a man.—A man without competent or responsible means.—*Straw-bail.* Bail given by irresponsible persons.—*To be in the straw.* To lie in child-bed. (Colloq.)

Straw, in *New Jersey*, a village of Warren co., 5 m. S.E. of Philipsburg.

Straw'berry, *n.* (*Bot.*) See FRAGARIA.

Straw'berry, in *Arkansas*, a township of Lawrence co.

Straw'berry-blit, *n.* (*Bot.*) See BLITUM.

Straw'berry Plains, in *Tennessee*, a post-village of Jefferson co., 18 m. N.E. of Knoxville.

Straw'berry River, in *Arkansas*, rises in Fulton co., and falls into Black River in the S.W. of Lawrence co.

Straw'berry Valley, in *California*, a post-village of Yuba co., 45 m. N.N.E. of Marysville.

Straw'-color, (*-kul'ur,*) *n.* A light yellow color.

Straw'-cutter, *n.* An instrument for cutting straw or fodder.

Strawn'town, in *Pennsylvania*, a village of Bucks co., 18 m. S.E. of Easton.

Straw'-plait, *n.* A strip made by plaiting straw, and used for making bonnets, hats, &c.

Straw'town, in *Indiana*, a post-village of Hamilton co., 28 m. N.N.E. of Indianapolis.—A village of Hendricks co., 30 m. N.N.E. of Indianapolis.

Straw'y, *a.* Made of straw; consisting of straw; resembling straw; light.

Stray, *v. n.* [A. S. *strægan.*] To wander, as from a direct course; to turn or go out of the way.—To wander from company or from the proper limits; to rove at large.—To wander from the path of duty or rectitude; to err; to deviate.

—*a.* Strayed; wandering; as, a *stray* cow or horse. (Col.)

—*n.* Any domestic animal that has left an enclosure, and wanders at large, or is lost.—The act of wandering. (R.)

Stray'er, *n.* One who strays or wanders.

Streak, *n.* [A. S. *strica, strice;* Du. *streek;* Ger. *strich.*] A line or long mark of a different color from the ground; a stripe.

(*Ship-building.*) Same as STRAKE, *q. v.*

(*Min.*) The appearance which arises from scratching a mineral with the point of a knife. The streak is *similar* when the color of the scratch is the same as that of the mineral, but *dissimilar* when the color varies.

—*v. a.* To form streaks or stripes in; to stripe; to variegate with lines of a different color, or of different colors.

—*v. n.* To stride; to vamose; to run swiftly; as, to *streak* it. (Vulgar.)

Streaked, (*streekt,*) *a.* Marked or variegated with stripes of a different color.

Streak'y, *a.* Having streaks or stripes; striped; variegated with lines of a different color.

Stream, *n.* [A. S.; Du. *stroom;* Ger. *strom.*] A liquid substance flowing in a line or course, either on the earth, as a river or brook, or from a vessel or other reservoir or fountain; a current of water or other fluid.—A current of melted metal or other substance.—Anything issuing from a source, and moving with a continued succession of parts.—A current of air or gas, or of light.—Current; drift, as of opinions or manners.

—*v. n.* To flow; to run or move in a continuous current.—To pour out in abundance, as of tears.—To issue or shoot in streaks.—To extend; to stretch in a long line.

—*v. a.* To pour; to send forth in a current or stream.—To mark with colors or embroidery in long tracks.

To stream the buoy. (*Naut.*) To drop it into the water.

Stream'-anchor, *n.* (*Naut.*) A small anchor used for swaying, and sometimes for mooring by, in a river, &c.

Stream'er, *n.* An ensign or flag; a pennon extended or flowing in the wind.—A luminous beam or column, one of the forms of *aurora borealis.*

Stream'ful, *a.* Abounding in streams or running water.

Stream'-ice, *n.* A continued line or series of pieces of ice flowing in certain directions.

Stream'let, *n.* A small stream; a rivulet; a rill.

Stream'y, *a.* Streamful.—Flowing with a current or stream.

Street, *n.* [A. S. *stræt;* Du. *straat;* Ger. *strasse;* Lat. *strata* (*via*), a smooth or levelled (way).] Any way or road in a city, chiefly a highway;—in distinction from a *lane* or *alley.*

Street-door. The door of a house, fronting or opening upon a street.

Streets'borough, in *Ohio*, a post-township of Portage co.

Streets'ville, in prov. of Ontario, a village of Peel co., 23 m. N. of Toronto.

Street'-walker, *n.* A common prostitute, who offers herself for hire in the open street.

Strehlen, (*strai'len,*) a town of Prussia, in Silesia, on the Ohlau, 22 m. from Breslau. *Manuf.* Cottons, woollens, and leather. *Pop.* 5,635.

Strel'itz, (*-its,*) a city of Germany, divided into Old and New Strelitz. See NEU-STRELITZ.

Strel'itz, *n.; pl.* STRELITZY. A soldier of the ancient Muscovite militia.—The strelitzy were the only standing army of the empire, and, like the Turkish janissaries, constantly interfered with its government. Their last revolt was in 1698, during the absence of the Czar, Peter I., who on his return cashiered the corps altogether.

Strel'izia, *n.* (*Bot.*) A genus of plants, order *Musaceæ*, consisting of large herbaceous plants, natives of the Cape of Good Hope. Their foliage consists of long stalked leaves, sheathing at the base, arising from a contracted stem, the flower-stalk encircled below by the sheath of the leaf-stalk, while its upper portion gives origin to a large bract or spathe placed obliquely, within which are the flowers. The fine leaves and large orange and purple flowers of *S. reginæ* render it one of the most splendid of plants.

Strength, *n.* [A. S. *strength, streng.*] The state or quality of being strong; vigor; force; capacity for exertion or endurance, whether physical, moral, or intellectual.—Solidity or toughness; the quality of bodies by which they sustain the application of force without breaking or yielding.—Power of resisting attacks; fastness; support.—Legal or moral force; validity; the quality that commands results.—That which yields support; confidence; security.—Amount of force, military or naval; an army or navy; number of troops or ships well appointed.—Force of writing; nervous diction; force;—opposed to *softness* in writing or painting.—Vividness; clearness;—said of light or color.—

The quality of any liquor which has the power of affecting the taste, or of producing sensible effects on other bodies.—Vehemence; force proceeding from motion, and proportioned to it;—said of air, water, &c.

(*Fine Arts.*) Boldness or vigor of conception or treatment.

Strength of materials. See MATERIALS (STRENGTH OF).

Strength'en, *v. a.* To make strong or stronger; to add strength to, either physical, legal, or moral; to confirm; to establish.—To fix in resolution; to animate; to encourage.—To cause to increase in power or security.

—*v. n.* To grow strong or stronger.

Strengthener, (*strength'n-er,*) *n.* One who, or that which, increases strength.

Strength'less, *a.* Wanting strength; deprived of strength.—Lacking potency; weak;—said of liquors. (R.)

Stren'uous, *a.* [Lat. *strenuus.*] Energetic; vigorous; eagerly pressing or urgent; zealous; ardent; bold, active, and vigorous; intrepid.

Stren'uously, *adv.* With eager and pressing zeal; ardently; boldly; vigorously; actively.

Stren'uousness, *n.* The state or quality of being strenuous; eagerness.

Strepsip'tera, *n. pl.* [From Gr. *strepho,* I twist, and *pteron,* a wing.] (*Zoöl.*) The name given by Kirby to the order of insects which he found to possess rudimental elytra in the form of linear and spirally twisted scales.

Strep'topus, *n.* (*Bot.*) A genus of plants, order *Liliaceæ,* distinguished by its branched stem, and axillary, solitary flowers, generally with the peduncle distorted. *S. roseus,* the Rose-twistfoot, a common species, native of woods from Canada to the Carolinas, has reddish, spotted flowers suspended beneath the branches, one under each leaf.

Stress, *n.* [Abbreviated from *distress.*] That which bears the force or weight, or the force or weight itself; pressure.—Urgency; violence.

Stretch, *v. a.* [A. S. *streccan;* Ger. *strecken.*] To draw out to greater length; to extend in a line.—To extend in breadth; to spread or expand.—To reach out; to put forth; to extend.—To make tense; to render tight.—To draw or pull out in length; to strain.—To exaggerate; to extend too far.

—*v. n.* To be extended; to be drawn out in length or in breadth, or both.—To make violent efforts in running.—To spread.—To be extended, or to bear extension without breaking.—To strain beyond the truth; to exaggerate.

(*Naut.*) To sail; to direct a course.

—*n.* Extension in length or in breadth; reach; effort; struggle.—Utmost extent of meaning; utmost reach of power.—Course; direction.

(*Naut.*) Progress of a vessel under a heavy press of sail, and close-hauled.

Stretch'er, *n.* He who, or that which, stretches.—A litter for carrying the sick, wounded, &c.

(*Masonry.*) A block of stone or a brick laid horizontally, with its length in the direction of the face of a wall.

(*Naut.*) A movable bar across the bottom of a boat, for the rower to place his feet against. The power of the stroke is dependent on the proper adjustment of the stretcher.

Stretch'ing-course, *n.* (*Masonry.*) A course in which the bricks or stones are laid horizontally, with their lengths in the direction of the face of the wall.

Stretch'ing-machine', n. (*Manuf.*) Calicoes and other similar textile fabrics are prepared for the market by being stretched in a proper machine, which lays all their warp and woof yarns in parallel positions, and extends their width after the shrinkage caused by bleaching, dyeing, &c.

Stret'to, *n.* [It., from Lat. *strictus,* strait, narrow.] (*Mus.*) A term indicating that the measure to which it is affixed is to be performed short and concise, hence quick. It is the opposite of *largo.* The stretto of a fugue is a part coming towards the end, where the answers to the subject are brought more closely together.

Strew, (*stru.*) *v. a.* [A. S. *streowian;* Ger. *streuen.*] To scatter; to spread by scattering.—To spread scatteringly or loosely.—To spread abroad.

Strew'ing, *n.* The act of one who, or that which, strews.—Something strewed or to be strewed.

Stri'a, *n.; pl.* STRIÆ. [Lat.] (*Arch.*) The channel or groove of a column.

Stri'æ, *n. pl.* [Lat. pl. of *stria.*] (*Zoöl.*) Fine thread-like lines in the exterior surface of many shells, longitudinal, transverse, or oblique.

Stri'ate, *v. a.* To furnish with furrows or channels.

Stri'ate, Stri'ated, *a.* (*Zoöl.*) Marked with lines or stripes.

(*Bot.*) Marked with longitudinal streaks or furrows.

(*Fine Arts.*) Disposed in ornamental lines, either parallel or wavy.

Stricken, (*strik'kn.*) *pp.* of STRIKE, *q. v.*

—*p. a.* Struck; smitten.—Advanced; worn out; far gone.

Strick'ersville, in *Pennsylvania,* a post-village of Chester co., abt. 40 m. W.S.W. of Philadelphia.

Strick'land's Depot, in *N. Carolina,* a village of Duplin co., 47 m. N. of Wilmington.

Strick'land's Ferry, in *Maine,* a post-village of Androscoggin co., abt. 22 m. N.W. of Augusta.

Strickle, (*strik'l.*) *n.* An instrument used to strike corn, to level it with the measure.—A tool used in moulding pipes.

Strict, *a.* [Lat. *strictus,* from *stringo,* to stretch.] Strained; drawn tight.—Tense; not relaxed.—Exact; accurate; rigorously nice.—Governed or governing by exact rules; severe; rigorous; observing exact rules.—Confined; limited; characterized by rigor.

(*Bot.*) Straight and narrow.

Strict'ly, *adv.* Closely; tightly; exactly; positively; rigorously.

Strict'ness, *n.* Quality of being strict; closeness; tightness;—opposed to *laxity.*—Exactness in the observance of rules, laws, rites, and the like.—Rigorous accuracy; nice regularity or precision.—Rigor; severity.

Stric'ture, *n.* [Fr., from Lat. *strictura,* from *stringo, strictus.*] A stroke; a glance; a touch.—A touch of criticism; a caustic remark; animadversion; censure.

(*Med.*) A spasmodic or other morbid contraction of any passage of the body.

Stride, *v. n.* (*imp.* STRODE, *pp.* STRIDDEN.) [A. S. *stredan,* to spread.] To walk by extending the feet wide apart; to walk with long steps; to straddle; to stand with the legs far from each other.

—*v. a.* To pass over at a step.

—*n.* [A. S. *strǽde.*] A long step; a straddle.

Stri'dent, *a.* [From Lat. *stridere.*] Harsh; grating on the ears; as, a *strident* voice.

Stri'dor, *n.* [Lat.] A harsh, shrill, grating, or creaking noise.

Striegau, (*streegou,*) a town of Prussian Silesia, 32 m from Breslau; *pop.* 5,711. Near it, in 1745, the Austrians were defeated by the Prussians.

Strife, *n.* [O. Fr. *estrif.*] Act of striving; struggle; exertion or contention for superiority; contest of emulation, either by intellectual or physical efforts; contention in anger or enmity; discord; contest; struggle for victory; conflict; quarrel or war; opposition; contrariety; contrast.

Stri'ga, *n.; pl.* STRIGÆ. [Lat., a windrow.] (*Arch.*) A flutingof a column.

(*Bot.*) One of the close-pressed rigid hairs distributed over the surface.

Strig'idæ, *n. pl.* (*Zoöl.*) See OWL.

Strig'il, *n.* [Lat. *strigilis.*] A brush for the skin.

Strig'ous, Strig'illose, *n.* (*Bot.*) Clothed with sharp and short close-pressed hairs, or scale-like bristles.

Strike, *v. a.* (*imp.* STRUCK; *pp.* STRUCK, and sometimes STRICKEN.) [A. S. *astrican,* to smite; Ger. *streich.*] To act upon by a blow; to hit with a blow; to touch or hit with some force, either with the hand or an instrument.—To dash; to throw with a quick motion.—To stamp; to impress; to coin; to thrust in; to cause to enter or penetrate.—To punish; to afflict.—To cause to sound; to notify by sound.—To lower; to let down, as sails.—To impress strongly; to affect sensibly with strong emotion.—To make and ratify, as a bargain.—To produce by a sudden action.—To affect in some particular manner by a sudden impression or impulse.—To run on; to ground, as a ship.

To strike off, to separate by a blow, or any sudden action.—*To strike out,* to produce by collision.—To blot; to efface.—To bring to light.—To form at once by a quick effort.

—*v. n.* To make a quick blow or thrust.—To hit; to collide; to dash against; to clash.—To sound by percussion.—To be struck; to make an attack; to fall upon.—To act on by beating against; to sound with blows.—To run upon; to be stranded.—To pass with a quick or strong effect.—To dart; to penetrate.—To lower a flag or colors in token of respect, or to signify a surrender of the ship to an enemy.—To cease from work, as a body of workmen acting by combination, in order to attain higher wages; to revolt; to mutiny.

—n. Act of striking.—An instrument with a straight edge for levelling a measure of grain, &c., for scraping off what is above the level of the top.

(*Pol. Econ.*) A means adapted by workmen in order to obtain higher wages or some amelioration in their working circumstances, and in which they leave their work in a body and refuse to resume it until their demands are complied with. Such proceedings are always attended with great hardships, and usually give rise to much bad feeling on both sides. The object of the workmen evidently is to force their employers into compliance by taking advantage of their necessity to have the work carried on or completed, and the knowledge of this naturally makes the employers the more inclined to resist. Perhaps, however, the chief objection to strikes is the all but impossibility of their being carried out without a system of tyranny being maintained towards a number even of those who are parties to it. A strike without unity among a number of workmen is a failure; and to obtain this, usually a number of persons are forced into it most unwillingly. A strike, so long as there is no destruction of property or intimidation, is perfectly legal, but it often degenerates into a lawless mob. The disastrous results of the great railroad strikes of 1877 are still remembered, they having culminated in the loss of precious lives and millions in property. Other notable strikes have been that in Chicago in 1894, and that of the coal miners in Aug. and Sept., 1897.—When employers, as a means of coercion, close their works this action is termed a *lock-out.*

Strike'-block, *n.* A plane shorter than the joints, used for shooting a short joint.

Strik'er, *n.* One who, or that which, strikes.

Strik'ing, *a.* Affecting with strong emotions; surprising; forcible; impressive; strong; exact; adapted to make impression.

Strik'ingly, *adv.* In such a manner as to affect or surprise; forcibly; strongly; impressively.

Strik'ingness, *n.* Power or quality of affecting.

Strik'le, *n.* Same as STRICKLE, *q. v.*

String, *n.* [A. S. *string, streng.*] That which draws tight; that which binds, ties, or fastens; a small rope, line, or cord, or a slender strip of leather, or other like substance, used for fastening or tying things; a ribbon; a thread on which anything is filed; and hence, a line of things; the cord of a musical instrument; a fibre, as of a plant; a nerve or tendon of an animal body; the line or cord of a bow; a series of things connected or following in succession; any concatenation of things.

—*v. a.* (*imp.* and *pp.* STRUNG.) To make tense; to furnish with strings; to put in tune, as a stringed instrument; to file; to put on a line.

String'-beans, *n. pl.* Green beans cooked and eaten with the pods;—so called from the stringy substance which is stripped from the back of the pods in preparing them.

String'-course, *n.* (*Masonry.*) A course running round the face of a building, the projection of which is small in proportion to its height.

String'ed, *a.* Having strings; produced by strings.

Stringency, (*strin'jen-si.*) *n.* State of being stringent.

Strin'gent, *a.* [Lat. *stringens,* from *stringo.*] Drawing close together; contracting; binding strongly; urgent; drawn tight; severe; rigid; strict.

Strin'gently, *adv.* In a stringent manner.

String'er, *n.* One who strings; one who makes strings.

String'-halt, *n.* A peculiar catching up of the horse's limbs, usually of one or both hind limbs. It is most noticeable when the animal is first brought out of the stable, when he is excited, or made to turn suddenly round; it is a variety of chorea or St. Vitus's dance. Although a serious eyesore, it does not interfere with usefulness, and is quite incurable.

String'iness, *n.* State of being stringy.

String'-piece, (*-pēs.*) *n.* A piece of timber in a bridge.

(*Arch.*) That part of a flight of stairs which forms its ceiling or soffit.

String'y, *a.* Consisting of strings or small threads; fibrous; filamentous; ropy; viscid; gluey; that may be drawn into a thread.

Strip, *v. a.* [A. S. *bestrypan,* to strip, to spoil.] To take away by force; to pull or tear off, as a covering; to deprive of covering; to skin; to peel.—To deprive; to bereave; to make destitute; to divest.—To rob; to plunder; to pillage.—To impoverish; to make bare by cutting, grazing, or other means.

To strip off, to tear or take off, as the bark of a tree.—*To strip from,* to take away from

—*v. n.* To take off the covering or clothes.

—*n.* [Ger. *streif.*] A piece or slip, torn, pulled, or peeled off; a narrow piece, comparatively long.

Stripe, *n.* A line, or long, narrow division of anything, of a different color from the ground; a strip, or long, narrow piece attached to something of a different color.—The wale, or long, narrow mark discolored by a lash or rod.—A stroke made with a lash, whip, rod, strap, or scourge.

—*v. a.* To make stripes in; to form with lines of different colors; to variegate with stripes.

Striped, *a.* Having stripes of different colors.

Striped Antelope, *n.* (*Zoöl.*) See KOODOO.

Striped Squirrel, *n.* (*Zoöl.*) One of a group of rodent animals, comprising the genus *Tamias,* family *Sciuridæ.* It is characterized by ample cheek-pouches, tail shorter than the body and not bushy, three to five dark dorsal stripes, and four permanent upper molars. This genus comprises only a few species, two of which are found in Europe and Asia, and the remaining four or five in N. America.

Strip'-leaf, *n.* Tobacco from which the stalks have been removed before packing it.

Strip'ling, *n.* [From *strip, stripe.*] A tall, slender youth; a youth in the state of adolescence, or just passing from boyhood to manhood; a hobbledehoy.

Strip'per, *n.* One who strips.

Strip'pings, *n. pl.* The last milk, at a milking, taken from a cow; the after-milking.

Stris'ores, *n. pl.* (*Zoöl.*) A sub-order of birds, order *Insessores,* including the Humming-birds, Swifts, and Goat-suckers.

Stritch'el, *n.* A strickle.

Strive, *v. n.* (*imp.* STROVE; *pp.* STRIVEN.) [Ger. *streben.*] To endeavor; to struggle; to contend; to make efforts; to use exertions with earnestness; to labor hard.—To struggle in opposition to another; to be in contention or dispute.—To vie; to emulate; to contest; to oppose by contrariety of qualities.—To be comparable to; to contend in excellence.

Striv'er, *n.* One who strives or contends; one who makes efforts of body or mind.

Striv'ing, *n.* Act of making efforts.

Strix, *n.* (*Zoöl.*) The typical genus of the *Strigidæ.* See OWL.

Strobila'ceous, *a.* (*Bot.*) Belonging to, or resembling, a strobile.

Stro'bile, *n.* [Fr.; Lat. *strobilus.*] (*Bot.*) An imbricated scaly inflorescence, or any collection of hard scales, representing distinct flowers arranged spirally, but closely imbricated, as the fir-cone, or any fruit which resembles it.

Strobil'iform, *a.* That has the form of a strobile.

Stro'cal, Stro'cle, Stro'kal, *n.* A shovel used in the glass trade, having a turned-up edge, suited to filling the pots or moulds from the chests or harbors of materials.

Stroke, *n.* [From *strike.*] The striking of one body against another; a hostile blow or attack.—A sudden attack of disease or affliction; calamity; fatal attack, as of death.—The sound of the clock.—The touch of a pencil; a touch; a masterly effort.—An effort suddenly or unexpectedly produced.—Series of operations.—A dash in writing or printing; a line; a touch of the pen.—The sweep of an oar in rowing; the upward or downward motion of a piston, as of a steam-engine.

—*v. a.* [A. S. *stracan.*] To rub gently with the hand by way of expressing kindness or tenderness; to soothe; to rub gently in one direction.—To make smooth.

Strok'er, *n.* One who strokes; one who pretends to cure by stroking.

Strokes'man, *n.* The person who rows the aftmost oar in a boat, and gives the stroke which the rest are to follow; usually called *stroke-oar.*

Strok'ing, *n.* The act of one who strokes.

Strok'ings, *n. pl.* Same as STRIPPINGS, *q. v.*

Stroll, *v. n.* [Contracted from *straggle.*] To move or wander about; to wander on foot; to ramble idly or leisurely; to rove; to roam; to stray.

—*n.* A wandering on foot; a walking idly and leisurely.

Stroll'er, *n.* One who strolls; an itinerant actor.

Stro'ma, *n.* [Gr., a bed.] (*Bot.*) A fleshy body, found on fungous plants, to which flocci are attached.

Strom'bite, *n.* (*Pal.*) A fossil shell of the genus *Strombus.*

Strom'boli, the most northerly of the Lipari islands, in the Mediterranean, off the N. coast of Sicily. It is abt. 12 m. in circumference, circular in shape, wholly of volcanic formation, and rises to the height of 3,100 feet above sea level. On its W. side is a volcano of considerable activity. Sulphur and pumice-stone are gathered in large quantities. *Pop.* 1,350.

Strombu'liform, *a.* [Gr. *strombos,* a top, and Lat. *forma,* form.] Shaped like a top.

Strom'bus, *n.*; *pl.* STROMBIDÆ. [Gr. *strombos.*] (*Zoöl.*) A genus and family of Mollusca, for the most part found in the seas of tropical countries, inhabiting large and thick oval shells. The head of the animal is furnished with a proboscis and two short tentacula; and the eyes

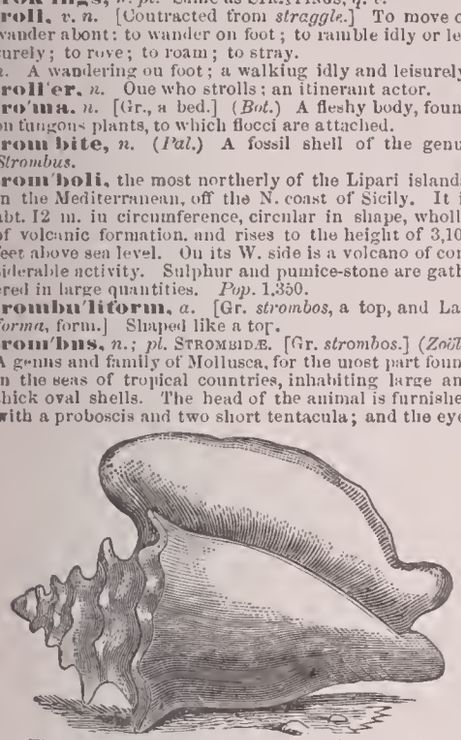


Fig. 2437. — FOUNTAIN-SHELL, (*Strombus gigas.*)

are situated on a lateral peduncle longer than the tentacula themselves. In the *Strombus gigas* (Fig. 2437), the largest univalve known, which is caught for the table, pearls are said to be occasionally, though very rarely, found. It is sometimes called the Fountain-shell, from its occasional use as a garden ornament.

Stromeyerite, (*strŏm-e'er-īt,*) *n.* (*Min.*) A double sulphide of silver and copper, found in Chili, Peru, &c. *Comp.* Sulphur 15·7, silver 52·9, copper 31·4.

Strom'ness, a town of Scotland, at the S.W. end of the island of Pomona, on a bay of the same name, with a safe and commodious harbor, 12 m. from Kirkwall; Lat. 58° 51′ N., Lon. 3° 9′ W. *Pop.* 2,300.

Stro'nach, in *Michigan,* a post-township of Manistee co.; *pop.* abt. 150.

Strong, *a.* [A. S. *strang, strong, streng,* strong.] Having firmness or vigor; having physical active power, or great physical power to act; having the power of exerting great bodily force; vigorous; powerful; stout; robust; muscular; solid; firm; having physical passive power; having ability to bear or endure. — Well fortified; able to sustain attacks; not easily subdued or taken. — Having great wealth, means, or resources. — Moving with rapidity, as wind. — Hale; sound; healthy. — Adapted to make a deep or effectual impression on the mind or imagination. — Characterized by order and zeal; earnestly engaged. — Having virtues of great efficacy, or having a particular quality in a great degree. — Full of spirit; intoxicating; affecting the sight, the taste, or the smell powerfully. — Not of easy digestion. — Well established; not easily overthrown or altered. — Characterized by great earnestness. — Able; furnished with abilities; having great force of mind, of intellect, or of any faculty: having great force; comprising much in few words. — Bright; glaring; vivid. — Powerful to the extent of force named.

Strong'-fisted, *a.* Having a muscular hand.

Strong'-hand, *n.* Force; strength; violence.

Strong'hold, *n.* A place of strength or security; especially, a fortress; a fort; a fortified place.

Strong'ish, *a.* Somewhat strong.

Strong'ly, *adv.* With strength; with great force or power; forcibly; firmly; in a manner to resist attack; vehemently; eagerly.

Strong'-minded, *a.* Having a strong mind; of powerful intellect.

Strong'-pounced, *a.* Having powerful talons, as an eagle.

Strong River, in *Mississippi,* flows into Pearl River from Simpson co.

Strong-set, *a.* Firmly compacted.

Strongs'town, in *Pennsylvania,* a post-village of Indiana co., abt. 15 m. S.E. of Indiana Court-House.

Strongs'ville, in *Ohio,* a post-village and township of Cuyahoga co., 14 m. S.W. of Cleveland; *pop.* abt. 1,400.

Strontia, (*stron'she-ă.*) *n.* (*Chem.*) An alkaline earth very similar in character to baryta. It receives its name from having been discovered in the mineral *strontianite* found at Strontian, in Scotland. It may be readily prepared from the native carbonate by dissolving it in nitric acid, and heating the resulting nitrate to redness in a crucible until no more fumes are evolved. It is similar in most of its properties to the corresponding alkaline earth baryta. It combines with water with great energy to form hydrate of *S.* The *crystallized hydrate* has the formula $SrOHO+9Aq$. *Carbonate of S.* constitutes the mineral known as *strontianite. Nitrate of S.* is easily prepared by dissolving the carbonate in nitric acid, and crystallizing. The crystals are anhydrous octohedra, which decrepitate when heated. They are soluble in five parts of cold, and considerably less of hot water. Nitrate of *S.* is much employed in the preparation of *red fire* for the theatres. A good mixture for this purpose may be made of 40 parts of nitrate of *S.*, 13 of flowers of sulphur, 10 of chlorate of potash, and 4 of sulphide of antimony. *Sulphate of S.* is found native as *celestine,* crystallized in rhomboidal prisms. It may be prepared artificially by a solution of nitrate of *S.* with sulphuric acid. *Form.* SrO.

Strontit'ic, *a.* Relating to, or containing, strontia.

Strontium, (*stron'she-um,*) *n.* (*Chem.*) The metal of which the alkaline earth strontia is the protoxide. It greatly resembles barium in its properties and combinations, but it is not so abundant in nature. It occurs principally as carbonate (*strontianite*) and sulphate (*celestine.*) It is a metal of a pale-yellow color, and is procured in the same way as barium. Heated in air, it burns with a yellowish flame, emitting sparks. Water is decomposed by it with evolution of hydrogen. It dissolves readily in dilute nitric acid, but the concentrated acid is without action on it. It forms two oxides — the protoxide (strontia), which has already been described, and the binoxide, which is deposited as a hydrate in crystalline scales, when a solution of binoxide of hydrogen is added to a solution of strontia. *Chloride of strontium* crystallizes in needles, which deliquesce in the air; hence the nitrate of strontia is used for pyrotechnic purposes. It dissolves in alcohol, and burns with a brilliant red flame. The sulphides are similar in properties and character to the corresponding sulphides of barium.

Strop, *n.* A strap; a strip of leather used for sharpening razors, and giving them a fine smooth edge.

—*v. a.* To draw over a strop with a view to sharpen.

Stro'phe, (*-fe,*) *n.* [Fr., from Gr. *strŏphe,* a turning.] (*Poetry.*) In the Greek tragedy, the turning of the chorus, dancing towards one side of the orchestra; hence, also, the strain sung during this evolution, to which the *antistrophe* answers.

Stroph'ic, *a.* Relating to, or consisting of, strophes.

Stroph'iolate, Stroph'iolated, *a.* Furnished with a strophiole.

Stroph'iole, *n.* [Lat. *strophiolum.*] A CARUNCLE, *q. v.*

Stroph'ulus, *n.* (*Med.*) The RED GUM, *q. v.*

Stroud, a market-town of England, in Gloucestershire, near the confluence of the river Frome and the Slade-water, 9 m. from Gloucester. It is the centre of an extensive clothing trade. *Pop.* 10,000.

Stroud, in *Pennsylvania,* a township of Monroe co., 22 m. N. W. of Easton.

Strouds'burg, in *Pennsylvania,* a post-borough, cap. of Monroe co., on D., L. & W. R.R., 24 m. N. of Easton; a summer resort. *Pop.* (1897) 2,740.

Strond'ing, *n.* A coarse kind of cloth used in the American Indian trade.

Strove, *imp.* of STRIVE, *q. v.*

Strow, *v. a.* The same as STREW, *q. v.*

Strozzi, (*strot'se,*) the name of a wealthy and illustrious Florentine family. Palla, Filippo, and Piero were the three most renowned members of this princely house, between 1432 and 1537, and who were either exiled or lost their lives in the struggle for liberty against the power of the Medici family.

Struck, *imp.* and *pp.* of STRIKE, *q. v.*

Struct'ural, *a.* Pertaining to structure.

Struct'ure, *n.* [Fr.; Lat. *structura.*] A putting together; adaptation; adjustment; manner of building. — Form; make; construction. — Manner of organization of animals, vegetables, &c. — A building of any kind, but chiefly a building of some size or magnificence; an edifice; a fabric. — The particular arrangement of the integrant particles of a mineral.

Struct'urist, *n.* A builder.

Struensee, (*stroo'en-se.*) KARL AUGUST VON, first minister of Christian VII. of Denmark, b. at Halle, Saxony, 1737. He was brought up to medicine, and became, in 1768, physician to the King of Denmark. Soon after the marriage of Christian with the Princess Caroline Matilda of England, *S.* became a favorite of the young queen, and after a long course of court intrigues, taking advantage of the imbecility of the monarch, he gradually came to direct the whole affairs of government. At length the Queen-mother formed a party against him. He was arrested, with his friend, Count Brandt, and beheaded at Copenhagen, 1772.

Strug'gle, *v. n.* [Ger. *straucheln,* to totter; It. *sdrucciolare,* to stumble.] To make efforts with a twisting, or with contortions of the body; to use great efforts or exertions; to labor hard; to strive; to contend; to use exertions in pain or anguish; to be in agony; to put forth efforts in any kind of difficulty or distress.

—*n.* A violent effort with contortions of the body; great labor; forcible effort to obtain an object or to avoid an evil; contest; contention; strife; agony; contortions of supreme distress.

Strug'gler, *n.* One who struggles.

Strug'gling, *n.* Act of striving; vehement or earnest effort.

—*a.* Making great efforts; using violent exertions. — Affected with contortions.

Stru'ma, *n.* [Lat.] (*Med.*) A chronic swelling of some gland, particularly the thyroid, dependent on a scrofulous disposition. Any scrofulous enlargement, white swelling, or other indolent tumor.

(*Bot.*) A swelling present in some leaves at the extremity of the petiole, where it is connected with the lamina, as in *Mimosa sensitiva.* The term is also used in describing mosses to denote a dilatation or swelling sometimes seen upon one side of the base of the theca.

Strum'pet, *n.* [Du. *stront-pot* — *stront,* ordure.] A prostitute.

—*a.* Like a strumpet; hence, false; inconstant.

Strung, *imp.* and *pp.* of STRING, *q. v.*

Strut, *v. n.* [Dan. *strutte,* to strut; Ger. *strotzen,* to teem.] To swell; to bulge; to protuberate; as, *strutting* bags of money. (*Dryden.*) (R.) — To walk with a lofty, proud gait and erect head; to walk with an assumption of dignity; as, a *strutting* cock.

—*n.* A lofty, proud step or walk, with the head erect; affectation of dignity in one's gait; as, an ungainly *strut.*

(*Arch.*) A brace; a stretching-piece.

(*Mach.*) Any part of a mechanical structure whose principal property is to hold things apart; — correlative to *stay* and *tie.*

Struthion'idæ, *n. pl.* [From Gr. *strouthos;* Lat. *struthio,* an ostrich.] (*Zoöl.*) A family of the order *Cursores,* composed of large birds, incapable of flight, having mere rudimentary wings, but long and stout legs; including the Ostrich, the Cassowary, and other congenial species.

Struthiop'teris, *n.* [Gr. *strouthos,* ostrich, and *pteron,* wing, or plume; from the resemblance.] (*Bot.*) A genus of plants, order *Polypodiaceæ.* The Ostrich Fern, *S. Germanica,* is a fern of noble size and appearance, growing in low woods and swamps. The sterile fronds are often 5 or 6 feet high, commonly about 3, numerous, in circular clumps. Fertile fronds few, in the midst of the sterile, much smaller; the leaflets with numerous brownish, contracted segments, densely covered by the fruit beneath.

Strut'ter, *n.* One who, or that which, struts.

Strut'tingly, *adv.* With a proud, lofty gait or step.

Stru'vite, *n.* (*Min.*) A crystallized ammonio-magnesian phosphate met with in guano at Saldanha Bay, on the S. coast of Africa. It occurs in regular six-sided prisms of a pale-yellow color, which are transparent, but generally rendered opaque and blackened by organic matter.

Strychnine, Strychnia, (*strik'-,*) *n.* (*Chem.*) One of the alkaloids found in the *Strychnos nux-vomica,* and the *S. Ignatii,* or Ignatius's bean, in company with *brucine* and *igasurine.* In the former, strychnine and brucine are found in the form of lactates. The method of extraction is the following: — The rasped seeds are boiled with four times their weight of alcohol acidulated with one per cent. of sulphuric acid. The alcoholic liquid is neutralized with milk of lime in slight excess; the acid and coloring matters being thus precipitated, the basis remaining in solution. The alcohol is distilled off, and the residue treated with acidulated water, from which the two alkaloids are afterwards precipitated by ammonia. They are then converted into nitrates and crystallized, the nitrate of strychnine crystallizing out first. *S.* is one of the most powerful of the vegetable bases, precipitating many of the metallic oxides from their salts, and in many cases forming compounds with them, of which the double sulphate of strychnine and copper may be taken as an example. *S.* crystallizes from dilute alcohol in anhydrous octohedra, or in square prisms, which do not fuse on the application of heat. It is insoluble in absolute alcohol, ether, and the caustic alkalies; but it dissolves in the essential oils and in chloroform. It dissolves in 7,000 parts of cold water, giving an intensely bitter solution, which is still retained even when diluted with 100 parts of water. With the acids it forms well-defined salts, which are mostly crystalline and soluble. In minute portions, from the twelfth to the sixth of a grain, it is used as a tonic in medicine, with a special action on the nerves of motion. In doses of two or three grains, it is a most powerful and fatal poison; it is therefore frequently used in cases of murder and suicide. Its principal action seems to be on the motory nerves, producing lock-jaw and paralysis of the heart and lungs.

Strych'nos, *n.* [Gr.] A genus of plants, order *Loganiaceæ,* containing some of the most poisonous plants known. *S. nux-vomica,* the Koochla-tree of India (Fig. 2438), produces nux-vomica seeds. These are imported into this country from Coromandel and Ceylon. — They are extremely poisonous, from containing the alkaloids *strychnine* and *brucine.* Three-quarters of a grain of the former alkaloid has been known to produce death: it is, however, a valuable stimulant of the nervous sys-

Fig. 2438. — STRYCHNOS NUX-VOMICA.

son, and has been frequently employed in paralysis. Nux-vomica seeds are largely used by gamekeepers and farmers to destroy vermin. The bark of the Koochla-tree is also very poisonous. It was formerly confounded with cusparia or Angostura bark, (see GALIPEA;) hence it is sometimes termed *false* Augostura bark. An aqueous extract of the bark of *S. tienté* is the terrible Java poison called *upas tienté*. The juice of *S. toxifera* is the basis of the celebrated *Wourali*, or arrow-poison of Guiana. The wood of some Asiatic species is employed as an antidote to the bites of poisonous snakes, and on this account is generally called *lignum colubrinum*, or snake-wood. It has been used medicinally in intermittent fevers. The bark of *S. pseudoquina*, which contains neither *strychnine* nor *brucine*, is extensively employed in Brazil as a substitute for cinchona bark. It is frequently erroneously called *copatchi bark*. The dried ripe seeds of *S. potatorum* are called *clearing-nuts*, from being employed by the Hindoos to clear muddy water.

Stry'kersville, in *New York*, a post-vill. of Wyoming co., 30 m. E.S.E. of Buffalo.

Stu'art, the royal house of Great Britain after the union with Scotland. The first of the name was the only child of Walter, the Steward of Scotland, and his wife Marjory, daughter of King Robert Bruce; he was B. 1316; commanded the second division of the Scottish army at the battle of Halidon, 19th July, 1333; concluded the treaty of Perth with Edward III., 1335; succeeded David II., under the title of Robert II., 1371, D. 1390. — His son, ROBERT III., reigned after him, and continued the peace till 1399, when the succession of Henry IV. to the throne of England led to the renewal of hostilities; D. 1406. — He was succeeded by his son, JAMES, whose successors all bore the same name — the fifth of the line becoming father of the unhappy Queen of Scots. (See JAMES; MARY.)—The other kings of this house were James the Sixth of Scotland and First of England, Charles I., Charles II., and James II., by whose deposition, in 1688, the *S.* were finally expelled the throne. —The son of the last-named, JAMES FRANCIS EDWARD, called the "Old Pretender," was acknowledged king by Louis XIV., under the title of James III., in 1701, and in 1719 married the daughter of John Sobieski, King of Poland; he made some vain attempts to recover the kingdom, and D. at Rome, 1756. He resigned his pretensions to his son, CHARLES EDWARD ("Bonnie Prince Charlie," or the "Young Pretender"), B. 1721, who fought gallantly for the throne of his ancestors, and was defeated at Culloden, 1746; D. at Rome, 1788. — The last of the *S.* was his brother, HENRY BENEDICT, who entered the Church soon after the disasters of 1745, and became titular Cardinal of York; on the death of Prince Charles Edward, however, he assumed the empty title of Henry IX. The invasion of Italy by the French republic, soon after, compelled him to seek safety in Venice, and he was there supported by a pension from the English crown. D. 1807.

Stub, *n.* [A. S. *steb.*] The stump of a tree; that part of the stem of a tree which remains fixed in the earth when the tree is felled; — applied particularly to the stump of a small tree.

—*v. a.* To grub up by the roots; to extirpate; to eradicate; as, to *stub* up turnips.

—[L. Ger. *stubben.*] In the U. States, to strike, as the foot, against the stump of a tree, a stone, &c.

Stub'bed, *a.* [Swed. *stubbig.*] Short and thick, like something truncated; blunt; obtuse.

Stub'bedness, Stub'biness, *n.* Bluntness; stumpiness; obtuseness; stunedness.

Stubble, (*stŭb'bl,*) *n.* [Dim. of *stub;* Ger. *stoppel;* Lat. *stipula.*] The small stumps of wheat, rye, barley, oats, or buckwheat, left in the ground after reaping.

Stubbled, Stub'bly, (*stŭb'bld,*) *a.* Covered with stubble.

Stub'ble-rake, *n.* (*Agric.*) A long-toothed rake for gathering together stubble.

Stub'born, *a.* [Icel. *stubbr,* the trunk of a tree; Sansk. *stabh,* to render immovable.] Inflexibly fixed in opinion; not to be moved or persuaded by reasons; stiff; obstinate to a degree of excess; unyielding; refractory; as, a *stubborn* mind. — Persevering; persisting; constant; steady; firm in purpose; as, *stubborn* application. — Stiff; not pliable or flexible; as, *stubborn* timber. — Intractable; obstinately resisting command, the goad, or the whip; as, a *stubborn* mule. — Firm; hardy; enduring with resolute patience; as, a *stubborn* stoic. — —Refractory; not ductile; not easily melted or worked; as, a *stubborn* metal.

Stub'bornly, *adv.* Obstinately; inflexibly; refractorily.

Stub'bornness, *n.* State or quality of being stubborn; immovableness; inflexibility; contumaciousness; unyieldingness; perverse or unreasonable obstinacy; stiffness; want of pliancy or ductility; refractoriness, as of ores or metals.

Stub'by, *a.* Abounding with stubs; short and thick; squat; stunted; as, *stubby* hairs.

Stub'-end, *n.* (*Mach.*) The enlarged end of a connecting-rod, to which the strap is made fast.

Stub'-mortise, *n.* (*Carp.*) A mortise only partially passing through the timber in which it is formed.

Stub'-nail, *n.* A short, thick nail; a nail broken off.

Stucco, (*stuk'ko,*) *n.* [Ital.] (*Arch.*) A term frequently applied to various kinds of lime or cement renderings on masonry. It signifies more strictly, however, a species of plastering in ordinary cases worked up by hand to a fine face adapted to receive paint. In superior buildings this *S.* is made by the addition of other materials than the lime or plaster usually employed in order to resemble marble. In point of fact, common *S.* is nothing more than plastering which has received an additional amount of manipulation. *Marble S.* is made with fine lime, mixed with calcareous powder, chalk, or other similar substances, in such proportions and worked in such a way as to produce a hard uniform substance, which admits of being colored, painted, and polished, so as to resemble various colored marbles.

—*v. a.* (*imp.* and *pp.* STUCCOED,) (*stŭk'kōd.*) To overlay with stucco or fine plaster.

Stuc'coer, *n.* One who works in stucco.

Stuck, *imp.* and *pp.* of STICK, *q. v.*

Stuckle, (*stŭk'l,*) *n.* Same as STOOK, *q. v.*

Stuck'-up, *a.* Self-important and affectedly dignified, without possessing real superiority; inflated with vanity or superciliousness; ridiculously puffed up and assuming airs of exclusiveness, from an overweening idea of personal importance, consequence, or position; as, a *stuck-up* parvenu. (Colloq.)

Stud, *n.* [A. S. *studa;* Ger. *stütze,* a prop, support.] That which is set or fixed upright; especially, a post, pillar, stay, or prop. — An ornamental knob or boss. — An ornamental button for a shirt-bosom; as, a set of diamond *studs*.

(*Mach.*) A short rod; also, a stud-bolt.

(*Arch.*) A small joist inserted in the sills and beams of a building, between the posts, to support the beams or other main timbers.

—*v. a.* To adorn with shining studs, bosses, or knobs; as, harness *studded* with plated ornaments.—To set thickly, as with studs; to set with detached or prominent ornaments; as, the heavens are *studded* with stars, a garden *studded* with flowers.

Stud, *n.* [A. S. and Icel. *stud,* a collection of horses; Ger. *stute.*] A collection of breeding-horses or mares; also, the place where they are lodged; in France, a haras; as, a racing *stud*.

Stud'-bolt, Stand'ing-bolt, *n.* (*Mach.*) A double-threaded bolt to be screwed into a fixed part at one end, and receive a nut upon the other.

Stud'ding, *n.* Studs or joists taken collectively, or the material for their construction.

Stud'ding-sail, *n.* (*Naut.*) One of a set of supplementary sails extended in light winds beyond the leeches of the principal square sails. They are narrow and of the same height with the sail supplemented; — sometimes abbreviated, on shipboard, *stunsail*.

Stu'dent, *n.* [Fr. *étudiant,* from Lat. *studens, studentis* — *studeo,* to take pains about.] A person engaged in study; a scholar; a collegian; one who is devoted to learning, either in an institution or in private; as, the *students* of a university, a medical, law, or theological *student*, &c. — A bookworm; a person devoted to, or absorbed in, books and learning; as, a hard *student*. — One who studies, meditates on, or examines; as, a *student* of human life.

Stu'dentship, *n.* State or quality of being a student.

Stud'-horse, *n.* [A. S. *stōd-hors.*] A stallion; a stone-horse; a horse kept for breeding purposes.

Studied, (*stŭd'id,*) *p. a.* [From *study.*] Well considered or digested; read or examined with closeness or attention; as, the matter has been well *studied*. — Learned; erudite; qualified by study; well versed in any branch or department of learning; as, a person well *studied* in the law. — Intended; purposed; premeditated; as, a *studied* affront.

Stu'dio, *n.*; *pl.* STUDIOS. [It., a study.] A sculptor's workshop; an atelier;—sometimes, though less properly, applied to the work-room of a painter.

Stu'dious, *a.* [Fr. *studieux;* Lat. *studiosus* — *studium.*] Given to books or to learning; devoted to the acquisition of knowledge or eruditon from books; as, a *studious* scholar. — Contemplative; thoughtful; given to thought or cogitative examination. — Attentive to; careful; — preceding *of;* as, a man *studious of* his own interests. — Suited to thought or meditation; favorable for study or contemplation; as, *studious* cloisters. (*Milton.*) — Diligent; eager to discover something, or to accomplish some object; as, one who is *studious* to please. — Premeditated; studied; deliberately planned or formed; as, *studious* impertinence.

Stu'diously, *adv.* In a studious manner.

Stu'diousness, *n.* Quality of being studious.

Stud'-work, *n.* (*Masonry.*) A wall built between studs or quarters.

Stud'y, *n.* [Fr. *étude;* Lat. *studium,* from *studeo.*] Assiduity, or close and earnest application to anything; a setting of the mind or thoughts upon a subject; — hence, application of the mental powers to books, to arts or science, or to any subject, with the view of learning or acquiring what is not before known; as, he passes his whole time in *study*. — Exclusive mental abstraction or occupation; undivided or absorbed attention or meditation; contrivance; as, it is his *study* to please the fair sex. — Subject of special or fixed attention; any particular branch of knowledge or learning that is studied. — An apartment devoted to study or to literary occupation; a reading-room; as, he is a man who seldom leaves his *study*.

(*Fine Arts.*) A work undertaken for improvement in painting or sculpture, and commonly left unfinished; — also, a finished sketch from nature; as, a *study* of a flower or tree.

—*v. n.* To be eager, zealous, diligent, or assiduous. — To apply one's self, or to pursue some course of action; to fix the mind attentively upon a subject; to muse; to cogitate; to dwell upon anything in thought. — To apply the mental faculties to the acquisition of book-lore or learning.

—*v. a.* (*imp.* and *pp.* STUDIED,) (*stŭd'id.*) To be eager or zealous about; to busy one's self with, or strive after; to apply the mind to; to read and investigate for the purpose of gaining knowledge of and familiarity with; as, to *study* law, to *study* the classics, to *study* languages — To examine or inspect closely; to consider attentively and carefully; as, a selfish man *studies* himself first. — To con over, or to commit to memory; to form, arrange, or set in order by previous cogitation; as, to *study* a speech, address, harangue, sermon, or lesson.

Stu'fa, *n.* [It., a stove.] A jet of steam issuing from a fissure in the earth: these jets are not uncommon in volcanic districts. The name is also applied to natural vapor-baths, in which steam issues from the earth, generally accompanied by gas, and used for curative purposes.

Stuff, *n.* [Fr. *étoffe;* Dan. and Du. *stof;* Ger. *stoff.*] A mass of matter indefinitely; or, a collection of substances; the matter or material of which anything is formed.

"The workman as his *stuff* his skill doth shew." —*Davies.*

—Particularly, fabrics of the loom; woven material; textile goods not made into garments; as, what kind of *stuff* does she wear? — A potion, medicine, or mixture; as, "I did compound for her a certain *stuff*." —*Shaks.*

—Unorganized or refuse matter; — hence, nonsense; bosh; silly talk; irrational language; empty verbiage; as, he writes wretched *stuff* and calls it poetry.

(*Com.*) A light, woollen cloth formerly much used for curtains and bed-furniture.

(*Naut.*) Slush of mixed turpentine, tallow, &c., used on shipboard; as, to pay a ship's bottom with *stuff*.

—*v. a.* [Fr. *étoffer;* Ger. *stopfen.*] To fill very full; to crowd; to cram; to load or charge to excess; as, to *stuff* a bolster. — To press; to thrust or crowd into. — To fill by being put into; to swell or bulge out by putting something in; as, to *stuff* a bladder with sausage-meat. Specifically, to fill with seasoning, forcemeat, spices, or truffles; as, to *stuff* a turkey. — To stifle or obstruct, as the sense of an organ; as, his nose being *stuffed*, he cannot smell. — To form, mould, or fashion by stuffing; as, to *stuff* the body of a doll. — To fill, as the skin of a dead animal for preserving and preserving his form; as, to *stuff* an owl. — To crowd with facts or ideas; to cram mentally; — hence, to fill with something improper, fallacious, or superfluous; as, he has his head *stuffed* with absurd notions.

To stuff a ballot-box, in the U. States, to fill a ballot-box with illegal or fraudulent votes.

—*v. n.* To cram; to gorge; to fill greedily or gluttonously; as, some people *stuff* themselves into dyspepsia.

Stuff'er, *n.* One who stuffs. — In the U. States, one who fills a ballot-box with fraudulent votes.

Stuff'-gown, *n.* A gown made of a woollen fabric; — hence, in England, a junior barrister, or one not arrived at the dignity of a silk gown, like the king's or queen's counsel.

Stuff'iness, *n.* State of being stuffy, snrly, peevish, or obstinate.

Stuff'ing, *n.* That which is used for filling anything; as, the *stuffing* of a cushion. — (*Cookery.*) Stuffing or force-balls for meat, game, &c.; that which is put into meat to impart a higher zest, savor, or relish; as, when roasting a fillet of veal, do not forget the *stuffing*.

Stuff'ing-box, *n.* (*Mach.*) In a locomotive engine, a box with a recess for admitting some soft material, such as white spun yarn, to render steam-tight any rod working through this stuffing or packing. The piston-rods, slide-valve rods, regulator-rods, and pump-plunger, all work through boxes of this description. (V, Fig. 2426.)

Stuff'y, *a.* Doughty; bold; stout; mettlesome. (Scot.) — Peevish; surly; obstinate; churlish. (Colloq. U. S.)

Stuhlweissenburg, (*stool-vise'en-boorg,*) a town of Hungary, 16 m. from Lake Balaton, in a swampy plain in the neighborhood of the marshes of Sár-Rét. *Manuf.* Cotton cloths, flannels, leather, silk, and knives. *S.* was, from 1027 to 1527, the place where the kings of Hungary were crowned and buried.

Stuke'ley, in British N. America, a seaport-town in the N. of Prince Edward Island, at the mouth of Morel River in the Gulf of St. Lawrence; Lat. 46° 26′ N., Lon. 62° 47′ W.

Stull, *n.* A framework of timber placed in the backs of levels, and covered with boards, or small piles, to support rubbish.

Stulm, *n.* A shaft serving to drain a mine.

Stul'tifier, *n.* One who stultifies.

Stultification, (*-kā'shun,*) *n.* Act of stultifying.

Stul'tify, *v. n.* [Lat. *facio,* and *stultus,* foolish.] To cause to appear foolish; to make a fool of. — To prove foolish or deficient of understanding; to regard as a fool, or as foolish.

(*Law.*) To allege or prove to be insane for the avoidance of some act.

Stultil'oquence, Stultil'oquy, (*-kwens,*) *n.* [Lat. *stultus,* foolish, and *loquentia,* a talking.] Foolish talk; empty or frivolous chatter; childish babble.

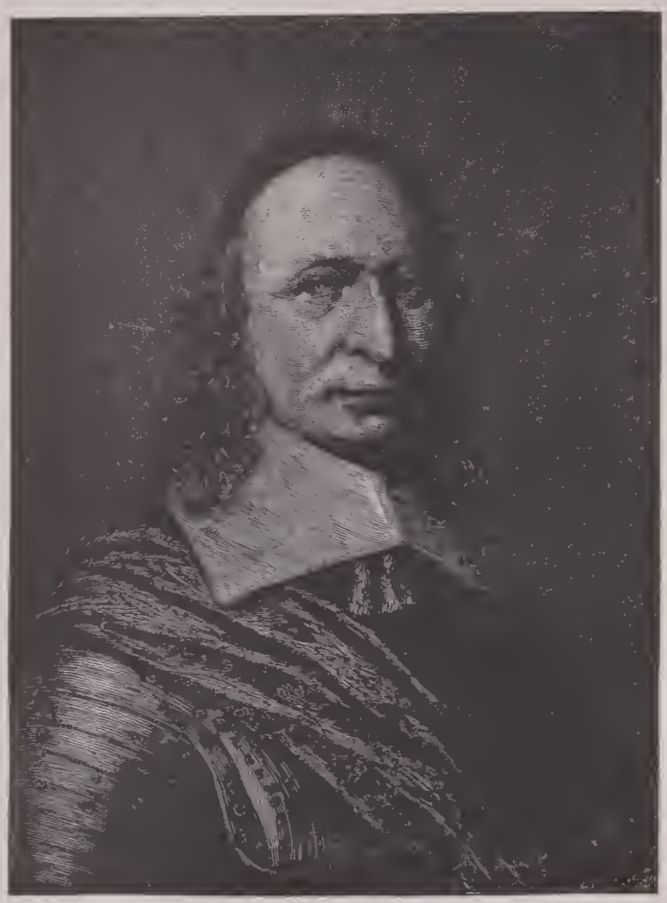
Stum, *n.* [D. *stom,* must.] Same as MUST, *q. v.* — Wine revived afresh by fermentation from a mixture of must.

—*v. a.* To revive or renew, as wine, and adding new fermentation to it by means of must.

Stum'ble, *v. a.* [D. *strompelen.*] To strike, as the foot against a stump; to trip in walking or moving in any way upon the legs; to strike the foot so as to fall, or to hazard a fall. — To walk in a bungling, awkward, or unsteady manner; as, drunken men are apt to *stumble*. — To err; to slip or slide into a crime, error, transgression, or blunder. — To strike upon by accident or without design; to fall or alight by chance; — preceding *on* or *upon;* as, he *stumbled upon* a piece of good luck.

—*v. n.* To obstruct or impede in progress; to cause to trip or stop.—To confound, puzzle, confuse, or perplex; to gravel; to pother; to put to a nonplus; as, such terms *stumbled* many.

—*n.* A trip or sudden check in walking or running; as,



Peter Stuyvesant

1602–1682

to make a *stumble*. — A blunder; a failure; a fiasco; a state of nonplus.

Stum'bler, *n.* One who stumbles; a blunderer.

Stum'bling-block, Stum'bling-stone, *n.* Any cause of stumbling; that which causes one to err or blunder.

Stump, *n.* [Swed. and Dan.; Ger. *stumpf.*] The stub of a tree; that part of the trunk of a tree remaining in the earth after the tree is felled, or the part of any plant left in the earth by the scythe or sickle. — The part of a limb or other body remaining after a part is amputated or destroyed; as, the *stump* of a leg, finger, or tooth, the *stump* of a pipe or cigar. — (*pl.*) Legs; limbs; as, he travelled thither on his *stumps*. (Colloq.) — One of two small pieces of wood set on the head of the wicket, in the game of cricket. — A short, thick roll of leather or paper, cut to a point, and employed to rub down the harsh or strong lines of a crayon- or pencil-drawing, for shading it, or for rubbing solid tints on paper from colors in powder.

Stump-orator, one who delivers an harangue from the stump of a tree, or other prominent elevation. (Amer.) — *Stump-oratory*, in the U. States, an electioneering speech or political harangue delivered from a stump, or other prominent place. — *To take the stump*, or *to stump it*, to go about the country delivering public addresses for electioneering purposes; — a term derived from the old Western custom of the orator's mounting the stump of a tree, as in the backwoods, in making his speech or harangue. (American.)

—*v. a.* [Swed. *stympa.*] To curtail; to lop, as a fixed limb or branch. — To strike with the toe, as something fixed or hard. (Vulgar.) — To challenge; also, to nonplus; to puzzle; to place in a quandary. (Amer. Cant.) — To go about, delivering speeches or addresses for electioneering purposes; as, to *stump* the State. (Amer. Colloq.) — To overset, as the stump or wicket in the game of cricket.

To stump out, in the game of cricket, to bowl out by knocking down the stump or wicket with the ball.

—*v. n.* To walk or totter heavily, as if on stumps. — To brag; to vaunt; to make a boast.

To stump up, an English colloquialism, expressive of to pay cash.

Stump'age, *n.* In Maine, a tax levied on the amount of timber cut, and regulated by the market-price of lumber.

Stump'er, *n.* One who stumps. — A boaster; a braggart. — A doubtful story; a canard. (U. S. colloq. and vul.)

Stump'iness, *n.* State or quality of being stumpy.

Stumps'town, in *Pennsylvania*, a village of Lebanon co., 35 m. N.W. of Reading.

Stump'town, in *W. Virginia*, a village of Gilmer co.; *pop.* abt. 120.

Stump'y, *a.* Abounding with stumps. — Short and thick; stunted; stubby.

Stun, *v. a.* [A. S. *stunian*, to render dizzy or stupid with noise; Ger. *staunen*, to wonder, to be amazed.] To overpower, as the sense of hearing; to blunt or stupefy, as the organs of hearing; to confound or make dizzy by loud and confused sound; as, the noise of a cataract *stuns* the ear. — To make senseless or dizzy with a blow on the head; as, a good rap from a cudgel is apt to *stun* a man. — To confound or astonish completely; to overpower; to bewilder; as, he looked at me as if *stunned*.

Stung, *imp.* and *pp.* of Sting, *q. v.*

Stunk, *imp.* and *pp.* of Stink, *q. v.*

Stun'ner, *n.* One who, or that which, stuns; — applied colloquially and vulgarly to something that fills one with admiration or confounds by astonishment; as, that horse is a *stunner*.

Stun'ning, *p. a.* Confusing or overpowering the auricular organs; as, a *stunning* noise. — Striking with admiration, or surprising with astonishment; as, a *stunning* girl, a *stunning* romance. (Colloq.)

Stunt, *v. a.* [A. S. *stintan.*] To stint; to hinder or check the growth of; as, to *stunt* a plant or tree, to *stunt* a child, to *stunt* a generous nature.

—*n.* That which has suffered a check in growth; specifically, a two-year old whale.

Stunt'edness, *n.* State or quality of being stunted.

Stupe, *n.* (*Med.*) A fomentation; a sweating-bath.

—*v. a.* To foment; to dress with a stupe.

Stupefacient, (*-fā'shent,*) *n.* (*Med.*) An opiate; a narcotic; any substance producing stupor.

—*a.* Promoting stupefaction or lethargy.

Stupefaction, (*-fāk'shun,*) *n.* [L. Lat. *stupefactio.*] Act of stupefying or rendering stupid. — A stupid or senseless state; insensibility; stupor; torpor.

Stupefac'tive, *a.* Causing stupefaction or insensibility; deadening or blunting the sense of feeling or understanding.

Stu'pefiedness, *n.* State of being stupefied; stupefaction; torpor; stupor.

Stu'pefier, *n.* One who, or that which, stupefies.

Stu'pefy, *v. a.* [Fr. *stupefier*; Lat. *stupefacio* — *stupeo* and *facio.*] To deaden; to make dull or stupid; to blunt or confuse, as the faculty of perception; to deprive of motion or sensibility; as, the fumes of laudanum *stupefy* the brain. (Generally written *stupify* in England.)

Stupen'dous, *a.* [Lat. *stupendus* — *stupeo*, to be struck senseless.] Striking senseless by its magnitude; — hence, astonishing; wonderful; amazing; particularly, of surprising magnitude or elevation; as, a *stupendous* height, a *stupendous* theme.

Stupen'dously, *adv.* In a stupendous manner; in a way to excite awe or astonishment.

Stupen'dousness, *n.* Quality or state of being stupendous, amazing, or astonishing.

Stu'peous, Stu'pose, *a.* (*Bot.*) Resembling tow, or having long, loose scales or matted filaments like tow.

Stu'pid, *a.* [Fr. *stupide*; Lat. *stupidus.*] Senseless; obtuse in mind; insensible; very dull in intellect; deficient in understanding; heavy; doltish; thick-headed; as, a *stupid* person. — Dull; heavy; inanimate in style; formed without skill or genius; resulting from, or exhibiting, stupidity; as, a *stupid* speech, a *stupid* book.

Stupid'ity, Stu'pidness, *n.* [Fr. *stupidité*; Lat. *stupiditas.*] Quality or state of being stupid; extreme dullness of perception or understanding; mental obtuseness; insensibility; blockishness; senselessness; thick-headedness; sluggishness of the intellect.

Stu'pidly, *adv.* In a stupid manner; senselessly.

Stu'pidness, *n.* Stupidity.

Stu'pify, *v. a.* See Stupefy.

Stu'por, *n.* [Lat., from *stupeo.*] Numbness; deadness; extreme diminution or suspension of activity or sensibility; suppression or reduction of sense or feeling; as, the *stupor* of any physical organ. — Intellectual torpor or insensibility; moral stagnation; mental stupidity; heedlessness or indifference to one's interests; as, *stupor* of the reasoning faculty.

Stu'pose, *a.* (*Bot.*) See Stupeous.

Stur'bridge, in *Massachusetts*, a post-village and township of Worcester county, 60 miles W. S. W. of Boston.

Stur'dily, *adv.* In a sturdy manner; with hardiness, vigor, or lustiness.

Stur'diness, *n.* State or quality of being sturdy; stoutness; hardiness; lustiness; as, the *sturdiness* of early manhood. — Brutal strength; bluffness. (R.)

Stur'dy, *a.* (*comp.* sturdier; *superl.* sturdiest.) [O. Fr. *estourdi*; Fr. *étourdi.*] Stout; hardy; bluff; bluntly obstinate; brusque; — implying coarseness or rudeness; as, a *sturdy* beggar, a *sturdy*, hardened sinner, &c. — Exemplifying strength, force, or rude vigor; lusty; burly; strong; violent; laid on with strength; as, a *sturdy* ploughman, a *sturdy* stroke. — Stiff; compact; hardy; stout; strong; as, a *sturdy* tree, *sturdy* limbs.

Stur'dy, *n.* (*Farriery.*) An ovine, and occasionally bovine, sickness, caused by the presence of a hydatid within the brain, and in which the animal cannot properly seek its food, loses condition, staggers when moved, turns stupidly round almost in one spot, and usually towards the side on which the hydatid lies. See Hydatid.

Sturge, (*sturj,*) an island of the Antarctic Ocean, the most E. of the Balleny group; Lat. 66° 44′ S., Lon. 163° 11′ W.

Sturgeon, (*stûr'jun,*) *n.* [Fr. *esturgeon*; Lat. *sturio* or *stirio.*] (*Zoöl.*) A common name of the fishes composing the genus *Accipenser* of Cuvier, of which it is the type. The common *S.* (*Accipenser sturio*) is generally 6 feet long, but sometimes attains to the length of 18. It inhabits the North American and European seas, migrating during the early summer months into the larger rivers and lakes, and returning to the sea again in autumn, after having deposited its spawn. Its form is long and slender, gradually tapering towards the tail, and covered throughout the whole length by five rows of strong, large, bony tubercles, rounded at the base, and terminated above by a sharp curved point in a reversed direction. The mouth, placed under the elongated muzzle, is small and toothless; and the palatal bones form the upper jaw; the air-bladder is very large, and from it the isinglass of commerce is prepared. The pectoral fins are oval, and middle-sized; the dorsal small, and situated very near the tail; the ventral and anal fins are also small, and placed nearly opposite the dorsal. The general color is cinereous above, with dusky specks, and yellowish-white beneath. Though generally considered as a fish of slow motion, it is sometimes seen to swim with great rapidity, and also to spring out of the water with great force at intervals. In North America they appear in great abundance during the early summer months. The flesh of the *S.* is white, delicate, and firm; it is generally eaten pickled. From the roe, when properly salted and dried, is prepared the substance known by the name of *caviar*; but a very superior sort is made from a smaller species, called the *Sterlet*. The Sharp-nosed *S.* (*A. oxyrhynchus*) of the Atlantic coast of N. America is from 4 to 8 feet long. The Lake *S.* (*A. rubicundus*) of the Great Lakes, is about 4 feet long, and of a ruby hue. The genus *Chimæra*, ranked by Cuvier with the Sturgeons (*Sturiacidæ*), has but one known species, *C. monstrosa*, called the King of Herrings. Its gill-lid, or operculum, is merely rudimental, and concealed in the skin, while there is an approach to sharks in the structure of the gills. It pursues the shoals of herrings, and is consequently sometimes taken in herring-nets. It is about 3 feet long.

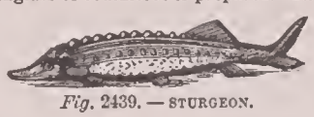


Fig. 2439. — Sturgeon.

Stur'geon, a lake of British North America, 27 m. long and 6 broad, connected with Pine Island Lake by the river Saskatchewan; Lat. 54° N., Lon. 102° W.

Sturgeon, in *Missouri*, a post-town of Boone co., 129 m. W. N. W. of St. Louis.

Sturgeon Bay, in *Wisconsin*, an inlet of Green Bay, in Door co. — A city and township, cap. of Door co., on Sturgeon Bay, 44 m. N. E. of the city of Green Bay. *Pop.* (1895) 2,790.

Stur'geonville, in *Virginia*, a post-village of Brunswick co., 60 m. S. S. W. of Richmond.

Stur'ges Rapids, in *Iowa*, a village of Black Hawk co., 80 m. N. N. W. of Iowa City.

Sturgis (*stur'jis*), in *Michigan*, a post-village and township of St. Joseph co., 115 m. W. of Monroe. *Pop.* (1897) 3,150.

Stur'nidæ, *n. pl.* (*Zoöl.*) The Starling family, comprising insessorial birds distinguished from the family *Icteridæ* by having a rudimentary outer primary, thus making the primaries ten instead of nine. The genus *Sturnus* comprises the Common Starling, *S. vulgaris*, of Europe, (Fig. 2440,) which is about the size of a thrush, black, with violet and green reflections, and spotted with white or fawn-color. It moves in large flocks, is easily tamed, and may be taught to sing, and even to speak.

Fig. 2440. — Starling, (*Sturnus vulgaris.*)

Stut'ter, *v. n.* [Du. *stotteren*; Ger. *stottern.*] To stammer; to hesitate in uttering words; to have an impediment in one's speech.

Stuttgart (*stoot'gart*), a city of Germany, cap. of the kingdom of Würtemberg, on the Nesen, a small tributary of the Neckar, 38 m. E. S. E. of Carlsruhe, and 120 N. W. of Munich. It has a royal palace which contains a good collection of paintings and statues, a public library, a mint, museum, &c. Though surrounded by a wall and ditch, it is a place of no strength. *Manuf.* Leather, hats, cotton, silk, plated goods, and snuff.

Stuy'vesant, Peter, was born in Holland in 1602; served in the West Indies, was director of the Dutch colony of Curaçoa, and lost a leg in an attack on the Spanish island of St. Martin. In 1647 he was made director-general of the New Netherlands, and reached New Amsterdam (now New York) in May of that year. Under his direction boundary lines were established between the Dutch and English possessions in America; but the British encroachments persisted until, in Aug., 1664, an English fleet appeared in the bay and compelled the surrender of New Amsterdam, after which its name was changed to New York. S. went to Holland in 1665, but afterward returned and spent the remainder of his life on his farm, called the *Bowerij*, from which the name Bowery was given to a well-known thoroughfare in New York city. Died in 1682.

Stuyvesant, in *New York*, a post-village and township of Columbia co., on the Hudson river, 18 m. S. of Albany.

Stuyvesant Falls, in *New York*, a post-village of Columbia co., 25 m. S. of Albany.

Sty, *n.* [A. S. *stigan*, to grow up.] (*Med.*) A small tumor on the ciliary ridge of the eyelid. Children are very subject to those painful little boils, which often proceed from an unhealthy condition of the body.

—[A. S. *stige*; Icel. *stia*, a repository, a recess.] A pen or inclosure for swine. — A stew; any place of bestial debauchery.

Stygian (*stij'yan*), *a.* [Lat. *Stygius*, from Gr. *Styx*, *Stygos*, the Styx.] Pertaining, or having reference to the Styx, or river of hell fabled by the ancients; hence, hellish; diabolical; infernal; as, the *Stygian* crew.

Style, (*stīl,*) *n.* [Fr.; Ger. *styl*; Lat. *stilus, stylus*; Gr. *stylos*, a pillar.] (*Antiq.*) A kind of pencil used by the Romans for writing on waxed tablets; it was made of brass or iron, with one end sharp for writing, and the other blunt and smooth for making erasures.

(*Bot.*) That elongation of the ovarium which supports the stigma (Fig. 2014). It is an extension of the midrib of the carpellary leaf, or is formed by the rolling up of the attenuated extremity of the latter.

(*Dialling.*) The gnomon which projects the shadow on the plane of the dial.

(*Calendar.*) A manner of reckoning time; — used in reference to the Julian and Gregorian calendars. — See Calendar.

(*Gram.* and *Lit.*) The manner of writing with regard to language, or the choice and arrangement of words. What is called the *S.* of a writer or speaker in his characteristic manner of expression, is determined principally by the man's own intellect and character. *S.*, in order to be ranked as good, that is, to be fit for serving the uses to which language is put, should obey the fundamental laws of grammar and rhetoric. *S.* should be characterized by perspicuity, animation, and elegance. Language is held to be *perspicuous* when it has not each of three faults: It must not be *obscure*, that is, convey no meaning clearly; it must not be *ambiguous*, that is, convey more meanings than one; it must not be *unintelligible*, that is, convey no meaning at all. When language is adequate for the purpose of persuasion, it is said to be *animated*. Language, when *elegant*, gratifies the taste while exciting imaginative pleasure. In order to attain perspicuity, animation, and elegance in writing, the choice of words or phrases, the number of them, and the putting of them together, must be particularly studied.

(*Fine Arts.*) The peculiar manner in which an artist expresses his ideas, dependent upon his spiritual life

and habits; it is exhibited in his choice of forms and mode of treating them, and is determined in different ways, according to the changes of thought at different times and stages of its development. He only has a style, whose peculiarity is sufficiently powerful to determine energetically his whole artistic activity. Besides the individual style, there is also a national style — for instance, the Egyptian, the Grecian; the style of Greek Art at particular epochs, as that of Phidias or of Praxiteles. The style influences the conception, not merely of the forms, but also of the idea. *Manner* is a false blending of the personal with the artistic activity, from indolent habits or morbid tendencies of feeling, whereby the form is always modified in a similar way, without regard to the requirements of the subject.

—Title; appellation; method of designation or nomenclature; mode of address; official denomination of any august or important body of persons; as, he bore the rank and *style* of Right Honorable, he addressed me in objurgatory *style*, &c. — Fashion; mode or manner which is esteemed elegant, appropriate, or distingué, especially in social etiquette or in authorship; degree of conformity to an accepted or a recognized criterion or standard; as, a redundant or florid literary *style*, she dresses in bad *style*, what *style* of hat will be in vogue next, &c.

Style of court, the practice or manner of procedure observed by a court in its proceedings.

Style, *v. a.* To call; to name; to denominate; to designate; to entitle in addressing or alluding to; as, Solyman II. *styled* The Magnificent.

Sty'let, *n.* [Fr.; It. *stiletto.*] A small dagger, dirk, or poniard.

(*Surg.*) An instrument for probing wounds, fistulas, &c., and for passing setons, and the like.

Stylidia'ceæ, *n. pl.* (*Bot.*) A small order of plants, alliance *Campanales.* DIAG. A 2- or more-celled ovary, stamens and style united into a column, and imbricated corolla. They consist of herbs and under-shrubs found in the swamps of Australia. Their properties and uses are unknown.

Sty'liform, Sty'loid, *a.* Resembling, or having the form of a pen, pin, or style; as, the *styloid* process of the temporal bone.

Stylish, (*stīl'-,*) *a.* Being of fashionable form or in high style; modish; distingué; showy; genteel; as, *stylish* people; — used colloquially.

Styl'ishly, *adv.* In a stylish or modish manner; fashionably.

Styl'ishness, *n.* State or quality of being stylish, modish, or fashionable; distinction; gentility.

Styl'ist, *n.* A critic of, or stickler for, style; a purist or precisian in literary or artistic style; one who is a master or model of style, whether in speech or composition.

Sty'lite, *n.* [Fr.; Gr. *stylitēs*, from *stylos*, a pillar.] (*Eccl.*) One of a peculiar class of anchorites, taking the term of *stylites* from the places on which they took up their solitary abodes, being the tops of various columns in Syria and Egypt. This strange mode of devotional austerity took its rise in the 2d century, and continued to be practised for a great length of time. See SIMEON.

Sty'lobate, *n.* [Fr., from Gr. *stylos.*] (*Arch.*) The uninterrupted base below a range of columns.

Styloby'oid, *a.* [From *styloid* and *hyoid.*] (*Anat.*) Of, or pertaining to, the styloid processes and the hyoid bone.

Sty'loid, *a.* See STYLIFORM.

Stylomas'toid, *a.* (*Anat.*) Of, or belonging to, the styloid and mastoid processes.

Stylopo'dium, *n.* [Gr. *stylos*, style, and *pous, podos*, foot.] (*Bot.*) A fleshy disc at the base of the style in some plants, as the umbellifers.

Stylosan'thus, *n.* [Gr. *stylos*, style, and *anthos*, a flower.] (*Bot.*) A genus of plants, order *Fabaceæ.* The Pencil Flower, *S. elatior*, found in dry, gravelly woods, from Long Island to Florida, has a stem mostly branched, one foot in height, remarkable for being densely pubescent on that side only which is opposite the insertion of each leaf, while the other side is smooth; bracts fringed with yellow bristles; flowers yellow.

Styp'tic, Stip'tic, Styp'tical, *a.* [Gr. *styptikos.*] (*Med.*) Astringent; that produces contraction; that restrains hemorrhage; having the quality of stopping bleeding.

Styp'tic, *n.* (*Med.*) A remedy used for checking the flow of blood. Alum and tannic acid are powerful *S.*

Styracaceæ, (*stī-ra-kai'se-ē,*) *n.* (*Bot.*) An order of plants, alliance *Rhamnales.* DIAG. Monopetalous flowers, epipetalous stamens, a part at least of the ovules suspended, a long radicle, and leafy cotyledons. There are 12 genera, and about 120 species, composed of trees or shrubs, which are sparingly distributed in warm and tropical regions. They are principally remarkable for yielding stimulant balsamic resins. See STYRAX.

Sty'rax, *n.* (*Bot.*) The typical genus of the order *Styracaceæ. S. benzoin*, the Benjamin-tree, yields the well-known concrete balsamic exudation commonly called *gum-benjamin.* (See BENZOIN.) *S. officinalis*, a native of Greece, the Levant, and Asia Minor, was the source of the original and classical *storax*, which has in modern times wholly disappeared from commerce. The product now called *liquid storax* comes from a species of the genus *Liquidambar*, q. v.

Styria, (*stir'i-a.*) [Ger. *Steiermark.*] A prov. of Austria, situated between Austria proper and Illyria; Lat. between 45° 54′ and 47° 50′ N., Lon. between 13° 30′ and 16° 25′ E.; *area*, 8,194 sq. m. It is a mountainous country, comprising mostly branches of the Noric, Styrian, and Carnic Alps. *Rivers.* The principal are the Ens, the Mur, the Drave, and the Save. *Prod.* Wheat, barley, oats, rye, and in the warmer situations, maize and tobacco. Fruit, hemp, and flax are also raised. Much of the country, however, is devoted to pastoral purposes. *Min.* Lead, silver, gold, iron, coal, zinc, vitriol, marble, and building-stone. Salt is abundant, and cobalt and arsenic are also found. *Manuf.* Unimportant. *Cap.* Gratz.

Sty'role, *n.* (*Chem.*) An oily hydro-carbon obtained by distilling liquid storax. It is perfectly fluid, but has the curious property of becoming a soft, viscid, transparent solid when heated. In this state it has been called *meta-styrole.*

Styx, *n.* [Lat. and Gr.] (*Myth.*) A river of Hades, round which it flowed seven times, and over which Charon (*q. v.*) conveyed the shades of the departed. As a goddess, *S.* was the daughter of Oceanus and Tethys, dwelling in a grotto at the entrance of Hades. She was the confirmer of the most solemn oaths of the gods.

Suabia, or **Swabia,** (*swai'be-a,*) the former name of one of the ten circles or great divisions of Germany, bounded W. by France, and S. by Switzerland. It is now subdivided among Baden, Bavaria, Hohenzollern, and Würtemberg. *Area*, 3,675 sq. m. *Pop.* abt. 600,000.

Suakin, a seaport belonging to Turkey, on a small rocky island in the W. coast of the Red Sea; Lat. 19° 48′ N., Lon. 37° 33′ E. Once a place of wealth and importance, it is now almost in ruins, but is still the channel of communication between Arabia and the interior of Africa. *Pop.* 8,000.

Suamico, in *Wisconsin*, a post-township of Brown county, on Green Bay, about 7 miles north-west of Green Bay.

—A former township of Oconto co.

Suamico River, in *Wisconsin*, rises in Shawano co., and flowing E., falls into Green Bay in Brown co.

Suapure, or SWAPURE, (*swa-poo'ra,*) a river of Venezuela, rises in the Sierra Parima; Lat. 6° S., Lon. 65° 30′ W., and flows into the Orinoco River, after a W.N.W. course of 100 m.

Suasion, (*swā'zhun,*) *n.* [O. Fr., from Lat. *suasio — suadeo*, to advise, exhort.] Act of persuading; persuasion; friendly advice or exhortation; as, moral *suasion.*

Suasory, (*swā'-,*) *a.* [Lat. *suasorius.*] Having the power of convincing or persuading by reason or argument.

Suave, (*swāv,*) *a.* [Fr., from Lat. *suavis*, pleasant.] Pleasant; sweet; attractive; affable, or agreeable in aspect or manner; as, a *suave* address.

Suavely, *adv.* In a suave manner; agreeably; charmingly.

Suavify, *v. a.* To make affable or agreeable.

Suaviloquent, *a.* [Lat. *suavis*, pleasant, and *loquens*, speaking.] Soft-spoken; having a suave or affable manner or lingual address.

Suavity, (*swāv'i-ty,*) *n.* [Fr. *suavité*; Lat. *suavitas.*] That which is to the mind what sweetness is to the tongue; agreeableness; softness; pleasantness; cordiality; urbaneness; as, *suavity* of speech or manner.

Sub. [Akin to Gr. *upo*, under, and Sansk. *upa*, to forward, near.] A Latin preposition used in English as a prefix, to signify a subordinate degree, imperfect state, or the relation of space; — under; beneath; below. When coming before *f, g, m, p*, and *r*, the *b* takes the form of those letters, as in *suffix, suggest, summary, supply*, and *surrender.*

(*Chem.*) See CHEMICAL NOMENCLATURE.

Subacid, *a.* Moderately acid.

Subacrid, (*-ăk'-,*) *a.* Acrid in a small degree.

Subaërial, *a.* In the open air, in distinction from *submarine.*

Sub-a'gent, (*-jent,*) *n.* (*Law.*) The agent of a chief agent.

Subal'pine, *a.* Belonging to the regions at the foot of the Alps.

Subaltern, (*-awl'tern,*) *a.* [Fr. *subalterne*, from Lat. *sub*, and *alternus*, one after the other.] Under or interior to another; subordinate; that in different respects is inferior and superior; as, *subaltern* rank.

—*n.* One who holds a subordinate position; hence, specifically (*Mil.*), a subordinate army-officer; a commissioned officer beneath the rank of captain; — commonly abbreviated *sub.*

Subalter'nate, *a.* [L. Lat. *subalternatus.*] Succeeding by turns; successive.—Subordinate; subaltern; inferior.

Sub-alternation, (*-nā'shan,*) *n.* State of being subalternate.

Subangular, *a.* Slightly angular.

Sub-ap'ennine, *a.* Under or at the foot of the Apennine Mountains; — a term applied, in geology, to a series of tertiary strata of the older Pliocene period, found at this locality.

Sub-ap'ennines, *n. pl.* (*Geog.*) A series of low hills lying at the foot of the range of the Apennines, in Italy.

Subap'ical, *a.* Under the apex; pertaining or relating to the part just below the apex.

Subaquat'ic, Subaqueous, (*-ā'kwe ŭs,*) *a.* [Lat. *sub*, and *aqua*, water.] Being under water.

(*Geol.*) Formed in or under water; as, *subaqueous* deposits.

Subarc'tic, *a.* Belonging, or having reference to a region just below the arctic.

Subas'tral, *a.* Below the stars or heavens.

Subaudition, (*aw-dish'un,*) *n.* [From Lat. *subaudire.*] The act of understanding something without expression of the same.

Subax'illary, *a.* (*Anat.*) Under the armpit or axilla.

(*Bot.*) Placed under the axil formed by a leaf with the branch.

Sub'-base, Sub'-bass, *n.* (*Mus.*) The fundamental base or bass.

Sub-brachial, *a.* (*Zoöl.*) Belonging, or relating to the sub-brachians.

Sub-brachians, *n. pl.* [Lat. *sub*, under, and *brachium*, arm.] (*Zoöl.*) An order of malacopterygious soft-rayed fishes which have the ventrals inserted under the pectorals, and the pelvis directly attached to the bones of the shoulder.

Subcartilaginous, (*-kär-tĭj'in-us,*) *a.* Located under or beneath the cartilages. — Semi-cartilaginous.

Subcen'tral, *a.* Situated under the centre.

Sub-chant'er, *n.* (*Eccl.*) A precentor's deputy in a cathedral.

Subcla'vian, *a.* [Lat. *sub*, and *clavis*, a key.] (*Anat.*) Located under the collar-bone or clavicle; as, the *subclavian* nerves.

Sub'-committee, *n.* A committee acting under directions of a head or chief committee.

Subcompressed, (*-prĕst',*) *a.* Partially or not fully compressed.

Subcon'ical, *a.* Slightly conical.

Sub-con'tract, *n.* A contract arising from a previous contract.

Sub-contract'or, *n.* One who takes a portion of a contract of work from the chief contractor; as, a *sub-contractor* for tunnelling.

Subcon'trary, *a.* Contrary in a minor degree.

(*Geom.*) Belonging to, or possessing, a contrary order; — said of a section of an oblique cone when cut by a plane not parallel to the base, but inclined to the axis.

(*Logic.*) A term denoting the opposition between two propositions, one of which is a particular affirmative (1), and the other a particular negative (0).

—*n.* (*Logic.*) A proposition inferior or contrary in a minor degree.

Subcord'ate, *a.* Somewhat heart-shaped.

Subcrys'talline, *a.* Crystallized in an imperfect degree.

Subcul'trated, *a.* Colter-shaped.

Subcuta'neous, *a.* [Fr. *subcutané.*] Lying under the skin.

Subcutic'ular, *a.* Situated under the scarf-skin or cuticle.

Subcylin'drical, *a.* Cylindrical by approximation.

Sub-deacon, (*-dē'kn,*) *n.* (*Eccl.*) In the Roman Catholic Church, an under-deacon; also, a deacon's servant.

Sub'-dean, *n.* [Fr. *sous-doyen.*] A dean's substitute or vicegerent.

Sub-dec'anal, Sub-diac'onal, *a.* Belonging, or relating to a sub-dean or his office.

Subdecuple, *a.* Containing one part of ten.

Subdel'egate, *n.* A delegate commissioned with subordinate powers.

Subdent'ed, *a.* Indented beneath or below.

Subdeposit, (*-pŏz'-,*) *n.* That which is deposited beneath another thing.

Subderiv'ative, *n.* (*Etymol.*) A word derived from a derivative.

Subdivide', *v. a.* To divide into lower or smaller parts; to divide a part of a thing into more parts; to part or separate into smaller divisions; as, to *subdivide* lands.

—*v. n.* To be subdivided; to go apart into subdivisions.

Subdiviue', *a.* Divine in a minor or approximate degree.

Subdivisible, (*-vĭz'i-bl,*) *a.* That may be subdivided.

Subdivision, (*-vĭzh'un,*) *n.* [Fr.] Act of subdividing or separating a thing into smaller parts. — The part of a thing made by subdividing; the part of a larger part.

Subdom'inant, *n.* (*Mus.*) That note which is a fifth below the key-note. It is a species of governing note, inasmuch as it requires the tonic to be heard after it in the plagal cadence. In the regular ascending scale of seven notes it is the fourth; the term, however, has its origin from its relation to the tonic in the fifth below.

Subdu'able, *a.* That may be subdued.

Subduce', Subduct', *v. a.* [Lat. *suducere.*] To take away; to withdraw; to divest of. — To subtract arithmetically.

Subduction, (*-dŭk'shun,*) *n.* [Lat. *subductio.*] Act of taking away or withdrawing. — Arithmetical subtraction.

Subdue', *v. a.* [Perhaps a corruption of O. Fr. *subjuguer*; Lat. *sub*, and *jugum*, yoke.] To put, place, lay, or bring under; to subjugate; to conquer by sheer force, or by the exertion of superior power, and bring into permanent subjection; to reduce under dominion; as, to *subdue* an enemy's country. — To crush; to annihilate; to oppress or overpower so as to disable from further resistance or antagonism; as, to *subdue* an insurrection. — To overcome; to destroy or diminish the violence of; as, medical skill *subdues* a disease. — To tame; to render submissive; to reduce to mildness; to bring under discipline; to break by conquering; as, to *subdue* a rebellious temper or evil passions. — To conquer by persuasion or other mild means; as, to *subdue* refractoriness or insubordination by force of argument or entreaty. — To melt; to soften; to vanquish to pity or tenderness; as, woman's tears often *subdue* a stern man. — To make mellow; to break, as land.

Subdu'er, *n.* One who, or that which, subdues.

Sub'duple, *a.* In the ratio of one to two.

Subdu'plicate, *a.* (*Math.*) Noting the ratio of the square roots of the terms of a ratio.

Sub'edit, *v. a.* To edit under the supervision of a chief editor; as, to *subedit* a periodical.

Subequal, (*-ē'kwal,*) *a.* Nearly equal.

Sub'ereous, Sub'erose, Sub'erous, *a.* [From Lat. *suber*, the cork-tree.] Pertaining, or relating to, or having the characteristic properties of, cork.

Suber'ic Acid, *n.* (*Chem.*) A fatty acid originally found among the products of the oxidation of cork by

nitric acid; hence its name, from *suber*, cork. It is contained in this substance in but small proportions, and is most readily obtained by the oxidation of the fats, more especially those of the stearic series. It forms a crystalline white powder destitute of odor, but having a slight acid taste. It is soluble in 100 parts of cold and in 2 parts of boiling water. It is also soluble in alcohol and ether. Heated to 257° Fahr., it melts, and runs up the sides of the vessel in which it is treated. The *suberates* of the alkalies and earths are soluble and crystallizable, and form white precipitates with the salts of the metal.

Su'berin, Su'berine, *n.* [From Lat. *suber.*] A name given by Chevreul to the cellular tissue of cork after the various soluble matters have been removed by the action of water and alcohol.

Suberose', *a.* [Prefix *sub* and *erose.*] (*Bot.*) Appearing to be partially eroded or gnawed.

Sub-fam'ily, Sub-ge'nus, *n.* (*Nat. Hist.*) When the genera of a family, or the species of a genus are so numerous and diversified as to offer characters by which they may be ranged into groups, these are termed *sub-families* and *sub-genera.*

Subfos'sil, *a.* Containing or comprising bones only partially fossilized; as, *subfossil* strata.

Subglacial, (*-glā'shal,*) *a.* Being under a glacier or glaciers.

Subglo'bose, Subglob'ular, *a.* Partially globose or globular.

Sub-gov'ernor, *n.* A deputy or subordinate governor.

Subhornblend'ic, *a.* Containing hornblende in a scattered state.

Subiaco, (*soo-be-a'ko,*) a town of Central Italy, in the former States of the Church, 33 m. from Rome; *pop.* 6,247.

Subiu'dicate, *v. a.* To judicate in a less or minor degree.

Subinfeuda'tion, *n.* (*Law.*) Under-tenancy.

Subinflamma'tion, *n.* (*Med.*) A mild degree of inflammation.

Subito, (*-bē'-,*) *adv.* [It. and Lat.] (*Mus.*) A term of direction; as, *subito volti,* turn (the leaf) quickly.

Subjacent, (*-jā'sent.*) *a.* [Lat. *subjacens,* from *subjaceo* —*sub,* and *jaceo,* to lie.] Lying under, beneath, or below. — Being in a lower situation, though not immediately beneath.

Sub'ject, *a.* [Fr. *sujet;* Lat. *subjectus, subjicio* — *sub,* and *jacio,* to throw or cast.] Thrown, brought, or situate under. — Being under the power, authority, or dominion of another. — Exposed; prone; disposed; liable, whether from inherent or extraneous causes; as, she is *subject* to headaches, this country is *subject* to extremes of heat and cold.

—*n.* That which is placed under the authority, jurisdiction, dominion, or influence of something else. — One who is under the authority, rule, or dominion of another; one who owes allegiance to a sovereign, and is governed by his or her laws.

"Every *subject's* duty is the king's; but every *subject's* soul is his own." — *Shaks.*

—That on which any mental operation is exercised; that which is treated or handled as an object of examination, thought, or discussion; that concerning which anything is affirmed or denied; as, a *subject* for inquiry or consideration. — That on which any physical operation or experiment is performed; as, a *subject* for medical treatment. — The hero of a piece; the person treated of; as, Byron is the *subject* of one of Macaulay's finest essays. — That in which anything, whether spiritual or material, inheres or exists; substance. — Hence, the mind; the cogitative faculty or agent; that being or substance which is self-conscious of its workings.

(*Logic*) The term of which the other is affirmed or denied; as, the *subject* of a proposition.

(*Gram.*) The nominative case of a verb.

(*Fine Arts.*) That which it is the desire and aim of the artist to express; as, the *subject* of a picture.

(*Anat.*) A dead body serving as an object for anatomical dissection.

(*Mus.*) The chief melody or theme of a movement.

—*v. a.* [Lat. *subjicio, subjectus* — *sub,* and *jacio,* to throw, to cast.] To place or bring under the rule, influence, authority, dominion, or action of; to subjugate; to subdue; to put under or within the power of; as, to *subject* one's impulses to the control of judgment. — To expose; to make liable; as, to satisfy your demand would *subject* me to much inconvenience. — To make accountable; to submit: as, he is not obliged to *subject* his private opinions to public notice. — To make subservient.

"He *subjected* to man's service angel wings." — *Milton.*

—To cause to undergo; to tender for test or inquiry; as, to *subject* a witness to cross-examination.

Subjection, (*-jek'shun,*) *n.* [Lat. *subjectio.*] Act of subjecting or of subduing; act of vanquishing and bringing under the rule or dominion of another; as, the revolted provinces were finally restored to *subjection.* — State of being subject, or amenable to the power, control, authority, influence, or government of another or others; as, all people live in *subjection* to the common law.

Sub'jectist, *n.* Same as SUBJECTIVIST, *q. v.*

Subject'ive, *a.* [Late Lat. *subjectivus.*] Pertaining or relating to a subject. — Relating to that of which the thinking mind is the subject, in distinction from *objective,* or that which has reference to the object of thought. — See OBJECTIVE.

Subject'ively, *adv.* In a subjective manner.

Subject'ivism, *n.* (*Philos.*) Same as EGOISM, *q. v.*

Subject'ivist, Sub'jectist, *n.* (*Philos.*) An EGOIST, *q. v.*

Subjectiv'ity, Subject'iveness, *n.* State of being subjective. — State of having existence in the mind.

Sub'ject-matter, *n.* The matter or thought brought forward for discussion or consideration in some statement, controversial theorem, &c.

Subjoin', *v. a.* [Lat. *subjungo* — *sub,* and *jungo* — *jugum,* a yoke.] To append; to add after something else has been spoken or written; to affix, annex, attach, or connect; as, to *subjoin* addenda to a book.

Sub judice, (*-jū'di-se.*) [Lat., under the judge.] (*Law.*) Under judicial consideration; pending before a judge or court.

Sub'jugate, *v. a.* [Fr. *subjuguer;* Lat. *subjugo* — *sub,* and *jugum,* yoke.] To bring under the yoke; to subject; to subdue and bring under the sway of power or dominion; to vanquish by force, and compel to submit to the authority, or absolute government, or control of another or others; as, to *subjugate* a state.

Subjugation, (*-gā'shun,*) *n.* [Fr.; Lat. *subjugatio.*] Act of subjugating; act of subduing, or bringing under the yoke or absolute control of another or others.

Sub'jugator, *n.* [L. Lat.] One who subjugates; a vanquisher.

Subjunction, (*-jŭnk'shun,*) *n.* [From Lat. *subjungere.*] Act of subjoining; also, state of being subjoined.

Subjunc'tive, *a.* [Fr. *subjonctif;* Lat. *subjunctivus* —*subjungo.*] Subjoined or added to something before said or written.

(*Gram.*) Designating the form of a verb which fits it for being subjoined actually or virtually to another verb, and so to express condition, hypothesis, or contingency; — often used in connection with *if, though, that, lest, unless, except, until,* &c.

—*n.* (*Gram.*) The subjunctive mood.

Subking'dom, *n.* A subordinate kingdom.

Sub'lanate, *a.* (*Bot.*) Woolly in a certain degree.

Sublapsa'rians, *n. pl.* (*Eccl. Hist.*) See INFRALAPSARIANS.

Sublease', *n.* (*Law.*) A lease by a tenant or lessee to another person.

Sublet', *v. a.* To under-let; to lease, as a lessee to another person; as, to *sublet* a farm.

Sub'lette, in *Illinois,* a post-village and township of Lee co., 20 m. S. E. of Dixon. *Pop.* (1897) 1,080.

Sublette's Lake, located in the N. W. of Wyoming, is the source of the Yellowstone river; Lat. 44° N., Lon. 110° 30′ W.

Sublevation, (*-vā'shun,*) *n.* [From Lat. *sublevare,* to elevate.] The act of elevating or upraising.

Sub-lieutenant, (*-lev-tĕn'ant,*) *n.* (*Mil.*) A second lieutenant.

Subligation, (*-gā'shun,*) *n.* [Lat. *subligatio* — *subligare.*] The act of binding below.

Sublim'able, *a.* [Fr.] That may be sublimated.

Sub'limate, *v. a.* [Lat. *sublimo, sublimatum* — *sublimis.*] To raise by heat into vapor, as a solid substance, which, on cooling, returns again to the solid state; as, to *sublimate* metals. — To exalt; to refine; to heighten; to elevate; as, a *sublimated* soul.

—*n.* (*Chem.*) The product of a sublimate process.

Corrosive sublimate, bichlorido of mercury. — See MERCURY.

Sub'limate, Sub'limated, *a.* Refined; raised or brought into a vaporous state by heat, and then condensed, as a solid substance.

Sublimation, (*-mā'shun,*) *n.* [L. Lat. *sublimatio.*] (*Chem.*) Act, operation, or process by which solids are by the aid of heat converted into vapor, which is again condensed, and in the crystalline form. This operation is frequently resorted to for the purpose of purifying various chemical products, and separating them from substances which are less volatile.

—State of being sublimated. — Exaltation; elevation; act of refining, heightening, or improving; as, the *sublimation* of morality.

Sub'limatory, *a.* Employed in the process of sublimation; as, *sublimatory* appliances.

Sublime', *a.* [Fr., It., and Sp., from Lat. *sublimis* — *sublĕvo* — *sub,* and *lĕvo,* to elevate.] Uplifted; high or exalted in place; elevated aloft; — used in a literal or material sense; as, a *sublime* edifice. — High in moral or mental excellence; elevated by nature; eminent; characterized by lofty, noble, or magnanimous traits; — expressed of persons; as, a *sublime* soul, a *sublime* hero. — High or exalted in sense, style, or sentiment; grand; dignified; solemn; august; stately; exciting awe, veneration, or the finer emotions of the soul; as, a *sublime* action, *sublime* scenery, a *sublime* conception or idea, a *sublime* spectacle. — Elate; hilarious; jocund; elevated by joy; as, in ecstasy *sublime.* — Noble; majestic; lofty or dignified in mien; elevated in manner; as, "He was *sublime* in his looks and gestures." — *Wotton.*

—*n.* That which is lifted up, lofty, exalted, or elevated; especially, the grand in the works of nature or of art, as distinguished from the *beautiful:* the emotion evoked by grandeur; a grand, majestic, or exalted style; a mode or expression of sentiment embodying lofty conceptions.

—*v. a.* To sublimate. — To exalt; to heighten; to improve; to purify; as, "Art may be *sublimed* into a pure genius." — *Dryden.*

—*v. n.* To be raised or changed into a state of vapor by heat, and then condensed by cold, as a solid.

Sublime'ly, *adv.* In a sublime manner; with elevated conceptions; as, "Fustian's so *sublimely* bad." — *Pope.*

Sublime'ness, *n.* Sublimity.

Sublime Porte, *n.* [Fr., lofty or magnificent gate.] The title officially given in the East to the *Ottoman Porte* or Turkish government. See PORTE.

Sublimification, (*-kā'shun,*) *n.* [Lat. *sublimis,* and *facere,* to make.] Act of making sublime; or, state of being made sublime.

Sublim'ity, *n.* [Fr. *sublimité.*] State, quality, or condition of being sublime; as, (1.) Lofty height, or elevation of place. (2.) Height in moral or mental excellence; loftiness of nature or character; moral grandeur; spiritual eminence. (3.) A feeling of combined awe and exaltation, awakened by the contemplation of scenes or objects of majesty or grandeur, or of æsthetic excellence. — Loftiness or grandeur of sentiment or style; exalted conceptions, or the expression thereof in kindred language; vastness; elevation, whether exhibited in the works of nature or of art.

Sublim'ity, in *Oregon,* a post-village of Marion co., abt. 15 m. S.E. of Salem.

Sublineation, (*-ā'shun,*) *n.* A mark of a line or lines under another line, or under a word in a sentence.

Sublingual, (*-ling'gwal,*) *a.* Placed under the tongue; as, the *sublingual* glands.

Sublition, (*-lish'un,*) *n.* [Lat. *sublinere, sublitum,* to smear.] (*Paint.*) Act or process of laying the ground color under the more perfect color.

Sublit'toral, *a.* Beneath the shore.

Sublu'nar, Sublun'ary, *a.* [Fr. *sublunaire;* Lat. *sub,* and *luna,* moon.] Under or beneath the moon; earthly; terrestrial; pertaining or relating to this world; as, *sublunary* things.

Subluxation, (*-luks-ā'shun,*) *n.* [Fr.] (*Surg.*) An imperfect dislocation.

Submarine, (*-rēēn',*) *a.* [Lat. *sub,* and *marinus,* marine, from *mare,* sea.] Being, acting, or subsisting under water in the sea; as, *submarine* plants.

Submarine telegraph. (*Elect.*) See ATLANTIC TEL.

Submaxillary, *a.* [Fr. *sous-maxillaire.*] (*Anat.*) Lying beneath the jaw. — *Submaxillary glands,* a pair of salivary glands situated beneath, or rather behind, the lower jaw, but emitting their secretion, which resembles that of the sublingual glands, below the tongue.

Submedial, *a.* [Lat. *sub,* and *medius,* middle.] Situated below the middle.

Submedian, *a.* Lying under the middle of a body.

Submediant, *n.* (*Mus.*) The middle note between the tonic and subdominant descending; it is the greater sixth in the major scale, and the lesser sixth in the minor scale.

Submerge, (*-mėrj,*) *v. a.* [Lat. *submergo.*] To dip or plunge under; to sink; to put under water. — To drown; to cover or overflow with water; as, the low lands were *submerged* by the freshet.

—*v. n.* To plunge under water; — hence, to be entirely merged or incorporated; as, separate ideas *submerged* in one great idea.

Submer'gence, (*-jens,*) *n.* Act of submerging; also, state of being submerged.

Submerse', Submersed, (*-mėrst,*) *a.* [From Lat. *submergere.*] (*Bot.*) Situated or growing under water, as the roots of aquatic plants.

Submersion, (*-mėr'shun,*) *n.* [Fr.; Lat. *submersio.*] Act of submerging; act of putting under water, or causing to be overflowed; act of plunging under water, or of drowning; as, *submersion* of the body when bathing. — State of being submerged, overflowed, or drowned.

Submetal'lic, *a.* Partially metallic; as, a *submetallic* lustre.

Submission, (*-mish'un,*) *n.* [Fr. *soumission;* Lat. *submissio*] Act of submitting, or of yielding to power, control, or authority; surrender of the person or power to the influence, rule, or government of another; obedience; compliance with the commands or laws of a superior; as, he made his *submission* to the government. — A yielding of one's will to the power or appointment of a superior, without murmuring; acknowledgment of inferiority or dependence; humble or suppliant demeanor; state or quality of being obedient or submissive; resignation; as, pardon sought in all *submission* and humility. — Acknowledgment of a fault or transgression; confession of error or shortcoming; as, "Be not so extreme in *submission* as in offence." — *Shaks.*

(*Law.*) An agreement or understanding by which parties engaged in a suit or controversy, decide to submit their differences to the arbitrament of a specified person or persons.

Submis'sive, *a.* Pertaining to, or evincing, submission; yielding to the power, will, or influence of another or others; obedient; complinut; yielding; owning one's inferiority; humble; passive; as, a *submissive* wife.

Submis'sively, *adv.* With submission; humbly.

Submis'siveness, *n.* Quality or state of being submissive.

Submit', *v. a.* [Lat. *submitto* — *sub,* and *mitto,* to send; Fr. *soumettre.*] To yield, resign, or surrender to the influence, power, rule, will, or authority of another or others. — To refer: to state, as a claim in behalf of one's self or another; to leave or commit to the discretion, judgment, or decision of another or others; as, to *submit* a case for counsel's opinion.

—*v. n.* To yield; to surrender; to cease to resist; to yield to anything disagreeable or overpowering; as, people are obliged to *submit* to circumstances. — To yield, as one's opinion to the opinion or authority of another or others. — To be subject; to yield to, or acquiesce in, the authority of another or others; as, he *submitted* with an ill grace. — To yield without murmuring; to be submissive; as, he *submits* to the will of God.

Submul'tiple, *n.* (*Math.*) Same as aliquot part. See ALIQUOT.

Subnascent, (*-năs'sent,*) *a.* [From Lat. *subnasci,* to grow under.] Growing underneath.

Subnor'mal, *n.* [Lat. *sub,* and *normal.*] (*Geom.*) That part of the axis of a curve line which is intercepted between the ordinate and the normal.

Subnu'volar, *a.* [From Lat. *subnubilis,* somewhat

cloudy.] Under the clouds; somewhat cloudy; as, *subnuvolar* lights.

Subobtuse', *a.* Imperfectly obtuse.

Suboccipital, (*-ok-sip'-*,) *a.* Situated under the occiput: as, the *suboccipital* nerves.

Suboc'tave, Suboc'tuple, *a.* [*Sub*, and *octave* or *octuple*.] Being in the ratio of one to eight.

Subocu'lar, *a.* [Lat. *subocularis*.] Being under the eye.

Sub-of'ficer, *n.* An inferior or subordinate officer.

Suborbic'ular, Suborbic'ulate, *a.* Almost orbicular; nearly circular.

Subor'dinacy, *n.* State of being subordinate or amenable to control; as, to bring impulse in *subordinacy* to judgment. — A descending series.

Subor'dinate, *a.* [Fr. *subordonné;* Lat. *sub*, and *ordinatus, ordino*, from *ordo*, a series.] Placed in a lower class, rank, order, or degree; occupying a lower position; as, a *subordinate* species, a *subordinate* person. — Inferior in nature, dignity, power, importance, &c.; as, *subordinate* to the understanding.

—*n.* One who stands in class, rank, or order below another. — One of a descent in a regular series.

—*v. a.* To make subordinate or subject; to subdue; as, to *subordinate* one's temper to one's reason. — To place in an order or rank below something else; to make or consider as of less value or importance; as, to *subordinate* imagination to common sense.

Subor'dinately, *adv.* In a subordinate manner.

Subor'dinateness, *n.* State of being subordinate.

Subordination, (*-nā'shun,*) *n.* [Fr.; L. Lat. *subordinatio*.] Act of subordinating, reducing in class or order, or subjecting. — State of being subordinate or inferior to another; state of being under control or government; inferiority of rank or dignity; subjection; as, *subordination* is the essence of military discipline. — Place of rank among subordinates or inferiors; as, "persons in their several *subordinations*." — *Swift.*

Subor'dinative, *a.* Conducive to, or denoting, subordination; — used conjunctively to connect or insert a subordinate sentence.

Suborn', *v. a.* [Fr. *suborner;* Lat. *suborno* — *sub*, and *orno, ornatus*, to equip.] To procure privily or by collusion; as, to *suborn* a spy. — To procure by indirect means.

(*Law.*) To incite or instigate in an underhand or fraudulent manner; — hence, to procure, as a person to take such an oath as constitutes perjury; as, to *suborn* a witness.

Suborna'tion, (*-nā'shun,*) *n.* [Fr.; L. Lat. *subornatio*.] The crime of instigating or procuring one to do a criminal or an evil action; as, political *subornation*.

(*Law.*) The procuring a person to take a false oath, amounting to perjury. The offence of subornation is not complete unless the oath be taken; but it is a misdemeanor to attempt to procure false testimony.

Suborn'er, *n.* [Fr. *suborneur*.] One who suborns.

Subo'vate, *a.* (*Bot.*) Nearly ovate or egg-shaped.

Subpet'iolate, *a.* (*Bot.*) Possessing a very short petiole.

Subpœna, (*-pē'nah,*) *n.* [Lat. *sub*, and *pœna*, extradition.] (*Law*) A writ, of which there are several kinds; as, for instance, *subpœna ad testificandum* is the ordinary process, both in common law and equity, to compel the attendance of a witness. *Subpœna duces tecum* differs from the above only in that it contains a clause requiring the witness to bring with him, and produce in court, books and papers. An action of damages lies against parties disobeying this writ.

—*v. a.* To serve with a writ of subpœna, in order to enforce attendance in a court of law, under a penalty in case of default; as, to *subpœna* a witness.

Subpo'lar, *a.* Below the poles; that is, on the lower meridian.

Subporphyritic, (*-pŏr-fi-rĭt'ik,*) *a.* (*Geol.*) In allusion with porphyry, but presenting smaller and less accurately defined crystals.

Sub-pur'chaser, *n.* One who buys at second-hand from a first purchaser.

Subquad'rate, *a.* Almost square.

Subquadru'ple, *a.* In the ratio of one part to four.

Subquintu'ple, *a.* Containing one part to five.

Subramose', Subra'mous, *a.* (*Bot.*) Having few branches.

Subreption, (*-rĕp'shun,*) *n.* [Lat. *subreptio*.] The act of obtaining a favor by suppression or fraudulent representation of the facts.

Subrogation, (*-gā'shun,*) *n.* [Fr.] (*Law.*) The substitution of one person for another in the exercise of rights, or, in particular, the substitution by a creditor of another party to exercise his rights against the debtor.

Subscap'ular, Subscap'ulary, *a.* [Lat. *sub*, and *scapula*, the blade-bone.] (*Anat.*) Noting the muscles, vessels, nerves, &c., that lie or pass beneath the scapula.

Subscrib'able, *a.* That may be subscribed.

Subscribe', *v. a.* [Lat. *subscribo* — *sub*, and *scribo*, to write; Fr. *souscrire*.] To write underneath or below; to sign with one's own hand; to give one's consent to something written, or to bind one's self by the subscription of one's name; as, a person *subscribes* a letter. — To attest by attaching one's signature beneath; as, an official document *subscribed* by a secretary. — To promise to give or contribute by inscribing one's name; as, he *subscribed* a hundred dollars to the fund.

—*v. n.* To give consent to some written document by the signature of one's name thereon; — hence, by implication, to assent; to agree; to conform; — preceding *to*; as, he *subscribed to* the resolution. — To promise to bestow or contribute a certain sum by the written credential of one's name; as, many people *subscribed* for the book.

Subscrib'er, *n.* One who subscribes. — One who enters his name as agreeing to purchase a newspaper, book, picture, and the like; as, a regular *subscriber*.

Sub'script, *n.* Written underneath or below.

Subscription, (*-skrip'shun,*) *n.* [Fr. *souscription;* Lat. *subscriptio*.] Act of subscribing or writing one's name. — That which is subscribed; as, (1.) The signature attached to a list or document. (2.) A paper to which a signature is attached. (3.) Act of contributing to any undertaking. (4.) Sum subscribed, or amount of sums subscribed. (5.) Consent, authority, or attestation given by underwriting the name.

Subsection, (*-sĕk'shun,*) *n.* A subdivision, or section of a section.

Subsec'utive, *a.* [Fr. *subsecutif*.] Following in a sequence or succession.

Subsem'itone, Subton'ic, *n.* (*Mus.*) The leading note of any key.

Subsep'tuple, *a.* In the ratio of one to seven.

Sub'sequence, Sub'sequency, *n.* State of being subsequent, or of coming after something else.

Sub'sequent, (*-kwent,*) *a.* [Fr.; Lat. *subsequens*.] Following in time; coming or occurring after something else at any time indefinitely; as, a *subsequent* event, at a *subsequent* period. — Following in the order of place, sequence, or succession; succeeding; consequent; next; as, a *subsequent* arrangement, a *subsequent* sentence.

Sub'sequently, *adv.* In a subsequent time, order, manner, and the like; at a later time; on an after occasion; occurring after something else.

Subser'ous, *a.* (*Anat.*) Situated under, or pertaining to the parts connected with, a serous membrane. *Dungl.*

Subserve', *v. a.* [Lat. *subservio* — *sub*, and *servio*, to serve.] To serve under; to serve in subordination to; to serve instrumentally; to promote, advance, or help forward; as, to *subserve* a patron's interests.

—*v. n.* To serve in a subordinate capacity; to be subservient.

Subser'vience, Subser'viency, *n.* State of being subservient; instrumental use; operation that promotes or assists some purpose.

Subser'vient, *a.* [Lat. *subserviens*.] Acting as a subordinate instrument; useful as a means or agent to promote a purpose; serving to promote some end or measure; as, a man *subservient* to another's will.

Subser'viently, *adv.* In a subservient manner.

Subses'qui, (*Chem.*) A prefix used in chemical nomenclature, denoting the combination of constituents in the proportion of two to three; — especially, denoting the combination of two electro-negative with three electro-positive equivalents.

Subsessile, (*-sĕs'sĭl,*) *a.* (*Bot.*) Having very short foot-stalks.

Subsex'tuple, *a.* In the ratio of one to six.

Subside', *v. a.* [Lat. *subsido* — *sub*, and *sido*, to settle.] To settle or sink down; to fall or gravitate to the bottom, as sediment. — To abate; to become composed or tranquil; to be calmed; to fall into a state of calm or quiet; as, now the storm has *subsided*, her fears will also *subside*. — To tend downward; to sink; to become lower, as a hill.

Subsid'ence, Subsid'ency, *n.* Act or process of subsiding, or of sinking or falling, as the lees of liquors. — Act of gradually descending or becoming lower, as ground.

Subsid'iarily, *adv.* In a subsidiary manner.

Subsid'iary, *a.* [Fr. *subsidiaire*.] Pertaining to, or supplying, a subsidy; aiding; assistant; auxiliary; affording help; furnishing additional or extra supplies; coöperating to accomplish a result; as, *subsidiary* means.

—*n.* An assistant; an auxiliary; one who, or that which, coöperates, or contributes aid, or additional means or supplies.

Sub'sidize, *v. n.* To furnish with a subsidy; to secure the assistance of another, or others, by the payment of a subsidy; as, to *subsidize* an ally in time of war.

Sub'sidy, *n.* [Fr. *subside;* Lat. *subsidium* — *subsido*.] Succor; aid; assistance; coöperation; supplies or money given; — particularly, something, as money, furnished for aid in an emergency, as by a people to their ruler, or to an ally. — A sum of money paid by one prince or nation to another, to purchase the service of auxiliary troops, or the active coöperation of such foreign prince or power in a war against an enemy.

Subsist', *v. n.* [Fr. *subsister;* Lat. *subsisto* — *sub*, and *sisto*, to stand.] To be; to have existence; to inhere. — To retain the present state; to continue.

"It was a moral impossibility that the republic could *subsist* any longer." — *Swift.*

—To live; to derive support; to be maintained with the necessaries of food and clothing; as, it is a sad thing to *subsist* on public charity.

—*v. a.* To feed; to maintain; to furnish with provisions or necessaries; as, to *subsist* troops in an enemy's country.

Subsist'ence, *n.* [Fr.; L. Lat. *subsistentia*, from *subsistens*.] Actual being or existence.

"In Christ there is no personal *subsistence* but one." — *Hooker.*

—State of subsisting, or of being subsistent; that in which anything subsists; inherency; as, the *subsistence* of frailty in human nature. — That which supplies the means of existence to animal life; money or provisions for sustenance; livelihood; maintenance; as, he earns a scanty *subsistence*.

Subsist'ent, *a.* [Lat. *subsistens*.] Endued with real being; as, a *subsistent* spirit. — Inherent; as, qualities *subsistent* in bodies.

Sub'soil, *n.* The bed, or stratum, of earth found between the surface soil and a base or stratum still lower.

—*v. a.* To plough up the subsoil of, as land.

Sub'stance, (*-stans,*) *n.* [Fr.; Lat. *substantia*, from *substo* — *sub*, and *sto*, to stand.] That which subsists; the being, essential, or material of a thing; body; main material, or solid part; corporeal nature; as, an animal *substance*. — Intrinsic nature; that in which qualities or properties inhere; the permanent cause or subject of the manifestations of phenomena, whether material or spiritual; that which is *real*, as distinguished from that which is *apparent;* substratum; as, many lose the *substance* in following the shadow. — The characteristic, essential, or most important feature of anything; comprehensive summary; as, this means, *in substance*, the same thing. — Estate; property; goods; means of living; as, a man of *substance*.

(*Theol.*) The divine essence or being; — so called as being that in which the divine attributes inhere.

Substantial, (*-stăn'shal,*) *a.* [Fr. *substantiel;* L. Lat. *substantialis*.] Real; really or actually existing; belonging to substance; as, a *substantial* agent. — True; solid; real; tangible; not seeming or imaginary; as, a *substantial* good, a *substantial* reward, *substantial* greatness of soul. — Material; corporeal; as, a *substantial* ray. (*Prior.*) — Possessing substance or strength; solid; stout; strong; as, *substantial* garments, a *substantial* building. — Moderately wealthy; of adequate or competent means; possessed of goods or estate; responsible; as, a *substantial* citizen.

Substantiality, (*-shī-ăl'i-tў,*) *n.* Quality of being substantial: state of real or tangible existence; materiality; corporeity.

Substantialize, (*-stăn'shal-īz,*) *v. a.* To make substantial. (R.)

Substantially, (*-stăn'shal-ly,*) *adv.* In a substantial manner.

Substantialness, (*-stăn'shal-,*) *n.* State or quality of being substantial; solidity; strength; firmness.

Substantials, (*-stăn'shalz,*) *n. pl.* Essential parts.

Substantiate, (*-stăn'shī-āt,*) *v. a.* To make to exist. — To verify; to corroborate; to make good or valid; to establish by proof or infrangible evidence; as, to *substantiate* an allegation.

Substantiation, (*-shī-ā'shun,*) *n.* Act of substantiating, verifying, or proving; evidence; corroboration.

Substantiv'al, *a.* Pertaining to, or partaking of the nature of, a substantive.

Sub'stantive, (*-tĭv,*) *a.* [Fr. *substantif;* L. Lat. *substantivus, substantia*.] Betokening, or denoting, existence; as, the *substantive* verb, that is, the verb *to be*. — Solid; firm; self-dependent; as, a *substantive* manner. (R.)

Substantive colors. (*Dyeing.*) Those colors which remain fixed or permanent without the intervention of other substances, as mordants or bases; — in contradistinction to ADJECTIVE COLORS, *q. v.*

—*n.* (*Gram.*) A noun; that part of speech which denotes a substance or subject, as distinguished from an *attribute* or *predicate;* or, that part of speech which expresses something that exists, either material or immaterial.

Sub'stantively, *adv.* As a substantive.

Sub'stitute, *v. a.* [Fr. *substituer;* Lat. *substituo, substitutus* — *sub*, and *statuo*, to set up.] To put in the place of another; to change, exchange, or interchange.

—*n.* One who, or that which, is substituted, or put in the place of another to answer the same purpose; specifically, one who is hired to take the place of a man drafted into military service.

Substitution, (*-tū'shun,*) *n.* [Fr.; L. Lat. *substitutio*.] Act of substituting, or of putting a person or thing in the place of another to supply his or its place; as, the *substitution* of paper money for coin as a national currency. — State of being put in the place of another.

(*Chem.*) The formation of compounds by displacement of certain of their constituents by others possessing similar properties. The simplest example of substitution may be cited in the case of iron rusting in damp air, metallic iron gradually replacing the hydrogen of the water which is set free. Oxide of iron may, therefore, be regarded as a substitution compound of water, in which hydrogen is replaced by iron. In organic chemistry, substitution compounds are most numerous and interesting. They are mostly substances in which hydrogen is replaced by a metal, a halogen, a hydrocarbon, or even by a complicated group. The acids also form a large number of substitution compounds, of which chloracetic acid may be given as an example:

Acetic acid.	Chloracetic acid.
$H_2OC_2H_2O$	$H_2OC_2Cl_2O$

Neutral bodies also produce substitution compounds, of which benzole may be taken as a specimen:

Benzole.	Chloro-benzole.	Nitro-benzole.
C_6H_6	C_6H_5Cl.	$C_6H_5NO_2$.

The discoverer of substitution organic compounds was Gay-Lussac, who, in endeavoring to bleach bees-wax with chlorine, found that certain of the equivalents of hydrogen contained in that body were replaced by the halogen, a compound being formed, which, when burnt, emitted hydrochloric acid. The study of substitution compounds has always been most attractive to organic chemists. The researches of Laurent, Gerhardt, Hofmann, and others in this direction, have exerted a very important influence on chemistry, both as a theoretical and practical science. The whole series of coal-tar dyes, for instance, resulted entirely from the study of the substitution compounds of ammonia. In the hands of Berthelot and others, the theory has resulted in the synthetic formation of organic compounds, and the day does not appear to be far distant when numerous substances which are now obtained in minute quantities from plants and animals, will be formed from their ultimate elements in the laboratory.

(*Gram.*) Syllepsis, or the use of one word for another.
(*Math.*) In algebra, the replacing of a quantity by another, or by a function of several others The substitution is said to be *linear* when the variables of a given function are replaced by linear functions of a new set of variables.
(*Theol.*) The doctrine of Christ's vicarious suffering for the sinner.
(*Law.*) The designation of n second, third, or other heir, to enjoy, in default of a former heir, or after him.
Card of substitution. (*Mus.*) A name given to the chords of the ninth major and minor.

Substitu'tional, Substitutionary, (*-tū'shon-,*) *a.* Pertaining to, or characterized by, substitution; standing in the place or lien of another.

Sub'stitutive, *a.* That may he substituted; making substitution.

Substra'tum, *n.* [Lat., laid under.] (*Geol.*) A stratum lying under another. The term *subsoil* is generally applied to the matters which intervene between the surface soils and the rocks on which they rest; thus, clay is the common *substratum* or subsoil of gravel.

Substructure, (*-strŭk'shur,*) *n.* [From Lat. *substructio.*] A foundation; an under structure; as, the *substructure* of a building.

Sub'style, *n.* (*Dialling.*) The straight line formed by the intersection of the face of the dial with the perpendicular plane which passes through the gnomon.

Subsul'tus, *n.* [From Lat. *subsilire.*] (*Med.*) A spasmodic twitching, or convulsive motion.

Subsume', *v. a.* [Lat. *sub,* and *sumere,* to take.] To include under something else, as species under genus, particular under universal, &c.

Subsumption, (*-sŭm'shon,*) *n.* Act of subsuming.—That which is subsumed.

Subtangent, (*-tăn'jent,*) *n.* (*Geom.*) The line of any curve which determines the intersection of the tangent in the axis prolonged.

Subten'ant, *n.* (*Law.*) A tenant who holds under one who is also a tenant.

Subtend', *v. a.* [Lat. *subtendo — sub,* and *tendo,* to stretch.] To stretch or extend under, or be opposite to; as, the chord which *subtends* an arc.

Sub'tense, *n.* (*Geom.*) The chord of an arc.

Subtep'id, *a.* Warm in a very moderate degree, as water.

Sub'ter. A Latin preposition, denoting *under,* applied as an English prefix in the same sense as *sub,* but in less general use.

Sub'terfuge, (*-fūj-,*) *n.* [Fr., from Lat. *subter,* and *fugio,* to flee.] That to which one resorts for shelter or escape; — hence, an evasion; a shift; a quirk; a prevarication; an artifice made use of to evade censure or the force of an argument or judgment, or to justify opinions or conduct.

Subterra'nean, Subterra'neous, *a.* [Lat. *subterraneus — sub,* and *terra,* earth.] Being or lying under the surface of the earth; situated within the earth or underground; as, a *subterraneous* passage.

Subtiava, (*soob-te-a'va,*) in Central America, a town of Nicaragua, 40 m. S.S.E. of Leon; *pop.* abt. 6,000.

Sub'tile, (*-til,*) *a.* [Fr. *subtil;* Lat. *subtilis,* contracted from *sub-texilis — sub,* and *texilis,* woven.] Nice; fine; delicate; delicately constituted, or airily constructed; as, a *subtile* web —Thin; tenuous; volatile; not dense or gross; as, *subtile* vapor. — Piercing; acute; pungent; as, *subtile* pain. — Expressing acuteness of mental perception; astute; shrewd; penetrating; refined; discerning; as, a *subtile* argument. — Cunning; crafty; artful; sly; insidious; as, a *subtile* opponent, a *subtile* distinction.
(NOTE. In the last two senses, the term *subtle* is in more general acceptation.)

Sub'tilely, *adv.* In a subtile manner.

Sub'tileness, *n.* State or quality of being subtile.

Sub'tilism, (*-izm,*) *n.* Fineness; acuteness; artfulness.

Subtilization, (*-zā'shun,*) *n.* Act of making subtile, fine, or tenuous. — Refinement; shrewdness; mental acuteness.

Sub'tilize, *v. a.* [Fr. *subtiliser.*] To make thin, fine, airy, or delicate; to make less dense, gross, or coarse; as, *subtilized* matter. — To refine; to wire-draw; to spin into niceties; as, to *subtilize* a definition.
—*v. n.* To refine in argument or illustration; to make nice or delicate distinctions.
"Qualities and moods some modern philosophers have *subtilized* on." — *Digby.*

Sub'tilty, *n.* [Fr. *subtilité;* Lat. *subtilitas,* from *subtilis.*] State or quality of being subtile; thinness; fineness; exility; as, the *subtilty* of light. — Refinement; extreme acuteness; as, *subtilty* in argument. — Craftiness; artfulness; cunning; slyness.
(NOTE. The word *subtlety* is more generally used in relation to the last two senses.)

Subtle, (*sŭt'l,*) *a.* (*comp.* SUBTLER; *superl.* SUBTLEST.) [Lat. *subtilis.*] Artful; crafty; sly in design; wily; insinuating; subtile; — used in reference to persons; as, a *subtle* enemy. — Acute; astute; shrewd; nice; as, a *subtle* wit. — Craftily or cunningly devised; as, a *subtle* scheme, a *subtle* contrivance, a *subtle* question.

Subtleness, (*sŭt'l-,*) *n.* Quality of being subtle.

Subtlety, (*sŭt'l-,*) *n.* Quality of being subtle, sly, or cunning; artfulness; insidiousness. — Astuteness; shrewdness: acuteness of intellect; nicety of distinction, definition, or discrimination. — A nice or recondite point or problem; a seeming paradox; any tenet or theorem not to be readily defined or solved.

Subtly, (*sŭt'lĭ,*) *adv.* In a subtle manner.

Sub'tonic, *n.* (*Pron.*) A vocal or sonant consonant. (*Mus.*) Same as SUBSEMITONE, *q. v.*

Subtract', *v. a.* [Lat. *subtraho, subtractus — sub,* and *traho,* to draw.] To deduct; to withdraw or take, as a part from the rest; as, *subtract* 9 from 14, and the product is 5.

Subtraction, (*-trăk'shun,*) *n.* Act or operation of subtracting, deducting, or of taking a part from the rest.
(*Arith.*) The taking of one number or quantity from another in order to find their difference; — the converse of ADDITION, *q. v.*

Subtract'ive, *a.* Tending or having power to subtract.
(*Math.*) Marked by the negative sign.

Sub'trahend, *n.* [From Lat. *subtrahere.*] (*Arith.*) The sum or number to be subtracted from another.

Subtranslucent, (*-lū'scnt,*) *a.* Translucent in an imperfect degree.

Subtranspar'ent, *a.* Approximately transparent.

Subtreasury, (*-trezh'yu-ry,*) *n.* A subordinate treasury or place of deposit, as of money or public revenues.

Subtriple, (*trip't,*) *a.* In the ratio of one part to three.

Subtripl'icate, *a.* (*Math.*) Demonstrated by the cube root, as ratios.

Subula'ria, *n.* (*Bot.*) A genus of aquatic, acaulescent herbs, order *Brassicaceæ.* The Awl-wort, *S. aquatica,* is a small plant growing on the muddy shores of ponds in Maine, and near the White Mountains; scape 2–3′ high, racemose, with a few minute, white flowers on slender pedicles.

Su'bulate, Su'bulated, *a.* [From Lat. *subula,* an awl.] (*Nat. Hist.*) Awl-shaped.

Subungual, Subungual, (*-ŭng'gwal, ŭng'gwi-al,*) *a.* [Lat. *sub,* and *unguis,* nail.] Under the nail.

Sub'urb, *n.* [Lat. *suburbium — sub,* and *urbs,* city.] A place, part, or region situated near to the walls or outside of a city; an outskirt:—plurally, environs; as, a house in the *suburbs* of Philadelphia. — Hence, the confines; the skirt; the outer part; as, "the *suburbs* of my jacket are gone." — *Cleveland.*

Subur'ban, *a.* [Lat. *suburbanus.*] Pertaining or relating to, or inhabiting or being in, the suburbs of a city; as, a *suburban* residence.
—*n.* One who makes his abode in the suburbs of a city.

Subvari'ety, *n.* A subordinate variety.

Subvene', *v. a.* [Lat. *sub,* and *venire,* to come.] To come under, or happen.

Subvention, (*-ven'shun,*) *n.* [Fr.] Act of coming or happening under. — An aid or bounty bestowed or guaranteed by a government.

Subversion, (*-ver'shun,*) *n.* [Fr.; Lat. *subversio.*] Act of subverting or overthrowing; state of being subverted or overthrown; entire overturn or overthrow; utter ruin, downfall, or destruction; an overthrow of the foundation; extinction; as, the *subversion* of a government or state, the *subversion* of law, order, or morality, &c.

Subver'sionary, *a.* Tending to downfall or destruction.

Subversive, (*-vĕr'sĭv,*) *a.* [Fr. *subversif.*] Having a tendency to subvert; evincing an inclination toward overthrow, ruin, or extinction.

Subvert', *v. a.* [Fr. *subvertir;* Lat. *sub,* and *verto,* to turn.] To overturn, or turn upside-down; to invert; to overthrow from the foundation; to ruin or extinguish utterly; as, to *subvert* the liberties of a free people. — To corrupt or pervert, as the mind, and turn it from truth and morality; to confound; to depose; as, to *subvert* religious principles.
—*v. n.* To be subversive; to cause the downfall of anything from its foundation.

Subvert'er, *n.* One who subverts or overthrows.

Subvert'ible, *a.* Susceptible of subversion.

Sub'-way, *n.* An underground passage; specifically a street railway tunnel, as "The Boston Subway." See BOSTON AND NEW YORK.

Sueendes, (*sŭk-kā'dez,*) *n. pl.* [Lat. *succus,* juice.] (*Com.*) Sweetmeats, or candied fruits.

Sueedaneous, (*sūk-se-dā'ne-us,*) *a.* [Fr. *succédané.*] Supplying the place of some thing or person as a substitute; pertaining to, or acting as, a succedaneum.

Succeda'neum, *n.; pl.* SUCCEDANEA. [Lat.] A substitute; one who succeeds to the place of another; that which follows or succeeds something, or is used in lieu of something else.

Succeed, (*suk-sēd',*) *v. a.* [Fr. *succéder;* Lat. *succedo — sub,* and *cedo,* to go.] To follow in order; to take the place vacated by; as, by the laws of primogeniture the eldest son *succeeds* his father. — To come after; to be subsequent to or consequent upon; to follow; to pursue; as, misfortune *succeeded* my efforts.
—*v. n.* To follow or come next in order; as, the seasons *succeed* one another. — To come in the stead of one who has vacated a place, or is defunct, or of that which has preceded; as, he *succeeds* to a fortune after his uncle's death. — Hence, to ascend the throne after the abdication or demise of the occupant; as, "David *succeeded* to the throne, to the exclusion of Jonathan." (*Locke.*)—To accomplish what is attempted, designed, or sought for; to obtain the end or object desired; to terminate with advantage or success; to have a prosperous result; as, to *succeed* in life. — To have a good effect; to be received with general favor or popular acceptableness; as, it is possible that the undertaking may *succeed.*

Succeed'ant, *a.* (*Her.*) Following one another.

Succeed'er, *n.* A successor. (R.)

Succentor, (*suk-sĕn'tor,*) *n.* [L. Lat.] (*Mus.*) The bass-singer in a concert or musical entertainment.

Success, (*suk-sĕs',*) *n.* [Fr. *succès;* Lat. *successus — succedo.*] Act of succeeding, or state of having succeeded; the favorable, happy, or prosperous termination of anything projected or attempted; a result which answers the design or purpose intended; fortunate issue; as, *success* is the world's touchstone of merit.

Success', in *New Hampshire,* a township of Coos co., 115 m. N.E. of Concord

Success'ful, *a.* Having or yielding success; having a favorable, happy, or prosperous issue; terminating in accomplishing what is wished or intended; having the desired effect; — hence, happy; prosperous; fortunate; as, a *successful* enterprise, he was *successful* in business, &c.

Success'fully, *adv.* In a successful manner; with a favorable result of what is desired or attempted; favorably; happily; prosperously; fortunately; as, he conducted the negotiations *successfully.*

Success'fulness, *n.* State or condition of being successful; favorable termination; prosperous conclusion; success.

Succession, (*suk-sĕsh'un,*) *n.* [Fr.; Lat. *successio,* from *succedo.*] Act of succeeding; a following of things in order of time or place; consecution; sequence; series of things following one another either in time or place. — A series of persons or things conformable to some established order of precedence; as, a *succession* of princes or rulers, a *succession* of chronological events.
—Lineage; race; an order or series of descendants; as, a long line of *succession.*
—The person succeeding to rank, office, possession, and the like.—The power or right of coming into the inheritance of an ancestor; title or authority to enter upon the dignity, office, position, &c., held by another; as, the War of the Spanish *Succession.*
(*Law.*) In Louisiana, the right and transmission of the rights and obligations of the deceased to his heirs. The estate, rights, and charges which a person leaves after his death, whether the property exceed the charges or the charges exceed the property, or whether he has left only charges without property. The succession not only includes the rights and obligations of the deceased as they exist at the time of his death, but all that has accrued thereto since the opening of the succession, as also of the new charges to which it becomes subject. — (*Common Law.*) The mode by which one set of persons, members of a corporation aggregate, acquire the rights of another set which preceded them. This term in strictness is to be applied only to such corporations.
(*Mus.*) The sequence of notes in melody, as distinguished from the successive chords of harmony, called *progression.*

Succes'sion, (War of the.) (*Modern Hist.*) Two wars, in which a great part of the European Continent was involved, are commonly known by this name: 1. That of the *Spanish Succession,* occasioned by the dispute whether the succession of Spain should devolve on an Austrian or a French prince (1702–1713); terminated by the peace of Utrecht, which placed the house of Bourbon on the Spanish throne. 2. That of the *Austrian Succession,* in which the right of Charles VI., Emperor of Germany, to settle his Austrian dominions on his daughter Maria Theresa, was contested by France, Prussia, Bavaria, and other states; terminated by the peace of Aix-la-Chapelle, 1748.

Succes'sionist, *n.* An adherent to the doctrine of apostolical succession.

Successive, (*suk-sĕs'sĭv,*) *a.* [Fr. *successif.*] Following in order of uninterrupted course, as a series of persons or things, whether in time or place; as, the *successive* cycles of time, the *successive* Presidents of the U. States.

Succes'sively, *adv.* In a successive manner.

Succes'siveness, *n.* State or condition of being successive.

Success'less, *a.* Without success or favorable result.

Success'lessness, *n.* State or quality of being successless.

Successor, (*suk-sĕs'sor,*) *n.* [Lat.] One who succeeds, follows, or comes after; one who takes the place which another has vacated, and sustains the like part, position, or character;—antithetical to *predecessor;* as, the rightful *successor* to a crown.

Succiduous, (*suk-sid'ū-ŭs,*) *a.* [From Lat. *succidere.*] Falling or prepared to fall. (R.)

Succiferous, (*suk-sĭf'er-ŭs,*) *a.* [Lat. *succus,* juice, and *ferre,* to produce.] Yielding or conveying sap.

Suc'einate, *n.* [From Lat. *succinum,* amber.] (*Chem.*) A salt obtained by the combination of succinic acid and a base.

Succinct, (*suk-singkt',*) *a.* [Fr., from Lat. *succinctus — sub,* and *cingo, cinctum,* to gird.] Girded or drawn up to permit the legs to be free. (R.) — Condensed or compressed into a narrow compass; short; compendious; brief; concise; laconic; terse; as, a *succinct* style of diction.

Succinct'ly, *adv.* In a succinct manner.

Succinct'ness, *n.* State or quality of being succinct.

Succinic Acid, (*suk-sin'ik,*) *n.* [From Lat. *succinum,* amber.] (*Chem.*) An acid originally obtained from amber by destructive distillation. It may, however, be obtained by several other methods, perhaps most readily by diffusing crude malate of lime through warm water, a small quantity of decayed cheese being added as a ferment. The mixture is kept at a temperature of about 100° for a week, carbonic acid being disengaged, carbonate and succinate of lime crystallizing out, and acetate of lime remaining in solution. The succinate of lime is washed, decomposed with hydrochloric acid, and the succinic acid crystallized from the solution. Succinic acid crystallizes in large, regular, rhombic tables. It dissolves in 5 parts of cold and 2 parts of boiling water. Alcohol dissolves it readily, but ether only sparingly. At a temperature of about 347° to 356° it melts, and if suddenly heated to 455°, it melts, boils, and sublimes completely. It forms with the bases three sets of salts, most of which crystallize readily. The succinates are characterized by giving a bulky brown precipitate with the neutral salts of sesquioxide of iron.

Succinite, (*suk'sin-īte,*) *n.* [Fr., from Lat. *succinum,* amber.] (*Min.*) A garnet of an amber color.

Succinous, (*suk'sin-us,*) *a.* Belonging to, consisting of, or resembling amber.

Succor, (*suk'kẽr,*) *v. a.* [Fr. *secourir;* Lat. *sub,* and *curro,* to run.] To run to support or sustain; to help when in want, difficulty, or distress; to relieve in privation or adversity; to assist or deliver from trouble or suffering; to aid; as, to succor the destitute and oppressed.

—*n.* Aid; help; assistance; relief; particularly, assistance that restores or delivers from want, penury, difficulty, affliction, or distress; as, to receive *succor* in time of tribulation.—The person or thing that brings relief.

Suc'corable, *a.* That may be succored or relieved. (R.)

Suc'corless, *a.* Destitute of relief or succor.

Suc'cory, *n.* (*Bot.*) See CICHORIUM.

Suc'cotash, *n.* [Narragansett Indian, *msickquatash.*] A dish, borrowed from the American aborigines, composed of green maize and beans boiled together.

Suc'cuba, *n.; pl.* SUCCUBÆ. [From Lat. *succubare,* to lie under.] A term used, during the Middle Ages, to denote a female devil or witch, with whom a wizard was supposed to have intercourse.

Suc'cubus, *n.* (*Demonology.*) A SUCCUBA, *q. v.*

(*Med.*) The nightmare.—Also, an imaginary female with whom a man in his sleep seems to have had sexual intercourse.

Suc'cula, *n.* (*Med.*) A cylinder with turning levers, but without any drum.

Suc'culence, Suc'culency, *n.* Quality of being succulent; juiciness; richness of flavor; as, the *succulence* of an apricot.

Suc'culent, *a.* [Fr.; Lat. *succulentus,* from *succus*—*sugo,* to suck.] Juicy; full of natural juices; as, a *succulent* rump-steak.

Succulent plants. (*Bot.*) Plants possessing a soft, juicy, or sappy stem, in distinction from those which are ligneous, hard, and dry.

Suc'culently, *adv.* In a succulent manner; juicily.

Succumb, (*suk-kŭm',*) *v. a.* [Fr. *succomber,* from Lat. *sub,* and *cumbo,* for *cubo,* to lie down.] To yield; to submit; to sink unresistingly; as, to *succumb* under temptation.

Succur'sal, *a.* [From Lat. *succurrere.*] Tributary; dependent.

—*n.* (*Eccl.*) In various parts of Europe, a church established by way of *succor* to a parochial church, regarded as insufficient for the wants of its community;—corresponding with the English *chapel of ease.*

Succussion, (*suk-kŭsh'un,*) *n.* [Fr., from Lat. *succutere.*] A shake; also, the act of shaking.

(*Med.*) A method of testing the presence of a liquid in the thorax by administering a shake to the body.—Also, the motion impressed on the fœtus in the womb by alternately pressing the womb with the index-finger of a hand introduced in the vagina, the other hand being applied on the abdomen.

Succus'sive, *a.* Characterized by a vibratory motion, especially an up or down movement, and not merely tremulous oscillation; as, the *succussive* motion in earthquakes.

Such, *a.* [A. S. *swilc, swylc.*] Of this or that kind; of the like sort or kind; resembling; similar; like; as, I never knew *such* a person;—preceding *as* before the object of reference; as, give a man *such* an income *as* may enable him to live in comfort.—The same as what has been mentioned; referring to something that has been specified; as, when I gave him my promise, I meant him to receive it as *such.*—The same that;—followed by *as;* as, this was the condition of affairs at *such* time *as* the government resigned office.—*Such and such,* or *such or such,* some; certain;—representing the object in an indefinite sense, as particularized in one way or another or one and another, not specified at the time; as, *such and such* practices are to be avoided.

Suchet, LOUIS GABRIEL, (*soo'shai',*) Duke d'Albufera, one of Napoleon's marshals, was B. in Lyons, 1772, and rose to distinction in the wars waged by the republic in Italy. In 1800 he was major-general, and in 1805 began his career in the Spanish peninsula, where he rose to the command of a division of the army, and obtained his ducal honors. He became a peer of France after the Restoration, and D. 1826.

Suchew, (*su-chw',*) a city of China, 55 m. from Shanghai. It is said to be 10 m. in circumference, and inclosed with fortifications. *Pop.* unascertained.

Suchiltepec, (*soo-chel-ta-pek',*) in Central America, a town of Guatemala, 75 m. W. of New Guatemala. In the vicinity is a volcano of the same name.

Suck, *v. a.* [A. S. *sucan, sycan;* Icel. *singa;* Lat. *sugo.*] To draw out, as a liquid from any receptacle, by the action of the mouth and tongue; to draw by the forcible exhaustion of air.—To draw milk from with the mouth; as, an infant *sucks* the mother's breast.—To imbibe; to inhale; to absorb; to draw in by any process resembling suction; as, bees *suck* the pollen of flowers.—To draw in or drain; as, water *sucked* through a sponge.—To ingulf; to swallow up or draw in, as by a vortex or whirlpool.

To suck in. To imbibe; to absorb; to draw into the mouth; as, he *sucked in* the odor of her breath.—*To suck out.* To draw out with the mouth; to exhaust by suction.—*To suck up.* To draw into the mouth.

—*v. n.* To draw by exhausting the air, as with the mouth, or through a tube; as, a pump *sucks.*—To draw the breast, as, a *sucking* babe.—To draw in; to imbibe.

—*n.* Act of sucking or of drawing with the mouth.—Pap; milk drawn from the breast by the mouth; as, to give *suck* to an infant.

Suck, in Ireland, a river of Connaught, flowing S. into the Shannon at Shannon Bridge.

Suckasun'ny, in *New Jersey,* a post-village of Morris co., 22 m. N.E. of Trenton.

Suck'er, *n.* One who, or that which, sucks.—A parasite; a sponger upon others.

(*Hydraul.*) The embolus or piston of a pump.

(*Pneumatics.*) A round piece of leather, which, laid wet on a stone and drawn up in the middle, leaves a vacuum within, which, by atmospheric pressure, makes it adhere;—commonly used by children as a plaything.—A pipe through which anything is drawn.

(*Bot.*) A branch or shoot thrown up by a plant from beneath the surface of the ground, as is common with roses, &c.

(*Zoöl.*) The common name of several species of soft-finned malacopterygious fishes included in the family *Catostomi.* They have a single dorsal, the mouth beneath the snout, lips plaited, lobed, or carunculated, and suitable for sucking. The family *Catostomi* contains also the Chub-suckers of the ponds and streams of the United States, which move together in large numbers. Some of the suckers attain the weight of 10 pounds.

—*n. pl.* (*Zoöl.*) The order of Suckers, or *Cyclostomes,* comprises chondropterygious fishes which, as regards the skeleton, are the most important of all vertebrates, their vertebræ being simply cartilaginous rings scarcely differing from one another. But one of the most characteristic features of these animals is the tongue, which moves forwards and backwards like a piston, enabling them to produce a vacuum, and thus fix themselves to solid bodies as well as to fishes. The lampreys may be taken as a type of this order.

—*v. a.* To deprive or divest of suckers; as, to *sucker* Indian corn.

Suckernoch'ee Creek, rises in Noxubee co., *Mississippi,* and flowing S.E., falls into the Tombigbee River at Moscow, in Alabama.

Suck'ing, *a.* Imbibing; absorbing, as first nourishment; as, a *sucking* politician.

Suck'ing-bot'tle, *n.* A bottle filled with warm milk, as artificial suck for infants.

Suck'ing-fish, *n.* (*Zoöl.*) A name sometimes given to the *Remora* and allied species. See REMORA.

Suck'ing-pump, *n.* A suction-pump. See PUMP.

Suckle, (*sŭk'l,*) *v. a.* [Dim. of *suck.*] To give suck; to nourish at the breast; as, to *suckle* a child.

Suck'ling, *n.* A young child or animal nursed by the mother's milk.

Sucre, the cap. of Bolivia. See CHUQUISACA.

Su'crose, *n.* (*Chem.*) A generic name for those sugars which, though identical in composition and properties, are obtained from sources different from that of grape-sugar, or GLUCOSE (*q. v.*) It includes the sugars of the cane, beet, turnip, carrot, maple, birch, palm, maize, and others less generally known.

Suction, (*suk'shun.*) *n.* [Fr., from Lat. *sugere, suctum,* to suck.] Act of sucking or drawing into the mouth, as liquids; also, act of drawing, as fluids into a pipe, by exhaustion of the air.

Suction-chamber. The chamber of a pump into which the suction-pipe discharges.—*Suction-pipe.* The induction water-pipe of a pump.—*Suction* (or *sucking*) *pump.* (*Hydraul.*) See PUMP.

Sucto'rial, *a.* Adapted for sucking; existing by suction; as, *suctorial* birds.—Having adhesion by suction; as, *suctorial* fishes, (or SUCKERS, *q. v.*)

Sucuriu, (*soo-koo-re-oo',*) a river of Brazil, rises in the prov. of Matto-Grosso, and falls into the Parana, 8 m. S. of the junction of the Tieto.

Su'datory, *n.* [Fr. *sudatoire;* Lat. *sudatorium.*] A hot bath; a vapor-bath.

—*a.* [Lat. *sudatorius.*] Perspiring; sweating.

Sud'bury, in *Massachusetts,* a post-village and twp. of Middlesex co., 20 m. N.W. of Boston.

Sudbury, in *Vermont,* a post-township of Rutland co., 45 m. S.W. of Montpelier.

Sud'bury River, in *Massachusetts,* rises in Middlesex co., and joins the Asabet at Concord to form the Concord River.

Sud'den, *a.* [A. S. *soden;* Fr. *soudain,* from Lat. *subeo, subitus,* to steal upon.] Happening without notice; coming unexpectedly, or without the common preparatives; unlooked-for; abrupt; as, a *sudden* panic, a *sudden* arrival.—Quick; rapid; prepared or engaged with haste or undue forcing; as, a *sudden* resolve.

—*n.* Surprise; an unlooked-for event or occurrence.

On a sudden, or *of a sudden.* Sooner than was expected or anticipated; without the proper or usual preparatives; as, his manner changed *on a sudden.*

Sud'denly, *adv.* In a sudden or unlooked-for manner.

Sud'denness, *n.* State of being sudden; a coming or happening without premonition or preparation; abruptness; as, the *suddenness* of the event amazed him.

Sud'lersville, in *Maryland,* a post-village of Queen Anne co., 55 m. N.E. of Annapolis.

Sudorif'erous, *a.* [Lat. *sudor,* sweat, and *ferre,* to produce.] Promoting or secreting perspiration.

Sudorific, *a.* [Fr. *sudorifique,* from Lat. *sudor,* sweat, and *facio,* to make.] Causing sweat or perspiration; as, *sudorific* herbs.

—*n.* (*Med.*) A medicine that excites sweat.

Sudorip'arous, *a.* [Lat. *sudor,* and *parere,* to furnish.] (*Phys.*) Producing perspiration.

S. glands. (*Anat.*) The secretive organs of the sweat, which consist of a slender, elongated, blind, glandular tube, coiled into a lobular form, and imbedded in the subcutaneous fat, and continued thence in a spiral course to the cutiele, where it opens by an oblique pore.

Su'dra, Soo'dra, *n.* [Hind. *sūdr.*] Among the Hindoos, the lowest of the four great social castes.

Suds, *n. sing.* [Sansk. *sudh,* to be cleansed or purified.] Water highly impregnated with soap.

To be in the suds, to be perplexed or gravelled; to be in a quandary or difficulty. (Colloq.)

Sue, *v. a.* [Fr. *suivre;* Lat. *sequor.*] To follow up or after; to seek or go after; to prosecute; to seek to win; as, to *sue* a woman for one's wife.

(*Law.*) To seek justice or redress from, by legal process; to prosecute judicially; to proceed against in a civil action for the recovery of a real or supposed right;—also, to carry on legal proceedings; to gain by process of law; as, to *sue* a person for the amount of a debt.

(*Naut.*) To leave high and dry out of water, as a ship.

To sue out. (*Law.*) To petition for and take out; as, to *sue out* a pardon for a convicted offender.

—*v. n.* To seek for in law; to prosecute; to make legal claim; as, to *sue* for damages.—To plead; to petition; to entreat; to make interest for; to make application; to seek by request; as, he went to her to *sue* for pardon.

(*Naut.*) To be left high and dry on the land, as a ship.

Sue, EUGÈNE, (*see,*) a French romancist, B. at Paris, 1804, was educated for the profession of medicine, and was attached, as surgeon, to the army sent to Spain under the Duke d'Angoulême. In 1825, he entered the navy in the same capacity, and was present at the battle of Navarino. At the death of his father, who had been one of the household physicians to Napoleon I., he inherited an estate of $8,000 per annum; whereupon he quitted his profession, and soon afterwards turned his attention to literature. He became a popular writer in a very few years; but when he put forth his *Mysteries of Paris* and *The Wandering Jew,* he rose to an almost unexampled height of success. These works were read by every one who read fiction in France; they were also translated into nearly all the living languages. His subsequent works of any importance are, *Martin the Foundling,* and *The Seven Capital Sins.* D. 1857.

Sueca, (*soo-aï'ka,*) a town of Spain, prov. Valencia, on the Jucar, near its mouth in the Mediterranean Sea; *pop.* 9,616.

Sue'no, Sweyn, three kings of Denmark: the first reigned 985–1014. The second, his grandson, received the crown of that country to the prejudice of Harald, king of Norway, 1047; D. 1074. The third usurped the throne after assassinating Canute V., 1147, and was killed in battle with Waldemar, 1157.

Suet, *n.* [Fr. *suif;* W. *swyf.*] The fat situated about the loins and kidneys, which is harder and less fusible than that from other parts of the same animal. That of the ox and sheep is chiefly used; and when melted out of its containing membranes it forms tallow, and is largely used in the manufacture of candles and the ordinary soaps. Beef and mutton *S.*, when fused, concrete at a temperature of about 100°. Like other kinds of fat, it is a compound of carbon, oxygen, and hydrogen.

—*a.* Containing or composed of suet; as, a *suet* pudding.

Suetonius, CAIUS TRANQUILLUS, (*swe-to'ni-us.*) a Roman advocate, B. abt. A. D. 70; obtained the office of tribune through the influence of his friend, Pliny the Younger, and was afterwards secretary to Trajan. He is now known as an historian and miscellaneous writer, by his *Lives of the Twelve Cæsars,* and his *Notices of Grammarians, Rhetoricians, and Poets,* still extant. D. abt. 123.

Su'ety, *a.* Consisting of, or resembling, suet.

Sue'vi, *n. pl.* (*Hist.*) A powerful Gothic tribe, known to the Romans as early as B. C. 125; invaded Gaul B. C. 71, and were defeated and driven across the Rhine B. C. 53. They entered Spain in 409, and founded a kingdom. They were almost exterminated by the Visigoths in a great battle fought near Astorga in 456, and the remnant of the tribe was incorporated with them in 584. The *S.* in Spain became Arians in 469, and gave up their doctrines about 559–69.

Suez, (*soo'ez,*) **(Isthmus of,)** a neck of land, connecting Asia and Africa. It is a sandy waste, between 70 and 80 miles wide, and so low as to be covered with salt marshes or swamps. It is bounded S. by the *Gulf of Suez,* which forms the N.W. arm of the Red Sea, extending from its head in a N.W. direction for abt. 200 m., between Egypt and the peninsula of Sinai, with a breadth varying from 30 to 40 m. At low water, it is in many parts so shallow as to be fordable, and is memorable in sacred history as the scene of the submersion of Pharaoh and his host.

Suez Canal, a maritime or ship-canal, which crosses the isthmus of that name, and forms part of the new trade-route between Europe and the East. On the Mediterranean, in Lat. 31° 3′ 37″, it joins *Port Saïd,* a town which, founded less than 40 years ago in a dreary, arid waste, contains now more than 1,000 houses and a cosmopolitan pop. of over 13,000. On the Red Sea, in Lat. 29° 58′ 37″, the terminus of the canal, is *Suez,* which was formerly a most miserable-looking place, but now a thriving seaport-town, with a pop. of about 6,000. The

Fig. 2441.

1, Mediterranean Sea; 2, ground covered by inundations; 3, Port Said; 4, Lake Menzaleh; 5, Lake Ballah; 6, Ismaha; 7, Lake Timsah; 8, Great basin of the bitter lakes; 9, Little basin; 10, Suez; 11, Red Sea.

length of the canal is 160 kilometers, or 100 miles, more than one-half of which is nearly south. Its breadth is varied at the surface from 300 feet to 150; the banks sloping from a floor 72 feet wide, in the proportion of 2 to 1, up to 5 feet of the surface, and thence as 5 to 1; the latter slope permitting the waves of passing vessels to

break on the banks as smoothly as on a sea-beach. *Depth*, 24 feet. As a work of engineering, the canal ranks with the greatest triumphs of our age. Two jetties at Port Said extend 6,940 and 6,020 feet into the Mediterranean, enclosing a harbor of abt. 450 acres in area, with a depth in the ship-channel of 25 to 28 feet. The jetties were constructed of enormous blocks of concrete weighing 22 tons each. The excavations on the canal, amounting to more than 100,000,000 cubic yards, were chiefly made by the aid of steam dredges of peculiar construction, invented by the contractors, Ball & Lavallé. The largest were of 75 horse-power, 110 feet in length, and costing $100,000 each. Through the greater part of the line the dredgings were from the level sand-plain; in some sections, as at El Guisr, the cuttings were over 80 feet through hard rock. The solid embankments are from 5 feet to 60. Half-way across stands the newly-made city of Ismailia. At Suez the Egyptian government has a dry-dock large enough for frigates. The distance saved by the *S. C.* over the ronte by the Cape of Good Hope is nearly one-half; *e.g.*, from the English Channel to Point de Galle, Ceylon, by the Cape of Good Hope, is 11,650 m., by *S. C.*, 6,515. *Fares.* For each passenger, 10 francs; for freight, 10 francs per ton. A fresh-water canal, necessary for supply to the workmen who built the ship-canal, and to the town of Suez, leads from the end of the old canal at Gassaline to Ismailia; finished in 1861, at a cost of $140,000; 30 m. long, 66 feet wide, and 6 feet deep. 55,000 cubic feet of water are forced daily through iron pipes from Ismailia to Suez, 50 m.—*Hist.* The project for this canal is not new; but the old plan merely united the Nile with the Red Sea. Neither Sesostris, Pharaoh, Necho, nor the Romans or Arabians, proposed a direct line. In 1799, Napoleon caused the engineer La Père to run a line of levels across the isthmus; but he unhappily erred in reporting a considerable difference in the levels of the two seas. In 1854, the idea of a direct line was again entertained. M. Ferdinand de Lesseps received a permit from Saïd Pasha to form "La Compagnie Universelle," which in 1859 began the canal. Its capital of $40,000,000 was ultimately increased to $90,000,000, and the canal was opened to commerce Nov. 17, 1869. The Empress Eugenie, with other crowned heads, attended the inauguration, and 130 vessels passed through, free of toll. The canal is open to the largest vessels, and the Peninsular and Oriental line of steamers, and others of over 4,000 tons, pass through it without difficulty. It is a monument of engineering skill and energy, and has also proved to be a profitable financial investment. In November, 1875, the 176,000 shares held by the Khedive of Egypt were bought by Great Britain for $20,000,000, and this country has since then exercised a controlling influence over the canal, while in number of vessels and tonnage, the use of the canal by Great Britain greatly exceeds that of all other countries together. In 1886 the task of deepening and widening the canal began, and by 1890 it had been deepened to 28 feet and the width considerably increased, giving the channel a much larger capacity.

Suffer, *v. a.* [Fr. *souffrir*; Lat. *suffero* — *sub*, and *fero*.] To feel or bear, as what is painful, disagreeable, or distressing, either to the mind or body; to submit to, as grief or annoyance; as, to *suffer* great depression of spirits, to *suffer* the pain of amputating a limb. — To hold up, bear, support, or sustain; to endure without flinching; not to sink under.

"How sublime a thing it is to *suffer* and be strong."—*Longfellow.*

—To be affected by; to undergo; to sustain; as, to *suffer* serious loss. — To permit; to allow; to tolerate; not to forbid, taboo, or hinder; as, to *suffer* a person to speak without interruption.

—*v. n.* To bear what is irksome or inconvenient; to feel or experience mental or physical pain or distress. — To undergo punishment; as, a murderer is condemned to *suffer* death. — To be injured; to sustain loss, detriment, or damage; as, the business *suffers* by his absence.

Sufferable, *a.* That may be suffered, endured, allowed, tolerated, or permitted.

Sufferableness, *n.* State or quality of being sufferable.

Sufferably, *adv.* In a sufferable manner.

Sufferance, *n.* [Fr. *souffrance.*] State of suffering; bearing of pain, distress, inconvenience, or loss; pain endured —A bearing with fortitude or patience; moderation; submission under unfavorable circumstances or conditions; as, "With all the *sufferance* of a tender friend." (*Otway.*) — Allowance; toleration; permission; negative consent by not prohibiting or hindering; as, one is indulgent to a bore upon *sufferance.* — *Sufferance-wharf*, a wharf licensed by the customs, and where custom-house officers attend.

Sufferer, *n.* One who suffers, endures, or undergoes pain, whether of body or of mind; one who sustains loss or inconvenience. — One who allows, permits, or tolerates.

Suffering, *n.* The bearing of pain, inconvenience, or loss; pain endured; distress, loss, or injury incurred.

Sufferingly, *adv.* With suffering or pain.

Suffern's, in *New York*, a post-village of Rockland co., 32 m. N. of New York city.

Suffice, (*-fīz'*,) *v. a.* [Fr. *suffire.*] To be enough or sufficient; to be equivalent to what is wished or demanded.

—*v. a.* To satisfy; to content; to be enough for the wants or demands of.

Sufficiency, (*-fish'en-sy*,) *n.* [L. lat. *sufficientia.*] State of being sufficient, or adequate to the end proposed; as, he gave his reasons with readiness and *sufficiency.* — Competence; adequate means or substance. — Ability, capacity, or qualification for any end or purpose.—Supply equal to demand. — Conceit; self-confidence.

Sufficient, (*-fish'ent*,) *a.* Enough to suffice; adequate to wants or demands; competent; equal to the end proposed. — Qualified; competent; fit; able; possessing adequate talents or accomplishments.

Sufficiently, (*-fish'ent-*,) *a.* Enough; to a sufficient extent.

Suffield, in *Connecticut*, a post-village and township of Hartford co., on the Connecticut River, 16 m. N. of Hartford.

Suffield, in *Ohio*, a post-township of Portage county.

Suffix, *n.* [Lat. *suffixus, suffigo* — *sub*, and *figo*, to fix.] That which is affixed or annexed; especially, a letter or syllable affixed or annexed to the end of a word; an affix; a postfix.

—*v. a.* To add a letter or syllable to a word; to append.

Suffixion, (*-fik'shun*,) *n.* Act of suffixing or appending; also, state of being suffixed or appended.

Suffocate, *v. a.* [Fr. *suffoquer*; Lat. *suffoco, suffocatus* —*sub*, and *faux, faucis*, the gullet.] To stop the breath of, by compressing the throat; to choke or kill by stopping respiration; to smother; to stifle.—To extinguish; to destroy; as, to *suffocate* a fire.

—*v. n.* To become choked, stifled, or smothered.

Suffocatingly, *adv.* So as to suffocate.

Suffocation, (*-kā'shun*,) *n.* [Fr.; Lat. *suffocatio.*] The act of suffocating, or the state of being suffocated.

(*Med.*) The act of choking or producing death by the interruption of the breath. The three ordinary ways in which *S.* may be effected are hanging, drowning, and the respiration of fixed air, or carbonic acid gas. (See Asphyxia, Hanging, Drowning.) In *S.* by carbonic acid gas, whether arising from mines, lime-kilns, vats of fermenting liquor, &c., death takes place very rapidly. In every case of *S.*, our attempts at re-animation should be directed to renew respiration by inflation of the lungs; to restore the animal heat by exposure to warm pure air, and by assiduous frictions of the surface; to rouse by stimuli, and by brushing the soles of the feet and palms of the hands; and when necessary, to relieve cerebral congestion by moderate and cautious bleeding.

Suffocative, *a.* Tending to suffocation.

Suffolk, (*suf'fŭk*,) a maritime and agricultural co., on the E. coast of England; bounded N. by Norfolk, S. by Essex, E. by the German Ocean, and W. by Cambridge; *area*, 1,115 sq. m. The principal rivers are the Stour, Waveney, Ouse, Orwell, and the Blyth. This co. has long been celebrated for its agriculture, the richness and abundance of its dairy produce and poultry, and its fine breed of cattle. It contains two county-towns, Ipswich and Bury St. Edmunds.

Suffolk, in *Massachusetts*, an E. co., bordering on Massachusetts Bay; *area*, 15 sq. m. Though the smallest, it is the most important co. of the State, comprising the township of Boston, Chelsea, N. Chelsea, and Winthrop, *q. v. Cap.* Boston.

Suffolk, in *New York*, an E. co., forming the E. extremity of Long Island; *area*, 959 sq. m. It has numerous bays and inlets along the coast, and is drained by the Peconic River. *Surface*, hilly in the N., and level along the S. coast; *soil*, generally fertile. *Cap.* Riverhead. *Pop*(1897) 63,260.

Suffolk, in *Virginia*, a post-town, cap. of Nansemond co., 85 m. S.E. of Richmond.

Suffragan, *n.* [Lat. *suffragans.*] (*Eccl.*) An assistant bishop; a bishop considered as subject to his metropolitan.

Suffrage, (*sŭf'fraj*,) *n.* [Fr.; Lat. *suffragium.*] An assenting voice or vote given in deciding a matter in controversy, or in the election of a person for an office or trust; as, the Radicals demand manhood *suffrage.* — Testimonial; attestation; approval. — United response or prayer.

Suffrutes'cent, Suffru'ticose, *a.* [Fr.] (*Bot.*) A term applied to any plant which is not exactly either a shrub or an herbaceous plant; *i. e.* which has not hard woody twigs and complete buds like the one, nor perishable succulent twigs like the other.

Suffuse, (*-fūz'*,) *v. a.* [From Lat. *sub*, and *fundo*, to pour out.] To spread over with something expansible, as a vapor or tincture; as, her cheeks were *suffused* with blushes.

Suffusion, (*-fū'zhun*,) *n.* [Fr.; Lat. *suffusio.*] Act or operation of suffusing or overspreading, as with a fluid or tincture. — State of being suffused or spread over. — That which is suffused or spread over.

Su'fi, Su'fism, *n.* Same as Sofi, Sofism, *q. v.*

Sugar (*shoo'gar*), *n.* [Fr. *sucre*; Sp. *azucar*; Lat. *saccharum.*] A crystallized substance, obtained in greatest plenty from certain varieties of tropical grasses, but present to some extent in all grasses, and found in an infinite variety of other plants, and some animal matters. The sugar-cane was first made known in the West by the conquests of Alexander the Great, Nearchus, the admiral sent down the Indus, describing it as a kind of honey growing in canes or reeds. From India the sugar-cane was introduced into Arabia, Egypt, and the western parts of Asia. In 1506 sugar was introduced into the Canary Islands, and thence was taken, it was said, to the islands of the Mexican Gulf; but it is not at all improbable that the sugar-cane was a natural product of America; and it may be that it is only for the process of making sugar from it that the New World is indebted to the Portuguese and Spaniards. It has become in an eminent degree the produce of the intertropical regions of the new world, though the production of this necessary of life is increasing in some parts of India and the islands of the Indian seas. It has also been prepared from time immemorial in China.

(*Chem.*) Sugars are divided into the glucose and saccharose groups—the first group having the common formula $C_6H_{12}O_6$, and the second $C_{12}H_{22}O_{11}$. The *saccharose group* includes the common sugars of commerce—cane, beet, sorghum, &c. Those made from the sugar-cane, beets, &c., are subdivided as sucrose; from malt, maltose; from fungi, as ergot, mycrose; from fish, scyllite; from tubers, as dahlias, syanthrose; and from various mannas, melilotose, melitose, and trehalose. The *glucose group* includes those made from grapes, several minor vegetables, honey, &c., subdivided as dextrose; from milk, lactose; from fruits, levulose; from gum arabic, arabinose; also some acidulous derivatives, as eucalyn and galactose. Another classification adds a third group, *saccharoids*, with the formula $C_6H_{14}O_6$. The glucose sugars are less sweet than the saccharose, and are made commercially by treating starch with diluted sulphuric acid, securing the so-called grape-sugar and the sirup glucose. The value and origin of sugars can be largely determined by their rotatory power, as observed in the polariscope. (See Polarization and Polariscope.) The rotatory power of cane-sugar is $+73.8^{\circ}$, while that made from milk-sugar exhibits $+59.3^{\circ}$, and fruits -106°. Sugar from flesh or fish has no rotative power. Trehala mauna-sugar shows the highest rotatory power, $+199^{\circ}$, and ergot-sugar next, $+192.5^{\circ}$.

Sugar forms an important article of food, entering largely into all vegetable aliments. Alone it does not seem capable of supporting life, although, by preventing the waste of the tissues, it may be used as a temporary palliative of hunger. Mixed with nitrogenous matter, it appears to have a fattening tendency. It is a powerful antiseptic, as exemplified in its preservative action on meat and fruit. Solution of sugar has the peculiar property of dissolving many of the metallic oxides, lime, baryta, and oxide of lead forming strong solutions when boiled with it. It exercises a powerfully reducing action on several of the metallic salts, the chromates, for instance, being reduced to sesquioxide of chromium when heated with a solution of sugar Cane-sugar, under the influence of yeast of beer, undergoes the process of fermentation (see Fermentation). Treated with strong sulphuric acid, sugar parts with its water, carbonic and formic acids being eliminated, and a carbonaceous sugar melts into an amorphous transparent solid, which, if kept, gradually loses its transparency and returns to the crystalline form Heated to about 420° sugar loses two equivalents of water, becoming converted into a brown, deliquescent, and almost tasteless substance, much used by cooks and confectioners as a coloring matter, under the name of *caramel.* If the heat be carried further, inflammable gases are emitted, a friable mass of pure charcoal being left behind. *Sugar of milk*, or *lactose*, is obtained solely from the milk of the mammalia. It is manufactured on a large scale for the use of homœopathists The milk is coagulated and the curd separated. The whey is concentrated by evaporation, and small sticks of wood are inserted in the liquid, around which the sugar crystallizes in mammillated masses, consisting of four-sided prisms, terminated by four-sided pyramids It possesses the least sweetening power of any of the sugars.

(*Manufacture.*) Sugar made from the cane furnishes the bulk of the Western world's supply. The stalks are cut down to the roots just before the period of inflorescence, stripped of their leaves and transported to the mill, where they are dumped on a cane-carrier, which is a form of travelling conveyor, having parallel slats connected at the extremities by endless chains. The carrier travels slowly, feeding the cane to a cutter, so-called, which is a machine having large rolls bearing on their faces coarse corrugations of hardened steel. These corrugations present elevations about two inches higher than their recesses, and, being of irregular form, they cut the cane up roughly so that it issues in bits not over six inches in length, and minus about 60 per cent. of its juice. Some establishments do not use the cutters, passing the cane directly to the mill, but it is generally admitted that the best results are obtained by a preliminary passage of the cane through the cutter. The cane-mill consists of three very heavy cast iron rolls, set about half an inch apart. The top roll is the largest, and is called the king-roll. The cane passes between it and the two lower rolls, denominated the cane-roll and the bagasse-roll, deflectors or guides being used to direct the cane in its course. The rolls have a slightly roughened surface, made by scoring with a lathe-tool, to insure their gripping the cane instead of slipping over it. The rolls of a mill are often eight or ten feet long and three feet or more in thickness. The mill crushes out the remainder of the juice from the cane, allowing it to run into a tank, and if any of the bagasse, as the crushed cane is called, appears to retain juice it is returned and run through the mill a second time. The cane-juice in the tanks is naturally dirty and impure, and is pumped up through strainers to elevated tanks to get rid of the settlings, and then allowed to flow to the defecator. Here a small quantity of lime is added to precipitate remaining impurities, and steam is introduced to cook the albumen, that it may be retained when the purified juice is drawn off. The process of transforming pure cane-juice into sugar consists simply in evaporating the moisture, and crystallizing as much as possible of the product, that which does not crystallize being molasses. Formerly evaporation was performed in a series of open pans heated by a furnace. Norbert Rillieux, of New Orleans, improved upon this method, and introduced the vacuum-pan. When a liquid is heated in a vessel from which the air is abstracted, the liquid boils and evaporates at a much lower temperature, and RU

dieux found that by making his pans air-tight, and inducing a partial vacuum in the air-space of the pans, he was able to evaporate the cane-juice with a much less quantity of fuel, producing a decided ecouomy. When a number of evaporating pans are used together, the method of evaporation is known as "multiple effect," and when four are used it is called "quadruple effect," and the three-pan system is called the "triple effect." The latter combination is considered the best, and the apparatus or series of three vacuum-pans has come to be named the "triple effect." The vacuum-pans have developed into great cylindrical boilers or tanks. Three of them are set in a row, and connected by pipes of a very large diameter. The lower half of each pan contains a series of upright copper tubes of about two inches diameter. The juice is led into the tubes, so as to fill them and occupy a portion of the space above. Steam taken from a boiler at a pressure of perhaps 5 pounds, or exhaust steam, is then let into the space between the tubes, but shut off from the top of the pan. The temperature of this steam may be somewhere from 190° to 210° F., which would be too low to boil and evaporate the cane-juice, but that a partial vacuum is maintained in the upper part of the pan. The juice therefore steams, and the resultant vapor is carried by large connecting pipes to the space about the tubes in the second pan. The steam so carried over has lost heat, and has a temperature of perhaps 160° to 175°. This is made to evaporate the cane-juice flowed into the second pan, because a better vacuum is maintained there, still further reducing the boiling point. The steam from the second pan, cooled to perhaps 135° to 150°, is made to perform the evaporation in the third and last pan, where the best possible vacuum is maintained, first by pumping and then by condensing the steam—for which there is no further use. The flowing of the juice from pan to pan is accomplished without pumping, because of the better vacuum maintained in each succeeding pan, which serves to draw the liquor along by suction, although at the latter part of the transit it is decidedly viscous. The sirup flowing from the last pan of the triple effect is next subjected to a further clarifying and skimming, as the residue of impurities is more easily eliminated in this condensed condition than at earlier stages. It then goes to another vacuum-pan for a final evaporation, which is made as complete as possible, reducing the sirup to a pasty mass that flows very slowly. It is withdrawn from this pan by means of a large valve a foot and a-half in diameter, the operation being called a strike, and the valve a strike-valve. The sticky, viscous mass is struck into cooling cans, and allowed to crystallize, the length of time which it stands determining the size of the crystals—the longer the time the larger the crystals. At this stage the crystals are stuck together more or less with molasses, and in order to separate them a mixer, with rotating paddles, is first employed, and then a centrifugal machine. This latter consists of a perforated basket, set within a case, with mechanism for rapidly whirling the basket and throwing out the molasses by centrifugal force, while retaining the crystals, which are too large to pass through the perforations. Three or four minutes' rotating at a speed of 1,000 rotations a minute suffice to separate the molasses from a basket containing 200 pounds of mixed crystals and molasses. The crystallized product obtained by this process is slightly brown, though not nearly so brown as many of the sugars which were sold on the market about 1870, when refining had not become universal. Sugar made by the above-described process would be both sweeter and cheaper to be sold in the condition in which it comes from the centrifugal machine, but fashion has dictated that it must be white, and so it has to go to the refinery.

Maple-sugar is obtained from several species of maple (see ACER). That yielding the richest juice is the *Acer saccharinum*, the rock or sugar-maple. The manufacture is stated to have originated in New England about the year 1752. It thence extended throughout the wooded portions of the country where the sugar-maple abounds, particularly in New York, Michigan, Pennsylvania, and Ohio, and on the range of the Alleghanies further south. The sugar is mostly consumed in its raw state, considerable quantities being sold in small cakes and eaten like candy. It may be easily made into the best white sugar. Its manufacture in the United States steadily increases, the product for 1894 being 7,633,036 pounds, on which a bounty was paid, and doubtless much more, which was manufactured for family use by those owning trees, in quantities too small to cause them to take the trouble to collect the bounty.

Beet-root sugar is made in large quantities in France, Germany, and Austria. Its manufacture was called into existence in the former country by the wars of Napoleon, which cut off the ordinary colonial supplies of cane-sugar. The roots employed are those of the white beet, and are gathered in October. The production of beet-sugar in America was attempted about the year 1830, by a company formed in Philadelphia, which failed from a want of practical information upon the subject. Eight years later, in 1838, a company was formed at Northampton, Mass. They produced something over half a ton of good sugar. The next attempt was made in 1864, by Messrs. Gennert, at Chatsworth, Illinois. In 1866 they had 400 acres of land planted, which yielded 4,000 tons of roots, at an estimated cost of less than $4 per ton. The percentage of saccharine matter contained in the roots was found to be equal, if not superior, in quantity to that of the European roots. The next establishment of this kind was instituted at Fond du Lac, Wisconsin, in 1867, and is now transferred to California. Another effort was made in 1877–78 by Mr. Jos. Wharton, a Philadelphian, upon his extensive estate in New Jersey. There are now several establishments in the country producing beet-sugar, their annual product being about 20,000 tons.

In the manufacture of sugar from beet-root, the diffusion process of extracting the saccharine matter is most commonly practiced. It consists in shaving the vegetables into slices, and placing them in a mechanism called a diffuser, which stirs them about in water, until the saccharine matter is almost wholly taken up, when the slices can be removed, the juice so obtained being defecated, saturated with carbonic acid gas, settled, filtered, and finally evaporated, after the manner of cane-juice. The process entails more detail of manufacture than with cane-juice. Many methods have been tried for simplifying the work, by crushing or macerating the beets to secure the saccharine matter, but the pulp of the beet becomes so intimately mixed with the saccharine matter that the separation becomes very tedious. Even when the beets are crushed in bags some of the pulp escapes and causes difficulty. Therefore the diffusion process is generally preferred, and by its use about 7 to 10 per cent. of crystallized sugar is obtained from the beet.

(*Refining.*) The refining or whitening of sugar is accomplished by boiling and filtering with lime-water and animal charcoal. The first process is the dissolving of the sugar in a cistern of hot water, the solution being then pumped into blow-up pans for defecation. The liquor is led from the defecators through a series of cylindrical filters containing bone-black, which provides the necessary animal charcoal, combined with calcareous qualities. A little ultramarine is often introduced as a blue to counteract the natural yellow, and thus assist the whitening of the product, which should trickle from the filters in a clear, colorless condition. After a time the bone-black becomes so stained that it loses its power of decoloring, when it is removed from the filter, washed in a dilute acid, then in water, and finally reburned in a retort, after which it is again fit for service. After filtration and decoloring, the liquor is put through the vacuum-pans and centrifugal machine, emerging in a completed state, ready for the market. When loaf-sugar is desired, however, the mass from the strike-valve is not taken to the centrifugal machine, but to a mold, where it is cast in blocks, and after hardening cut up in a machine having a gang of small saws, set apart the diameter of the lumps. These divide the molded mass into slabs, sticks, and lumps. The refining of sugar in the United States has passed almost wholly into the hands of one company, the American Sugar Refining Company, popularly known as the Sugar Trust. It controls about a dozen refineries, handling about 2,000,000 tons annually.

(*Production.*) The sugar consumed in the United States is mostly imported, the West Indies, South and Central America, and the Sandwich Islands furnishing the greater part of the supply until the internal troubles in Cuba (which was the largest exporter) interfered with the growing and grinding of the cane there, since which time the industry has materially developed in the Southern States, especially Louisiana. It was begun under the fostering care of the Government, which inaugurated a system of bounties that remained in force until 1894. In that year about 600,000,000 pounds of sugar were produced in Louisiana, on which the Government paid a bounty of over $10,000,000. The total home product for the present year, 1897, is estimated at more than a billion pounds.

The importation of sugar into the United States in the fiscal year 1894 was 3,834,843,605 pounds of cane-sugar, valued at $111,078,848, and 510,350,276 pounds of beet-sugar, valued at $15,793,041. The exports for the same period were 14,778,416 pounds of refined sugar, valued at $653,052. An estimate of the annual beet-sugar production of European countries in metric tons of 2,204.6 pounds, is as follows: Germany, 1,350,000; Austria-Hungary, 845,000; France, 575,000; Russia, 650,000; Belgium, 235,000; Netherlands, 75,000; other countries, 111,000; total, 3,841,000 metric tons. An estimate of cane-sugar production in the countries of the world in metric tons, is as follows: Cuba, 150,000; Java, 480,000; United States, 500,000; Philippine Islands, 265,000; Brazil, 260,000; Hawaiian Islands, 135,000; Mauritius, 125,000; Demerara, 110,000; Egypt, 70,000; Barbadoes, 65,000; Peru, 65,000; Puerto Rico, 60,000; Trinidad, 50,000; Guadeloupe, 40,000; Reunion, 37,000; Martinique, 32,000; Jamaica, 25,000; Lesser Antilles, 25,000; total, 2,494,000 tons. According to estimates the aggregate production of beet and cane-sugar in 1893–94 was: Beet, 3,841,000 metric tons; cane, 2,960,000 metric tons; total, 6,801,000 metric tons.

Sug'ar, *a.* Belonging to, or made of sugar.

—*v. a.* To mix, sprinkle, cover, season, or impregnate with sugar; as, to *sugar* a cake.—To compliment; to cover with soft words or honeyed speech; to clothe with adulation; to sweeten; as, "And *sugared* speeches whispered in mine ear."

Sugar-baker, *n.* A maker of loaf-sugar.

Sugar-beet, *n.* (*Bot.*) See BETA.

Sugar-berry, *n.* (*Bot.*) See CELTIS.

Sugar-bush, Sugar-orchard, *n.* A collection of maple-trees selected and preserved for the purpose of extracting sugar from them.

Sugar-candy, *n.* Sugar clarified, and made transparent by crystallization.

Sugar-cane, *n.* (*Bot.*) A genus of plants, order *Graminaceæ*, the species of which are native of tropical and sub-tropical countries. The common *S. C.* (*S. officinarum*) extends in North America to 31°, and in the southern hemisphere only to 22° S. Lat., is a perennial, with a creeping root, sending up a number of culms or stems, generally 8 to 12 feet high, which have many joints, are of various colors, and about 1 to 2 inches thick. They are filled for about two-thirds of their length with a loose, sweet, juicy pith. The leaves are ribbon-shaped, 4 to 5 feet long, with a strong whitish middle nerve. The flowers are in great diffuse pyramidal panicles of a yard in length.—The violet-colored *S. C.* (*S. violaceum*) is particularly esteemed, and much cultivated in the West Indies. The *S. C.* is usually propagated by cuttings. For this purpose the top joints are used. The cuttings are planted in rows 3 or 4 feet apart, and at intervals of about 2 feet in the rows. The largest varieties, in rich moist soils, attain a height of 20 feet; but in poor dry soils, the height is sometimes scarcely more than 6 feet. The best varieties are ready for cutting in about 10 months from the time of planting, but other varieties require a longer period of growth, from 12 to 20 months. When the canes are fully ripe, they are cut a little above the ground, and tied in bundles to be conveyed to the mill. Fresh canes, called *rattoons*, spring from the root, so that the plantation does not require to be renewed for several years; but the canes of the first crop are the largest, and a gradual decrease of size takes place. The ordinary practice on sugar estates is to renew a part of the plantation every year.—The Chinese sugar-cane, sugar-grass, or sorgho-grass (*Holcus sorghum*, or *Sorghum vulgare*), was introduced into the U. S. in 1856, where its cultivation has extended as far N. as Maine. The sugar obtained from it is equal in quality to that from the true *S. C.*, and the quantity is very remunerative. The whole quantity of sirup now produced from this grass in the U. S. is about 20,000,000 gallons. Numerous varieties are already in cultivation; one class of them, called *Sorgo*, being derived from Chinese seed; another, called *Imphee*, from seed which was brought from Africa.

Sugar Creek, in *Arkansas*, a township of Logan co.

Sugar Creek, in *Illinois*, rises in McLean co., and flows S.W. into Salt creek.

Sugar Creek, in *Indiana*, rises in Clinton co., and flows into the Wabash, about 3 m. S.E. of Newport, after a S.W. course of 100 m.

Sugar Creek, in *Iowa*, a township of Cedar co.

Sugar Creek, in *Kansas*, a township of Miami co

Sugar Creek, in *Missouri*, a township of Randolph co.

Sugar Creek, in *North Carolina*, rises in Mecklenberg co., and flowing E. falls into Catawba river, in York co., South Carolina.

Sugar Creek, in *Ohio*, flows into Portage river from Ottawa co.

—A township of Putnam co.

—A township of Starke co.

—A township of Tuscarawas co.

—A township of Wayne co.

Sugar Creek, in *Pennsylvania*, enters the Susquehanna from Bradford co.

—A township of Armstrong co., 18 miles east northeast of Butler.—A village and township of Venango county.

Sugar Creek, in *Wisconsin*, a post-village and township of Walworth county, 41 miles west south-west of Milwaukee.

Sugared, (*shoog'ard*), *p. a.* Sweetened with, or as with, sugar; as, a *sugared* compliment.

Sugar Grove, in *Illinois*, a post-township of Kane co.

Sugar Grove, in *Iowa*, a township of Dallas co.

Sugar Grove, in *Ohio*, a post-village of Fairfield co

Sugar Grove, in *Pennsylvania*, a post-village and township of Warren co., 15 m. N.W. of Warren.—A township of Mercer co.

Sug'ariness, *n.* State or quality of being sugary or sweet.

Sug'aring, *n.* Act of sweetening or covering with sugar; also, the sugar so used.—Operation or process of making sugar.

Sug'arless, *a.* Free from, or lacking sugar.

Sug'ar-loaf, *n.* A mass of refined sugar, usually in the shape of a truncated cone.—A hat made in the form of a sugar-loaf, formerly worn by the Puritans.

Sugar Loaf, in *Arkansas*, a township of Boone co.—A township of Clehurne co.—A township of Marion co.—A post-township of Sebastian co.

Sugar Loaf, in *New York*, a post-village of Orange co., 50 m. N.N.W. of New York.

Sugar Loaf, in *Pennsylvania*, a village and township of Columbia co.—A post-township of Luzerne co.

Sug'ar-maple, Sug'ar-tree, *n.* (*Bot.*) See ACER.

Sugar Mill, *n.* (*Manuf.*) A mill for expressing the juice from sugar-canes, consisting usually of three horizontal iron rollers, two of which are set on the same horizontal plane, while the third is set over and between the other two, so as to touch both. The canes are fed in between the top roller and one of the lower ones, and there receive the first squeeze. The juice runs down into a trough formed in the base of the mill; and the canes travel on and receive their second squeeze between the top roller and the second horizontal one, after which, the juice being all squeezed out, the residuary woolly fibre, known as *begass*, is used as fuel beneath the boiler of the engine that drives the mill.

Sugar of Gelatine, *n.* (*Chem.*) See GLYCOCINE.

Sugar of Lead, *n.* (*Chem.*) See LEAD (ACETATE OF).

Sug'ar-plum, *n.* A kind of candy made up in small flattened discs.

Sugar Ridge, in *Indiana*, a township of Clay county.

Sugar River, in *New Hampshire*, forms the outlet

of Sunapee Lake in Sullivan co., and flows W. into the Connecticut River.

Sugar River, in *Wisconsin*, rises in Dane co., and flowing S.E., enters the Pekatouica River, 7 m. from its mouth in Winnebago co., Illinois.

Sugar Run, in *Pennsylvania*, a post-village of Bradford co.

Sugartown, in *New York*, a village of Catterangus co.

Sug'artown, in *Pennsylvania*, a post-village of Chester co., 79 m. E.S.E. of Harrisburg.

Sug'ar Tree Ridge, in *Ohio*, a post-village of Highland co., 10 m. S. of Hillsborough.

Sug'ar Valley, in *Ohio*, a village of Preble co., 100 m. W. of Columbus.

Sugary, (*shoog'ar-y,*) *a.* Tinctured or sweetened with sugar. — Sweet; tasting like, or containing, sugar; saccharine. — Fond of sugar, or of sweet things; as, a *sugary* tooth.

Suggest, (*sud-jĕst',*) *v. a.* [Fr. *suggérer*, from Lat. *sub*, and *gero*, to wear.] To intimate or mention in the first instance; to offer indirectly to the mind or thoughts; as, the idea was *suggested* to him by a friend. — To hint; to intimate; to present or propose diffidently or unobtrusively; as, to *suggest* a compromise.

—*v. n.* To seduce; to tempt; to instigate.

Suggester, (*sud-jest'er,*) *n.* One who makes a suggestion or suggestions.

Suggestion, (*sud-jĕst'yun,*) *n.* [Fr., from Lat. *suggestio.*] Act of suggesting. — That which is suggested; a hint; a first intimation, proposal, or mention; insinuation; presentation of an idea to the mind; also, formerly, secret notification or incitement.

(*Law.*) The announcement to the court, or the entering upon the record, of a fact which puts a stop to the suit in its existing form, as the death or insolvency of a party.

Suggest'ive, *a.* Conveying a suggestion, a hint, or intimation.

Suggest'ively, *adv.* By way of suggestion.

Suggest'iveness, *n.* State or quality of being suggestive.

Suggs'ville, in *Alabama*, a post-village of Clarke co., 110 m. S.W. of Montgomery.

Suhl, (*sool,*) a town of Prussian Saxony, 28 m. from Erfurt. *Manuf.* Fire-arms and cotton goods. *Pop.* 9,877.

Suicid'al, *a.* Partaking of, or comprehending, the crime of suicide.

Suicid'ally, *adv.* In a suicidal manner.

Su'icide, (*-sid,*) *n.* [Fr.; Lat. *suicidium* — *sui*, of himself, and *cædo*, to kill.] Self-murder; the act of designedly destroying one's own life. — The earliest recorded examples of self-destruction are those of Samson (B. C. 1117) and of Saul (B. C. 1055). The rank which religious suicide has held from immemorial antiquity, and still holds, in the opinion of the Hindoos, has been too often described, and is too familiar in its most notorious and painful instances, to need more than adverting to on the present occasion. Among the Greeks, Socrates, the great master of ethics, was emphatic in his condemnation of suicide. Plato speaks in a more dubious strain. Writing as a lawgiver, he reprobates it; and in his arguments on the subject is to be found the well-known illustration which has figured ever since in all such discussions, in which he compares it to the desertion by a soldier of his post. Yet he expressly excepts from his censure those cases in which it is committed under the pressure of immitigable calamity. Pythagoras, at an earlier period, denied its lawfulness. In the later days of Greek philosophy, both Stoics and Epicureans found arguments for its defence in their respective principles. The influence of Greek philosophy had, as is well known, a great share in producing that tendency to suicide which distinguished the higher society of Rome in the later days of the commonwealth. The "Roman death," as it is emphatically called, was not really a national habit. The older manners of the commonwealth repudiated it. Its prevalence was owing to foreign doctrines, acting on minds affected by violent passions, engrossing luxuries, and rapid vicissitudes of fortune which distinguished that æra. Although Christianity was not slow in effecting a reform in the feelings of mankind on this subject, yet some relics of the ancient sentiments lingered awhile, even in the minds of enlightened believers. The fanatical Donatists were greatly addicted to suicide, and are justly condemned on this account among others by the early writers of the Church, who considered suicide lawful only when committed by virgins to preserve their chastity. The cherished sentiments of the fathers of the Church on this subject rendered them lenient to such victims of honor; and some of them have even gone so far as to commend them. Augustine only pities them, and expressly classes all suicide as homicide. (*De Civ. Dei*, l. i. c. 19.) Prof. Von Œttinger, of Prussia, has recently published a curious work on moral statistics and Christian manners, in which he has treated the subject of suicide in an exhaustive style. It is to be regretted that the same subject has not been so fully handled as regards this country; for the conditions of life here differ in some very important respects from those of life in Europe, especially among the laboring classes. Extreme wretchedness, with no hope of escape from it, such as may be daily witnessed in European countries, and which is so fruitful a cause of suicide there, is almost unknown here; and the very few examples of it we meet with are those whose own folly and misconduct have brought it upon themselves. The statistics of Prof. Von Œttinger are based mainly upon the tables of France and Prussia, which are, perhaps, the fullest and most accurate of any nations in Europe, the municipal and communal administrations there being very careful in making up their reports. The results which he deduces are remarkable. The first fact, which is striking, is that the ratio of suicide to population appears to increase faster than the population itself. Thus, in Prussia, in 1830, the number of suicides reported was 1,167; and in 1865 it was 3,219, which was 2½ times greater than the ratio of the increase of the population. In France, the numbers during the same years were respectively 1,739 and 4,700, which is more than 9 times the increase of the population. A part of this apparent increase is doubtless due to the more accurate reports nowadays. The learned statistician found that the proportion of unmarried persons who kill themselves is decidedly greater than that of the married. The proportion of widowed persons is greater still. But that of the divorced and separated is the largest, it being uniformly 5 times as great as that of the married. As regards the causes of suicide, he thinks that ⅓ of the cases of self-murder is caused by mental disease, 1-9 by physical suffering, ⅛ by loss of property, 1-10 by the fear of punishment, shame, or a morbid conscience, 1-10 by family quarrels, 1-9 by drunkenness, gambling, and other vices. The number caused by grief or disappointed love is exceedingly small. 3-4ths of all the suicides are males. See *Suicide of Dr. Morselli*, also *S.* of Dr. O'Dea (N. Y. 1882).—(*Law.*) See FELO-DE-SE.

Su'icidism, (*-izm,*) *n.* The state of being suicidal.

Su'idæ, *n. pl.* (*Zoöl.*) The Swine family, comprising *Pachydermata* highly important to man as food. The animals composing this family are characterized by having on each foot 2 large principal toes shod with stout hoofs, and 2 lateral toes which are much shorter and hardly touch the earth. The incisor teeth are variable in number; but the lower incisors are all levelled forwards. The canines are projected from the mouth, and recurved upwards. The muzzle is terminated by a truncated snout, fitted for turning up the ground. The Babyroussa, Peccary, and other allied genera are included in this family; but the type of the *Suidæ* is *Sus*, the Hog (*q. v.*)

Su'i gen'eris. [Lat.] Of his, or its, own kind; peculiar; individual.

Su'ing, *pp.* of SUE, *q. v.*

—*n.* The act of one who sues.

Su'ingly, *adv.* With, or by means of, suing.

Suir, (*shure,*) a river of Ireland, in Munster, rises in the Devil's Bit Mountains, co. of Tipperary, and unites with the Barrow to form the æstuary of Wexford Harbor, after a S.E. course of 100 m.

Suisun', in *California*, a post-village and township of Solano co., 1 m. S. of Fairfield.

Suisun' Bay, in *California*, 15 m. long and 7 broad, connected with the San Pablo Bay on the W. by the Strait of Carquinez.

Suisun' Creek, in *California*, flows into Suisun Bay.

Suit, (*sūt.*) *n.* [Fr., from *suivre*, to follow; Lat. *sequor.*] Act of suing; attempt or endeavor to gain an end or object. — Courtship; solicitation of a woman in marriage. — A number of things used together, and in a degree necessary to be united, in order to answer the purpose; a set; as, a *suit* of clothes.

(*Law.*) Prosecution of legal right or claim; an action; a case.

To bring suit. (*Law.*) To institute an action.

—*v. a.* To fit; to adapt; to make proper; as, to *suit* the deed to the word. — To be fitted to; to become; as, his style of dress *suits* him admirably. — To please; to gratify; to make content; as, he is well *suited* with his servants.

—*v. n.* To agree; to accord; to be suitable; to have corresponding qualities; — usually preceding *with* or *to*; as, reticence does not *suit with* his disposition.

Suitabil'ity, *n.* Quality of being suitable; suitableness.

Suitable, (*sūt'-,*) *a.* That suits or is likely to suit; fitting; neat; proper; appropriate; conformable; becoming; agreeable; answerable; convenient; adequate.

Suit'ableness, *n.* State, quality, or condition of being suitable; a state of being adapted or accommodated; fitness; propriety; agreeableness; correspondence; consonance; congruity; consistency.

Suit'ably, *adv.* In a suitable manner.

Suite, (*sweet,*) *n.* [Fr., from *suivre*, to follow.] A company, or number of attendants or followers; retinue; train; as, the *suite* of royalty.

—A set, series, collection, or arrangement, as of objects; as, a *suite* of rooms.

Suit'or, *n.* An applicant; a petitioner; one who sues or entreats; as, a *suitor* for preferment. — A wooer; a lover; one who courts a woman or solicits her in marriage; as, she had a number of *suitors* for her hand.

(*Law.*) One who sues or prosecutes a demand of right; one who attends a court.

Suk'kertoppen, in Greenland, a headland on the W. coast; Lat. 65° 22′ N., Lon. 53° 5′ W.

Sul'acoe Creek, in *Georgia*, falls into the Coosawattee River a few miles from its mouth.

Sul'cate, Sul'cated, *a.* [From Lat. *sulcare.*] (*Nat. Hist.*) Grooved; furrowed; channelled; as, a *sulcated* stem.

Sulcation, (*-kā'shun,*) *n.* A channel, groove, or furrow on the surface of a body.

Sulelman Mountains, (*soo-li-man',*) a range in Afghanistan, extending from Lat. 29° to 33° 40′ N., Lon. 70° E. Its culminating point is called the *Throne of Solomon*, and has a height of 11,000 feet.

Suli'dæ, *n. pl.* (*Zoöl.*) See GANNET.

Sul'iots, Sul'lotes, *n. pl.* A people of mixed Albanian and Greek descent, who formerly dwelt in the S. corner of the pashalik of Janina (*Epirus*), in European Turkey. After having for about 15 years heroically resisted the encroachments of the Pasha of Janina upon their independence, they were vanquished by Ali Pasha in 1801. In 1820 they fought desperately against the Turks for their old oppressor; and, ultimately, they took a glorious part in the war of Greek independence, but their country was not included by the treaty of 1829 within the Greek boundary. See ALI PASHA, and BOZZARIS.

Fig. 2443.—A SULIOT.

Sulk'ily, *adv.* In a sulky manner; sullenly; morosely.

Sulk'iness, *n.* Quality of being sulky.

Sulks, *n. pl.* Quality or condition of being sulky; sullenness; sourness; moroseness. — *To be in the sulks*, to be in a sullen, morose, or discontented humor.

Sulk'y, *a.* (*comp.* SULKIER; *superl.* SULKIEST.) Sullen; sour; heavy; obstinate; morose; as, a *sulky* person.

—*n.* A two-wheeled carriage for a single person.

Sul'la. See SYLLA.

Sul'len, *a.* [O. Fr. *soleyne*, from Lat. *solus*, alone.] Gloomy; dark; dismal; of ill omen; as, a *sullen* dirge. — Mischievous; malignant; unpropitious; as, a *sullen* planet. — Intractable; obstinate. — Cross; sour; morose; splenetic; gloomily angry or silent; affected with ill humor; as, a *sullen* temper. — Heavy; sluggish; dull; as, a *sullen* flow.

Sul'lenly, *adv.* In a sullen manner.

Sul'lenness, *n.* State or quality of being sullen.

Sul'livan, JOHN, an American general, B. in Berwick, Me., 1740, served with reputation in the republican army at the battles of Brandywine and Germantown, in 1777, and subsequently against the Indians. In 1788 he became a member of Congress, and was afterwards judge of New Hampshire. D. 1795.

Sullivan, JAMES, brother of the preceding, B. 1744, was successively justice, attorney-general, and governor of the province of Massachusetts. He was for many years president of the Historical Society of Massachusetts; and was the author of *Observations on the Government of the United States of America*, a *Dissertation on the Constitutional Liberty of the Press*, &c. D. 1808.

Sullivan, in *Illinois*, a city, cap. of Moultrie co., 24 m. S.E. of Decatur. *Pop.* (1897) 1,640.

Sullivan, in *Indiana*, a W. co., bordering on Illinois; *area*, 440 sq. m. *Rivers.* Wabash river and Busseron creek. *Surface*, level; *soil*, fertile. *Min.* Bituminous coal. *Pop.* (1897) 22,500.—A post-town, cap. of the above co., 26 m. S. of Terre Haute.

Sullivan in *Iowa*, a village of Dubuque co., 70 m. N.E. of Iowa City.

Sullivan, in *Maine*, a post-township of Hancock co., 90 m. N.E. of Augusta.

Sullivan, in *Missouri*, a N. co.; *area*, 650 sq. m. It is traversed by Locust Creek, the E. Fork of Medicine Creek, and by Yellow and Wolf creeks. *Surface*, mostly prairies; *soil*, fertile. *Capital.* Milan.—A post-village of Franklin county, 71 miles S.W. of the City of St. Louis.

Sullivan, in *New Hampshire*, a W.S.W. county, bordering on Vermont; *area*, 570 sq. m. *Rivers*, Connecticut and Ashuelot. Sunapee Lake is on its E. border. *Surface*, elevated, with occasional mountain ridges; *soil*, fertile. *Cap.* Newport.

—A post-township of Cheshire co., 38 m. W.S.W. of Concord.

Sullivan, in *New York*, a S.E. county, bordering on Pennsylvania; *area*, 890 square miles. *Rivers*, Delaware, Shawangunk, Neversink, Mongaup, and Beaverkill. *Surface*, mountainous; *soil*, fertile in the valleys. *Min.* Lead. *Cap.* Monticello.—A village and township of Madison county, 120 miles north-west of Albany.

Sullivan, in *Ohio*, a post-village and township of Ashland co., 99 m. N.N.E. of Columbus.

Sullivan, in *Pennsylvania*, a N.N.E. county; *area*, 430 square miles. It is traversed by the Loyalsock, Muncy, and Little Loyalsock creeks. *Surface*, elevated and covered with forests, and traversed S. by the Alleghany Mountains. *Capital*, Laporte.—A post-village and township of Tioga county, 20 miles E. of Wellesborough.

Sullivan, in *Tennessee*, a N. E. co., bordering on Virginia; *area*, 410 sq. m. *Rivers.* Holston and Watauga. *Surface*, diversified; *soil*, fertile. *Min.* Iron. *Cap.* Blountsville. *Pop.* (1897) 22,250.

Sullivan, in *Wisconsin*, a post-township of Jefferson co.

Sul'livan's Island, in *S. Carolina*, an island in the harbor and 6 m. below the city of Charleston, on which is situated Fort Moultrie.

Sul'livanville, in *New York*, a post-village of Chenango co., 10 m. N.E. of Elmira.

Sul'ly, *v. a.* (*imp.* and *pp.* SULLIED,) (*sŭl'lid.*) [Fr. *souiller.*] To soil; to dirty; to spot; to tarnish. — To darken. — To stain; to soil, as the fairness or purity of reputation; as, virtue *sullied* by calumny.

—*v. n.* To be soiled or tarnished.

—*n.* Soil; tarnish; spot; as, a *sully* on one's reputation.

Sully, (*sool'le,*) MAXIMILIEN DE BÉTHUNE, BARON DE ROSNY, and DUKE DE, a French statesman, B. 1559. He

was, in his youth, the friend and companion of Henry of Navarre, afterwards Henry IV. of France, attended that monarch throughout his long and eventful life, escaped with him from the massacre of St. Bartholomew, attended him through all his battles, and entered Paris with him. When Henry ascended the throne, *S.* was made minister of finance, and in that responsible office displayed uncommon capability and judgment. On the murder of his royal master he retired from political life, and occupied himself with his memoirs till the last day of his life. D. 1641.

Sully, THOMAS, an American artist, b. in Horncastle, Lincolnshire, England, 1783, emigrated to the U. States with his parents, 1792, studied painting in Charleston, established himself in Richmond, Va., as a portrait-painter in 1803, removed afterwards to New York, and, in 1809, settled in Philadelphia, where he has since lived. His reputation as one of the leading American portrait-painters is founded upon numerous works, the best known of which are the full-length portraits of Dr. Benj. Rush, Commodore Decatur, Thos. Jefferson, and Lafayette. The Boston Museum possesses his celebrated picture of *Washington Crossing the Delaware.* D. 1872.

Sulmona, (*sool-mo'na,*) a fortified town of S. Italy, 34 m. from Aquila. *Manuf.* Paper, shell goods, &c.

Sul'phate, *n.* (*Chem.*) See SULPHURIC ACID.

Sulphatic, (*-făt'ik,*) *a.* (*Chem.*) Pertaining to, resembling, or containing, a sulphate or sulphates.

Sul'phide, *n.* (*Chem.*) One of the combinations of the metals with sulphur, formerly known as *sulphuret,* and which are hardly less important, both in a chemical and economical point of view, than the oxides. A large number of these occur in nature, having a high metallic lustre, and forming valuable ores. Sulphur generally combines with the metals in varying proportions, and it generally happens that the number of oxides and *S.* of a given metal are equal. Exceptions to this, however, occur in the case of the alkalies and alkaline earths; thus there are but two oxides of potassium, sodium, and barium, whilst there are no less than five *S.* of these metals. All the metallic *S.* are solid at ordinary temperatures; most of them fuse at a red heat, and some sublime unchanged. If air be admitted to the heated sulphides, they are all decomposed, the sulphur becoming oxidized, and either passes off, leaving the oxide of the metal behind, or unites with the base forming the sulphate, which, if the heat be continued, decomposes in certain cases, leaving the oxide behind. The *S.* of the noble metals part with the whole of their sulphur, the pure metal remaining. The *S.* are all insoluble in water, with the exception of those of potassium, sodium, strontium, barium, and calcium. Sulphide of magnesium is only slightly soluble. *S.* are prepared in a number of ways:— By heating the metal or its oxide with sulphur; by decomposing the sulphates; by heating them with charcoal or in a current of hydrogen; by passing a stream of sulphuretted hydrogen through their solutions, or by adding to them a solution of an alkaline sulphide. The preparation of particular *S.* will be found described under the heads of their bases. Certain of the higher *S.*, as for instance the pentasulphides of arsenic and antimony, act as acids, forming soluble and crystallizable salts with the alkaline protosulphides. The sulph-arsoniate and sulph-antimoniate of sodium are examples of this.

Sul'phion, *n.* (*Chem.*) An hypothetical radicle, supposed, according to the binary theory of salts, to be the base of sulphuric acid, which is regarded as its hydride, H_2SO_4. Sulphion would thus fall into the same category as chlorine and bromine, sulphuric acid being its hydride, as hydrochloric acid is the hydride of chlorine, the sodium salts being Na_2SO_4, and NaCl the sulphonide and chloride of sodium. The name sulphonide of sodium, as proposed for sulphide of soda, has not as yet come into use, although the followers of the binary theory mark the change of view by using the terms sulphate of sodium, calcium, magnesium, &c. These remarks equally apply to the other oxy-acids.

Sul'phite, *n.* (*Chem.*) See SULPHUROUS ACID.

Sul'pho-salt, *n.* (*Chem.*) One of the salts in which the oxygen appears to be replaced by sulphur, both in the base and the acid, as in the salt, sulph-antimoniate of soda.

Sul'phur, *n.* [Lat. *sulfur;* Fr. *soufre.*] *S.*, or brimstone, has been known and used from the earliest times. It is found native in mechanical combination with various earthy impurities in most volcanic districts, more particularly in Sicily and the countries bordering on the Mediterranean. The native *S.* of commerce is derived chiefly from Sicily, where it occurs in beds of blue-clayey formation. It is found native in two forms,—in transparent amber crystals, as virgin sulphur; or in opaque, lemon-yellow crystalline masses, as volcanic *S.* It is found in combination with the different metals, forming metallic sulphides, in nearly every portion of the earth. Zinc blende, iron and copper pyrites, galena, cinnabar, gray antimony, and realgar, are a few instances of the valuable ores containing *S.* In its oxidized condition, as sulphuric acid, it is also very largely distributed over the mineral kingdom. *S.* exists in many organic bodies; for example, it is always contained in albumen and the various protein compounds. Native *S.* is purified from the foreign substances mixed with it by distillation in, first, long brick furnaces containing earthen retorts communicating with receivers of the same material; and afterwards in iron retorts communicating with chambers of brickwork, in which the sulphur condenses in light flocks, known as flowers of sulphur. When melted and cast, these form the roll brimstone of commerce. Until lately the Sicilian *S.* was exported as far as California, but now the *S.* works on the shore of Clear Lake produce 4 tons a day, a quantity sufficient for the consumption of that State, and the manufacture of the compounds of *S.* has already taken a great importance.—*S.* can also be easily extracted from iron and copper pyrites.—*Iron pyrites* forms the yellow metallic-looking substance which is often met with in masses of coal, sometimes in distinct cubical crystals, and which is to be picked up in large quantities on some sea-beaches, where it occurs in rounded nodules, rusty outside, but having a fine radiated metallic fracture. When this mineral is strongly heated it gives up part

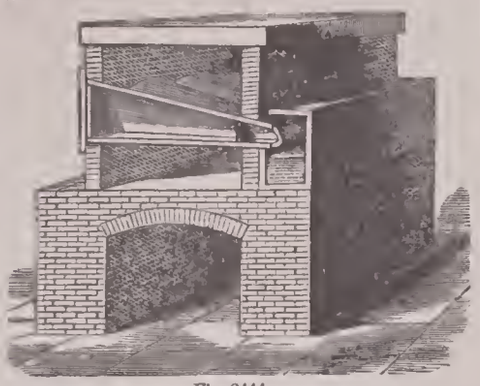


Fig. 2444.

FURNACE FOR THE DISTILLATION OF SULPHUR FROM PYRITES.

of its *S.*; at a very high temperature one half of the *S.* may be separated; but by an ordinary furnace heat only about one-fourth can be obtained. The distillation of iron pyrites is sometimes effected in conical fire-clay vessels (Fig. 2444) closed at the wider end, and stopped towards the other with a perforated plate to allow the passage of the *S.* vapor. Each vessel contains 100 lbs. of pyrites, and yields 14 lbs. of *S.* At ordinary temperatures, *S.* is a brittle, insoluble, inodorous solid, of a lemon-yellow color, a bad conductor of heat, and a non-conductor of electricity. By friction with silk or wool, it becomes negatively electrified. It is a highly inflammable substance, burning readily in the air at about 450° or 500° Fahr., and giving off suffocating fumes of sulphurous acid gas. At 239° Fahr. it melts, forming a yellow liquid, and slightly increasing in bulk. Provided the above temperature is not exceeded, it remains nearly transparent on cooling, but becomes gradually opaque from interior molecular changes. In close vessels, it may be distilled by raising the heat to about 834° Fahr. *S.* is very remarkable as affording a striking instance of the occurrence of the allotropic condition of matter. (See ALLOTROPHY.)— Hydrogen and *S.* vapor, when burnt, form sulphuretted hydrogen. Burnt in oxygen, heated with chlorine, bromine, and iodine, it unites with them, forming well-known compounds. The vapor of *S.* passed over red-hot charcoal forms bisulphide of carbon. Nearly all the metals combine with it at ordinary or increased temperatures. *S.* forms 8 oxides which, combined with water, act as acids:

Hyposulphurous acid	H_2SO_2
Sulphurous acid	H_2SO_3
Sulphuric acid	H_2SO_4
Thiosulphuric acid	$H_2S_2O_3$
Dithionic acid	$H_2S_2O_6$
Trithionic acid	$H_2S_3O_6$
Tetrathionic acid	$H_2S_4O_6$
Pentathionic acid	$H_2S_5O_6$

S. unites with chlorine in several proportions, the most important being the chloride and dichloride. The chloride, S_2Cl_2, is prepared by transmitting a current of chlorine over melted *S.*, the resulting chloride being collected in a perfectly dry receiver. It is a dark yellow liquid, very volatile, and possesses a peculiar penetrating disagreeable odor. It emits fumes when exposed to moist air, and when dropped into water gradually decomposes into hydrochloric and sulphurous acids and free sulphur. It has a specific gravity of 1·658, and boils at 280° Fahr. It is used for vulcanizing India-rubber goods. By saturating chloride of sulphur with chlorine, a dark red liquid (SCl_2) is formed. The corresponding bromides are liquids analogous to the chlorides. The iodide is a crystalline brittle gray solid. With nitrogen, *S.* forms a bisulphide, which crystallizes in beautiful golden-yellow rhombic crystals. It detonates powerfully by percussion, or when heated to 314° Fahr. Bisulphide of carbon dissolves it readily, alcohol, ether, and oil of turpentine sparingly, and water not at all. *Equiv.*, 23; *symbol*, S.

Sulphuration, (*sŭl'fu-rā'shun,*) *n.* (*Chem.*) The process by which certain silk, cotton, and woollen goods are subjected to the fumes of burning sulphur, or sulphurous acid, for the purpose of decoloring or bleaching.

Sulphu'reous, Sul'phurous, *a.* Consisting of sulphur; having the qualities of sulphur or brimstone; impregnated with, or resembling, sulphur.

Sulphu'reously, *adv.* In a sulphureous manner.

Sulphu'reousness, *n.* State or quality of being sulphureous.

Sul'phuret, (*-fū-rĕt,*) *n.* (*Chem.*) Same as SULPHIDE, *q. v.*

Sul'phuretted Hydrogen, *n.* (*Chem.*) See HYDROSULPHURIC ACID.

Sul'phur Fork, a tributary of Red River, rises in Fannin co., Texas, and flowing S.E., falls into the Red River.

Sulphur Fork, in *Arkansas,* a township of La Fayette co.

Sul'phuric Acid, OIL OF VITRIOL, VITRIOL, *n.* (*Chem.*) A very important acid which occurs in nature in large quantities, both in the vegetable and mineral kingdoms, in combination with the various bases, more particularly the alkalies, alkaline earths, and the oxides of iron, copper, lead, zinc, alumina, &c. Its mineral combinations are generally known as *vitriols,* a name which, in the case of the sulphates of iron, copper, and zinc, has been transferred to the manufactured products. *S. A.* is formed by the oxidation of sulphurous acid, or some other oxide of sulphur. In its perfectly anhydrous condition, it occurs as a white crystalline fibrous mass, somewhat resembling asbestos in appearance. It can be moulded in the fingers like wax without charring the skin; it fumes in the air, and is very deliquescent, hissing violently when thrown into water; thereby becoming *S. A.* It chars wood, paper, sugar, and other similar substances, by abstracting water from them. It melts at 65° Fahr., and boils at 110° Fahr., forming a colorless vapor. It possesses no acid properties whatever, and is not regarded as such by the followers of Gerhardt, by whom it is called *sulphuric anhydride.* The vapor, when passed through a red-hot tube, is resolved into a mixture of one volume of oxygen with two volumes of sulphurous acid. With sulphur it forms several more or less definite compounds, of a brown, green, and blue color respectively, which have not as yet received sufficient investigation. There are two varieties of *S. A.* in commerce. The first of these, *fuming* or *Nordhausen S. A.*, is obtained by the distillation of the basic sulphate of iron formed by heating crystals of common green vitriol. It is a somewhat viscid liquid, generally of a light-brown color, from containing traces of organic matter, and has a spec. grav. of 1·896. It is believed to be a combination of equal parts of the anhydrous and monohydrated *S. A.*, and may be represented by the formula $H_2SO_4SO_3$. It solidifies at 32° Fahr. into a mass of transparent colorless crystals. It is chiefly used in the arts for dissolving indigo. The second variety is the ordinary *S. A.*, or *oil of vitriol,* of commerce. It is prepared in immense quantities by burning sulphur or roasting pyrites, and oxidizing the resulting sulphurous acid by means of aqueous vapor and certain oxides of nitrogen. The following experiment will illustrate the important chemical principles of the manufacture of *S. A.*, and will give an idea of the process employed in the manufacture of this acid on a large scale.

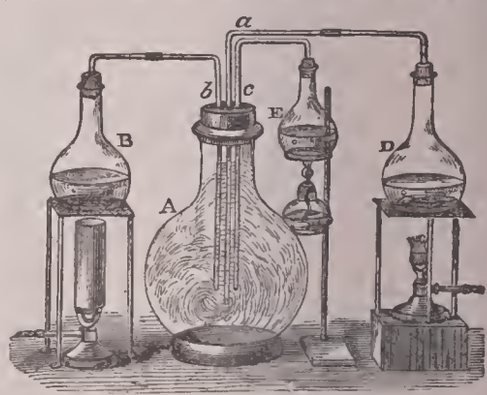


Fig. 2445.— PREPARATION OF SULPHURIC ACID.

A large glass flask or globe (A, Fig. 2445) is fitted with a cork, through which are passed — *a*, a tube connected with a flask D containing copper and strong *S. A.*, for evolving sulphurous acid; *b*, a tube connected with the flask B containing copper and diluted nitric acid (sp. gr. 1·2) for supplying nitric oxide; c, a tube proceeding from a small flask E containing water. On applying a gentle heat to the flask containing nitric acid and copper, the nitric oxide passes into the globe and combines with the oxygen of the air, filling the globe with red nitric peroxide. The nitric oxide flask may then be removed. Sulphurous acid is then generated by heating the flask containing *S. A.* and copper; the sulphurous acid will soon decolorize the red nitric peroxide, the contents of the globe becoming colorless, and the crystalline compound forming abundantly on the sides; the sulphurous acid flask may then be removed. Steam is sent into the globe from the flask containing water, when the crystalline compound will be dissolved, and *S. A.* will collect at the bottom of the globe. If air be now blown into the globe, the nitric oxide will again acquire the red color of nitric peroxide. If the experiment be repeated, the steam being introduced simultaneously with the sulphurous acid, no crystalline compound whatever will be formed, the sulphurous acid being at once converted into hydrated *S. A.*— When pure, *S. A.* is a heavy, oily, colorless, inodorous liquid, and having a specific gravity of 1·842. It is intensely caustic, and chars almost all organic substances, by abstracting water from them. Its affinity for water is very great, doubling its weight by the absorption of vapor from the air, if left exposed in any open vessel for several days. It mixes with water in all proportions. It freezes at — 29° Fahr., and boils at 590° Fahr., its vapor being colorless and very suffocating, forming dense fumes in moist air. When mixed with water, it evolves considerable heat. *S. A.* is the starting-point of nearly every important chemical manufacture. Acetic, nitric,

and hydrochloric acids are made by its means; and it will be only necessary to allude to the important part it plays in the manufacture of soda from common salt, to appreciate the saying of Liebig, "that the amount of *S. A.* made in a country is a sure index of its wealth and prosperity." In the hands of the chemist it has numerous and important uses. Its salts, the *sulphates*, are among the most important chemical agents in the laboratory. In its concentrated form, it is in daily use by the scientific chemist to promote the crystallization of deliquescent substances in vacuo, from its intense avidity for water. Besides the monohydrate above described, *S. A.* forms several other well-marked hydrates; among which may be noticed the *bihydrate*, a colorless liquid, having a sp. gr. of 1·78, and solidifying in transparent colorless prisms at about 40° Fahr.: hence it is often called *glacial S. A.* It may be easily formed by mixing the monohydrate with water, until the proper sp. gr. is reached. If a very dilute acid be evaporated in vacuo until it ceases to lose weight, a definite *terhydrate* is formed, having a density of 1·632. The oil of vitriol of commerce is never pure, but contains lead derived from the leaden chambers in which it is made, arsenic, and nitric acid. The first impurity is detected on dilution, sulphate of lead (which is less soluble in dilute than in strong acid) falling down as a milky precipitate. Arsenic gives a yellow precipitate with sulphuretted hydrogen, and nitric acid a purplish-red coloration when a solution of green vitriol is added to the suspected acid. In its concentrated form, it acts but feebly on metallic bodies. When water is present, the more easily oxidizable metals are dissolved with the evolution of hydrogen. The sulphates are a numerous and important class of salts. They are mostly composed of an equivalent of acid and an equivalent of the metallic oxide. They vary somewhat in the numbers of atoms of water of crystallization, some being anhydrous, others containing as much as twelve equivalents. *S. A.* also forms acid hisalts, of which the *bisulphate of potash* may be taken as an example, $KO.H_2O.2SO_3$. In a few instances, basic salts are formed; as, for instance, the basic *sulphate of copper*, $CuSO_4 5H_2O$. *S. A.* and its salts are recognized by giving a white precipitate with a soluble salt of barium, insoluble in nitric acid. *Form.* SO_3.

Sul'phuring, *n.* Act or art of bleaching by fumes of sulphur.

Sul'phurous Acid, *n.* (*Chem.*) An acid formed by the union of an equivalent of sulphur with two of oxygen in a variety of ways, the most familiar being its production during the combustion of sulphur in the open air or in oxygen. The gas produced is endowed with the properties of a weak acid, and is the sole product of the combustion, provided the air or oxygen be perfectly dry. It has a pungent, suffocating odor, and when in a concentrated form cannot be breathed with impunity. It is not inflammable, and extinguishes burning bodies. It dissolves freely in water, which takes up between 40 and 50 times its bulk of the gas. The solution has the smell and taste of the gas itself, and becomes gradually converted into sulphuric acid from absorbing oxygen from the air. Crystalline hydrate, $SO_2 9H_2O$ and SO_2HO, may be obtained at a low temperature. The former melts at 40° F. Sulphurous acid gas is much used for bleaching straw and wool, the articles being moistened and suspended in a chamber in which sulphur is burning. It appears to act by forming a colorless compound with the coloring matter; for woollen goods which have been thus bleached become yellow on being washed with an alkaline soap. It is also used for preserving certain animal substances, such as vellum and catgut. It has also been employed as a disinfecting agent. At ordinary temperatures, sulphurous acid is a gas; but it may be readily condensed into a liquid by a pressure of 3 atmospheres, or by a freezing mixture of ice and salt. When the liquid acid is evaporated under the air-pump, part of it solidifies from the cold produced. The liquid acid boils at 14° F.; and if poured into water, the cold produced by its reconversion into the gaseous state is so intense that the water is frozen. When required perfectly pure for laboratory purposes, sulphurous acid is made by the deoxidation of sulphuric acid. The mode generally adopted is to boil sulphuric acid with metallic copper of mercury, an equivalent of oxygen, leaving 1 portion of the acid to form an oxide with the metal. Sulphurous acid is a powerful reducing agent, liberating iodine from iodic acid, and precipitating tellurium and selenium from their acids. The *sulphites* are somewhat weak salts, presenting considerable analogy to the carbonates, the salts of the same metals being often isomorphous. With the alkalies it forms a double set of salts, containing respectively 1 and 2 equivalents of acids. Bisulphite of soda was formerly much used to neutralize the excess of chlorine; and bisulphide of lime is extensively employed in the manufacture of sugar. The *sulphates* are readily formed by passing sulphurous acid gas through water in which the carbonate or oxide of the metal is dissolved or suspended. They are decomposed by nearly all the acids, with the exception of the carbonic and boric, with the liberation of sulphurous acid. The acid sulphates of baryta, strontia, lime, and magnesia, and the neutral and acid sulphates of the alkalies, are soluble in water. Most of the others are insoluble, and may be precipitated by the addition of a soluble sulphate to their solutions. *Form.* SO_2.

Sul'phur Spring, in *Arkansas*, a township of Montgomery co. — A township of Polk co.

Sulphur Spring, in *N. Carolina*, a village of Buncombe co., 260 m. W. of Raleigh.

Sul'phur Springs, in *Illinois*, a township of Morgan co.

Sulphur Springs, in *Indiana*, a post-town of Henry co., 7 m. N.W. of Newcastle.

Sulphur Springs, in *Mississippi*, a post-village of Madison co.

Sulphur Springs, in *Missouri*, a village of Jefferson co., 21 m. W. of St. Louis.

Sulphur Springs, in *Texas*, a post-town, cap. of Hopkins co., about 3 m. S.W. of Tarrant.

Sul'phur-wort, (*-wurt,*) *n.* (*Bot.*) See PEUCEDANUM.

Sul'phury, *a.* Possessing the qualities of sulphur.

Sulpicians, (*-pish'yans,*) or PRIESTS OF THE MISSION OF ST. SULPICE. (*Eccl.*) A Roman Catholic congregation of priests, founded in 1642 by Jean Jacques Olier, pastor of the parish of St. Sulpice in Paris, for the purpose of educating pious priests. Many of the number of this congregation, as the founder Olier, J. A. Emery, and Carrière, are counted among the greatest theologians of France. The Sulpicians conduct in France about 20 seminaries, and 2 in N. America (Baltimore and Montreal.)

Sulpicius Severus, (*sul-pish'i-us,*) an ecclesiastical historian, who flourished at the commencement of the 5th century, and was likewise distinguished for his eloquence and piety. He wrote *The Life of St. Martin of Tours*, and an *Abridgment of Ecclesiastical History.*

Sul'tan, *n.* [Ar.] The title commonly given by Europeans to the Padishah, Emperor, or Grand Signior of the Turks.

Sulta'na, Sul'taness, *n.* The wife of a sultan.

Sultan'ic, *a.* Belonging, or relating to a sultan.

Sul'triness, *n.* State of being sultry.

Sul'try, *a.* (*comp.* SULTRIER ; *superl.* SULTRIEST.) [A. S. *swolath ;* Ger. *schwül*, sultry, close.] Very hot, burning, and oppressive; as, a *sultry* desert. — Very hot and moist, or hot, close, stagnant, and unelastic, as air; as, a *sultry* day.

Sultze, (*sool'tza,*) a walled town of Mecklenburg-Schwerin, 20 miles from Rostock; *pop.* 4,415.

Sum, *n.* [Fr. *somme ;* Lat. *summa.*] The aggregate of two or more numbers, magnitudes, quantities, or particulars; the amount or whole of any number of things or particulars added; as, the *sum* of 9 and 4 is 13. — Any indefinite amount of money or currency; as, a large or small *sum.* — That which is most important to anything; the chief point; the substance; the amount; the compendium; the aggregate; as, money is the *sum* and substance of avarice. — Height; completion; as, the *sum* of man's well-being. — A problem to be solved, or example to be wrought, in arithmetic; as, a *sum* in the Rule of Three.

—*v. a.* (*imp.* and *pp.* SUMMED,) (*sŭmd.*) [Fr. *sommer ;* A. S. *sommian.*] To compute; to collect or add, as particulars into one whole or aggregate; to bring, as two or more particular numbers into one total; — generally preceding *up ;* as, to *sum up* figures. — To bring into a small compass or in a few words; to condense; to comprise; to comprehend; — usually with *up ;* as, the judge *summed up* with singular ability.

(*Falconry.*) To cause to have complete plumage.

Su'mac, Su'mach, Shu'mac, *n.* (Colloq. *shū'-mak.*) (*Bot.*) See RHUS.

Sumatra, (*soo-ma'tra.*) The most W. island of the E. Archipelago, and, next to Borneo, the largest in the E. seas, between Lat. 6° N., and 4° S., and the 96th and 106th degs. of E. Lon., separated on the N.E. from the Malay Peninsula by the Straits of Malacca, and on the S.E. from Java by the Straits of Sunda, having E. the Sea of Java, and surrounded on nearly all the other sides by the Indian Ocean. It is of an elongated shape, about 1,050 m. in length ; *area*, about 125,000 sq. m. A range of lofty mountains, 15,000 feet high, traverse the island on its western side, while vast plains, watered by immense rivers, stretch to the eastward. The climate varies according to the elevation of the land, from the scorching plains of a tropical region to the freezing cold of an arctic latitude. The wild animals are very numerous, and in no part of the East does the tiger attain more formidable dimensions; the hippopotamus, rhinoceros, elephant, bear, hoar, and varieties of deer, monkeys, and many other kinds of wild and savage animals, haunt the woods or prowl over the plains. Birds and insects of all sizes and colors literally swarm. Rice, sugar, betell, cocoa-nut, millet, coffee, sago, all kinds of spice and pepper, grow profusely, while tobacco and the cotton-plant are generally cultivated. The mineral wealth of Sumatra is remarkable, gold being extensively found, as well as iron, tin, copper, sulphur, and a large number of precious stones. The native Sumatrans have been driven by the Malays into the interior, and are a peaceable, orderly, and sober people, while the mixed tribes along the coast partake more of the character of the Malay stock, from which they have sprung. Their chief manufactures are gold and silver filigree work, carving in ivory, and basket and mat weaving. The island is divided into many petty states. The European settlements, Bencoolen, Padang, and others, are on the S.W. coast. A large portion of the inhabitants of *S.* are Mohammedans; the rest is said to be without religious worship of any kind. *S.* was first visited by the Portuguese in 1509, by the Dutch in 1600, and by the English in 1602. The English settlements were ceded to the Dutch in 1825, in exchange for Malacca. *Pop.* estimated at 2,500,000.

Sumbawa, (*soom-baw'wa,*) an island of the Sunda group, Eastern Archipelago, separated from the island of Lombok by the Strait of Allass; Lat. bet. 8° 4′—9° 2′ S., and 116° 50′ — 119° 15′ E. Lon. *Area*, 5,838 sq. m. The island, nearly divided into two parts by a bay, possesses a soil of great fertility, and is now divided into the kingdoms of Sumbawa, Bima, Dompo, and Saugar. On the E. side is the volcano of Tomhora, 9,000 feet high. The natives of *S.* belong to the Malay race; they are inoffensive and industrious. *Pop.* nearly 100,000.

Sumbhul, (*soom'bool,*) a town of British India, presidency of Bengal, 50 m. from Bareilly ; *pop.* 11,428.

Sum'bul, *n.* (*Bot.*) See NARDOSTACHYS.

Sum'less, *a.* Inestimable; not to be summed or computed.

Sum'marily, *adv.* [From *summary.*] In a summary manner; in a narrow compass, or in few words; briefly; concisely. — In a short way or method.

Sum'marize, *v. a.* To write or form summaries or abridgments.

Sum'mary, *a.* [Fr. *sommaire*, from Lat. *summa*, sum.] Containing the sum or substance; reduced into narrow compass, or into few words; short; brief; concise; compendious; as, a *summary* analysis of a book. — Hence, quickly executed; performed with dispatch; as, a *summary* operation.

—*n.* That which contains the sum or substance of a fuller account; a general or comprehensive statement; an abstract, abridgment, compendium, or recapitulation.

Summation, (*-mā'shun,*) *n.* [Fr., from Lat. *summare.*] Act of summing, or forming a total amount. — An aggregate.

(*Math.*) The operation of adding or finding the sum of several quantities.

Sum'mer, *n.* One who sums; a computer.

Sum'mer, *n.* [A. S. *sumer*, *sumor* ; Ger. and Dan. *sommer.*] One of the four seasons of the year; the season which intervenes between spring and autumn; — the summer season, for the northern hemisphere, begins when the sun reaches the Tropic of Cancer, and ends at the following equinox, or lasts from about the 21st of June till about the 22d of September.

Indian summer, in the U. States, a period of warm weather late in autumn, usually characterized by a clear sky, and by a hazy or smoky appearance of the atmosphere, especially near the horizon. The name is derived from the custom of the Indians to use this time in preparation for winter by laying in stores of food, or from their belief that it was caused by a wind blowing directly from the court of the S.W. god.

Summer-complaint. (*Med.*) Diarrhœa occurring in summer — often applied to dysentery and cholera infantum. With some it means cholera infantum only.

—*v. a.* To pass the summer or warm season; as, *to summer* at the sea-side.

—*v. n.* To keep or carry through the summer.

Sum'mer, *n.* [Fr. *sommier.*] (*Arch.*) Any girder or large piece of timber supported on two strong piers or posts, and serving as a lintel to a door, a window, &c.

Summer, in *Maine*, a post-village and township of Oxford co., 40 m. W. of Augusta.

Sum'mer-colt, *n.* In England, the undulating state of the air near the surface of the ground when heated.

Sum'mer-duck, *n.* (*Zoöl.*) The WOOD-DUCK, *q. v.*

Sum'mer-fallow, *n.* (*Agric.*) A fallow made during the warm months, to kill weeds.

—*a.* Lying fallow during the summer.

—*v. a.* To plough and let lie fallow.

Sum'merfield, in *Illinois*, a post-village of St. Clair co., 27 m. E. of St. Louis.

Sum'merfield, in *Michigan*, a township of Monroe co.

Sum'merfield, in *Ohio*, a post-village of Noble co., 100 m. S.E. of Columbus.

Summer Hill, in *New York*, a post-township of Cayuga co.

Summer Hill, in *Pennsylvania*, a post-village and township of Cambria co., 23 m. S.W. of Hollidaysburg; —A township of Crawford co., 10 m. W.N.W. of Meadville.

Summer Lake, in *Oregon*, abt. 10 m. long; Lat. 42° 40′ N., Lon. 120° 40′ W.

Sum'merliness, *n.* State or quality of being like summer.

Sum'mersault, Summerset, *n.* Same as SOMERSAULT, *q. v.*

Sum'merset, in *Iowa*, a post-village of Warren co., 115 m. W.S.W. of Iowa City.

Sum'mer-tree, *n.* (*Arch.*) A breast-summer. See BEAM.

Sum'merville, in *Georgia*, a post-village, cap. of Chattooga co., 195 m. N.W. of Milledgeville.

Sum'merville, in *Kentucky*, a post-village of Greene co., 85 m. S.S.W. of Frankfort.

Summerville, in *Michigan*, a post-village of Cass co., 11 m. W. of Cassopolis.

Summerville, in *North Carolina*, a post-village, former cap. of Harnett co., 30 m. S. of Raleigh.

Summerville, in *Ohio*, a village of Union co.

Summerville, in *Pennsylvania*, a post-borough of Jefferson co.

Summerville, in *South Carolina*, a post-village of Berkeley co., 22 m. N.W. of Charleston.

Summerville, in *Wisconsin*, a village of Rock co., 50 m. S.E. of Janesville.

Summerville, in *W. Virginia*, a village, cap. of Nicholas co., abt. 140 m. W. of Wheeling.

Sum'mist, *n.* One who sums up; one who forms a compendium.

Sum'mit, *n.* [Fr. *sommet ;* Lat. *summitas.*] The top; the apex ; the highest point ; as, the *summit* of a mountain. — The highest point, pinnacle, or degree ; highest elevation ; as, the *summit* of ambition.

Sum'mit, in *Colorado*, a N.W. central co.; *area*, 690 sq. m. *Rivers.* Blue, White, and Yampah, or Beaver river. *Surface*, traversed in the E. by the Rocky Mountain range, of which Long's Peak attains an elevation of 12,300 ft. *Min.* Gold. *Products.* Little in agriculture, some stock raising in the valleys. *Cap.* Breckenridge. *Pop.* (1897) 2,206.

Sum'mit, in *Illinois*, a post-village of Cook co., about 12 m. S.W. of Chicago.

- am'mit, in the State of *Iowa*, a township of Marion county.

· um'mit, in *Michigan*, a township of Jackson county, immediately S. of Jackson.—A township of Mason co.—A post-village of Oakland county, about 14 m. N.E. of Ann Arbor.

Sum'mit, in the State of *Minnesota*, a township of Steele county.

Sum'mit, in *New Jersey*, a post-township of Union county.

Sum'mit, in *New York*, a post-township of Schoharie co., 50 m. S.W. of Albany.

Sum'mit, in *Ohio*, a N.E. co.; *area*, 391 sq. m. *Rivers*, Cuyahoga, the head streams of the Tuscarawas river, and Wolf creek. *Surface*, elevated and undulating; *soil*, very productive. *Min.* Stone coal; also mineral fire-proof paint. *Cap.* Akron. *Pop.* (1897) 60,000.

—A township of Monroe co.

Sum'mit, in *Pennsylvania*, a township of Butler county.—A post-borough of Cambria county, about 104 miles E of Pittsburg.—A township of Crawford county, about 10 miles W. of Meadville.—A township of Erie county.

—A township of Somerset county.

Sum'mit, in *Utah*, a N. E. county; *area*, 3,062 sq. m. *Rivers*. Weber and its affluents. *Surface*, mountainous, and in parts covered with forests. *Cap.* Coalville. *Pop.* (1895) 9,631.

Sum'mit, in *Wisconsin*, a township of Juneau county.

—A village and townsbip of Waukesha county, 30 m. W. of Milwaukee.

Summit Bridge, in *Delaware*, a post-village of Newcastle co., 30 m. N.W. of Dover.

Sum'mit Hill, in *Pennsylvania*, a post-borough of Carbon co., 9 m. W. of Mauch Chunk.

Sum'mitville, in *Indiana*, a post-town of Madison co., about 18 m. N. of Anderson.

Sum'mitville, in *Iowa*, a post-village of Lee co., 15 m. N N.W. of Keokuk.

Sum'mitville, in *Ohio*, a post-village of Columbiana co., 20 m. W.N.W. of Wellsville.

Sum'mon, *v. a.* [Lat. *submoneo — sub*, and *moneo*, to remind.] To cite; to notify; to call or commaud to appear; as, to *summon* assistance. — To warn to appear in court, and defend; to call by authority to appear at a place specified, or to attend in person to some public duty, or both; as, to *summon* a jury. — To rouse or excite into action or exertiou; —preceding *up;* as, to *summon up* one's energies.

Sum'moner, *n.* [Fr. *semoneur.*] Oue who summons or cites by authority.

—In England, the sheriff's messenger, employed to notify persons to appear in court.

Sum'mons, *n.; pl.* SUMMONSES. A call by authority or the command of a superior to appear at a place named, or to attend to some public duty; a citation.

(*Law.*) A writ commanding the sheriff, or other authorized officer, to notify a party to appear in court, to answer a complaint made against him, and in the same writ specify some day therein mentioned.

(*Mil.*) A command or invitation to surrender.

Sum'mons, *v. a.* To summon, or give a summons to.

Sum'ner, CHARLES, an American statesman, B. in Boston, 1811, graduated at Harvard College, 1830, was called to the bar, 1834, and elected to the Senate, 1851, as successor to Daniel Webster. His first important speech was against the Fugitive Slave Act, in which speech he laid down as a guide for political action the formula to which he has since adhered that "freedom is national and slavery sectional." In 1856 a brutal attack was made upon him in the Senate Chamber by Mr. Brooks, a member of Congress from S. Carolina, who had been incensed by Mr. *S.*'s denunciation of the slaveholders. The injury inflicted with a gutta-percha cane proved very serious, and was followed by a severe and long prostration, from which his recovery was not complete till 3 or 4 years later. During the discussion resulting from the secession of the Slave States, he earnestly opposed in the Senate all concession to, or compromise with, slavery, and early proposed emancipation as the speediest mode of bringing the war to a close. From March 4, 1861, for several years, he was Chairman of the Senate Committee on Foreign Relations. D. Mar. 11, 1874. See Pierce's *Life of Sumner.*

Sum'ner, in *Illinois*, a twp. of Kankakee co. *Pop.* (1897) 1,020.

—A city of Lawrence co., on the Balt. & Ohio S.W. R.R., 19 m. W. of Vincennes, Ind. *Pop.* (1897) 1,250.

Sumner, in *Iowa*, a post-village and township of Bremer county, about 21 miles N.E. of Waverly.

—A township of Buchanan county.

—A township of Iowa county.

—A township of Webster county.

—A township of Winneshiek county.

Sumner, in *Kansas*, a village of Atchison county, on the Missouri river, 5 m. S. of Atchison.

Sumner, in *Michigan*, a post-township of Gratiot co.

Sumner, in *Minnesota*, a township of Fillmore co.

Sumner, in *Tennessee*, a N. county, bordering on Kentucky; *area*, 536 sq. m. The Cumberland river bounds it on the S. *Surface*, undulating; *soil*, fertile. *Cap.* Gallatin. *Pop.* (1897) 25,540.

Sumner, in *Wisconsin* a township of Trempealeau co., abt. 32 m. N. of Galesville.

Sum'neytown, or SUMANYTOWN, in *Pennsylvania*, a post-village of Montgomery county, 98 miles E. of Harrishnrg.

Sump, *n.* [L. Ger., Dan. and Swed.] (*Mining.*) A pit sunk in the engine shaft below the lowest workings.—In salt-works, a pond in which the water pumped up is retained for use.

(*Metall.*) A round pit of stone, lined with clay, for receiving the metal on its first fusion.

Sump, *n.* [Lat. *sumere, sumptum*, to take or assume.] (*Logic.*) The major premise of a syllogism.

Sump'ter, *n.* [Fr. *sommér*, from Lat. *sagma*, a pack-saddle, *summa*, sum, amount.] A horse or mule that carries clothes or furniture; a baggage-horse; — generally prefixed to another word.

Sump'tuary, *a.* [Fr. *somptuaire.*] Relating to expense; regulating expenditure.

Sumptuous, (*sŭmt'yu-us,*) *a.* [Fr. *somptueux.*] Very expeusive or costly; characterized by cost or magnificence; — hence, spleudid; ornate; magnificent; princely; as, be lives in *sumptuous* style.

Sump'tuously, *adv.* In a sumptuous mauuer.

Sump'tuousness, *n.* State or quality of being sumptuous.

Sum'ter, THOMAS, an American revolutionary general, B. in S. Carolina about 1734. He first took part in the revolutionary war as lieutenaut-colouel of a regiment of S. Carolina rifleuen, but after the capture of Charleston by the British, in 1780, be became brigadier-general of light cavalry, and soon distinguished himself as a partisan leader, being familiarly kuown amoug his followers as tbo "Carolina game-cock." After gaining several important successes over the British and Tories, to whom be became a terror, bo was defeated by the Britisb Gen. Tarletou, in Sept., 1780, at the mouth of Fisbing Creek in the Catawba, Chester dist., but collecting another body of light-borse, be defeated the British under Col. Wemyss, near Broad River, Nov. 18tb, and ten days later, Geu. Tarleton at Blackstocks, on Tiger River, in which latter engagemeut, however, he was severely wounded. He again took the field in the spring of 1781, and participated in tbe battle of Eutaw Springs, in which he distinguished himself, but was compelled soou after to retire from the service, owing to ill-health. He received the thanks of Congress in 1791, and was afterwards elected a member of that body from S. Carolina; was appointed U. S. minister to Brazil in 1809, aud ou his return two yeare later, was elected to the U. S. senate from S. Caroliua, after which he retired into private life. D. 1832.

Sumter, (Fort,) in *S. Carolina*, a fort built on an artificial island, at the entrance of Charleston Harbor, 2½ m. distant from forts Moultrie and Pinckney, on each side, and named in bonor of Gen. Sumter. When S. Carolina seceded, Dec., 1860, Major Anderson, in commaud of tbe defeuces of the barbor, being called upon to surrender them to the State authorities, abandoned Forts Moultrie and Pinckuey, and occupied Fort *S.* with a garrison of about 100 men. Tbis was considered an act of war by the Confederates, and the commander of their troops, Gen. Beauregard, attacked the fort, April 12,

Fig. 2446. — FORT SUMTER IN 1860.

1861, and compelled Major Anderson to capitulate the day following. This was tho first action of the memorable war which, during four years, desolated the country. During the siege of Charleston, this fort was battered by the heaviest artillery, until its walls were completely crushed and shattered. The flag-staff was shot away fifty times, and thousands of tons of iron projectiles were mingled with the débris of the fort; but the garrison constructed a still stronger fortress on its ruins, and held it for three years against assault and hombardment, until the operations of General Sherman compelled its evacnation.

Sumter, in *Alabama*, a W. co., bordering on Mississippi; *area*, 910 sq. m. *Rivers.* Tombigbee and Noxubee rivers, and Tugaloo creek. *Surface*, undulating; *soil*, géuerally fertile. *Cap.* Livingston. *Pop.* (1897) 31,350.

Sumter, in *Florida*, a central co., formerly the S. part of Marion co. *Cap.* Sumterville. *Pop.* (1897) 5,363.

Sumter, in *Georgia*, a W.S.W. co.; *area*, 515 sq. m. *Rivers.* Flint river, and Kinchafoone and Muckalee creeks. *Surface*, level; *soil*, generally fertile. *Cap.* Americus. *Pop.* (1897) 23,485.

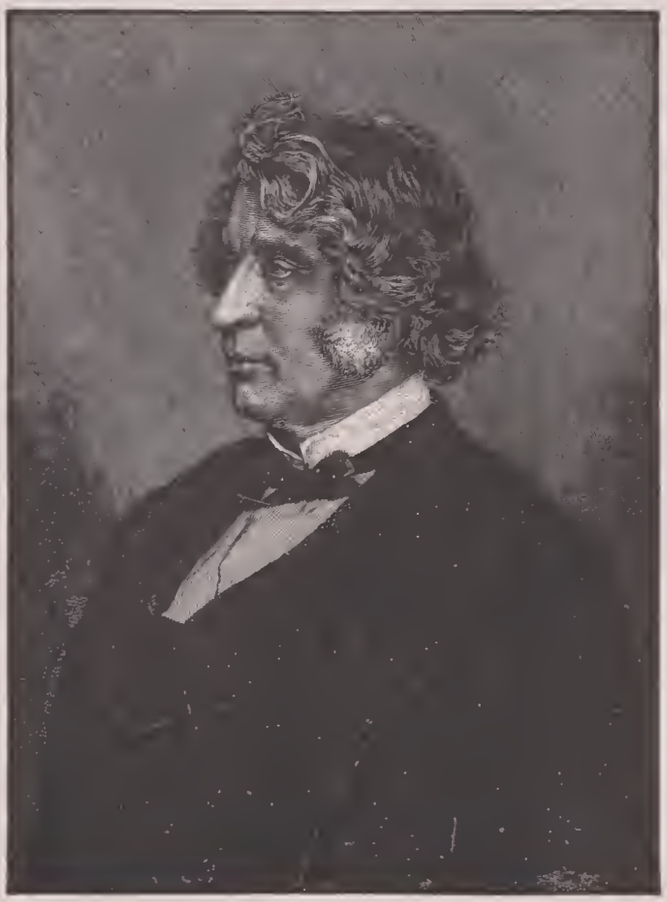
Snnter, in *Michigan*, a township of Wayne county.

Sumter, in *South Carolina*, an E. central co.; *area*, 1,870 sq. m. *Rivers*, Santee, Wateree, the head streams of Black river and Lynch's creek. *Surface*, undulatiug and partly covered with pine forests; *soil*, generally fertile. *Cap.* Sumterville, situated 63 m. S.. E. of Colnmbia. *Pop.* (1897) 46,100.

Sum'terville, in *Alabama*, a post-village of Sumter co., 64 m. S.W. of Tuscaloosa.

Snnterville, in *Georgia*, a village of Lee co., 100 m. S.S.W. of Milledgeville.

Sun, *n.* [A. S. *sunna.*] (*Astron.*) The sun is the great central body of the solar system, and the grand source of light and heat. It has an appareut motion among the stars from W. to E., along a great circle, called the *ecliptic*, making a complete circuit of the heavens in 365 days, 6 hours, and 9 miuutes, though the period from equinox to equinox is some 20 miuutes less, owing to the precessiou of the equinoxes. (See PRECESSION.) The distanco of the earth from the sun has been quite recently corrected from 95,000,000 miles to about 92,521,000 miles. Its diameter is 850,100 miles, upwards of 107 times the mean diameter of the earth. The circumference of the suu is 2,671,000 miles. Its solid contents or bulk exceed that of the earth 1,405,000 times; tbat is to say, it would require that number of earths to make one globe of the magnitude of the sun. Its mass only exceeds that of the earth 356,000 times. The sun rotates upon its axis in the same direction as the earth, from W. to E., in about 25 days, 8 hours. When the sun is examined through a telescope, its surface is found to be marked by black spots, edged with a penumbral fringe of uuiform shade. Sometimes these spots appear singly, soiuetimes in groups. They are not permanent, but undergo changes of form from day to day, or even from hour to hour, which is believed to indicate a gaseous form of matter. They seldom last longer than 6 weeks, and often only a few hours. When tbey disappear, the black center or umbra always vanishes before the penumbra. Schwabe, of Dessau, having perseveringly studied these spots for more than a third of a century, arrived at a remarkable law of periodicity affecting them. He found that they gradually increased in number up to a certain period, then decreased to a certain period, then increased again, and so on. According to this investigator, the cycle is completed in about 10 years. These spots were among the earliest discoveries of the telescope. Recent experimente with its spectrum indicates the presence in the sun's atmosphere of familiar elements Fraueuhofer discovered in tbe solar spectrum a series of dark lines, which are hence known as "Frauenhofer's lines." Kirchöff, by following out the elegant process called spectrum analysis, discovered in the atmosphere of the sun several metals, including sodium, calcium, lithium, iron, &c. During the total eclipse of 1842 prominences of various forms and of a reddish color were visible throughout the contour of the moon's limb during the period of totality. These protuberances had been noticed as early as 1733; but it is only since 1842 that they have been observed with great care. From observations made during the total eclipse of July, 1860, and August, 1868, it seems proved that these rose-colored prominences, rising 125,000 miles, and even 250,000, in height, are clouds floating in tho solar atmosphere. On January 3, 1897, there appeared on the sun's eastern limb a spot of appalling magnitude. It soon subtended an angle of 100″, and its linear dimension was therefore 45,000 miles and its area 1,600,000,000 square miles—eight times that of the entire surface of the earth. It was for several days visible to the naked eye. According to Wilson's theory, the sun is a dark body, the spots depressions, the umbra the bottom showing the sun's dark body, and tho penumbra the shelving sides. Except in considering the sun a dark body, the theory is a very reasonable one, and for 120 years has been accepted as truth; but it is now beginning to be called in question. Many astronomers assert that they have seen the spots as elevations instead of depressions, which only shows how little is known about the most conspicuous object in our universe. When examined by the telescope, tho sun's entire globe is seen to be covered by millions of tiny dots, called *pores, rice-grains*, and *willow-leaves.* Although apparently so small, these are nearly a thousand miles in diameter. Another inexplicable phenomenon is the sun's faculæ, which appear to be long, narrow, luminous ridges, thousands of miles in height and many in length. They are much brighter than the general surface of the sun, called the *photosphere.* The chromosphere is one of the sun's atmospheres at least 5,000 miles in thickness, which the spectroscope pronounces to be red-hot hydrogen gas. It is visible with the telescope when the sun is totally eclipsed by the moon, appearing like a scarlet thread surrounding the disk for about one and a-half seconds after the beginning and before the ending of totality. It is from this chromospheric layer that the prominences are ejected, by a force inconceivable to us, with a velocity from 100 to 200 miles a second, and to a height (on one occasion) of 58,000 miles greater than the moon's distance from the earth. The corona, seen only during the total phase of eclipse, is reflected sunlight from incoherent particles of matter, the nature of which is unknown. It shines like burnished silver, in striking contrast with the scarlet tint of the prominence, both being seen at the same time. A short distance from the sun it assumes the form of streamers, which have been traced to a length of several million miles, some of which are curved, some radial, and others tangentive. Still another phenomenon is "Bailey's Beads," seen only at the beginning and end of totality, whose cause has elicited much discussion. The spectroscope has revealed the presence of 23 terrestrial elements in the sun's atmosphere, a world of hydrogen, but no oxygen. Many theories have been put forth to account for the supply of the prodigious amount of heat constantly radiated from the solar surface. One theory is that the sun is now giving off the heat



Charles Sumner

1811–1874

imparted to it at its creation, and that it is gradually cooling down; another ascribes it to combustion; a third to currents of electricity; a fourth to the compression of matter from the nebular state; and fifth, that a stream of meteoric matter, constantly pouring into the sun from regions of space near it, supplies the fuel for the evolution of its heat.

—The luminary or orb which constitutes the centre of any system of worlds.—Sunshine; a position exposed to the direct influence of solar light and heat; as, to bask in the *sun*.—Anything eminently splendid or luminous; as, "the *sun* of sovereignty."—*King Charles I.*

Under the sun. On earth; in the world; existing; —employed in a proverbial sense; as, there is nothing new *under the sun*.

Sun, *v. a.* (*imp.* and *pp.* SUNNED,) (*sŭnd.*) To expose to the sun's rays; to insolate; to warm or dry in the light of the sun.

Sunapee, in *New Hampshire*, a post-township of Sullivan county, on Sunapee Lake, about 6 miles east of Newport.

Sunapee Lake, in *New Hampshire*, on the border of Merrimac and Sullivan cos., 10 m. long and nbt. 2 m. wide, the surplus waters of which are discharged through Sugar River into the Connecticut.

Sun'beam, *n.* A beam or ray of the sun.

Sun'-bird, *n.* (*Zoöl.*) The common name of the genus PREMEROPS, *q. v.*

Sun'-blind, *a.* Blind from too bright sunshine.

Sun'burn, *v. a.* (*imp.* and *pp.* SUNBURNED or SUNBURNT.) To burn, scorch, tan, or discolor by the sun; as, a *sunburnt* complexion.

Sun'burst, *n.* The name given to an Irish national emblem, representing the first beams of the sun rising above the horizon.

Sunbury, in *Georgia*, a village of Liberty co., 30 m. S.S.W. of Savannah.

Sunbury, in *Illinois*, a post-village and township of Livingston co., 12 m. N. of Pontiac.

Sunbury, in *N. Carolina*, a post-village of Gates co., 150 m. N.E. of Raleigh.

Sunbury, in *Ohio*, a post-village of Delaware co., 20 miles N.N.E. of Columbus.—A township of Monroe county.

Sunbury, in *Pennsylvania*, a borough of Butler co., 10 m. N. of Butler.—A post-borough, cap. of Northumberland county, on the Susquehanna river, 56 miles N. of Harrisburg. Large quantities of anthracite coal, from the Shamokin region, are shipped every year from Sunbury.

Sun'cook, in *New Hampshire*, a post-village of Merrimac co., 7 m. S.E. of Concord.

Sun'cook River, in *New Hampshire*, rises in Strafford co., and flowing S.W., falls into the Merrimac River 15 m. S.S.E. of Concord.

Sunda Islands, a name often still applied to the islands of the Eastern Archipelago which lie around the Java Sea. Sumatra (visited by Nicolo di Conti in 1449), Java (discovered by the Portuguese in 1511), Borneo (discovered by the Portuguese in 1518), Celebes (occupied by the Portuguese in the 16th century), form what are termed the Greater Sunda Islands. The Lesser Sunda Islands consist of the chain of islands extending from the E. coast of Java to New Guinea, or Papua.

Sun'day, *n.* [A. S. *sunnan-dæg*; Ger. *sonntag*; Dan. *söndag*. So called because this day was anciently dedicated to the sun, or to its worship.] The Christian Sabbath or Lord's Day; the first day of the week.

(*Law.*) In some of the New England States, *S.* begins at sunsetting on Saturday and ends at the same time the next day. But in other parts of the U. States it generally commences at 12 o'clock on the night between Saturday and Sunday, and ends in 24 hours thereafter. In some States, owing to statutory provisions, contracts made on Sunday are void; but in general they are binding, although made on that day, if good in other respects.

—*a.* Belonging or having reference to the Lord's Day or Christian Sabbath.

Sun'day-school, *n.* See SCHOOL.

Sun'der, *v. a.* [A. S. *syndrian*; D. *zonderen*; Icel. *sunde*, apart.] To put an object or space between; to part; to separate; to divide; to disunite in almost any manner, either by rending, cutting, or breaking; as, to *sunder* the ties of friendship.

—*n.* A separation, division, or severance.

Sunderbunds, (*sŭn'der-bunds,*) a densely wooded jungle, situated on the banks of the intersecting terminal branches of the Ganges, forming the delta of that river in the presidency of Bengal. These sandy, marshy, and rank savannas are rendered doubly dangerous to man from the jungle fever always prevalent in their reeking swamps, and from the numbers of alligators and tigers who populate them.

Sunderland, a town and seaport of England, co. Durham, on the Wear, 13 m. N.E. of Durham, and 245 N.N.W. of London. *S* includes within its limits the towns of Bishop-Wearmouth and Monk-Wearmouth, and is a populous and prosperous place, possessing, next to Newcastle, the largest export trade of coal in the kingdom. *Manuf.* Sail-cloth, chain-cables, glass, and earthenware. Iron ship-building is also extensively carried on

Sunderland, in *Massachusetts*, a post-village and township of Franklin county, 82 miles north-west of Boston.

Sunderland, in *Vermont*, a post-village and township of Bennington county, 95 miles S.W. of Montpelier.

Sun'dew, *n.* (*Bot.*) See DROSERACEÆ.

Sun'-dial, *n.* An instrument to show the time of day by means of the shadow of a style on a plate. Up to comparatively recent times, the science of constructing *S.*, under the name *Gnomonics*, was an important part of a mathematical course. As long as watches were scarce and clocks not very common, the dial was in ordinary use as a timekeeper. A large number of mathematical works of the 17th century are on the subject of dialling. The *S.* consists of two parts; first, the styles, the shadow of which points out the time; and the dial, which is a plate of metal, horizontal or otherwise, on which are marked the direction of the shadow for the several hours, and their divisions and subdivisions.

Sun'-dog, *n.* A luminous spot sometimes seen a few degrees from the sun.

Sun'down, *n.* Sunset.

Sundries (*-driz,*) *n. pl.* Many different articles; sundry things.

Sun'dry, *a.* [A. S. *syndrie, syndrig*, separate.] Several; different; divers; various; many; more than one or two.

Sun'field, in *Michigan*, a post-township of Eaton co., 24 m. W. of Lansing.

Sun-fish, *n.* (*Zoöl.*) The common name of the genus *Orthagoriscus*, order *Plectognathes*, comprising fishes distinguished by their short and compressed body. The short Sun-fish, *O. mola* (Fig. 2447), of the Atlantic, attains the length of 4 feet and the weight of 500 pounds or more.

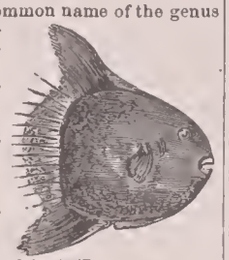


Fig. 2447. — SUN-FISH.

Sunfish, in *Ohio*, a township of Pike co.

Sunfish Creek, in *Ohio*, enters the Ohio River from Monroe co.

Sun'flower, *n.* (*Bot.*) See HELIANTHUS.

Sunflower, in *Mississippi*, a W. N. W. co.; *area*, 720 sq. m. *Rivers.* Sunflower and Yazoo. *Surface*, level; *soil*, fertile. *Cap.* Indianola. *Pop.* (1897) 10,150.

Sunflower River, in *Mississippi*, rises in Coahoma co., and flowing S., enters the Yazoo, near the N. border of Warren co.

Sung, *imp.* and *pp.* of SING, *q. v.*

Sunk, *imp.* and *pp.* of SINK, *q. v.*

Sunken, (*sŭnk'n,*) *a.* Sunk; lying on the bottom of a river or other body of water; as, a *sunken* wrock.

Sun'less, *a.* Shaded; destitute of the sun or its light.

Sun'light, *n.* The light of the sun. (Tautological.)

Sun'man, in *Indiana*, a post-village of Ripley co., 46 m. W.N.W. of Cincinnati.

Sunn, *n.* (*Bot.*) See CROTOLARIA.

Sun'niness, *n.* State of being sunny.

Sun'nite, Sun'niah, *n.* See SHÏTE.

Sun'ny, *a.* (*comp.* SUNNIER; *superl.* SUNNIEST.) Pertaining to, issuing from, or resembling the sun; as, *sunny* rays. — Exposed to the beams of the sun; warmed by the direct rays of the sun; as, a *sunny* situation. — Tinctured by the sun; as, *sunny* tresses.

Sun'-picture, *n.* Same as PHOTOGRAPH, *q. v.*

Sun Prairie, in *Wisconsin*, a post-village and township of Dane county, about 11 miles north-east of Madison.

Sun'-proof, *a.* Impervious to the beams of the sun.

Sun'rise, Sun'rising, *n.* The time at which the sun rises; the first appearance of the sun above the horizon in the morning, or the time of such appearance. — Hence, by analogy, the east or orient; — used chiefly in poetry.

Sunrise, or SUNRISE CITY, in *Minnesota*, a post-village of Chisago co., on the Sunrise River, 37 m. N. of Stillwater.

Sun'set, Sun'setting, *n.* The time when the sun sets; the descent of the sun below the horizon; evening. — Hence, figuratively, the west or occident.

Sun'-shade, *n.* Same as SUN-BONNET, *q. v.*

Sun'shine, *n.* The light of the sun, or the place where it shines; the direct rays of the sun, or the place where they fall. — A place or position warmed and illuminated by the rays of the sun, or as if by the rays of the sun; as, to bask in the *sunshine* of royal favor.

Sun'shine, Sun'shiny, *a.* Bright or resplendent with the rays of the sun; clear, warm, or pleasant; as, a *sunshiny* day.—Bright like the sun; as, a *sunshiny* face.

Sun'-stone, *n.* (*Min.*) A resplendent variety of felspar, of a very pale, yellowish color, found in Norway.

Sun'stroke, or COUP DE SOLEIL, *n.* (*Med.*) A disease affecting those who are exposed to the direct beams of a hot sun, particularly during any labor or active exercise. It is not uncommon among the English troops in India in long marches. They fall down insensible, and often die in a very short time. The nature of this complaint is not well understood. According to some, it is a sort of apoplexy, while others hold that it is more of the nature of concussion. It would appear that the sun's rays act upon the brain like a shock, suddenly and extensively influencing the nervous system, and arresting the movements of the heart. The natives of India adopt the system of pouring cold water upon the head Sun stroke, or *Thermic Fever*, as it is termed, is solely due to the effect of heat; death follows from coagulation of the muscular structure of the heart or by its effects on the brain, the treatment being that of the reduction of the body-temperature. See Wood on *Thermic Fever*.

Sun'up, *n.* Sunrise;—correlative to SUNDOWN.

Sun'ville, in *Pennsylvania*, a post-borough of Venango co., about 14 m. N. of Franklin.

Sun'ward, *adv.* Toward the sun.

Sun'wise, *adv.* In the direction of the sun's motion.

Sup, *v. a.* (*imp.* and *pp.* SUPPED,) (*supt*) [A. S. *supan*, to sup.] To sip; to take into the mouth with the lips, as a liquid; to take or drink by a little at a time; as, to *sup* broth.

—*v. n.* To eat the evening meal; to take supper.

Supawn', *n.* [Ind.] Same as MUSH, *q. v.*

Su'per. A Latin prepositiou, largely used as a prefix in composition, and denoting *above, over*, or *in excess*.

(*Chem.*) See CHEMICAL NOMENCLATURE.

Su'per, *n.* [Abbreviated from *supernumerary*.] A public performer, as an actor, engaged for some special occasion, and who does not belong to the stock company of the theatre.

Su'perable, *a.* [Lat. *superabilis*, from *supero*, to overcome.] Vincible; that may be overcome or conquered; as, a *superable* antipathy.

Su'perableness, *n.* State or quality of being superable or surmountable.

Su'perably, *adv.* So as may be overcome.

Superabound', *v. n.* [*Super*, and *abound*.] To abound to excess; to be very abundant or exuberant; to be more than sufficient.

Superabun'dance, *n.* Excessive abundance; more than enough.

Superabun'dant, *a.* [Fr. *surabondant*.] Being more than is sufficient; abounding to excess.

Superabun'dantly, *adv.* More than sufficient.

Superadd', *v. a.* To add over and above; to add to what has been added.—To add, attach, or annex, as something extrinsic.

Superaddition, (*-dĭsh'un,*) *n.* Act of superadding; state of being superadded.—That which is added.

Superadvenient, *a.* [Lat. *superadveniens*.] Coming to the increase or assistance of something.—Coming unexpectedly.

Superangelic, (*-jĕl'ĭk,*) *a.* Above the angels in nature or rank.

Superannuate, *v. a.* [Lat. *super*, and *annus*, year.] To impair or disqualify by years, or old age and infirmity; as, a *superannuated* judge.—To allow to retire from service on half-pay or a pension, on account of old age or infirmity; as, a *superannuated* soldier or servant.

Superannuation, (*-ā'shun,*) *n.* State of being too old for office or business, or of being disqualified by old age; state of being pensioned off as beyond service.

Superb', *a.* [Fr. *superbe*; Lat. *superbus*, from *super*.] Grand; magnificent; stately; splendid; as, a *superb* city. —Rich; ornate; elegant; as, a *superb* costume.—Showy; pompous; grandiose; as, a *superb* spectacle.

Superbipar'tient, (*-shent,*) *n.* (*Math.*) A number that divides another number nearly, but not exactly, into two parts, leaving something over after the parts are equalized.

Superb'ly, *adv.* In a magnificent or splendid manner; richly; elegantly; showily; as, a lady *superbly* dressed.

Superb'ness, *n.* State of being superb or splendidly magnificent.

Supercargo, *n.* (*Naut.*) The person, in a merchant ship, appointed to superintend all the commercial transactions of the voyage.

Supercelestial, (*-lĕst'yal,*) *a.* Placed above the firmament.

Supercharge, *n.* (*Her.*) A bearing placed upon another.

Supercilliary, (*-sĭl'-,*) *a.* (*Anat.*) Situated above the eyebrows.

Supercilious, (*-sĭl'i-ŭs,*) *a.* [Lat. *super*, and *cilium*, an eyelid.] Expressing pride or haughtiness by raising the eyebrows; manifesting hauteur, or proceeding from it; as, a *supercilious* air, a *supercilious* glance.—Haughty; dictatorial; overbearing; stuck-up; as, a *supercilious* critic.

Superciliously, *adv.* Haughtily; dogmatically; with an air of contempt; in a supercilious manner; as, to speak *superciliously* to an inferior in station.

Superciliousness, *n.* State or quality of being supercilious.

Supercrescence, (*-krĕs'sens,*) *n.* [Fr. *surcroissance*.] That which grows upon another growing thing.

Supercrescent, (*-krĕs'sent,*) *a.* [From Lat. *supercrescere*.] Growing on some other growing thing.

Supercretaceous, Supracretaceous, (*-krē-tā'shus,*) *a.* (*Geol.*) Lying above the chalk.

Supereu'rious, *a.* Intolerably curious or inquisitive.

Superdom'inant, *n.* (*Mus.*) In the descending scale, the sixth of the key.

Superem'inence, Superem'inency, *n.* Distinguished eminence; state of being supereminent.

Superem'inent, *a.* Eminent in a superior degree.

Superer'ogate, *a.* [Lat. *supererogare*.] To do more than is required by duty.

Supererogation, (*-gā'shun,*) *n.* [Lat. *super*, and *erogatio*, from *erogo*, to ask from.] Performance of more than duty requires.

Works of supererogation. (*Theol.*) The belief that men may acquire merit in the eyes of God by good works, beyond what are necessary for salvation.

Supererog'atory, *a.* Performed to a degree not necessitated or required by duty; as, *supererogatory* attentions.

Superessential, (*-sĕn'shal,*) *a.* Essential above the constitution of a thing.

Superfe'tate, *v. n.* [From Lat. *super*, and *fetare*, to bring forth.] To conceive after a prior conception.

Superfetation, (*-tā'shun,*) *n.* [Fr.; Lat. *superfetatio*.] (*Physiol.*) Conception of a fœtus in a uterus which already contains one; the impregnation of a woman already pregnant; — the possibility of this has been denied; but there is abundant evidence to show that it is possible at a very early period of pregnancy.

Superficial, (*-fish'al,*) *a.* [Fr. *superficiel;* Lat. *superficialis — super,* and *facies,* face.] Being on the surface; not penetrating the substance of a thing; shallow; as, *superficial* contents. — Flimsy; shallow; not deep or profound; reaching or comprehending only what is obvious or apparent; as, *superficial* knowledge.

Superficialist, (*-fish'al-,*) *n.* A superficial or shallow person; a smatterer; a sciolist.

Superficial'ity, *n.* Quality of being superficial.

Superficially, (*-fish'al-,*) *adv.* In a shallow or superficial manner.

Superficialness, (*-fish'-,*) *n.* State or quality of being superficial; position on the surface; shallowness.—Shallowness of observation, thought, or learning; flimsiness or slightness of knowledge; sciolism.

Superficies, (*-fish'ēz,*) *n.* [Lat., from *super,* and *facies,* face.] The upper face or side of a thing; the surface; the exterior part.

Su'perfine, *a.* Surpassing others in fineness; very fine; most fine; as, *superfine* cloth.

Su'perfineness, *n.* State or quality of being superfine.

Superflu'ity, *n.* [Fr. *superfluité;* Lat. *superfluitas — super,* and *fluo,* to flow.] Superabundance; excess. —State of being superfluous; something that is beyond what is wanted.

Super'fluous, *a.* More than is wanted or required; redundant; rendered unnecessary by superabundance; more than enough or sufficient.

Superfluous interval. (*Mus.*) An interval in excess of the regular diatonic interval. — *Superfluous sound* or *tone,* a sound or tone which comprises a semitone more than a tone.

Super'fluously, *adv.* In a superfluous manner.

Super'fluousness, *n.* State of being superfluous.

Superhu'man, *a.* Divine; above or beyond what is human; as, *superhuman* force.

Superimpose', *v. a.* To lay or impose something else.

Superimposition, (*-po-zish'un,*) *n.* Act of superimposing, or state of being superimposed.

Superimpregna'tion, *n.* Same as SUPERFETATION, *q. v.*

Superincum'bence, Superincum'bency, *n.* State or condition of being superincumbent.

Superincum'bent, *a.* [Lat. *superincumbens.*] Lying, resting, or pressing upon something else.

Superinduce', *v. a.* [From Lat. *super, in,* and *duco,* to lead.] To bring in or upon, as an addition to something.

Superinduce'ment, Superinduction, (*-dŭk'shun,*) *n.* Act of superinducing, or state of being superinduced.

Superintend', *v. a.* [Lat. *super,* and *intendo.*] To direct the mind or attention to a care over; to have or exercise the charge or oversight of; to control with the power of direction; to take care of with authority; to oversee or overlook; to manage, guide, or regulate; as, to *superintend* a business.

Superintend'ence, Superintend'ency, *n.* Act of superintending for the purpose of direction, and with authority to exercise control or supervision; inspection; oversight; care; arrangement; direction; guidance.

Superintend'ent, *a.* Overlooking others with authority; managerial.

—*n.* One who has the superintendence, or the oversight, or charge of something, with the power of direction; an inspector; an overlooker; an overseer; a director; as, a *superintendent* of police.

Supe'rior, *a.* [Lat., compar. of *superus,* that is above.] Higher; upper; more elevated in place or location; as, the *superior* part of an image. — Higher in rank or office; more exalted in dignity or distinction; as, a *superior* officer — Surpassing others in the greatness, goodness, or value of any quality; higher or greater in merit or excellence; as, a man of *superior* understanding. — Being beyond the power or influence of; too great or firm to be subdued or affected by; — with *to;* as, his mind proved *superior to* the crisis.

(*Bot.*) Posterior; — said of an axillary flower. — Ascending, as a radicle.

—*n.* One who is more advanced in age than another. — One who is more elevated or exalted in rank, office, or dignity than another; as, a man respected by his *superiors.*—One who surpasses others in merit, dignity, excellence, or qualities of any kind; as, Macaulay has no *superior* as a graphic historian.—The chief of a monastery, convent, or abbey.

—*pl.* (*Print.*) Small letters or figures cast at the top of the shank of types, thus (ıs). They are generally used for references to marginal or foot-notes, and in mathematical works.

Supe'rior, (Lake,) the most westerly and most extensive of the great lakes of the St. Lawrence basin, in N. America, being the largest existing body of fresh water. It is of a triangular form, extending between Lat. 46° 30′ and 49° N., and Lon. 85° and 92° 20′ W. Its length, E. to W., is about 360 m., with a mean breadth of about 80 m., so that its area may be taken at about 28,600 sq. m. The mean depth is estimated at 900 feet, and the height of its surface at about 640 feet above the Atlantic. It receives upwards of 50 rivers, but none is of much importance except the St. Louis, which enters at its S.W. extremity, and the Riviere au Grand Portage. During the melting of the snow, these and the other rivers sweep into the lake vast quantities of sand, boulder-stones, and drift timber. It discharges itself at its E. extremity into Lakes Huron and Michigan, by the river and falls of St. Mary. This lake embosoms many large and well-wooded islands, the chief of which is Isle Royal. The country of the N. and E. is a mountainous embankment of rock, from 200 to 1,500 feet in height; the climate unfavorable, and the vegetation slow and scanty. Upon the S. the land is also high, generally sandy, sterile, and the coast dangerous, subject to storms and sudden transitions of temperature, and to fogs and mists. The mean heat in June and July is about 65° Fahr., but a frightful winter prevails for nine months of the year. The boundary line between Canada and the U. S. passes from Lake Huron up the river St. Mary, the outlet of Lake Superior, through the centre of the lower half of this lake, to the mouth of Pigeon River on the N. shore, between Isle Royal and the Canadian coast. The S. coast of the lake from the outlet to Montreal River belongs to the upper peninsula of Michigan. From this river to the River St. Louis at Fond du Lac the coast belongs to Wisconsin, and thence around to Pigeon River to Minnesota. Toward each extremity the lake contracts in width, and at the lower end terminates in a bay which falls into the outlet, the St. Mary's River, at the two opposite headlands of Gros Cape on the N. and Point Iroquois on the S. Thence to the mouth of the St. Mary's at Lake Huron is about 60 m. The navigation of this river is interrupted 20 m. below its source, at the Falls of St. Mary, or, as the place is commonly called, Sault Ste. Marie. Here the river descends in a succession of rapids extending ¾ of a mile, from 18 to 21 feet, the fall varying with the stage of the water in Lake Superior. The obstruction caused by these rapids has been overcome by a canal constructed by the U. S. government, which affords access by vessels from the lake to Lake Huron. This canal is three miles long, with a single lock. A second canal was completed in 1894, and one on the Canada side in 1895. The number of boats passing here annually is three times as many as pass through the Suez Canal, and the tonnage considerably greater. The waters of Lake Superior are singularly pure and transparent. It never freezes over, though winter navigation is prevented by the shore ice. The lake is subject to very violent storms, in which the waves sometimes reach a height of 15 to 18 feet. The Pictured Rocks—cliffs of sandstone presenting fantastic forms, and colored with bands of red and yellow—have long been noted attractions of the beautiful and picturesque lake, and are visited by thousands of tourists annually. The rocks around the lake are very ancient, belonging principally to the Laurentian and Huronian systems of the Azoic series, overlaid in some places, especially on the S. side, with patches of the Lower Silurian. The prevalent Laurentian rock is orthoclase gneiss. Among the Huronian rocks are greenstones, slates, conglomerates, quartzites, and limestones. The Lower Silurian rocks are salt sandstones. There is everywhere much evidence of glacial action. The Huronian rocks are well stored with useful minerals. The copper and iron mines of the S. side are celebrated for their extent and richness. The richest copper-mines are situated near Kee-wee-naw Point. The metal occurs principally native, and sometimes in single masses of great size. Native silver is found associated with the native copper, and sometimes intimately mixed with it. Gold has been found in small specks at Namainse on the British side. Lead ore occurs in some places. The beds of hæmatite, or red iron ore, at Marquette, on the American side, are of wonderful extent. They are situated about 12 m. inland. The ore is conveyed by a railway to the harbor, thence by vessels to Cleveland, on Lake Erie, and thence by rail to Pittsburg, where it is smelted. The water of Lake *S.,* remarkable for its coldness, purity, and transparency, is inhabited by many kinds of fish, among which are the delicious white-fish and the gray trout.

Supe'rior, in *Iowa,* a post-township of Dickinson co.

Superior, in *Michigan,* a flourishing township of Washtenaw co.

Superior, in *Wisconsin,* a city, port of entry, and cap. of Douglass co., near the mouth of St. Louis river, on Lake Superior, about 250 m. W. N.W. of Green Bay; Lat. 46° 38′ 31″ N., Lon. 92° 31′ 28″ W. *Pop.,* including West Superior (1895) 27,337.

Supe'rioress, *n.* A female superior in a conventual establishment.

Superior'ity, *n.* [L. Lat. *superioritas.*] State or quality of being superior; quality of being more advanced or exalted, or higher, greater, or more excellent than another in any respect; preëminence; ascendency; predominancy; as, *superiority* of social position.

Superjacent, (*-jā'sent,*) *a.* [From Lat. *superjacere.*] Lying above; as, *superjacent* strata.

Superlative, *a.* [Fr. *superlatif;* Lat. *superlativus.*] Being borne or lifted up high above others; highest or most eminent in quality or degree; supreme; surpassing all others; as, a man of *superlative* judgment.

(*Gram.*) Expressing the highest or utmost degree in the comparison of adjectives or adverbs.

—*n.* That which is highest, or most exalted or eminent.

(*Gram.*) The highest or third degree in the comparison of adjectives or adverbs; — formed in the Teutonic languages by the additional syllable *est,* as, fair*est;* or by the use of *most* or *least.*

Superlatively, *adv.* In a superlative manner.

Supermundane, *a.* Being above the world.

Supernal, *a.* [Lat. *supernus.*] Being in a higher place or region; having a more elevated location; as, *supernal* orbs. — Celestial; heavenly; relating to, or concerning, things above; as, *supernal* power.

Supernatant, *a.* [From Lat. *super,* and *natare,* to swim.] Swimming or floating on the surface; as, driftwood *supernatant* on water.

Supernatation, (*-tā'shun,*) *n.* Act of floating or swimming on the surface of a liquid body.

Supernatural, *a.* Miraculous; being beyond or exceeding natural laws or powers.

Supernaturalism, (*-izm,*) *n.* State or quality of being supernatural.

(*Theol.*) The doctrine of supernatural influence, agency, or power.

Supernaturalist, *n.* One who holds the tenets of supernaturalism.

Supernaturalis'tic, *a.* Pertaining or having reference to supernaturalism.

Supernatural'ity, Supernat'uralness, *n.* State or quality of being supernatural.

Supernat'urally, *adv.* In a manner exceeding or transcending the established course or laws of nature.

Supernu'merary, *a.* [From Lat. *super,* and *numerus,* number.] Exceeding a number specified or prescribed; as, a *supernumerary* clerk. — Exceeding a necessary, usual, or required number or quantity; as, *supernumerary* expenditures.

—*n.* One who, or that which, is beyond the number stated, or beyond what is necessary or usual; particularly, a person employed to fill the place of another. See SUPER.

Superordination, (*-nā'shun,*) *n.* The ordination of a person to fill a station already occupied.

Superphosphate of Lime, (*-fos'fāt.*) (*Chem.*) A mixture consisting of burnt bones 2 parts, sulphuric acid 1 part, and water 3 parts, allowed to stand for a few days in a warm situation. It is largely used as a manure for land. See MANURE.

Superpose' *v. a.* [Lat. *superponere, superpositum.*] To lay upon, as one kind of rock on another.

Superposition, (*-zish'un,*) *n.* [Fr.] Act of superposing; as, the *superposition* of rocks. — State of being superposed.

Supersat'urate, (*-yu-rāte,*) *v. a.* To cause surplus saturation.

Supersaturation, (*-rā'shun,*) *n.* Process of adding beyond saturation; also, state of being supersaturated.

Superscribe', *v. a.* [Lat. *super,* and *scribo,* to write.] To write or engrave on the top, outside, or surface; or, to write one's name or address on the outside or cover, as of a letter.

Superscription, (*-skrip'shun,*) *n.* Act of superscribing. — That which is written or engraved on the outside, as of a letter; also, an impression of letters on coins.

Supersec'ular, *a.* Being above worldly or secular things.

Supersede', *v. a.* [Lat. *super,* and *sedeo,* to sit.] To refrain or desist from; to avoid; to set aside; to make void, inefficacious, or useless, by superior power, or by coming in the place of; — hence, to displace or render unnecessary; to suspend; as, to *supersede* the workings of reason. (*South.*) — To displace; to replace; to come or be placed in the room of; as, an employé is *superseded* by the appointment of another.

Supersedeas, *n.* [Lat., stay or set aside.] (*Law.*) A writ that lies to stay various ordinary proceedings.

Supersedure, (*-sēd'yŭr,*) **Supersession,** (*-sesh'un,*) *n.* Act of setting aside or superseding.

Superseusibleness, *n.* Over-sensitiveness; morbid sensibility.

Supersensual, (*-sen'shwal,*) **Supersen'suous,** *a.* Above the senses.

Superstition, (*-stish'un,*) *n.* [Fr.; Lat. *superstitio,* from *supersto, — super, sto, status,* to stand.] Literally, a standing still, over, or by a thing; — hence, a gazing upon with wonder, awe, or fear, as something occult or mysterious.—Particularly, amazement, wonder, dread — especially of the divine or supernatural; excessive fear of divine agency; unreasonable religious belief; excessive exactness or rigor in religious opinions or practice; excess or extravagance in religious rites; the doing of things not required by God, or abstaining from things not forbidden; or, the belief of what is monstrous or absurd, or belief without evidence. — False religion; worship of idols or false gods; fetichism; a rite or practice proceeding from excessive scrupulousness in religion; — frequently used plurally in this sense, as a religion. — Scrupulous exactness; over-nicety. — Belief in the direct agency of superior powers, in omens or prognostics, or in certain extraordinary or singular events or manifestations.

Superstitious, (*-stish'us,*) *a.* [Fr. *superstitieux;* Lat. *superstitiosus.*] Belonging or relating to, manifesting, or proceeding from, superstition; as, *superstitious* ceremonies. — Given or addicted to superstition; over-scrupulous and rigid in religious observances; full of idle fancies and scrupulosities in regard to religion; as, a *superstitious* person. — Excessively exact; scrupulous beyond necessity.

Superstitiously, (*-stish'us-,*) *adv.* In a superstitious manner.

Superstitiousness, (*-stish'us-,*) *n.* Quality of being superstitious.

Superstra'tum, *n.; pl.* SUPERSTRATA. A stratum or layer resting on another, or on something else.

Superstruction, (*-struk'shun,*) *n.* Act of superstructing or building upon. — That which is built upon some foundation; a superstructure.

Superstructure, (*-struk't'yur,*) *n.* Any structure or edifice built or raised on something else; particularly, any building raised on a foundation.—Anything erected on a basis or foundation.

Superton'ic, *n.* (*Mus.*) The second above the key-note.

Supervene', *v. n.* [Lat. *super,* and *venio,* to come.] To come upon, as something extraneous; to happen; to take place or occur with relation to something else.

Supervention, (*-vēn'shun,*) *n.* Act of supervening.

Supervisal, (*-vīz'-,*) *n.* Act of supervising; supervision.

Supervise, (*-vīz'-*) *v. a.* [Lat. *super,* and *visuo — video,* to see.] To look over; to oversee; to superintend; to inspect; as, to *supervise* a literary work through the press.

Supervision, (*-vĭzh'un,*) *n.* Act of supervising or overseeing; inspection; superintendence; supervisal.
Supervisor, (*-vīz'-*) *n.* One who supervises; an overseer; an inspector; a superintendent.
Supervolute', *a.* (*Bot.*) Possessing a plaited and convolute arrangement in the bud.
Supination, (*-nā'shun,*) *n.* [Fr.; Lat. *supinatio.*] Act of lying, or state of being laid, with the face skyward — Act or art of turning the palm of the hand upward by rotating the radius upon the ulna.
Supina'tor, *n.* (*Anat.*) A muscle which serves to bend the palm of the hand upward.
Sup'ine, *n.* [Lat. *supinus,* on the back.] (*Gram.*) A name given to two cases of verbal Latin substantives, the *active* supine being the accusative, and the *passive* (the introduction to which is unnecessary) being the ablative.
—*a.* [Lat. *supinus.*] Lying on the back, or with the face upward; — correlative to *prone;* as, a *supine* posture. — Leaning backward, in a manner to be exposed to the sun. — Reposing; drowsy; indolent; listless; apathetic; careless; thoughtless; inattentive; as, *supine* credulity.
Supine'ness, *n.* State or quality of being supine.
Sup'per, *n.* [Fr. *souper;* Ger. *suppe,* soup.] That which is sipped or supped; specifically, the evening meal.
Lord's supper. See EUCHARIST.
Sup'ping, *n.* Act of taking supper.
Supplant', *v. a.* [Fr. *supplanter;* Lat. *supplanta* — *sub,* and *planta.*] Literally, to trip up the heels of; as, the rocking town *supplants* their footsteps. — Specifically, to displace, or take the place or stead of; to remove by stratagem or insidious arts.
—To overthrow; to overpower; to undermine; as, to *supplant* a recognized religious faith.
Supplantation, (*-tā'shun,*) *n.* [Fr.] Act of supplanting.
Supplant'er, *n.* One who supplants or undermines.
Supple, (*sŭp'pl,*) *a.* [Fr. *souple,* from Lat. *supplex* — *sub,* and *plico,* to fold.] Easily bent; pliant; flexible; as, *supple* fingers. — Yielding; characterized by ready compliance; not obstinate; lax; as, a *supple* conscience. — Fawning; flattering; toadyish; obsequious; bending to the will or humor of others; as, a *supple* manner. — That which makes pliant or flexible; as, *supple* government. — *Shaks.*
—*v. a.* To render yielding or flexible; to make soft or pliant; as, to *supple* buckskin. — To make compliant or submissive; as, a mother *supples* the will of a child.
—*v. n.* To become soft, pliant, or flexible; as, stones *suppled* into softness.
Sup'plement, *n.* [Fr.; Lat. *supplementum,* from *supplĕo* — *sub,* and *plĕo,* to fill.] An addition to anything by which it is made more full and complete; specifically, an appendix or addendum to a book or treatise to correct its errors, or make good its deficiencies.
(*Math.*) In geometry, the *supplement* of an arc is its defect from a semi-circumference; and, the *supplement* of an angle is its defect from two right angles. Two supplemental angles are together equal to right angles.
—*v. a.* To supply; to add something, as to a writing, &c.
Supplemental, Supplementary, *a.* [Fr. *supplementaire.*] Additional; added to supply what is wanted; by way of appendix, addendum, or erratum; as, *supplemental* law, a *supplementary* writing.
Sup'pleness, *n.* Quality of being supple or easily bent; pliability; as, *suppleness* of the limbs. — Readiness of compliance; quality of being yielding; facility; as, *suppleness* of mind.
Sup'pletive, Sup'pletory, *a.* [From Lat. *supplĕo.*] Supplemental; supplying deficiencies; as, a *supplĕtory* act.
Sup'pletory, *n.* That which supplies a deficiency.
Sup'pliant, *a.* [Fr., from Lat. *supplier — supplico.*] Supplicating; asking or beseeching humbly, earnestly, or submissively; entreating; imploring. — Manifesting entreaty or petitioning; expressive of humble application.
—*n.* A supplicant; an humble asker or petitioner; one who entreats or beseeches submissively.
Sup'pliantly, *adv.* In a suppliant manner.
Sup'plicant, *a.* [Lat. *supplicans.*] Supplicating; beseeching; entreating; asking submissively; as, a *supplicant* sinner.
—*n.* One who supplicates, implores, or entreats; a petitioner who asks or beseeches earnestly and submissively.
Sup'plicate, *v. a.* [Fr. *supplier;* Lat. *supplico.*] To seek for by earnest prayer; to beseech or entreat for; as, to *supplicate* mercy. — To address in prayer or supplication; as, to *supplicate* the Almighty.
—*v. n.* To ask with earnestness or submission; to entreat; to beseech; to implore; to beg; to petition; to crave.
Supplicat'ingly, *adv.* By way of supplication.
Supplication, (*-kā'shun,*) *n.* [Fr.; Lat. *supplicatio.*] Act of supplicating; humble and earnest prayer in worship. — Earnest request, entreaty, petition, or solicitation.
Sup'plicator, *n.* One who entreats, beseeches, or supplicates.
Sup'plicatory, *a.* Characterized by supplication or entreaty; humble; submissive.
Suppli'er, *n.* One who supplies or provides.
Supplies, (*-plīz',*) *n. pl.* of SUPPLY. Things provided in sufficiency; — specifically, the sums granted by Congress, or any legislative body for defraying the public expenditure for the current year; as, to vote *supplies.*
Supply', *v. a.* (*imp.* and *pp,* SUPPLIED.) [Fr. *supplier;* Lat. *suppleo—sub,* and *pleo,* to fill.] To afford or furnish a sufficiency for; to provide, as means or necessaries; to fill up, as when any deficiency occurs; to furnish or equip with what is demanded or required; as, to *supply* a city with victuals, to *supply* one's pocket with cash. — To serve instead, or in lieu of; to act as substitute for. — To give or bring; to furnish; to accommodate with; as, trees *supply* a welcome shade from the sun.
—*n.* That which supplies a want or deficiency; — also, that which is furnished; sufficiency of things for need or requirement. — Particularly, necessary stores or provisions, as for the subsistence of a large number of people; — generally in the plural; as, to receive *supplies.*
—*pl.* See SUPPLIES.
Support', *v. a.* [Fr. *supporter;* Lat. *supporto — sub,* and *porto,* to carry.] To bear, uphold, or sustain, as weight, &c.; to keep from falling; — used in a literal or physical sense; as, the foundation *supports* the house. — To sustain or endure without being overcome, exhausted, or vanquished in strength or character; as, to *support* pain, distress, or calamity. — To solace, cheer, succor, or defend under untoward or trying circumstances; to keep from fainting, sinking, or losing heart or courage; as, he *supported* his spirits with hopeful thoughts of the future. — To act or represent creditably; to assume or sustain a rôle, or part, with distinction or success; as, to *support* the character of Othello. — To maintain; to sustain with provisions and the necessary means of living; as, to *support* and bring up a family. — To supply funds for, or the means of continuing; to carry on; to uphold by aid or to countenance; to maintain; as, to *support* government, to *support* a war, contest, or controversy. — To substantiate; to corroborate; to make good; to verify; to validate; as, the evidence will not *support* the charge. — To vindicate; to maintain, sustain, or defend successfully; as, to *support* one's own interests when assailed or jeopardized. — To adhere to; to uphold by aid or countenance; to attach, as a partisan of; as, to *support* a friend, cause, or party. — To act as one's aid, attendant, or honorary assistant on some public occasion; as, to *support* a lady with one's arm, to *support* a chairman by acting as croupier, &c.
To support arms. (*Mil.*) To hold the rifle or musket vertically at the left shoulder, sustained by having the hammer rest on the left fore-arm, which is passed across the breast.
—*n.* Act or operation of supporting, or of upholding or sustaining. — That which supports, sustains, upholds, or keeps from falling, as a pillar, prop, stay, or foundation of any kind. — That which maintains life; maintenance; subsistence; necessaries of life, or income; continuance in any state, or preservation from falling, sinking, or failing; that which sustains any person or thing, without suffering him or it to fail, decline, or languish; that which contributes to or relieves; aid; help; succor; assistance.
Points of support. (*Arch.*) The collected areas on the plan, of the piers, walls, columns, and the like, upon which an edifice rests, or by which it is supported.
Rights of support. (*Law.*) An easement or servitude by which the owner of a house has a right to rest his timbers on the walls of his neighbor's house.
Support'able, *a.* That may be supported, upheld, or sustained; that may be borne, endured, or tolerated; as, a *supportable* loss. — That may be maintained or defended; as, a *supportable* cause.
Support'ableness, *n.* State of being supportable.
Support'ably, *adv.* In a supportable manner.
Support'er, *n.* One who, or that which, supports, upholds, sustains, maintains, succors, and the like. — Particularly, a partisan; an ally; an adherent; one who espouses a part or side; as, he is an able *supporter* of his party in Congress.
(*Surg.*) Same as TRUSS, *q. v.*
—*pl.* (*Ship-building.*) The knee-pieces under the cathead.
(*Her.*) Figures placed on each side of the scroll, as if to support it.
Supposable, (*-pōz'a-bl,*) *a.* That may be supposed, or imagined to exist; as, a *supposable* fact.
Suppose', (*-pōz,*) *v. a.* [Fr. *supposer;* Lat. *suppono.*] To lay down or state, as a proposition or fact that may exist or be true, though not known or believed to be true or to exist; or, to imagine or admit to exist, for the sake of argument or illustration; to assume to be true or real; as, let us *suppose* that what has been advanced is fact. — To receive as true; to credit or believe without inquiry or examination; to imagine; as, you must not *suppose* him to lack good qualities. — To imply or infer by natural or intelligent laws; to require or presume to exist or be true; as, one rogue always *supposes* roguery in another.
—*v. n.* To think; to make supposition; to believe, consider, or imagine.
Supposer, (*-pōz'-,*) *n.* One who supposes.
Supposition, (*-zĭsh'un,*) *n.* [Fr.; Lat. *suppositio.*] Act of supposing; act of asserting, imagining, or admitting as true or existing, what is known not to be true, or what is not proved. — The position of a thing known not to be true or not substantiated; hypothesis; imagination; as, the fallibility of a *supposition.* — Conjecture; surmise; speculation; guess.
(*Mus.*) The use of two successive notes of equal value as to time, one of which being a *discord,* supposes the other to be a *concord.*
Suppositional, (*-zĭsh'un-,*) *a.* Hypothetical; conditional.
Supposititious, (*-pōz-i-tĭsh'us,*) *a.* Substituted; put by trick, artifice, or stratagem in the place of another; counterfeit; spurious; not genuine; as, a *supposititious* child.
Supposititiously, (*-tĭsh'us-ly,*) *adv.* By supposition; hypothetically.
Suppositive, (*-pŏz',*) *a.* Implying supposition.
—*n.* A word expressive or implicative of supposition, as *if.*
Suppos'itively, *adv.* By, with, or upon supposition.
Suppos'itory, *n.* [Lat. *subpono,* I place under.] (*Med.*) A pill or bolus introduced into the rectum, where it gradually dissolves. Opium is sometimes usefully applied in this way to allay irritation of the bladder and the neighboring parts.
Suppress', *v. a.* [Lat. *supprimo.*] To overthrow; to quell; to put down; to subdue; to overthrow, and crush or destroy; as, to *suppress* a riot, or revolt. — To repress; to restrain; to keep in; to withdraw from vent or utterance; as, to *suppress* a sigh. — To conceal; not to disclose or reveal; to retain without communication or making public; to stifle; as, to *suppress* the truth about anything. — To hinder; to restrain; to stop from flow or circulation; to obstruct from emissions or discharges; as, to *suppress* a hemorrhage.
Suppres'sible, *a.* That may be suppressed.
Suppression, (*-prĕsh'un,*) *n.* [Fr.; Lat. *suppressio.*] Act of suppressing, crushing, or destroying; act of holding back or retaining from vent, utterance, disclosure, or circulation; concealment; state of being suppressed; the keeping back of anything from public knowledge or notice; as, the *suppression* of an insurrection, the *suppression* of facts, of evidence, of a pamphlet, &c. — The stoppage, obstruction, or morbid retention of discharges, or of a cutaneous eruption.
(*Gram.*) A figure sometimes so called by which words are omitted in a sentence which are nevertheless to be understood as necessary to a perfect construction; as, for instance, in most languages, the repetition of a noun is avoided where it is coupled with a pronoun in one branch of the proposition; e. g. "This (horse) is my horse," or "This horse is mine" (horse). — See ELLIPSIS.
Suppress'ive, *a.* Subduing; withholding; tending to suppress; concealing; as, *suppressive* measures.
Suppress'or, *n.* [Lat.] One who suppresses or subdues.
Sup'purate, *v. n.* [Lat. *suppuro, suppuratus — sub,* and *pus, puris,* pus.] To form or generate pus or matter; as, an abscess *suppurates.*
—*v. a.* To cause to generate pus, as a boil.
Suppuration, (*-rā'shun,*) *n.* [Fr.; Lat. *suppuratio.*] The process of producing or of forming pus, as in a wound or abscess. — Pus or purulent matter.
Sup'purative, *a.* [Fr. *suppuratif.*] Promoting suppuration; having a tendency to suppurate.
—*n.* A medicine that excites suppuration.
Su'pra. [Another form of SUPER, *q. v.*] A Latin preposition, used as an English prefix in certain compound words, and indicating or implying the sense of *over, above, beyond.*
Supra-ax'illary, Suprafoliaceous, (*-fō-lĭ-a'shus.*) (*Bot.*) Inserted into the stem above the leaf, petiole, or axil, as a peduncle.
Supradecom'pound, *a.* (*Bot.*) Compound in a triple degree.
Supralapsa'rians, *n. pl.* (*Eccl. Hist.*) Those who, among Calvinists, assert that the fall of Adam, with all its consequences, was predestinated from all eternity; — opposed to *sublapsarians,* or INFRALAPSARIANS, *q. v.*
Supralapsa'rianism, (*-izm.*) (*Theol.*) The doctrinal tenets held by the Supralapsarians.
Supravul'gar, *a.* Above vulgar, plebeian, or commonplace reach or acceptation.
Suprem'acy, *n.* [Fr. *suprématie.*] State of being supreme, or in the highest degree of station or power; holding the most exalted place in authority, government, or power; as, the *supremacy* of the law, the *supremacy* of the crown.
Supreme', *a.* [Fr.; Lat. *supremus,* superl. of *superus,* upper, higher.] Highest in authority; holding the most exalted place in government or power; as, the *Supreme* Court of the U. States. — Highest; greatest, or most excellent; as, *supreme* happiness. — Utmost; greatest possible; not to be surpassed; — usually in combination with words implying or expressing a bad sense; as, *supreme* folly, *supreme* humbug, in other words, folly or humbug in the superlative degree.
(*Bot.*) Located at the highest part or point.
Supreme'ly, *adv.* In the highest degree; with the highest authority; to the utmost extent; superlatively.
Suquamish, the former name of a W. co. of Washington, on the Pacific, and intersected by Sawamish river. These names are now obsolete.
Sur. A prefix borrowed from the French, contracted from Lat. *super, supra,* and denoting *above, beyond, over, upon.*
Surabaya, Sourabaya, (*soo-ra-bī'a,*) a large seaport-town of Java, on the N.E. coast, and cap. of one of the 3 provs. into which the island is divided by the Dutch; Lat. 7° 12′ 30″ S., Lon. 112° 44′ 7″ E. It is situated at the mouth of a navigable river, 1½ mile from the seashore. The river separates the European part of the town from the Chinese and the native quarter. The houses are very good, and some are elegant, particularly the country seats of private individuals. *S.* is situated within that narrow strait which is formed by the islands of Java and Madura, and is defended by batteries. The mouth of the river is also defended. *Pop.* 125,000.
Su'ral, *a.* [From Lat. *sura,* the calf of the leg.] (*Anat.*) Pertaining to, or situated in, the calf of the leg; as, the *sural* artery.
Surat, (*soo-rat',*) a city of British India, and the cap. of a district of its own name, in the Bombay presidency, on the river Taptee, about 20 m. from its mouth, and 150 m. from Bombay. It is fortified, and carries on a very extensive trade.
Sur'base, *n.* (*Arch.*) The upper base of a room, or, rather, the cornice of the dado.
Sur'based, (*-bāst,*) *a.* (*Arch.*) Having a surbase.
Surbase'ment, *n.* (*Arch.*) The trail of any arch or vault which describes a portion of an ellipse.

Sur'-bed, *v. a.* To set edgewise, as a stone.

Surcharge', *v. a.* [Fr. *surcharger.*] To overload; to overburden; as, to *surcharge* an estate with mortgages.

(*Law.*) The putting, by a commoner, of more beasts on the common than he has n right to. — (*Equity.*) The showing, as an omission in an account for which credit ought to have been given.

Surcharg'er, *n.* One who overburdens.

Surcingle, (*-sing'gl,*) *n.* [Fr. *sur*, and Lat. *cingulum*, a belt, from *cingo*, to gird.] A belt, band, or girth which passes over a saddle, or over anything laid on a horse's back, to bind and keep it in its place.

(*Eccl.*) The girdle of a cassock, by which it is fastened around the waist.

Sur'coat, *n.* [O. Fr. *surcot.*] Formerly, any garment worn over defensive armor; the term, however, is more generally applied to the long and flowing drapery of knights, anterior to the introduction of plate-armor, and which was frequently emblazoned with their family arms (Fig. 591); a tabard. (*Fairholt.*) — The name given to a short robe, worn over the tunic or long robe, terminating a little below the knee, forming part of the costume of ladies at the close of the 11th century.

Sur'culose, *a.* (*Bot.*) Yielding suckers, or shoots resembling them.

Surd, *a.* [Lat. *surdus*, deaf.] (*Math.*) Involving surds; radical; as, a *surd* expression, quantity, or number.

(*Pron.*) Atonic; aspirate; toneless; not sonant or intonated; — expressed of articulate sounds, or alphabetical letters, as *s, f, p*, compared with *z, v, b*, which are sonant or vocal.

(*Arith.* and *Algebra.*) A magnitude which is inexpressible by rational numbers. Thus, the square root of 2, the cube root of 3, &c., are numbers which cannot be expressed exactly in the ordinary notation, and are represented by prefixing the radical signs indicating the operations, viz.: $\sqrt{2}$, $\sqrt[3]{3}$. Such quantities are otherwise called *irrational* or *incommensurable.*

Sure, (*shoor,*) *a.* (*comp.* SURER; *superl.* SUREST.) [Fr. *sûr;* contracted from Lat. *securus.*] Positively knowing; having full certainty or confidence; believing beyond suspicion or doubt; with implicit trust or unquestioning reliance; as, I am *sure* she means well. — Certain or confident of obtaining or of retaining; as, if he continues as he has begun his success is *sure.* — Unfailing; firm; infallible; stable; steady; permanent; fit, suitable, or proper to be relied or depended on; not liable to be broken or disturbed; not susceptible of failure; as, a *sure* foundation.

To be sure, certainly; of course; without doubt or question; as, Then the man is more rogue than fool? *To be sure* he is. — *To make sure*, to make positive or certain; to render, manage, or contrive so that there shall be no prospect or apprehension of default or failure; as, *make sure* of the chance while you have it.

—*adv.* Certainly; infallibly; undoubtedly; firmly; without danger of falling or failing; as, "'Tis pleasant, *sure*, to see one's name in print." — *Byron.*

Sure, (*soor,*) a river of Belgium, joining the Moselle, 7 m. from Treves, after a course of 90 miles.

Sure'-footed, *a.* Not liable to stumble or fall; as, a *sure-footed* mule.

Sure'ly, *adv.* In a sure, certain, or reliable manner; infallibly; undoubtedly; positively; as, man shall *surely* die.

—Steadily; firmly; with sure hold or tread; without danger of stumbling or falling; as, to walk *surely.*

Surety, (*shoor'ty,*) *n.* [Fr. *sûreté;* Lat. *securitas — securus.*] State of being sure; certainty; security; indubitableness; as, he knew it of a *surety.* — That which confirms, bases, or makes sure; foundation of stability; ground or support of confidence or security; as, what *surety* have I that you will keep your word?

(*Law.*) A person who binds himself for the payment of a sum of money, or for the performance of something else, for another, who is already bound for the same. A *S.* differs from a *guarantor* in this, that the latter cannot be sued until after a suit against the principal. It differs from *bail* in this, that the latter actually has, or is by law presumed to have, the custody of his principal, while the former has no control over him. The bail may surrender his principal on discharge of his obligations; the surety cannot be discharged by such surrender.

Sure'tyship, Sure'tiship, *n.* State or condition of being surety; the obligation of a person to answer for another.

Surf, *n.* [O. Fr. *surflot*, from *sur*, and *flotter*, to float.] The swell of the sea which breaks upon the shore, or upon sand-banks or rocks.

Surface, (*sur'fas,*) *n.* [Fr.; Lat. *superficies—super*, and *facies*, face.] The upper face or side of anything; as, he does not look beyond the *surface.* — The exterior part of anything that has length and breadth; one of the limits that terminates a solid; superficies; the upper stratum of the soil; outside; as, the earth's *surface*, the *surface* of the body, &c.

(*Geom.*) The boundary of a solid, or that which has length and breadth, but no thickness. A surface may be conceived to be generated by the motion of a straight or curved line, just as the latter may be generated by the motion of a point. A surface is said to be *plane* when a right line can be applied to it everywhere and in every direction; in other cases it is called a *curved surface.*

—*v. a.* To give a smooth or plane surface to. — To work over the surface of, as ground, in prospecting for gold.

Surfacer, (*-sêr,*) *n.* A planing-machine for wood.

Surf-boat, *n.* (*Naut.*) Same as LIFE-BOAT, *q. v.*

Surf-duck, SUR'-SCOTER, *n.* (*Zoöl.*) See SEA-COOT.

Surfeit, (*ser'fit,*) *v. a.* [Fr. *sur*, and *faire, fait*; Lat. *facio*, to make.] To feed with meat or drink so as to oppress the stomach and derange the functions of the digestive system; to over-feed, and produce a nausea or uneasiness in; to cram or gorge with food. — Hence, to clog; to sate; to fill with satiety and loathing; as, he *surfeits* one with his obsequiousness.

—*v. n.* To be fed till the system is oppressed, and qualmishness or indigestion ensues; as, they *surfeited* on the good things set before them.

—*n.* (*Med.*) An indisposition caused by overcharging the stomach, by an excess in eating or drinking; generally the former, and most frequently by partaking to repletion of some kind of food. A surfeit, however, frequently occurs to persons of a very temperate habit, and from partaking very sparingly of the article that caused it. Shell-fish, cheese, dried meat, or sausages often produce what is called a *S.*, indicated by sickness, pain in the head, a hot, dry skin, and a most uncomfortable sensation generally. An emetic in all cases is the best and quickest remedy; a glass of warm water, with a teaspoonful of salt in it, will always effect the purpose if no other emetic is at hand.

—Hence, by analogy, nausea or disgust resulting from excess; satiety; glut; as, flattery was lavished on her even to *surfeit.*

Surfeit'er, *n.* One who surfeits; a glutton.

Surge, (*serj.*) *n.* [From Lat. *surgo — surrigo — sub*, and *rego*, to stretch.] The rising or swelling of a wave or billow; also, a large wave, billow, or comber; a great rolling swell of water; as, the foaming *surge.*

(*Ship-building.*) In a capstan, the tapered part in front of the whelps, between the chocks, on which the messenger may surge.

—*v. a.* (*Naut.*) To render, as a rope, round a pin or kevel; as, to *surge* a hawser.

—*v. n.* To swell; to rise high and roll, as waves; as, *surging* billows.

(*Naut.*) To slip back; as, the messenger *surges.*

Surge'less, *a.* Smooth; calm; without surges.

Surgeon, (*sur'jun,*) *n.* [O. Fr. *chirurgien;* Gr. *cheir*, the hand, and *ergon*, work.] One who practises surgery.

(*Zoöl.*) A fish of the genus *Acanthurus* (*A. phlebotomus*), which is 6 to 10 inches long, and has a movable spine at the base of the tail.

Surgeon-apothecary, one who unites the practice of surgery with that of the dispensation of drugs or medicines.

Surgeon-dentist, a dental surgeon.

Surgeoncy, Surgeonship, (*sur'jun-se,*) *n.* Office or employment of a surgeon in the naval or military service.

Surgeon-general, *n.* A general officer of the staff, entrusted with the entire control of the medical department of the United States army. Under Brigadier-General William A. Hammond and Major-General Joseph K. Barnes, the medical and hospital service of the United States army has become the model medico-military establishment of the world.

Surgery, (*sur'jur-y,*) *n.* [Contracted from O. Eng. *surgeonry.*] That branch of the science of medicine which treats of manual operations for the healing of diseases or injuries of the body; the art of healing external diseases and injuries by manual operation. — *S.* is the oldest branch of medical science, as it was necessary to dress wounds and injuries received in the wars, while the primitive manner of living of the ancients seldom produced internal diseases. Already 50 years before the Trojan war, Melampus, Chiron, and his pupil Æsculaplus, accompanied the Argonauts, and during the Trojan War two sons of Æsculapius, Machaon and Podalirius, attended the wounded Greeks. Later, the Greek and Arabic physicians combined the practice of medicine and surgery, as is shown in the works of Hippocrates, Galen, Celsus, &c. Still, during the time of Hippocrates certain surgical operations were separated from medicine, and physicians forbidden to perform them. The Arabs had a particular disgust for operations, and it was considered shameful for physicians to perform any. In the Middle Ages, the monks and priests were almost the only ones who practised this science; after the Church Council held in Paris in 1163, they were forbidden to perform any bloody operation, and surgery was again separated from medicine; by this separation the barbers and bathers took up the practice, and continued for many centuries to be the sole surgeons. The development of the study of anatomy, however, soon placed *S.* in a different position, and the renowned physicians of the day reunited it again with the study of medicine; schools were established for the tuition of medicine and surgery. *S.* is founded upon a thorough knowledge of anatomy, and, although medicine and *S.* are taught together as one science, every physician is not capable of performing the finer or the more important operations; *S.* requires particular natural qualities as well as practice and experience. See ANTISEPTIC *S.*

Surgical, (*sur'jik-al.*) *a.* Pertaining, or relating to surgeons or surgery; performed or accomplished by means of surgery; as, a *surgical* operation.

Surgy, (*sur'jy,*) *a.* Full of surges; rising in surges or billows; as, the *surgy* ocean.

Surinam. See GUIANA (DUTCH).

Surlily, *adv.* In a surly manner.

Surliness, *n.* Quality or state of being surly.

Surloin, *n.* Same as SIRLOIN, the more usual orthography.

Surly, *a.* (*comp.* SURLIER; *superl.* SURLIEST.) [A. S. *surelice — sur*, sour, and *lic*, like.] Gloomily sour or morose in temper or manner; crabbed; churlish; rough; cross, rude, or snarling; sternly sour; as, a *surly* dog, a *surly* spirit. — Rough; dark; lowering; tempestuous; as, *surly* weather.

Surmise, (*-mīz',*) *v. a.* [From Lat. *super*, upon, above, and *mitto*, to send.] To put forth, as an accusation or suspicion against a person; to suspect; to imagine without certain knowledge; to entertain thoughts that something does or will exist, but upon slight evidence; to infer or suppose.

—*n.* The thought or imagination that something may be, of which, however, there is no certain, strong, or reliable evidence; conjecture; suspicion; supposition; as, a false *surmise* evoked by envy.

Surmis'er, *n.* One who surmises.

Surmount', *v. a.* [Fr. *surmounter — sur*, and *monter*, to mount.] To mount or rise above or higher than.

"The mountains of Olympus and Atlas *surmount* the clouds." *Raleigh.*

—To conquer, or be superior to; to overcome; to subdue; to vanquish; as, to *surmount* a difficulty. — To surpass; to exceed; to go beyond; as, "to *surmount* the reach of human sense." — *Milton.*

Surmount'able, *a.* Superable; that may be surmounted or overcome; as, a *surmountable* obstacle.

Surmount'ed, *a.* (*Arch.*) Denoting an arch or dome which rises higher than a semicircle.

(*Her.*) A term denoting the position of a charge over which another charge of different color or metal is laid. The annexed figures, which may respectively be blazoned: *sable*, a pile argent surmounted by a chevron gules; and *argent*, a cross gules surmounted by another or.

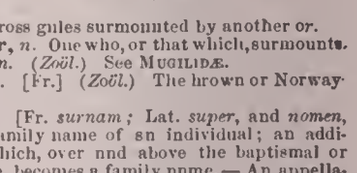


Fig. 2448.

Surmount'er, *n.* One who, or that which, surmounts.

Surmul'let, *n.* (*Zoöl.*) See MUGILIDÆ.

Sur'mulot, *n.* [Fr.] (*Zoöl.*) The brown or Norway rat.

Surname, *n.* [Fr. *surnam;* Lat. *super*, and *nomen*, name.] The family name of an individual; an additional name which, over and above the baptismal or Christian name, becomes a family name. — An appellation supplemented to the original name. See NAME.

—*v. a.* [Fr. *surnommer.*] To style or call by an appellation added to the original name; as, William I. of England, *surnamed* The Conqueror.

Surnom'inal, *a.* Pertaining or relating to, or constituting, a surname.

Surpass', *v. a.* [Fr. *surpasser — sur*, and *passer*, to pass.] To go beyond in anything good or bad; to exceed; to excel; to outdo; to transcend; as, a success that *surpassed* one's expectations.

Surpass'able, *a.* That may be surpassed or exceeded.

Surpass'ingly, *adv.* In a very excellent manner, or in a degree surpassing others.

Surplice, (*-plis.*) *n.* [Fr. *surplis;* Lat. *superpellicium — super*, and *pellicius*, made of skins.] (*Eccl.*) The white outer garment worn by an officiating clergyman in the Roman Catholic, Episcopal, and certain other churches. It is a long linen robe with wide sleeves, used by all but bishops. The word *S.* was introduced about the 12th century, but the garment that it represents was an ecclesiastical vestment at an early date, and was probably derived from the white linen ephod of the Jewish priests.

Surplus, *n.* [Fr., from Lat. *plus*, more.] Overplus; superfluity; that which is left when use is satisfied; excess beyond what is prescribed or wanted; as, a *surplus* of profit.

Surplusage, *n.* Surplus; overplus; excess; as, *surplusage* of provisions beyond requirements.

(*Law.*) See INDUCEMENT.

Surprisal, (*-prīz'-,*) *n.* Act of surprising, or coming upon suddenly or unexpectedly; or, the state of being taken unawares; as, the *surprisal* of a convoy.

Surprise, (*-prīz',*) *v. a.* [Fr., from *surprendre;* Lat. *super*, and *prendere*, to seize.] To fall or come upon suddenly or unexpectedly; to take unawares; as, the troops were *surprised* by an ambuscade. — To strike or confuse with wonder or astonishment; to fill with amazement by something sudden, strange, or remarkable, either in conduct, language, or circumstance, or by the appearance of something singular or unusual; as, his absence *surprised* everybody. — To confuse; to perplex; to throw the mind into disorder by something suddenly presented to the view or to the thoughts.

—*n.* Act of surprising, or of coming upon unawares, or of taking suddenly and without preparation; as, the brigands were taken by *surprise.* — State of being surprised, or taken unexpectedly; — used, sometimes, loosely, in a legal sense, to indicate or imply fraud, or something having affinity with fraud. — An emotion occasioned by some sudden or unexpected occurrence; wonder; astonishment; amazement, in a minor or moderate degree; as, he came into a fortune to his own *surprise.*

Surprise party, in the U. States, a party of persons who assemble by agreement, and without invitation, at the house of a common friend, taking with them a supply of comestibles.

Surpriser, *n.* One who, or that which, excites surprise.

Surprising, (*-prīz'-,*) *p. a.* Exciting surprise; unexpected; of a nature to cause a more or less degree of wonder and astonishment; as, our chief is a man of *surprising* patience, he had a *surprising* escape of it, &c.

Surprisingly, *adv.* In a surprising manner.

Surprisingness, *n.* State or quality of being surprising.

Surrebut', *v. n.*; **Surrebut'ter**, *n.* (*Law.*) See PLEADING.

Surrejoin', *v. n.*; **Surrejoind'er**, *n.* (*Law.*) See PLEADING.

Surren'al, *a.* (*Anat.*) Situated above the kidney.

Surren'der, *v. a.* [Fr. *se rendre*, to yield; Lat. *super*, and *reddo*, to yield.] To yield, or give or deliver up, as possession, to the power of another upon compulsion or demand; as, to *surrender* one's self to legal authority, to *surrender* a ship. — To give up; to resign in favor of another; to cede; to resign; as, to *surrender* a property to its rightful owner. — To yield to any influence, power, or passion; — with the reciprocal pronoun; as, to *surrender one's self* to despair.

(*Law.*) To yield; to give or deliver up; to render; as, to *surrender* a fugitive from justice.

—*v. n.* To yield; to give one's self into the hands or power of another; as, Strasburg *surrendered* at last, after an obstinate resistance.

—*n.* Act of surrendering, yielding, or resigning one's person, or the possession of something, into the power of another; as, the *surrender* of a people's liberties.

(*Law.*) The giving up of a principal into lawful custody by his bail. — The extradition of a fugitive from justice by a foreign state. See EXTRADITION. — A deed by which the tenant of a particular estate or interest conveys such interest to the remainder-man or reversioner, immediately expectant on the determination of that estate, as, for instance, when a tenant for years gives up his lease to the freeholder.

Surrenderee', *n.* (*Law.*) The person to whom a surrender is made.

Surren'deror, *n.* (*Law.*) One who makes a surrender.

Surreption, (*-rĕp'shun,*) *n.* [Lat. *surreptio.*] Act or process of obtaining in a surreptitious, stealthy, or clandestine manner. — Stealth; a coming upon in an unperceived manner. (R.)

Surreptitious, (*-tĭsh'us,*) *a.* [L. Lat. *surreptitius* — *surripio*, *surreptus* — *sub*, and *rapio*, to seize and carry off.] Performed by stealth, or without proper authority; clandestine; made or introduced in a fraudulent manner; as, a *surreptitious* copy of a book.

Surrepti'tiously, *adv.* In a surreptitious manner.

Sur'rey, a co. of England, bounded N. by Berks, Bucks, and Middlesex, S. by Sussex, E. by Kent, and W. by Berks and Hants; *area*, 759 sq. m. The Way, the Mole, and the Wandle are its chief rivers. The surface is beautifully diversified by hill and vale, but the agriculture is backward. In the N., in the vicinity of London, there are numerous market-gardens, the produce of which is sent to supply the markets of the metropolis. *Chief towns.* Croydon, Guildford, Kingston-on-Thames, and Reigate.

Sur'rogate, *n.* [Lat. *surrogatus*, *surrogare.*] A deputy; a delegate; a substitute; a proxy. — In England, an officer who acts as deputy for the chancellor of a diocese. — In certain of the U. States, an officer who exercises supervision over the probate of wills and testamentary proceedings, and the settlement of estates.

Surround', *v. a.* [Fr. *sur*, and *rond*, a round.] To encompass; to encircle; to environ; to inclose on all sides; as, to *surround* a town. — To lie or be on all sides; to fence about; as, the sea *surrounds* an island.

(*Mil.*) To invest or beleaguer, as a city or fort; to close around, as an army between hostile forces, in such a manner as to cut off its retreat.

—*n.* A method of hunting certain animals, as the buffalo, by surrounding a herd of them, and driving them over a precipice, or into a gully or ravine, or other place from which their escape is rendered impossible.

Surround'ing, *n.* An encompassing or enclosing.

—*pl.* Those things which lie around some particular object; external conditions or circumstances.

Sur'ry, in *Maine*, a post-township of Hancock co., 65 m. N.E. of Augusta.

Surry, in *New Hampshire*, a post-township of Cheshire co., 45 m. S.W. of Concord.

Surry, in *N. Carolina*, a N.N.W. co., bordering on Virginia; *area*, 490 sq. m. *Rivers.* Ararat, Fisher's, and Yadkin. *Surface*, hilly; *soil*, generally fertile. *Min.* Iron. *Cap.* Dobson. *Pop.* (1897) 20,250.

Surry, in *Virginia*, a S.E. co., bordering on the James river; *area*, 490 sq. m. *Rivers.* Blackwater, and the James. *Surface*, undulating; *soil*, sandy. *Cap.* Surry Court-House, 60 m. S.E. of Richmond. *Pop.* (1897) 9,260.

Sursol'id, *n.* (*Math.*) The fifth power of a number.

—*a.* Pertaining or relating to, or involving, the fifth power of a number; as, a *sursolid* problem.

Surtout, (*-tōōt'*, or *-tōō',*) *n.* [Fr. *sur-tout*, over all.] Originally, a man's over-coat; but, in modern usage, an upper coat with wide skirts reaching down to near the knee, and enveloping the thighs.

Suruga, (*soo-roo'ga,*) a maritime town of Japan, in the island of Nlphon, 90 m. from Jeddo. *Pop.* Large, but unascertained.

Surveillance, (*sur-val'yans,*) *n.* [Fr., from *surveiller*, to have an eye upon — *sur*, and *veiller* — Lat. *vigilare*, to watch.] A keeping watch over; inspection; oversight; as, a person held under *surveillance* by the police.

Surveillant, (*-val'yant,*) *n.* [Fr.] One who watches over, or plays the spy upon, another; an overlooker.

Survey, (*-vā',*) *v. a.* [From Lat. *super*, over, and *video*, to see.] To overlook or view with attention, as from an elevated place; to inspect or scrutinize, as things at a distance; as, to *survey* the panorama of a country before one's eyes. — To scrutinize; to examine; to inspect narrowly; as, to *survey* a person from head to foot. — To measure and value; to ascertain and determine the state or condition of; as, to *survey* a stranded ship, to *survey* a building damaged by fire, &c. — To determine, as the boundaries and superficial extent of fields, estates, territorial tracts, &c.; to examine or ascertain, as the position and distances of objects on the sea-shore, the depth of water, nature of the bottom, &c., by the application of trigonometrical principles; as, to *survey* land, to *survey* a coast or harbor. — To examine, ascertain, or determine, as boundaries, tenures, rents, value, &c.

—*n.* A general or panoramic view or prospect, as from an elevated place. — A particular or attentive view; a looking on with care or close scrutiny; a searching, official examination of all the parts or particulars of a thing, with an intent to ascertain and determine its condition, quantity, quality, or value; as, a *survey* of buildings, public works, stores or provisions, wrecked goods, &c. — Act of surveying; act or operation by which the boundaries and superficial extent of tracts of land or water, &c., are examined and determined; also, a plan and description exhibiting the dimensions, contour, position, &c., of any line or portion of country; as, the United States *Survey.* — A district assigned to the collector of the customs, under the supervision and authority of a special officer.

Trigonometrical survey, a survey on a large scale by means of a series of triangles, as for making a geometrical map of a country, or for measuring an arc of the terrestrial meridian.

Survey'ing, *n.* The art of determining the boundaries and superficial extent of tracts of ground, the plans of towns, the courses of roads and rivers, &c. In *S.*, a representation of all the above-named objects is made, and frequently the slopes of the hills are delineated as the whole would appear if projected on an horizontal plane. When railways or canals are to be constructed, a survey of the ground is combined with the operations of levelling, in order to obtain, besides an horizontal plane, the forms of vertical sections of the ground along the proposed course of the railway or canal, and thus to ascertain the quantities of earth to be removed. The American standard unit of land-measure is the acre, which contains 4 roods; and a rood is subdivided into 40 poles or perches, each pole containing 30¼ square yards. In *S.*, however, for linear measurements, a chain is used, consisting of 100 links; and its entire length is such that one *square chain* is equal to the *tenth* part of an acre. Surveyors usually set down their measurements of angles as in general less liable to error than the measurements of linear distances when the surface to be surveyed is extensive; the surveyor only uses the chain in order to obtain the requisite data for a trigonometrical computation. For this purpose the theodolite is the most convenient instrument; it is universally used for the measurement of angles in land-surveying; and from the nature of its construction, gives the angles reduced to the plane of the horizon, and consequently renders a calculation for that purpose unnecessary. For the purposes of sketching and filling in the details of a map, the plane table and the prismatic compass are also used; and a compass and needle accompany the theodolite, in order to determine the bearing of the several objects observed from any station with reference to the points of the horizon. In *maritime S.*, the forms of coasts and harbors, the entrances of rivers, with the position of islands, rocks, and shoals, are to be determined; also, the soundings or depths of water in as many different places as possible. In *military S.*, representations are made on paper of the general features of a country, such as the roads, rivers, hills, and marshes, in order to ascertain the positions which may be occupied as fields of battle, or as quarters, together with the facilities which the country may afford for the march of troops, or the transit of artillery or stores.

Surveyor, (*sur-vā'ur,*) *n.* An overseer or overlooker; one placed to supervise or superintend others. — One who measures land, or practises the art of surveying. — One who views and inspects for the purpose of ascertaining and determining the condition, quantity, quality, or value of anything; as, a *surveyor* of ships, taxes, highways, buildings, &c. — In the U. States, an officer who ascertains the weight and quantity of goods liable to customs duty.

Surveyor-general, *n.* In the U. S., an officer having charge of the survey of the public lands of a district.

Surviv'al, *n.* A surviving or outliving; a living beyond the life of another person, thing, or event.

Survive, (*ser-vīv',*) *v. a.* [Fr. *survivre*; Lat. *supervivo* — *super*, and *vivo*, to live.] To live beyond the life of. — To outlive, as anything else; to live beyond, as any event.

—*v. n.* To continue to live; to remain alive; as, hope still *survives.*

Surviv'er, *n.* One who survives or outlives; a survivor.

Surviv'ing, *a.* Yet living; continuing to live; as, he holds himself aloof from his *surviving* relatives.

Surviv'or, *n.* One who survives or outlives another person, or a thing or event.

(*Law.*) The longer liver of two joint-tenants, or of any two persons who have a joint interest in any kind of property.

Surviv'orship, *n.* State of a survivor; state of outliving another person, or a thing or event.

(*Law.*) The right of a joint-tenant, or other person who has a joint-interest in an estate, to take the whole estate upon the death of the other.

(*Assurance.*) In the doctrine of life annuities, a reversionary benefit contingent upon the circumstance of some life or lives, or of the lives falling according to some assigned order.

Sus, *n.* [Lat.] (*Zoöl.*) See HOG.

Susa, (*soo'su,*) a town of N. Italy, at the foot of the Alps, 30 m. from Turin; *pop.* 4,211.

Su'sa, a seaport-town of N. Africa, in Tunis, 40 m. from Hammamet. *Manuf*, Woollens, linens, and shoes. *Pop.* 10,000.

Su'sa. (*Anc. Geog.*) [*Shushan*, in Daniel, Esther, &c. derived by some from *shoshan*, a lily.] An ancient city of Persia, probably the modern Sus or Shush, in Lat. 32° 10′ N., and Lon. 48° 26′ E., situated between the Chapses or Eulæus (*Ulai* in Daniel) and the Shapur, anciently the capital of Susiana, (the *Elam* of Scripture, mod. *Khuzistan*). It is supposed to have existed as early as B. C. 600. It was the capital of Susiana, *q. v.*, and was taken, with all its treasures, by Alexander III., B.C. 331. The seat of government was transferred from Babylon to *S.* B.C. 330. Antigonus took *S.* B. C. 315.

Susannah, (*suz-ăn'na,*) was the wife of Joakim, and of the tribe of Judah. She followed her husband to Babylon as a captive. Two elders or judges of Israel endeavored to seduce her, and, failing in their object, they accused her of adultery. She was condemned to death; but Daniel obtained a reversal of the sentence, and succeeded in establishing her innocence. This is stated to have occurred in Babylon, abt. 600 B. C.

Su'san River, in *California*, rises in Plumas co., and flowing E., falls into Honey Lake, in Lassen co.

Su'sanville, in *California*, a post-town, cap. of Lassen co., 45 m. N.E. of Quincy.

Susceptibil'ity, *n.* [Fr. *susceptibilité.*] Quality of being susceptible. — Quality of admitting or receiving either something additional, or some change, affection, or passion. — Capability; sensibility; feeling; emotion.

Suscep'tible, *a.* [Fr., from Lat. *suscipio.*] Capable of undertaking or sustaining; capable of admitting anything additional, or any change, affection, or influence. — Tender; capable of impression; impressible; having nice sensibility.

Suscep'tibly, *adv.* In a susceptible manner.

Sus'col, in *California*, a town of Napier co., 15 m. N.W. of Benicia.

Susiana, (*soo-se-a'na.*) (*Anc. Geog.*) A prov. of ancient Persia, answering to the modern *Khuzistan*, and to the *Elam* of Scripture. It was conquered by Sennacherib, B. C. 688–680. Alexander III. captured its capital, Susa, B. C. 331.

Suspect, (*sus-pekt',*) *v. a.* [Lat. *suspicio*, *suspectus* — *sub*, and *specio*, to look, to look at.] To look at secretly or askance. — To mistrust; to distrust. — To imagine or have a slight opinion that something exists, but without proof, and often upon weak evidence or no evidence at all. — To imagine to be guilty, but upon slight evidence or without proof. — To be held to be uncertain or doubtful; to doubt; to conjecture.

—*v. n.* To have suspicion. — To imagine guilty.

Suspect'edly, *adv.* So as to excite suspicion.

Suspect'edness, *n.* State of being suspected or doubted.

Suspect'er, *n.* One who harbors suspicion.

Suspect'ful, *a.* Suspicious; full of suspicion.

Suspend', *v. a.* [Fr. *suspendre*; Lat. *suspendo* — *sub*, and *pendo*, to cause to hang down.] To hang; to make to hang; to attach to something above; as, to *suspend* the body by a rope or cord. — To make to depend on. — To stay; to delay; to interrupt; to cause to cease for a time; to hinder from proceeding. — To hold in a state of hesitation or indetermination; as, to *suspend* one's judgment. — To cause to cease for a time from operation or effect; as, to *suspend* the Habeas Corpus Act. — To exclude from any privilege, or to debar from the execution of an office, or from the enjoyment of income; as, to *suspend* one from the exercise of the ministry.

—*v. n.* To cease from action or operation; especially, to stop payment, or be incompetent to meet monetary obligations; as, many firms *suspended* during the last panic.

Suspend'er, *n.* One who, or that which, suspends.

—*pl.* Braces; straps worn for holding up pantaloons.

Suspensation, (*-sŭ'shun,*) *n.* Act of suspending, or state of being suspended.

Suspense', *n.* [Fr.; Lat. *suspensus*, raised, from *suspendo.*] State of being suspended; particularly, a state of uncertainty, indecision, or doubt; indetermination. — Stop; cessation for a time.

Suspensibil'ity, *n.* Capacity of being suspended.

Suspen'sible, *a.* That may be suspended.

Suspension, (*-pĕn'shun,*) *n.* [Fr.; Lat. *suspensio*, from *suspendo.*] Act of suspending, or state of being suspended. — Particularly, temporary delay, interruption, intermission, or cessation; as, (1.) Act of withholding or balancing the judgment; restraint of decision; forbearance of determination; as, to demand a *suspension* of opinion. (2.) Cessation of labor, study, pain, and the like. (3.) Stoppage of payment, whether temporary or permanent; as, the *suspension* of a mercantile house. (4.) Delay of punishment, or execution of judicial sentence. (5.) Temporary privation of powers, authority, rights, or office; as, the *suspension* of an officer from his command. (6.) Prevention or interruption of the operation of legal procedure; as, the *suspension* of a bill of attainder.

—A conditional withholding, delay, or interruption; as, the *suspension* of a subsidy pending the performance of a proviso.

(*Rhet.*) A retaining of an auditor in uncertainty, or in attentive expectation of what is to come after, or as to what is to be the conclusion deduced from the premises.

(*Mus.*) Act of retaining in any chord some note or notes of the preceding chord.

Points of suspension. (*Mech.*) Those points in the axis or beam where the weights are applied, or from which they are suspended. — *S. of arms.* (*Mil.*) See TRUCE.

Suspen'sion-bridge, *n.* A kind of bridge in which the roadway, instead of being carried over the supporting parts, is suspended from them, the supporting parts being chains or other flexible material. See BRIDGE.

Suspension Bridge, in *New York*, formerly a post-

village of Niagara co., on the Niagara river, 2 m. below the Falls; now part of the city of Niagara Falls.

Suspen'sive, *a.* Teuding to keep in suspense or doubt.

Suspen'sor, *n.* (*Surg.*) A truss or bandage to suspend the scrotum.

Suspen'sory, *a.* Depeuding; hanging; suspended; as, a *suspensory* bag.—Suspeuding; serving to suspend; as, the *suspensory* muscle of the eye.

—*n.* Same as SUSPENSORY, *q. v.*

Suspicion, (*-pĭsh'un,*) *n.* [Fr.; Lat. *suspicio.*] Act of suspecting; the imagination of the existence of something without proof, or upon very slight evidence, or upon no evidence at all.

Suspicious, (*-pĭsh'us,*) *a.* [Lat. *suspiciosus.*] Mistrustful; apt to suspect; inclined to imagine without proof; as, a *suspicious* mind.—Denoting or indicating suspicion, fear, or apprehension; as, a *suspicious* countenance.—Adapted to excite suspicion; liable to suspicion; giving reason to imagine ill; as, *suspicious* proceedings, a *suspicious* innovation.—Given to, or entertaining, suspicion; as, jealousy makes women *suspicious* of each other.

Suspiciously, (*-pĭsh'us-,*) *adv.* In a suspicious manner.

Suspiciousness, (*-pĭsh'us-,*) *n.* Quality of being suspicious, or disposed to suspicion, or liable to be suspected; also, the quality or state of being adapted to suspect, or to excite suspicion; as, the *suspiciousness* of a man's actions.

Suspir'al, *n.* A vent or breathing-hole.—A spring or runnel of water flowing underground toward a cistern or conduit.

Suspiration, (*-rā'shun,*) *n.* [Lat. *suspiratio.*] Act of sighing; also, a sigh; as, to fetch a deep *suspiration.*

Suspire', *v. a.* [Fr. *sospirer,* from Lat. *suspirare.*] To sigh; to fetch a deep, long-drawn breath or suspiration.

Susquehan'na, a river of *Pennsylvania* and *Maryland,* which has its origin in Otsego and Canandaigua lakes, in western New York, and flowing E., receives the rivers Unadilla and Chenango, then, turning S., enters Pennsylvania, where it receives the Tioga, the W. branch (Susquehanna), and the Juniata, and empties itself into the Chesapeake Bay, at Havre de Grace, Maryland, 400 m. from its source, and 153 from its junction with the W. branch. It is a shallow, rapid, mountain river, with varied and romantic scenery. A canal follows its conrse, and great quantities of timber are floated down with the spring freshets. Near the mouth, it is famous for waterfowl, especially the Canvas-back duck, and has, also, important fisheries.

Susquehan'na, in *Pennsylvania,* a N.N.E. co., hordering on New York; *area,* 850 sq. m. *Rivers.* The N. Branch of the Susquehanna, and Choconut, Meshopen, Tunkhannock, and Wyalusing creeks. *Surface,* hilly; *soil,* adapted to grazing and dairy business. *Cap.* Montrose. *Pop.* (1897) 42,260.—A township of Cambria county.—A township of Dauphin county.—A township of Lycoming county.—A post-borough of Susquehanna county, 23 m. S.E. of Binghamtom.—A township of Juniata county.

Sus'sex, a S. maritime co. of England, hounded N. by Kent and Surrey, S. by the English Channel, E. by Kent and the Strait of Dover, and W. by Hampshire; *area,* 1,426 sq. m. It is intersected by two ranges of high chalky hills, known as the *North* and *South Downs.* The rivers are all small. The soil, generally light, poor, and sandy, is well adapted for pasturage and the breeding of sheep, which constitute the great staple of the co. Its breed of Southdown sheep and large red cattle are celebrated. *S.* has two capitals, Chichester and Lewes; the other towns of greatest importance are Brighton, Hastings, New Shoreham, Rye, and Horsham. *Pop.* (1897) 565,650.

Sussex, in *Delaware,* a S. co., bordering on Maryland, the Atlantic, and Delaware Bay; *area,* 900 sq. m. *Rivers.* Indian, Nanticoke, and Pocomoke rivers, and Cedar, Deep, and Mispillion creeks. *Surface,* level; *soil,* fertile; *Cap.* Georgetown. *Pop.* (1897) 40,150.

Sussex, in *New Jersey,* a N. co., hordering on New York and Pennsylvania; *area,* 525 sq. m. *Rivers.* Delaware, Flatkill, Musconetong, Paulinskill, and Pequest. *Surface,* traversed by the Blue Mountains in the N.W., and by the Hamburg and Wawayanda Mountains in the S.E.; elsewhere, undulating; *soil,* very fertile. *Min.* Franklinite, red oxide of zinc, magnetic iron ore, and many other precious, useful, and rare minerals. *Cap.* Newton. *Pop.* (1895) 22,586.

Sussex, in *Virginia,* a S.S.E. co.; *area,* 420 sq. m. *Rivers.* Nottoway and Blackwater. *Surface,* diversified; *soil,* generally fertile. *Cap.* Sussex Court-House, 50 m. S.E. of Richmond. *Pop.* (1897) 12,400.

Sussex, in *Wisconsin,* a post-village of Waukesha co., 16 m. N.N.W. of Milwaukee.

Sussex Lake, in British N. America, N. of Lake Aylmer, L. the source of Great Fish River.

Sustain', *v. a.* [Fr. *soutenir;* Lat. *sustineo—sub,* and *teneo,* to hold.] To hold; to uphold; to bear up; to support; to keep from falling; as, a camel *sustains* a burden, a fouudation *sustains* the superstructure.—Hence, by analogy, to keep from sinking in despondence; to support; as, patience *sustains* one under trials.—To keep alive; to maintain; to bear up or keep in any condition by aid or support; to nourish; to subsist; as, provisions to *sustain* a ship's company.—To assist, help, comfort, relieve, or uphold.—To bear; to endure without falling, yielding, or breaking down; as, "A liquor that no mortal can *sustain.*" *Waller.*—To endure; to suffer; to hear; to undergo; as, a strong body is able to *sustain* heavy toil.—To sanction; to permit to proceed or continue; uot to dismiss or abate; as, the action of the government was *sustained* by Congress.—To maintain as a sufficient ground; to establish the proof or conclusiveness of, as evidonce; as, the counsel's plea or argument was *sustained,* to *sustain* an objection to a vote, &c.

(*Mus.*) To continue, as vocal or musical sounds through their whole length.

Sustain'able, *a.* That may be sustained.

Sustain'er, *n.* The person who, or thing which, sustains.

Sus'tenance, *n.* [O. Fr., support.] Act of sustaining; subsistence; maintenance; support; as, the *sustenance* of the human body.—That which sustains or supports life; food; victuals; provisions; aliment; as, enough *sustenance* for a hundred persons.

Sustentation, (*-tā'shun,*) *n.* [Fr.] Act of sustaining; support; preservation from falling or sinking.—Use of food, victuals, or provisions.—Maintenance; sustenance; support of life; as, means of *sustentation.*

Sutera, (*soo-tai'ra,*) a town of Italy in Sicily, 20 m. from Caltanisetta; *pop.* 4,620.

Suth'erland, a co. of Scotland, forming the greater portion of the northern peniusula of that part of the island. Almost the whole of this co. consists of towering mouutain aud barren rock, with intervening straths or glens, down whose centre glides or foams some mountain stream. The grazing of sheep aud cattle is the almost sole occnpation of the inhahitants. Dornoch, the cap., is the only town.

Suth'erland, in *Virginia,* a post-village of Dinwiddie co., 10 m. S.W. of Petershnrg.

Sutile, (*sū'til,*) *a.* [Lat. *sutilis,* from *suo, sutum,* to sew.] Sewed together; done by stitching.

Sutlej, (*sut'ledj,*) a river of Hindostan, and the easternmost of the five rivers which flow through the Punjab. It rises in Thibet, aht. Lat. 30° 8′ N., Lon. 81° 53′ E., and after a course of nearly 1,000 m., joins the Chenab, 40 m. from Bhawulpoor.

Sut'ler, *n.* [D. *zoetelaar.*] A person who follows an army, and sells to the troops provisions and other necessaries.

Sut'ling, *a.* Pertaining or having reference to sutlers.

Sutling wench, a female sutler.

Sutsehawa, (*soot-sha'va,*) a fortified town on the frontier of Moldavia, 34 m. from Kimpolung; *pop.* 5,427.

Suttee', *n.* [Sansk. *satî.*] The self-immolation of a Hiudoo widow on the funeral pyre of her husband.—Also, the sacrificial rite of such self-immolation. It is spoken of hy writers of the age of Alexander the Great. Diodorus relates an instance B. C. 300. In 1829, Lord William Bentinck abolished the rite in the British East Indian dominions.

Suttee'ism, (*-izm,*) *n.* In Hindostan, the practice of self-immolation among widows.

Sut'ter, in *California,* a N. co.; *area,* 500 sq. m. *Rivers,* Sacramento and Feather. *Surface,* diversified; *soil,* generally fertile. *Cap.* Yuba City.—A township of Sacramento county.

Sutter Creek, in *California,* a post-town of Amador co., 28 m. S. of Placerville.

Suttle, (*sut'tl.*) *n.* (*Com.*) The weight of goods where the tare has been deducted, and on which tret is yet to be allowed.

—*v. a.* In the U. States, to act as sutler; to furnish provisions and necessaries to troops.

Sut'ton, in *Massachusetts,* a post-vill. and twp. of Worcester co., 42 m. W.S.W. of Boston.

Sutton, in *New Hampshire,* a post-township of Merrimac co., 20 m. W.N.W. of Concord.

Sutton, in *Ohio,* a township of Meigs county, on the Ohio.

Sutton, in *Vermont,* a post-township of Caledonia co., 40 m. N.E. of Montpelier.

Sutton-Coldfield, a town of England, in Warwickshire, 7 m. from Birmingham. *Pop.* 5,612.

Sutton's Mills, in *Massachusetts,* a village of Essex co., 1 m. from Lawrence.

Sutural, (*sūt'yur-al,*) *a.* [Fr., from Lat. *sutura,* a seam.] Pertaining or relatiug to a sutnre or seam.

(*Bot.*) Denoting parts which hear some definite relation to a suture, or line of junction between the different parts, as, a *sutural* dehiscence.

Suture, (*sūt'yur,*) *n.* [Fr.; Lat. *sutura.*] Act of sewing together; also, a seam; the uniting of the parts of a thing by stitching so as to form a seam, or something which resembles a seam.

(*Surg.*) The junction of the parts of a wound by stitchiug.

(*Anat.*) The jnnction of bones by their serrated or toothed margins, as the hones of the skull.

(*Zoöl.*) Entomologically, the line at which the elytra meet, and are sometimes confluent.

(*Bot.*) The line or seam formed hy the union of two margins in any part of a plaut.

Sutured, (*sūt'yurd,*) *a.* Possessing or presenting sutures; seamed.

Suwa'nee, in *Florida,* a N. co.; *area,* 640 sq. m. It is bounded on the N.W. and S.W. hy the Suwanee river. *Cap.* Live Oak. *Pop.* (1897) 13,120.

Suwanee, in *Georgia,* a river which rises in Ware co., and flowing S.W., falls into the Gulf of Mexico, on the boundary of Lafayette and Levy cos., Florida.—A post-village of Gwinnett co., 100 m. N.N.W. of Milledgeville.

Suwarrow, (*-wa'rov.*) ALEXANDER WASILIEVITCH, Count, Prince Italiyski, a Russian field-marshal aud generalissimo, B. in Moscow, 1729, entered the army as a hoy, rose through all the grades to be a colonel at thirty-two. For his services against the Turks and his victory over the Kuban Tartars, Catherine created him a general, and for his successes over the Mussulmans in the campaigns of 1787 and 1788 he was created a count. His great achievement, however, was the siege and capture of Ismail, one of the strongest frontier fortresses, defended hy 40,000 Turks. In this frightful siege, where the streets ran blood and every inch of grouud was disputed with the courage of lions, 30,000 Turks were trampled into the earth as the victors fought over their bodies, or were blown into the air from exploding mines, and 10,000 taken prisoners. The battle of Prague, where 30,000 gallant Poles fell, aud the siege of Warsaw, were his next trophies. His last campaign was in Italy in 1799, where he was opposed to Moreau, and, though compelled to retreat before the French general, his passage of the Devil's Bridge and battles on the Alps, as he led his army in safety into Germany, were masterly; for this he was created a prince of the empire. D. 1800.

Suwar'row Islands, a group in the Pacific; Lat. 13° 20′ S., Lon. 163° 30′ W.

Su'zerain, *n.* [Fr.] A feudal or superior lord; a lord paramount; one to whom fealty is due.

Su'zerainty, *n.* [Fr. *suzeraineté,* from Lat. *susum, sursum.*] The dominion or paramount authority of a suzerain.

Svend'borg, a town of Denmark, on the island of Funen. It has a harbor, aud ship-building docks. *Pop.* 4,322.

S.W. Abbreviation of south-west.

Swab, (*swŏb,*) *n.* [A. S. *swebban.*] A mop, or bundle of yarns or rags tied together, used for cleaning floors, washing decks on shipboard, &c.

—A piece of sponge, cloth, &c., fastened to a stick or handle, for rinsing the mouth of, or giving liquid nourishment to, a sick or bedridden person.

—*v. a.* To sweep, wipe, or clean with a mop, as the floors of a house.—To wipe when wet, or after washing; as, to *swab* a ship's decks.

Swab'ber, *n.* One who swabs.

Swabia. See SUABIA.

Swad, (*swŏd,*) *n.* A vulgar colloquialism for a lump, mass, or bunch; also, a crowd. (U. S.)

Swaddle, (*swŏd'dl,*) *v. a.* [A. S. *swaðil.*] To swathe; to biud, as with a ligament or bandage; to bind tightly with clothes, as an infant.

—*n.* Clothes bound tight around the body.

Swad'dling-band, Swad'dling-cloth, Swaddling-clout, *n.* A hand, cloth, or clout wrapped round an infant, especially one newly born.

Swaffham, a town of England, in Norfolk, 14 m. from Lynn; *pop.* 4,225.

Swag, *v. a.* [Icel. *sveigja,* to bend.] To sag; to lean; to sink down by its weight.

—*n.* A swaying, oscillatory motion, as of a heavy body; a sagging motion, as of something heavy and pendent.—In England, a cant term for plunder; booty; spoil; as, the thieves carried away their *swag.*

Swag-bellied, (*-bĕl'lid,*) *a.* Having a hulging, overhanging belly, shaking loosely from its own weight.

Swag'-belly, *n.* A loose, prominent, overhanging belly.

(*Med.*) Any large tumor, developed in the abdomen, and neither fluctuating nor sonorous.

Swage, (*swāj,*) *n.* A kind of anvil, on which to hammer metallic plates into given patterns.

—*v. a.* To fashion upon a swage.

Swagger, (*swăg'gr.*) *v. n.* [Icel. *sveigr,* one who twists, hends, or shakes.] To move in a slinging, insolent way or manner; to exhibit an insolent or puppyish bearing or demeanor; to bluster; to bully; to boast or brag noisily; to be ostentatiously or tumultuously proud or self-conceited; as, a *swaggering* fop, a *swaggering* rowdy.

—*n.* An insolent or puppyish hearing or mode of walking; hoastfulness or bluster of manner.

Swag'gerer, *n.* One who swaggers; a blusterer; a bully; a rowdy; a hoastful, hectoring, insolent, empty-headed fellow.

Swag'gering, *a.* Boasting noisily; blustering; exhibiting an insolent or devil-me-care bearing or gait.

Swag'gy, *a.* Disposed to swag or become pendent; sinking, hanging, or leaning hy its weight.

Swain, (*swān,*) *n.* [A. S. *swein, swum,* a herdsman.] A young man resident in the country; a rustic; a country servant engaged in husbandry; a peasant; particularly a country beau or gallant;—hence, a lover;—chiefly employed in poetry.

Swains'borough, in *Georgia,* a post-village, cap. of Emanuel co., 98 m. N.W. of Savannah.

Swain'ville, in *New York,* a village of Steuben co., 17 m. S.E. of Hornellsville.

Swale, *v. a.* and *n.* See SWEAL.

—*n.* In England, a gutter in a candle.—An American localism for a tract of low, and usually wet, land.

Swal'low, *n.* The throat; the gullet or œsophagus.—Taste; relish; gustation; predilection; liking; as, he has a good *swallow* for flattery.—Voracity; capacity for taking in or absorbing; as, the *swallow* of political rancor. (*Prof. Wilson.*)—As much as is, or is able to be, swallowed at once; as, a *swallow* of food.

—*v. a.* To receive through the gullet; to take into the stomach; as, to *swallow* food.—To ingulf; to absorb; to draw into an abyss, gulf, or vortex,—generally followed by *up;* as, ships *swallowed up* by the sea, a city *swallowed up* by an earthquake.—To appropriate; to engross;—often with *up* emphatically; as, Shakspeare *swallowed up* in himself the literary glory of his age.—To receive implicitly or unreservedly; to receive or embrace without inquiry, examination, or scruple; as, a credulous man will *swallow* every idle story he hears.—To employ; to take up; to occupy; as, business *swallows* the major part of his time.—To consume; to exhaust; to seize, and waste or scatter; as, the expenses *swallowed* the receipts, leaving no margin of profit.—To engross; to engage completely: as, "The priest and the prophet . . . are *swallowed* up of wine." *Isa.* xxviii. 7.

—To retract; to recant; to take back; as, he was made to *swallow* his own words.

Swallow, (*swol'lō,*) *n.* [A. S. *swalwe.*] The common name of the Insessorial birds comprising the family *Hirundinidæ.* They are distinguished by having a very short, depressed, and triangular bill, very long wings, very short tarsi, and tail generally forked. The typical genus *Hirundo* is represented in N. America by several

Fig. 2449. — BARN SWALLOW.

species, as the Barn Swallow, *H. horreorum,* which is about 7 inches long, the wings 5 inches, and the tail excessively forked. The upper parts are steel-blue, the lower light chestnut, and the wings and tail brownish-black. It is easily tamed, and soon becomes very gentle and familiar. Its song is a sprightly warble, and is sometimes continued for a length of time. — The genus *Progne* comprises the Martins. See MARTIN.

Swal'lower, *n.* One who swallows; emphatically, a greedy eater; a gormandizer; a glutton.

Swal'low-tail, *n.* (*Carp.*) Same as DOVE-TAIL, *q. v.*

(*Fortif.*) An outwork which is narrower towards the fortified place than towards the country.

Swal'low-tailed, *a.* Having skirts falling behind after the manner of a swallow's tail; as, a *swallow-tailed* coat.

(*Carp.*) Formed in the manner of a dovetail.

Swam, *imp.* of SWIM, *q. v.*

Swamp, (*swŏmp,*) *n.* [A. S. *swam;* Du. *zwam;* Dan. *svamp,* a sponge.] Spongy land; soft, wet ground; low ground filled with water; also marshy or boggy land, not usually covered with water; ground habitually so soft and moist as not to admit of being trod on by cattle, but at the same time producing particular kinds of trees, bushes, and plants. A swamp differs from a *bog* and a *marsh* in producing trees and shrubs, while the last-named yield only herbage plants and mosses.

—*v. a.* To plunge, whelm, or sink in a swamp, or as in something resembling a swamp. — To plunge into overwhelming or inextricable difficulties; as, his entire fortune was *swamped* in speculations.

(*Naut.*) To overset, capsize, sink, or cause to become filled with water; as, the high surf *swamped* the boat before it reached land.

Swamp'-cabbage, *n.* (*Bot.*) The Skunk-cabbage. See SYMPLOCARPUS.

Swamp'-honeysuckle, Swamp'-pink, *n.* (*Bot.*) A shrub, *Azalea viscosa.* See AZALEA.

Swamp-sas'safras, Sweet'-boy, *n.* (*Bot.*) See MAGNOLIACEÆ.

Swamp'scott, in *Massachusetts,* a post-township of Essex co., 12 m. N.E. of Boston.

Swamp'y, *a.* Consisting of, or resembling, a swamp; low, wet, and spongy; as, *swampy* ground.

Swan, (*swŏn,*) *n.* [A. S.] (*Zoöl.*) The English name of the web-footed swimming-birds comprising the genus *Cygnus.* They are found on the rivers and small pools of fresh water, and are distinguished by their graceful and majestic appearance. In some of the species the swan approach the geese in many of their characters, while the typical ones differ considerably. The leading characters of the *S.,* considered as a genus of the fam. *Anatidæ,* are these: The bill as wide at the tip as at the basal part, and higher than wide at the base; the nostrils are pierced about the middle of the length of the bill, and the neck is very long, as compared with that of the other web-footed birds. The color of the plumage is in general pure white, but a black species exists. They swim rapidly, and their flight is powerful and long-continued; they live in society, but in the breeding-time they are strictly monogamous, and the pairs take up their nesting-ground at some distance from each other. They make their nests near the margin of the

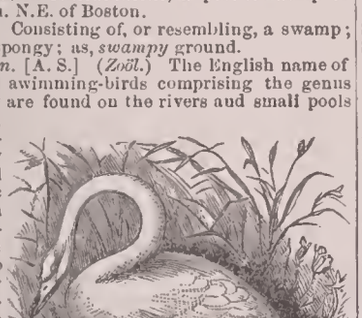


Fig. 2450. — SWAN.

water, upon the ground, and attain a great age. They feed generally upon seeds, roots, and other parts of aquatic plants which are blanched and succulent by being under the water; but it is asserted by some writers that they also eat frogs, insects, and worms. Their flesh is hard, black, and rank in the old ones, and not very good in the young ones. Their skins, feathers, and down, especially the latter, are used for several purposes. There are several species. The American *S., C. Americanus,* is 55 inches long, and the wings 22 inches; the color of the adult is a pure white, with the bill and legs black; the young are brown.

Swan, in *Indiana,* a post-township of Noble county.

Swan, in *Ohio,* a post-twp. of Vinton co.

Swan Creek, in *Illinois,* a post-village of Warren co., 25 m. S.E. of Quincy.

Swan Creek, in *Michigan,* enters St. Joseph's River from Branch co.

Swan Creek, in *Ohio,* enters the Maumee River from Lucas co. — A township of Fulton co.

Swan Lake, in *Wisconsin,* an expansion of Neenah River in Columbia co., abt. 3 m. long and ½ m. wide.

Swan Quarter, in *N. Carolina,* a post-village, cap. of Hyde co., 170 m. S.E. of Raleigh.

Swan River, in *Minnesota,* a post-village of Morrison co., on the Mississippi, 130 m. N.W. of St. Paul.

Swan River, the principal river in W. Australia, rising, under the name of Avon, near Lat. 32° 30′ S., and Lon. 117° E. It gave name to the first English settlement in W. Australia, founded in 1829. After watering several counties, it falls into the Indian Ocean, at a bay called Melville Water, in Lat. 32° S., Lon. 115° 42′ E.

Swansea, (*swan'ze,*) a seaport-town of England, in S. Wales, Glamorganshire, standing on a bay of the Bristol Channel, on the river Towy, in the midst of inexhaustible mines of coal and iron, 28 miles from Merthyr-Tydvil; Lat. 51° 37′ N., Lon. 3° 56′ W. By means of its harbor, and of the Towy, it commands a ready outlet for these productions of the interior. *Manuf.* Immense establishments for working in iron, copper, brass, spelter, and tin; it has also potteries on a large scale, a soap-factory, breweries, distilleries, and rope-walks. Its principal trade, however, is in the export of coal; and it has floating docks.

Swansea, in *Massachusetts,* a post-township of Bristol co., 46 m. S.W. of Boston.

Swan's'-down, *n.* The fine, soft, downy feathers of the swan, used for various articles of dress, trimmings, &c.; as, a tippet of *swan's-down.*

(*Manuf.*) A sort of twilled fustian, resembling moleskin.

Swan's Island, in *Maine,* a post-township of Hancock co.

Swan'-skin, *n.* The feathery integument of a swan.

(*Manuf.*) A kind of soft, thick flannel.

Swan'ton, in *Maryland,* a post-village of Alloghany co., abt. 40 m. W.S.W. of Cumberland.

Swan'ton, in *Ohio,* a post-village of Lucas co., 139 m. N.N.W. of Columbus.

Swanton, in *Vermont,* a post-village and township of Franklin co., 55 m. N.N.W. of Montpelier.

Swan'ville, in *Maine,* a post-township of Waldo co., 44 m. N.E. of Augusta.

Swan'zey, in *New Hampshire,* a post-vill. and twp. of Cheshire co., 45 m. S.W. of Concord.

Swap, Swop, (*swŏp.*) (*imp.* or *pp.* SWAPPED or SWOPPED,) (*swŏpt,*) *v. a.* [Ger. *schwappen.*] To exchange; to barter; to give one thing for another; as, to *swap* hats. (Colloq.)

—*n.* [Ger. *schwap.*] An exchange; a barter; a giving of one thing in return for another. (Colloq.)

—*v. n.* To flap; to beat or agitate the air with a sweeping noise or motion.

Swape, *n.* See SWEEP.

Sward, *n.* [A. S. *sweard,* grass; Du. *zwoord;* Dan. *sværr.*] Turf; the grassy surface of land; that part of the soil which is filled with the roots of grass, forming a kind of mat; as, the daisied *sward.* — Skin; rind; covering; as, the *sward* of bacon.

—*v. a.* To produce sward upon; to cover with sward.

Sware, Schware, *n.* [Ger.] (*Numis.*) A copper coin and money of account in Bremen, of the value of one-fifth of a groat, or of a quarter of a cent, American.

Swarf, *n.* The grit worn away by grindstones in grinding cutlery wet.

Swarm, *n.* [A. S. *swearm.*] A large number of small animals or insects, particularly when in motion; hence, appropriately, a great number of honey-bees which emigrate from a hive at once, and seek new lodgings together, under the direction of the queen bee. — Hence, also, by implication, a great number, especially a great number of people in motion; a multitude; a crowd; a throng; as, a *swarm* of applicants for offices under government.

—*v. n.* [A. S. *swearmian.*] To collect and depart from a hive in a body, as bees. — To appear or collect in a crowd; to run; to throng together; to congregate in a mob or multitude; as, people *swarm* to see the sight. — To be crowded; to be thronged with a number of animals in motion; as, the camp *swarms* with the enemy's spies. — To breed multitudes. — To be filled, as with a throng, crowd, or multitude of objects; to abound; as, a bed *swarming* with bugs. — To climb, as a tree, by scrambling up its trunk with the aid of hands and feet; —synonymous with the American term *shin,* q. v.

Swarth'ily, *adv.* Duskily; with a dark or tawny hue.

Swarth'iness, Swarth'ness, Swart'ness, *n.* State of being swarthy; tawniness; of a dark or dusky complexion; as, *swarthiness* of visage.

Swarth'more, in *Pennsylvania,* a post-village of Delaware co., abt. 8 m. S.W. of Philadelphia. The Society of Friends have recently erected here a large, handsome building for school and collegiate purposes, called *Swarthmore* after the place of residence of George Fox.

Swarth'y, *a.* Dark of complexion; black; dusky; tawny.

Swash, (*swŏsh,*) *n.* A swaggering, boisterous fellow; a roisterer; a swash-buckler. — A violent dashing of water. — Hog-wash; slops, collected as food for pigs. — In the U. States, a narrow sound or channel of water lying within a sandbank, or between that and the shore; —also, called *swash-way.*

—*v. n.* [Du. *zwetsen,* to boast.] To vapor, vaunt, bluster, or brag. — To splash; to dash or flow noisily; as, the sea *swashes* into a cavern. — To hit or strike with a loud, or dull heavy sound; as, a *swashing* blow.

Swash'-let'ters, *n. pl.* (*Print.*) Letters which had their terminations projecting considerably beyond the shank, thus: K J R, &c. They have been revived of late years with the re-introduced old-fashioned types.

Swata'ra Creek, in *Pennsylvania,* rises in Schuylkill co., and enters the Susquehanna River 9 m. S. of Harrisburg, after a S.W. course of 60 m. — A township of Lebanon co., abt. 10 m. N.W. of Lebanon.

Swath, *n.* [A. S. *swathe, swæth.*] A band; a fillet; as, a hundred yards of *swaths.*

(*Agric.*) In reaping, a line, track, or row of grass or grain cut and thrown together by the scythe in mowing or cradling; as, a *swath* of hay. — The whole breadth or sweep of a scythe in mowing or cradling; as, a wide *swath.*

Swathe, (*swāth,*) *v. a.* [A. S. *beswethan, beswethian,* to bind, from *swethe.*] To bind with a swath, band, fillet, bandage, or rollers; as, to *swathe* a child, to *swathe* a patient who undergoes the hydropathic process of packing.

Swathe, *n.* A bandage or fillet. See SWATH.

Sway, *v. a.* To wield or guide with the hand; as, to *sway* a sceptre or baton. — To rule; to govern; to control; to influence or direct by power or authority, or by moral force; as, to *sway* the destinies of a nation. — To bias; to bend; to cause to turn, lean, or incline to one side; as, a man *swayed* by petticoat counsels.

(*Naut.*) To hoist; to raise; as, to *sway* up the yards.

—*v. a.* To bear or exercise rule or sovereignty; to govern. — To possess or use weight, influence, or authority; as, a sincere friend's judgment often *sways* one's opinions. — To lean; to incline; to be drawn to one side by weight or preponderance.

—*n.* The swing or sweep of a weapon.

"To strike with huge, two-handed *sway!*" — *Milton.*

—Anything moving with bulk and power; as, "the *sway* of earth shakes like a thing unfirm." (*Shaks.*)—Weight; preponderance; turn or cast of balance; as, to turn the *sway* of battle. — Power; rule; dominion; sovereignty; control; ascendency; domination; authority exercised in governing; as, regal *sway.* — Bias, weight, influence, or authority that leans or inclines to one side; as, the *sway* of time. — A thatcher's binding-rod or switch.

Sway'-backed, (*-bākt,*) *a.* With the back hollowed in, whether from abnormal malformation or as the result of injury or weakness; — said of horses, &c.

Sway'ing, *n.* (*Farriery.*) A kind of lumbago sometimes caused to the horse by a fall, or by being overburdened.

Sweal, Swale, *v. a.* [A. S. *swelan.*] To melt and run down the bougie, as the tallow of a lighted candle; to gutter.

—*v. n.* To dress by singeing off the hair, as a hog.

Swear, *v. n.* (*imp.* SWORE, *obs.* SWARE; *pp.* SWORN.) [A. S. *swerian;* Du. *zweren;* Ger. *schwören.*] To make or utter a solemn declaration, with an appeal to God for the truth of what is affirmed; as, "And by the gods he *swore.*" (*Macaulay.*) — To be profane; to use the name of sacred things idly or irreligiously; to make an appeal to Heaven in a wanton or irreverent manner.

(*Law.*) To promise, attest, or give evidence on oath; as, to *swear* to the alibi of a prisoner.

—*v. a.* To utter or affirm with a solemn invocation to God for the truth of the declaration; as, to *swear* on the Scriptures. — To declare, accuse, or charge upon oath; as, to *swear* treason against an individual. — To obtest or appeal to by an oath.

To swear the peace against. (*Law.*) To swear an oath or make legal affirmation that one is in actual fear of death or bodily harm at the hands of another person, which latter is thereupon compelled to find sureties to keep the peace.

Swear'er, *n.* One who swears or takes an oath; one who calls God to witness for the truth of his asseveration. — A profane person; a blasphemer; one who uses irreverent language.

Sweat, (*swet,*) *n.* [A. S. *swat;* D. *zweet.*] The moisture which issues, or which is excreted from the skin of man or other animals; perspiration. — State or condition of one who sweats; hence, by analogy, toil; labor; hard work; drudgery.

"This was but a matter of *sweat* and watching."—2 *Macc.* ii. 26.

—Moisture evaporated from any substance; as, the *sweat* of grain in a ship's hold.

—*v. n.* (*imp.* and *pp.* SWEAT, or SWEATED.) [A. S. *swætan.*] To exude sweat or sensible moisture from the pores of the skin; to perspire; as, the *sweating* sickness. — To toil; to labor; to drudge.—To excrete moisture, as green plants in a heap.

To sweat coin, to reduce the value of a piece of coin by removing a portion of its surface or rim by friction, as by shaking it in a bag.

Sweat'er, *n.* One who, or that which, sweats or perspires. — That which promotes sweating; a sudorific.

Sweat'ily, *adv.* In a sweaty or perspiring manner.
Sweat'iness; *n.* State of being sweaty.
Sweat'ing-bath, *n.* See SUDATORY.
Sweat'ing-iron, (*-i'urn,*) *n.* A piece of iron used to scrape sweat eff horses.
Sweat'ing-room, *n.* A room for sweating sick persons. — In dairies, a room for sweating cheese, and promeling evaporation of the superfluous juices.
Sweat'ing-sick'ness, *n.* (*Med.*) An epidemic of great severity which appeared in England and other countries of Europe during the 15th and 16th centuries. The disease may be described as a fever commencing with heat in some one limb or in some part of the body, spreading over the whole surface, and followed by profuse and exhausting sweating, with insatiable thirst. Restlessness, nausea, delirium, and headache, with irregular action of the heart, were always present. Patients often died in from two to four hours after the sweat set in.
Sweat'y, *a.* (*comp.* SWEATIER; *superl.* SWEATIEST.) Moist with sweat; as, a *sweaty* skin. — Consisting of sweat; as, *sweaty* streams. (*Swift.*) — Laborious; toilsome; arduous; difficult; as, "Those who labour at the *sweaty* forge." — *Prior.*
Swede, *n.* [Swed. *Svensk.*] (*Geog.*) A native of Sweden.
Sweden, [Swed. *Sverige,*] a kingdom of Northern Europe, comprising with Norway and Lapland the whole of the Scandinavian peninsula, of which it forms the eastern, southern, and most important portion; between Lat. 55° 20′ and 69° N., and Lon. 11° 18′ 30″ and 24° 13′ E., having N.E. Russian Finland; E. and S. the Gulf of Bothnia and the Baltic, S.W. the Sound, Cattegat, and Skagerrack; and W. and N. Norway, from which it is for the most part divided by the great mountain-chain of Scandinavia. Length N. to S. 950 m.; average breadth about 190 m.; *area*, 170,096 sq. m. Sweden is divided into three principal regions: *Gœthland* (Gothia) in the S.; *Sweden proper*, occupying the centre; and *Norland* (by far the largest part), comprising the remainder. These three regions are again subdivided into 24 *lans*, or districts. *S.* is mountainous in the W., but, in general, flat; and it is remarkable that along the whole road, from Gottenburg in the west, to Stockholm in the east, there is not a single acclivity of consequence till within a few miles of the latter. — *Climate.* Less severe than might be expected in so high a latitude. In Stockholm the average temperature throughout the year is four degrees higher than at St. Petersburg. The summers are hot, and spring is almost unknown. In the N., snow covers the ground for five or six months in the year; and the W. coasts are milder and more humid than the E. — *Rivers.* Numerous. The principal are the Dal and the Klar, rising in the mountains bordering on Norway, and flowing into the Gulf of Bothnia and the lake of Wener. The Angerman, the Umea, the Skeleftea, the Pitea, the Lulea, and the Tornea, are in Lapland. — *Lakes.* Nearly one-eighth of the country is covered with lakes. The largest are the Wœner, Wetter, and the Malar, all in the S. provinces. In point of size, Wœner is the third lake in Europe. — *Forests.* Extensive. More than three parts of the country are under timber. The principal trees are fir, birch, withoak, elm, and beech in the more S. parts. *Zoölogy.* The domesticanimals are the same as those of Great Britain. The others are, hares and foxes, beavers, wolves, and, in the cold provinces of the north, bears, the leming and the reindeer. Waterfowl are abundant, and the mosquitoes are as troublesome as they are in tropical countries. — *Prod.* Only about a fiftieth part of the country is cultivated. Agriculture is in a very backward state, but is being improved. The plants are similar to those of Britain. Apple, pear, and cherry trees, grow but languidly; while berries of many different kinds are produced spontaneously, and spread luxuriantly. Wheat succeeds only in the southern provinces; oats are raised more generally, and in larger quantities; but rye and barley are the kinds of grain most frequently met with. — *Min.* Abundant; comprising iron, copper, lead, coal, porphyry, some silver, and marble. Swedish iron is of superior quality, and its quantity is immense. — *Manuf.* Principally confined to articles of domestic use. They consist of woollens, cottons, paper, linens, sugar, and tobacco. Tanning is carried on to some extent, and distilling and brewing are followed, also shipbuilding; but the pottery, glass, woollens, sugar, snuff, and tobacco are merely sufficient to meet the home consumption. — *Education.* General. The university of Upsal was founded in 1476, and has maintained a good character, particularly for physical science. The university of Lund is of much more recent date, and on a smaller scale. There are a number of high schools, while the scientific and literary societies of Sweden are numerous, and belong chiefly to Stockholm. In the schools of the lower classes, the method of mutual instruction prevails. — *Religion.* Lutheranism is the religion of the state, and of nearly all the inhabitants; there being only about 2,000 Catholics and about 1,000 Jews. — *Government.* A constitutional monarchy. The king of Sweden must be a member of the Lutheran Church, the national church of Sweden. His person is inviolable. He has the right to declare war and make peace, and grant pardon to condemned criminals. He nominates to all appointments, both military and civil; concludes foreign treaties, and has a right to preside in the supreme Court of Justice. The king has an absolute veto against any decrees of the Diet, and possesses legislative power in matters of provincial administration and police. In all other respects, the fountain of law is the Diet. This Diet, or Congress of the realm, consists of two chambers, or estates, both elected by the people, but representing different interests. — *Finances.* The annual revenue and expenditure of the kingdom are each about $50,000,000. The public debt in 1901 amounted to $92,833,336. — *Army.* The peace-strength of the army in 1905 was estimated at 40,000; first reserve, 50,000; second reserve, 90,000; total war strength, 180,000. — *Navy.* The navy of *S.* consists of 25 armored ships, 4 unarmored ships, 17 gunboats, 34 torpedo boats, and 2 torpedo boat destroyers, with 454 guns. These ships are manned by 5,000 officers and men — *History.* The two kingdoms, Gothland and Svealand, of which Sweden once consisted, were united in the 13th century by the failure of the royal line in the former. In 1397, by the treaty of Calmar, Sweden became subject to Margaret of Denmark, who has been styled the Semiramis of the North, and who joined the three kingdoms in one. Gustavus Vasa asserted the independence of Sweden, and ascended the throne in 1521. He bequeathed the crown to his posterity, who continued to reign, and in general with distinction. Gustavus Adolphus (1594-1632) was a soldier of unusual ability, who took a leading part in favor of the Protestant states of Germany during the Thirty Years' war. Charles XII. (1682-1718) became famous for his conquests, defeating Russia, Poland and Denmark in alliance, though his career ended in disaster. The dynasty ended with Gustavus IV., who in 1809, engaging in undertakings totally beyond the resources of his people, was deposed; and next year Marshal Bernadotte of France was elected crown-prince, and, in 1818, as Charles-John XIV., ascended the throne. In 1814, Norway was annexed to Sweden. It was separated again in 1905. (See NORWAY.) In 1857, Charles XV. succeeded his father, Oscar I., and d. in 1872, leaving the crown to his brother, Oscar II., the present sovereign of Sweden. *Cap.* Stockholm. *Pop.* (1901) 5, 136,441.

Fig. 2451.
SWEDISH COSTUMES, (Norland.)

Swe'den, in *Maine*, a p.-twp. of Oxford co.
Sweden, in *New York*, a post-township of Monroe co., 18 m. W. of Rochester.
Sweden, in *Pennsylvania*, a post-township of Potter co., abt. 10 m. E. of Coudersfort.
Swe'denborg, EMANUEL, founder of the Church of New Jerusalem, and one of the most distinguished men of science of the 18th cent., was B. in Stockholm, in 1688, and carefully educated under the care of his father, bishop of Skara, in W. Gothland, in the principles of the Lutheran Church. He was remarkable for his religious susceptibility in his youth; and his parents said that angels spoke through him. After pursuing his studies and taking the degree of Ph. D. at Upsal, he went on his travels in 1710, and visited the universities of England, Holland, France, and Germany. On his return, he was appointed assessor extraordinary to the College of Mines, and in 1719 was ennobled, upon which occasion his name was changed from Swedberg to Swedenborg. He had in the previous year achieved a great engineering feat, in the transport, over a mountain district, of several galleys and boats for service at the siege of Frederickshall. In 1721, he again travelled, to examine mines, &c. He continued his scientific studies with an ardor that placed him in the first rank of European philosophers, until the year 1743, when, as he himself affirms, a new æra of his life commenced, and he was permitted to hold intercourse with the inhabitants of the invisible world. In 1747, he resigned his office in the mining college, retired from public life, and spending his time alternately in Sweden and in England, devoted himself to the publication of his theological works. These are in themselves sufficiently numerous to form a life's work, and present throughout evidences of the deepest religious feeling. The style of composition marks them as works of a master-mind. They are filled with illustrations from the scientific and metaphysical lore of their author, and present, perhaps, as remarkable a combination of science and theology as is anywhere to be met with. Though it is frequently affirmed that *S.* labored under a delusion, his writings show no symptoms of aberration; the last, finished but a few months before his death, being singularly clear, logical, and free from enthusiasm. He was always regarded as a learned and pious man; and it would appear that the story of his insanity rests for its support upon the word of a single enemy. He was never married; and his habits and mode of life were remarkable for their simplicity. The believers in his doctrines are now become a numerous body. (See SWEDENBORGIANS.) Of his very numerous works, it is impossible to name more than a few of the most important. In science, the *Dædaperboreus* (published 1716-18), *Opera Philosophica et Mineralia Hylis* (1734), *Œconomia Regni Animalis*, and *Regnum Animale*; in theology, the *Arcana Cœlestia*, *De Cultu et Amore Dei*, *On Heaven and Hell*, *On Conjugal Love*, and the *True Christian Religion*. D. in London, 1772.
Swedenbor'gians, *n. pl.* (*Eccl. Hist.*) Those persons who on religious subjects receive the testimony of Swedenborg (*q.v.*) In his work entitled *Arcana Cœlestia*, and in his *Apocalypsis Revelata*, Swedenborg professes to make known what he calls the science of correspondences, or that analogy between spiritual and natural things according to which, he says, the Word of God is written. Thus, Jerusalem signifies not only the chief city of Palestine, but the Lord's Church, and more specifically the religious doctrines by which persons are united into a church. Hence, the New Jerusalem, seen by John descending from God out of heaven, signifies a New Church, or a new development of pure doctrines from the Holy Word, which will eventually regenerate the world. In these doctrines may be considered as most prominent the acknowledgment of the Lord Jesus Christ as the one God in whom is centred the Divine Trinity, and the necessity for uniting charity with faith, or, in other words, for the keeping of the divine commandments, in which is included the performance of every duty. The admirers of Swedenborg, who form a separate religious body, which they denominate the *Church of New Jerusalem*, or the *New Church*, have 67 places of worship in Great Britain, 12 in Germany, 7 in Switzerland, 4 in France, 1 in Denmark, 2 in Italy, and 8 in Australia and New Zealand. In the U. States and British N. America, the "New Church" is represented by societies or by receivers at about 620 places.
Swedenbor'gianism, *n.* (*Theol.*) The doctrines propounded by Swedenborg, and maintained by his followers.
Swedes'borough, in *New Jersey*, a post-village of Gloucester co., abt. 12 m. S.W. of Woodbury.
Swed'ish, *a.* [Swed. *Svensk.*] (*Geog.*) Pertaining to Sweden, or to the Swedes. — *n.* the Swedish language.
Swedish Movement Cure. See MASSAGE.
Swed'ish coffee, *n.* (*Bot.*) See ASTRAGALUS.
Sweep, *v. a.* (*imp.* and *pp.* SWEPT.) [A S. *swapan.*] To clean by brushing or passing a broom over; to brush, or rub over with a brush, broom, or besom, for removing dust or loose dirt; as, to *sweep* a floor, to *sweep* a chimney. — To carry with a long, swinging, or dragging motion; to bear along with pride or pomposity; as, she *swept* past with an air of disdain. — To drive or carry along or off on the earth; as, the flood *swept* away everything before it. — To drive, destroy, remove, or carry off numbers at a stroke, or with rapidity or violence; as, after breaking the bank, he *swept* the stakes off the table; thousands of people were *swept* off by the cholera. — To observe or run the eye or other instrument over for the purpose of taking observation; as, to *sweep* the horizon with a telescope. — To strike with a long stroke; as, oars *sweep* the water, she *swept* her fingers over the harp.

To sweep a mould. (*Founding.*) To set the sand in a mould by a template, instead of packing it around a pattern.

—*v. n.* To pass with celerity and violence as something broad, or brushing the surface of anything; as, heavy rain *sweeps* the streets. — To pass over or brush along with force and rapidity; as, a *sweeping* gale of wind. — To pass with pomp or ostentation; as, she appeared at court with a *sweeping* train to her robe. — To move with a long stretch or reach; as, a *sweeping* stroke. — To take in a view with progressive rapidity; to include many persons or particulars in a single act or utterance; as, a *sweeping* assertion, charge, and the like.
—*n.* Act of sweeping. — Compass or extent of any stroke; as, to take a long *sweep* of the oars. — Circuit or range of any turning body or motion; as, the *sweep* of a door. — Reach or compass of anything flowing or brushing; as, the *sweep* of a torrent. — Violent and general destruction; as, the *sweep* of a pestilence. — Direction and dimension of any motion other than rectilinear; as, the *sweep* of a compass. — One who sweeps; specifically, a chimney-sweeper. — A pole or piece of timber moved on a fulcrum or post, employed in raising and lowering a bucket in a well for drawing water; — also written *swape.*

(*Founding.*) In loam-moulding, a movable template for forming moulds.

(*Naut.*) A circular plank fitted to support the foremost end of the tiller, or handle of a rudder, much improved by conveying the tiller-rope round it, and keeping it always tight. — Any part of a ship shaped in a segment of a circle.

—*pl.* Large oars used on board small craft, to urge them forward during calms, or to give them additional speed during a chase.
Sweep'ingly, *adv.* In a sweeping manner.
Sweep'ingness, *n.* Quality of being sweeping.
Sweep'ings, *n. pl.* Things collected by sweeping; dregs; rubbish; as, the *sweepings* of a ship's hold.
Sweep'-net, *n.* A net for drawing over a large compass.
Sweep'stakes, *n. sing.* or *pl.* The whole money or plate staked or won at a horse-race.
Sweep'-washer, *n.* The person who extracts the residuum of precious metals from the sweepings, potsherds, &c., of refineries of gold and silver, or places where these metals are manufactured or used.
Sweep'y, *a.* Passing with a sweeping or brushing motion, or with speed and violence, over a great extent or compass at once; as, *sweepy* sway. (*Dryden.*) — Wavy. — Expanded; as, the peacock's *sweepy* train.
Sweet, *a.* (*comp.* SWEETER; *superl.* SWEETEST.) [A. S. *swet;* Du. *zoet;* Lat. *suavis.*] Saccharine; luscious

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possessing an agreeable or grateful taste or flavor, resembling that of honey or sugar;—in contradistinction from *sour*, *acid*, or *bitter*; as, a *sweet* fruit. — Fragrant; odoriferous; pleasing to the sense of smell; as, a *sweet* perfume, *sweet* incense. — Soft, melodious, or pleasing to the ear; harmonious; dulcet; as, a *sweet* voice, *sweet* music. — Beautiful; attractive or pleasing to the eye; as, that girl has a *sweet* face. — Fresh; palatable; not salt: as, *sweet* water. — Not stale or rancid; as, *sweet* butter. — Not turned or sour; not mouldy; not coagulated; as, *sweet* bread, *sweet* milk; — in distinction from *butter-milk*. — Not tainted, putrescent, or putrid; as, meat kept in ice keeps *sweet* for a long while. — Soft; mild; gentle; as, "a *sweet* and virtuous soul." (*Herbert.*) — Charming; soft; pleasing; suave; bland; kind; obliging; as, *sweet* manners, a *sweet* smile.

(NOTE. *Sweet* enters frequently as a prefix into the composition of certain self-explaining compounds; as, *sweet*-featured, *sweet*-smelling, *sweet*-tempered, *sweet*-toned, &c.)

Sweet herbs, fragrant herbs cultivated in kitchen-gardens. — *Sweet tooth*, a penchant or especial fondness for sweetmeats, or sweet things generally. — *To be sweet upon*, to treat with marks of tender deference, or exhibit such a partiality for, or interest in, as to indicate incipient affection.

Sweet, *n.* A sweet substance, particularly that which is added to wines and liquors to improve them. — A perfume; that which is sweet, grateful, or fragrant in properties of smell; as, odoriferous *sweets*. — That which is pleasing or agreeable to the mind or thoughts; as, the *sweets* and sours of married life. — A pet; a darling; one who is dear to the heart of another; an appellation of endearment; as, "Be at thy chamber-window, *sweet!*" — *Carew.*

—*pl.* Confectionery; candies; preserves; sugars, honey, &c.; — In England, also, applied to pastry, jellies, &c., served at the dinner-table. — Home-made wines, cordials, syrups, &c.

Sweet'-bag, *n.* (*Bot.*) See LAURUS.

Sweet'-bread, *n.* The pancreas of an animal, especially of a calf, dressed and used for food.

Sweet'-briar, Sweet'-brier, *n.* (*Bot.*) See EGLANTINE.

Sweet-cal'abash, *n.* (*Bot.*) See PASSIFLORA.

Sweet-cal'amus, Sweet'-cane, *n.* (*Bot.*) See CALAMUS.

Sweet-cicely, (*-sĭs'-*,) *n.* (*Bot.*) See OSMORRHIZA.

Sweet'-corn, *n.* A variety of the maize or Indian corn, possessing a sweet taste.

Sweeten, (*sweet'n*,) *v. a.* [A. S. *swetan*, *geswetan*.] To make sweet or agreeable to the taste; as, to *sweeten* coffee, to *sweeten* a glass of punch. — To make pure and salubrious by destroying noxious ingredients; as, to *sweeten* the atmosphere of a sick-room. — To make warm and fertile; as, to dry and *sweeten* soils. — To restore to purity or palatableness; as, to *sweeten* water or provisions. — To soften to the eye; to make subdued or delicate; as, to *sweeten* lights and shadows in a picture. — To make pleasing, acceptable, or grateful to the mind; as, love *sweetens* life. — To make mild, propitious, gentle, or kind; as, the gift of a new dress often *sweetens* a wife's temper. — To make less irksome, laborious, or painful; as, "She thy cares shall *sweeten* with her charms." (*Dryden.*) — To add to the amenities or agreeable qualities of; as, children *sweeten* domestic joys.

—*v. n.* To become sweet.

Sweet'ener, *n.* One who, or that which, sweetens; as, sugar is a *sweetener* of tea. — One who palliates, mollifies, or reconciles; that which serves to moderate acerbity or assuage animosity. — An auctioneer's assistant employed to make fictitious bids for articles, to decoy others into bidding higher.

Sweetening, (*sweet'n-ing*,) *n.* Act of making sweet. — That which sweetens, or makes sweet.

Sweet'-fern, *n.* (*Bot.*) See COMPTONIA.

Sweet'-flag, *n.* (*Bot.*) Same as CALAMUS, *q. v.*

Sweet'-gale, *n.* (*Bot.*) See MYRICACEÆ.

Sweet'-gum, *n.* (*Bot.*) Same as LIQUID AMBAR, *q. v.*

Sweetheart, *n.* A lover or mistress.

Sweet'ing, *a.* A sweet, luscious apple. — A darling; a pet; — a term of fondness.

Sweet'ish, *a.* Moderately sweet or agreeable to the taste.

Sweet'ishness, *n.* Quality of being sweetish.

Sweet'land, in *California*, a post-village of Nevada co., 8 m. N.N.W. of Nevada City.

Sweet'land, or SWEETLAND CENTRE, in *Iowa*, a post-township of Muscatine co.

Sweet'ly, *adv.* In a sweet manner; agreeably; charmingly; gratefully.

Sweet-mar'joram, *n.* (*Bot.*) See ORIGANUM.

Sweet'meat, *n.* [A. S. *swetmete*.] Fruit candied or preserved with sugar; confectionery made with sugar; a bon-bon; — generally in the plural.

Sweet'ness, *n.* Quality of being sweet, in any of its senses; as gratefulness to the taste or to the smell; fragrance; agreeableness to the ear; melody; agreeableness of manners; softness; mildness; obliging civility; suavity; amiableness, as of temper.

Sweet'-oil, *n.* A popular colloquialism for olive-oil.

Sweet'-pea, *n.* (*Bot.*) See LATHYRUS.

Sweet-pota'to, *n.* (*Bot.*) See BATATAS.

Sweet'-root, *n.* (*Bot.*) Licorice-root. See GLYCYRRHIZA.

Sweet'-rush, *n.* (*Bot.*) The sweet-flax. See ACORUS.

Sweet-scented, (*-sĕnt-*,) *a.* Fragrant; odoriferous; having a sweet or delicate scent; as, a *sweet-scented* flower.

Sweet-scented shrub. (*Bot.*) See CALYCANTHACEÆ.

Sweet'-sop, *n.* (*Bot.*) Same as SWEET-APPLE, *q. v.*

Sweet'-springs, in *W Virginia*, a post-village of Monroe co., 15 m. S.S.E. of Lewisburg.

Sweet'-stuff, *n.* A colloquialism for sweetmeats or any sort of all kinds; as, children are fond of *sweet-stuff*.

Sweet'-sultan, *n.* (*Bot.*) An annual flowering-plant; *Centaurea moschata*.

Sweet Water, in *Georgia*, a post-village of Gwinnett co., 95 m. N.W. of Milledgeville.

Sweet-Water Creek, of *Georgia*, enters the Chattahoochee River from Campbell co.

Sweet-william, *n.* (*Bot.*) See DIANTHUS.

Sweet'-willow, *n.* (*Bot.*) The Sweet-gale. See MYRICA.

Sweet'-wood, *n.* (*Bot.*) See OREODAPHNE.

Sweet'-wort, (*-wurt*,) *n.* Any plant possessing a sweet taste.

Swell, *v. a.* (*imp.* SWELLED; *pp.* SWELLED; SWOLLEN or SWOLN is nearly obs.) [A. S. *swellan*; D. *zwellen*; Icel. *svella*, to swell.] To enlarge; to grow larger; to dilate or extend the exterior surface or dimensions of by matter added to the interior part, or by expansion of the inclosed substance; as, a bladder *swells* by inflation; a boil or bruised part *swells*, &c. — To increase in size, compass, or extent by any addition or reinforcement; as, a river *swells* into a flood after heavy rains. — To rise, heave, or be driven into waves or billows; as, it blew a gale, accompanied by a *swelling* sea. — To be bloated or puffed up; as, a bull *swells* with rage at the sight of anything of a red color. — To belly; to be distended or inflated; as, a *swelling* sail. — To be turgid, tumid, euphuistic, or bombastic; as, a *swelling* style of diction. — To bulge out; to protuberate, as the belly of a cask. — To be elated or uplifted in mind; to rise into hauteur or arrogance; as, to *swell* into state. (*Dryden.*) — To grow upon the view; to become insensibly larger; as, a *swelling* scene. (*Shaks.*) — To look big; to strut; to carry a pompous or arrogant air; to act in an ostentatious or self-sufficient manner; as, a parvenu *swells* with self-importance in parade of his money-bags.

—*v. n.* To increase the size, bulk, compass, or dimensions of; to cause to rise, dilate, expand, enlarge, or increase; as, winds *swell* the curled waters. (*Shaks.*) — To aggravate; to heighten; to intensify; as, to *swell* an assertion or accusation. — To raise to arrogance; to uplift to a degree of vulgar prosperity, as that derived from riches.

(*Mus.*) To augment in force or intensity of sound, as a note.

—*n.* Act of swelling. — Extension or enlargement of bulk; protuberance. — Rise; elevation, as of height. — Increase; force; intensity; power; — said of sound; as, "Music's voluptuous *swell*." (*Byron.*) — Reinforcement of force or power in style or diction; as, the *swell* of a rhetorical sentence. — A gradual ascent or elevation of land; as, a tract rising into gentle *swells*. — A wave or billow; more generally, successive or large waves; as, a heavy *swell* set into the bay. — The fluctuating or heaving motion of the sea after a tempest; as, the ship encountered a heavy ground-*swell*. — A showy, dashing, well-dressed man; usually, implying one who affects an air of jauntiness or dandyism, combined with a dash of self-conceit; a fop; as, a tip-top Broadway *swell*.

(*Mus.*) A combination of the crescendo and diminuendo, or a gradual increase and decrease of the volume of sound; — usually noted thus <>.

Swell'ing, *a.* Tumid; turgid; inflated; bombastic; as, *swelling* language.

—*n.* Act of enlarging or increasing in bulk; inflation. — Prominence; protuberance; a bulging out. — A rising or augmentation by passion; as, the *swellings* of anger, grief, or pride.

(*Med.*) A tumor or any morbid enlargement of the natural size; as, a *swelling* in the face.

Swell'-mob, *n.* A generic term for well-dressed thieves, pick-pockets, &c.; as, he was taken for a member of the *swell-mob*.

Swel'ter, *v. a.* [O. Eng. *swelte*, to faint; A. S. *sweltan*, to die.] To be overcome and languid with heat; to be ready to perish from excess of heat; as, *sweltering* cattle.

—*v. a.* To oppress or nearly stifle with heat; to make faint, weak, or sick, by a heated, close atmosphere; as, a *sweltering* day in August.

Swept, *imp.* and *pp.* of SWEEP, *q. v.*

Swerve, *v. a.* [D. *zwerven*, to wander; A. S. *hweorfan*, to turn.] To turn aside from any line prescribed, or from a rule of duty or regulation; to depart from what is set down or established by law, duty, custom, or usage; to deviate; as, to *swerve* from the path of rectitude. — To ply; to bend; to incline; as, the tide of battle *swerved*. — To swarm; to shin; to climb upward by a wriggling motion; as, he *swerved* the tree.

Swieciany, (*swe-tse-a'ne*,) a town of Russian Poland, 45 m. from Vilna. *Pop.* 5,627.

Swietenia, *n.* (*Bot.*) A genus of plants, order *Cedrelaceæ*. The species *S. Mahogani* supplies the well-known valuable wood called *mahogany*, which is so largely employed for household furniture and cabinet-work. It is imported chiefly from Honduras and Cuba, and also to a certain extent from other West Indian islands. Its bark possesses febrifugal properties.

Swift, *a.* (*comp.* SWIFTER; *superl.* SWIFTEST.) [A. S., from *swifan*, to wander.] Speedy; quick; rapid; fleet; nimble; moving with rapidity, celerity, or velocity; moving a great distance or over a large space in a short time; as, a *swift* horse, a *swift* vessel, a *swift* pedestrian. — Ready; prompt; with alacrity; as, "To mischief *swift*." *Milton.* — Speedy; expeditious; that comes without halt or delay; as, *swift* destruction.

(NOTE. *Swift* sometimes forms the prefix of certain self-explanatory compounds; as, *swift*-footed, *swift*-paced, *swift*-winged, and the like.)

—*n.* The current of a stream; as, *swifts* and rapids.

Swift, *n. pl.* Reels or hobbins, used in the winding of yarns, thread, &c.

(*Zoöl.*) The common name of the family *Cypselidæ*, tribe *Fissirostres*, comprising small dull-colored birds, which have the general appearance of swallows, but differ from the latter in many essential characteristics. The Swifts have a much smaller and shorter bill, with the edges greatly inflected; the nostrils are superior instead of lateral, and without bristles; the wing more falcate, and with ten primaries instead of nine; the tail with ten feathers instead of twelve; the feet are weaker, the hind toe more or less versatile, and the anterior toes usually lack the normal number of joints; and there are peculiarities in their vocal organs. There are several American species. The American Chimney Swallow, *Chætura pelasgia*, "is peculiarly our own," says the great American ornithologist, Wilson, "and strongly distinguished from all the rest of our Swallows by its figure, flight, and manners. This Swallow, like all the rest of its tribe in the United States, is migratory, arriving in Pennsylvania late in April or early in May, and dispersing themselves over the whole country wherever there are vacant chimneys in summer sufficiently high and convenient for their accommodation. The nest of this bird is of singular construction, being formed of very small twigs, fastened together with a strong adhesive glue or gum, which is secreted by two glands, one on each side of the hind head, and mixes with the saliva. With this glue, which becomes hard as the twigs themselves, the whole nest is thickly besmeared. The nest itself is small and shallow, and attached by one side or edge to the wall, and is totally destitute of the soft lining with which the others are so plentifully supplied. The eggs are generally four and white, and they have generally two broods in a season.

Fig. 2452.
AMER. CHIMNEY SWALLOW.

Swift, JONATHAN, Dean of St. Patrick's, a British author, B. in Dublin, 1667, and, after a few years spent as a private tutor in Sir William Temple's family, in 1692 took his M.A. degree at Oxford, and soon after his priest's orders in the University of Dublin, returning to Sir Wm. Temple's house, where he remained till 1698. The next year he attended Lord Berkeley to Ireland as his private secretary, where he soon after received a prebendary and several clerical appointments. In 1710, he joined the Tory party, and began to edit the *Examiner*. In 1726 he published his *Gulliver's Travels*, and from time to time threw off those stinging and vindictive satires against his political adversaries that kept him in perpetual feud and disquietude. For the last four years of his existence a mental darkness reduced him to incapacity, and he D. idiotic, 1745, the greatest part of his property being left to endow a lunatic asylum in Dublin, known as Swift's Hospital. As a writer, *S.* must be judged by the standard of the time and morals of society at the epoch in which he lived; but that his ideas were gross and his tastes depraved, even for that degenerate age, a dozen pages of any one of his popular works will incontestably prove.

Swift'er, *n.* (*Naut.*) A rope used to confine the bars of the capstan in their sockets, while men are turning it. — A rope used to encircle a boat longitudinally, to strengthen and defend her sides from the impulsion of other boats. — A shroud fixed on the starboard and port sides of the lower masts, above all the other shrouds, to give the masts additional security.

—*v. a.* (*Mach.*) To stretch by tackles, as shrouds.

Swift'ly, *adv.* In a swift manner.

Swift'ness, *n.* Quality of being swift; rapid motion; celerity; speed; velocity; fleetness; quickness; expeditious; — a term of general application to every kind of motion, and, also, to everything susceptible of movement; as, the *swiftness* of a swallow, the *swiftness* of a river, the *swiftness* of a race-horse, *swiftness* of thought.

Swift River, in *Massachusetts*, a stream of Hampshire co., flows S., joining the Ware River to form the Chicopee River, in the N. border of Hampden co.

Swift River, in *New Hampshire*, rises in Grafton co., and falls into the Saco River in Carroll co.

Swig, *v. a.* and *n.* [A. S. *swilgan*, to swallow.] To drink by copious draughts; to guzzle; to suck or quaff greedily; to *swig* brandy and water. (Colloq.)

—*n.* A deep or copious draught.

(*Naut.*) A pulley having ropes which are not parallel.

Swig, *v. a.* [Ger. *schweigen*, to silence.] To castrate, as a ram, by binding the testicles so tight that they mortify and drop off.

Swill, *v. a.* [A. S. *swilgan*, to swallow; Dn. *zwelgan*, to swallow.] To swallow large draughts; to swig; to drink in a greedy, guzzling manner; as, to *swill* beer. — To inebriate; to swell or distend with copiousness or fullness; as, *swilled* insolence.

—*v. n.* To drink grossly or greedily; to drink to excess.

—*n.* Large draughts of liquor or drink taken in excessive quantities. — The wash, or mixture of liquid substances given to swine; — also written *swillings*.

Swill'er, *n.* One who drinks intemperately.

Swill'ings, *n. pl.* Same as SWILL, *q. v.*

Swim, *v. n.*, (*imp.* SWAM; *pp.* SWUM.) [A. S. *swimman*.] To be supported on water or other fluid; to float; not to sink; as, cork *swims*. — To move progressively in water by means of the motion of the hands and feet, or of fins; as, he *swam* across the river. — To be borne along by a current; as, they *swim* with the tide of popular opinion. — To glide along with a smooth current, or with a waving motion; as, the *swimming* gait of a Spa-

ish woman.—To experience dizziness or vertigo; to have a waving motion of the head, or a similar sensation, or a reeling of the body; as, the head *swims*.—To overflow; to have plenty or abundance; as, to *swim* in pleasure.

Swim, *v. a.* To pass by swimming; as, to *swim* a creek.—To immerge in water so that the lighter parts may swim; as, to *swim* wheat for seed.—To make to float: to cause or compel to swim; as, to *swim* cattle across a river.—*n.* Act of swimming; a gliding motion resembling that of a person swimming.—Duration of time, or extent of distance, passed in swimming; as, a ten-mile *swim*.—The sound or bladder of a fish.

Swim'mer, *n.* One who, or that which, swims.

(*Far.*) A protuberance on a horse's leg.

(*Zoöl.*) One of an order of swimming-birds, or NATATORES, *q. v.*

Swim'ming, *n.* [A. S. *swimman*, to swim.] The act or art of moving through the water by means of the limbs. It is one of the most important branches of gymnastics, and although easily acquired, depends somewhat on the natural buoyancy of the body. The best place for learning to swim is in deep water. The learner should always bear in mind that the stroke which is to sustain and propel him must be compound; that is, the action of the legs and arms should be simultaneous. It must not be made on the surface of the water, nor must the individual kick up his heels in the air behind him. The sweep of the arms and legs should always be made under water, and rather deeply so with the legs. The back should never be allowed to rise with the stroke, except as the whole body rises, but should be kept hollow, slanting, and steady. In making the stroke, the palms of the hands are placed together, and pushed straightforward like the bow of a boat, about an inch under the surface; at the same moment the knees are drawn up widely beneath the body. In the next motion, the hands sweep back the water in such a manner as to bring the whole of the arms into action from the shoulders to the hands: at the same moment the legs are thrown back, and the feet vigorously pushed against the water beneath. The hands ought to be swept out as far as possible, without straining the shoulders and blade-bones. After this motion is made, the action is relaxed, and a fresh stroke is commenced. It should be remembered by the learner, that the principal propelling power is in the legs, the arms and hands being principally used for sustaining the head above the surface. In general the use of corks, bladders, &c., should be avoided, as they frequently interfere with the learner's confidence in the natural buoyancy of his body. Among modern feats of *S.* may be mentioned the crossing of the Hellespont by Lord Byron, who accomplished the feat in an hour and ten minutes, with the tide not in his favor. All animals in *S.* do not vary much from their motion in walking, but man is obliged to change his motion altogether. The Russians, Poles, and other Selavonic tribes swim in a manner somewhat resembling the motion of dogs in the water, making a separate effort with each of the four extremities.

Swim'mingly, *adv.* In an easy, gliding manner, as if swimming;—hence, smoothly; without obstruction; with great success; as, the business goes on *swimmingly*. Not elegant.)

Swim'mingness, *n.* Act or state of swimming.

Swindle, (*swin'dl,*) *v. a.* [Du. *swindelen*, to trade recklessly; Ger. *schwindeln*, fraud.] Literally, to render giddy, and in that state to defraud; specifically, to cheat and defraud grossly, or with deliberate artifice; as, to *swindle* a man out of his share of business profits.—To toss money to decide who shall pay for drinks; as, to *swindle* for glasses round. (Colloq. and vulgar.)

—Act, process, or operation of defrauding by systematic artifice or imposition; as, a gigantic *swindle*.—A tossing to decide payment for liquor. (Colloq.)

Swin'dler, *n.* [Ger. *schwindler*.] A cheat; a rogue; one who defrauds grossly, or who makes a practice of defrauding others by imposition or deliberate artifice; one who obtains money or goods under false pretences.

Swind'ling, *n.* The practice of a swindler.

Swin'don, a town of England, co. of Wilts, 29 m. from Bath; *pop.* 5,824.

Swine, *n. sing.* and *pl.* [A. S. *swin*.] A hog; a pig; in the plural, hogs collectively. See SUIDÆ.

Swine'fordstown, in *Pennsylvania*. See MIDDLEBURG.

Swineherd, *n.* A keeper or tender of swine.

Swinemünde, (*sve-ne-moon'de,*) a maritime town of Pomerania, at the mouth of the Swine, 36 m. from Stettin. It is the outport of Stettin, where large vessels unload their cargoes for that place. *Pop.* 5,811.

Swine'-pox, *n.* (*Med.*) Same as CHICKEN-POX, *q. v.*

Swing, *v. n.* (*imp.* and *pp.* SWUNG.) [A. S. *swengan*.] To move to and fro, as a body suspended in the air; to wave; to vibrate; to oscillate; as, a pendulum *swings* backward and forward.—To practise swinging; as, children *swing* on a rope.—To be hanged; to suffer death judicially by strangulation; as, he who deliberately murders another shall *swing* for it. (Colloq.)

(*Naut.*) To move or float.—To turn round while at anchor; as, the ship *swung* round with the tide.

—*v. a.* To move to and fro; to wave; to flourish; to brandish; as, a lion *swings* his tail, a man *swings* his arms when walking.—To cause to swing, wave, or vibrate; to whirl round in the air; to swirl; to wave; to cause to oscillate; as, a smith *swinging* a red-hot piece of iron about with pincers.

—*n.* Act of swinging; oscillation; a waving or vibratory motion; as, the *swing* of a bell.—Alternate motion to and fro; as, the *swing* of one's arms when walking.—An apparatus for persons to swing in.—Influence or impetus of a body in motion; as, the *swing* of a battering-ram.—Unrestrained liberty or license; free, unfettered course; untrammelled tendency or action; as, youthful follies will have their *swing*, in the full *swing* of genius, &c.

Swing'-beam, *n.* (*Mach.*) A cross-piece sustaining the body of a railroad-car, and suspended in such a manner from the framing of a truck, that an independent lateral motion is accorded to it.

Swing Bridge, *n.* A movable bridge, consisting of two parts, which meet midway between the abutments, each turning upon a centre pivot so as to allow a ship or vessel to pass when necessary.

Swinge, (*swinj.*) *v. a.* [A. S. *swingan*, to swing, whip.] To castigate or whip soundly; to bastinado; to flagellate; to punish or chastise; as, to *swinge* a culprit with the lash.

Swingeing, (*swinj'ing,*) *a.* Huge; immense; very large; as, a *swingeing* cheese.

Swinge'ingly, *adv.* In a swingeing manner.

Swingel, Swip'le, (*swing'gl,*) *n.* [A. S. *swingel*, a whip, scourge.] That part of a flail which strikes the grain in threshing.

Swing'er, *n.* One who swings.

Swing'ing, *n.* Act of swinging; act of using a swing.

Swingle, (*swing'gl,*) *v. a.* [A. S. *swinglung*, a whipping.] To clean or dress, as flax, by means of the swingle.—To poll or lop the tops off without uprooting, as weeds.—In wire-drawing, a wooden spoke attached to the barrel that draws the wire.

—*n.* A wooden instrument, knife-shaped, about two feet in length, and having one thin edge;—used for cleaning and dressing flax.

Swin'gle-tree, *n.* Same as WHIFFLE-TREE, *q. v.*

Swing'ling-tow, *n.* In flax-dressing, the coarse part of the fibre, separated from the finer by swingling and hatchelling.

Swing'-plough, (*-plow,*) *n.* (*Agric.*) A plough destitute of a fore-wheel under the beam.

Swing'-wheel, *n.* (*Horol.*) The wheel, in a time-piece, which drives the pendulum.

Swin'ish, *a.* [From *swine*.] Befitting, resembling, or characteristic of swine;—hence, gross; hoggish; brutal; as, *swinish* gluttony.

Swin'ishly, *adv.* In a swinish or hoggish manner.

Swin'ishness, *n.* State or quality of being swinish.

Swin'ton, in *Illinois*, a post-village of Kane co., abt. 50 m. N.W. of Chicago.

Swipe, *n.* A sweeping blow.

Swi'ple, *n.* Same as SWINGEL, *q. v.*

Swirl, *v. a.* and *n.* [Icel. *swirra*.] To whirl, or cause to circumgyrate, as in an eddy or vortex; as, leaves *swirling* in the air.

Swiss, *n.* [Fr. *Suisse*.] The language of Switzerland;—a mixed patois of French and German.

—*sing.* and *pl.* A native or inhabitant of Switzerland; a Switzer;—plurally, the people of Switzerland.

Switch, *n.* [Ger. *zwig*, a branch, twig.] A small flexible twig, rod, or branch; as, an ashen *switch*.

(*Railroads.*) A movable part of two opposite rails, for transferring a car or truck from one part to another.

—*v. a.* To beat, strike, or lash with a small twig or rod; as, to *switch* a lad.—To trim, as a hedge; used in some parts of England.—To transfer from one track of a railroad to another; to turn by a switch;—generally before *off*: as, to *switch off* a train of cars.

Switch'el, *n.* A beverage concocted of molasses and water.

Switch'ing, *n.* Act or operation of transferring, as a train, from one railroad track to another.

Switch'ing-engine, *n.* In the U. States, a locomotive-engine employed in the switching of cars and making-up of trains.

Switch'man, *n.*; *pl.* SWITCHMEN. One who tends a switch on a railroad.

Switz'er, *n.* A native or inhabitant of Switzerland.

Switz'erland. [Ger. *Schweiz*, Fr. *La Suisse*.] (Anc. *Helvetia*, including part of *Rhætia*.) An inland and mountainous country of Central Europe, having Germany on the N., Austria on the E., Italy and France on the S., and France on the W. It lies principally between the 46th and 48th degs. of N. Lat., and the 6th and 11th of E. Lon. Its greatest length N. and W. is 210 m.; greatest breadth, N. and S., 140 m.; *area*, 15,992 sq. m. The republic is composed of 25 sovereign states, which form 22 cantons, as follows:

Schwyz (from which the country takes its name),	Berne,	Schaffhausen,	Ticino,
	Zurich,	Freiberg,	St. Gall,
	Lucerne,	Soleure,	Thurgau,
Uri,	Glarus,	Basle,	Aargau,
Unterwalden,	Zug,	Grisons,	Neufchâtel,
	Appenzell,	Vaud,	Valais,
			Geneva.

In the management of their internal affairs, these cantons are entirely independent of each other. *S.* is the most mountainous country in Europe, having the Alps not only along the whole of its S. and E. frontiers, but throughout the chief part of its interior; the only extensive tract of level ground, or rather of vales, with mountains of more moderate height, being to the W. in the cantons of Basle, Zurich, and part of Berne. Even there, however, the extreme frontier is formed by mountains, the Jura ridge extending in a long line from N. to S. Of the valleys the most remarkable is that of the Rhone, which is at once the widest, and surrounded by the highest mountains.—*Mountains.* The Alps, varying in height from 5,000 to 8,000, 10,000, 12,000, and over 15,000 feet. Among them are Monte Rosa, Mount St. Gothard, the Great St. Bernard, and the Simplon, which are not equal in height to several mountains of the interior, such as Mount Cervin, the Jungfrau (Figs. 2454 and 2455), the Finsteraar-horn, the Furca, the Schreckhorn, the Wetterhorn (Fig. 2453), and the Gallenstock. The Alps branch out into a number of lateral chains, and exhibit at their base, on their ascent, and

Fig. 2453.—THE WETTERHORN (or *Hasli-Jungfrau.*)
(11,402 feet high.)

towards their summit, every variety of temperature and product; rich grain fields or luxuriant pastures extending along the lower part of many of these mountains. The middle consists of pastures less prodnctive, but containing a great variety of plants; while the summits are often composed of rocks, craggy, inaccessible, devoid of vegetation, and covered with enormous masses of ice and snow. (See ALPS.)—*Glaciers.* The glaciers occupy the plains or hollows which separate the peaks of the highest mountains, being lakes of frozen snow, accumulated to a vast height, or rather depth, and detaching, from time to time, enormous masses, called avalanches, which roll down with a frightful noise. The formation of glaciers takes place near the line of perpetual congelation (about 8,000 or 9,000 feet above the sea); although, in a winter of unusual rigor, their ramifications extend considerably lower. In the long Alpine range are reckoned no less than 400, extending from 16 to 18 miles in length, by 1 or 2 in breadth.

Fig. 2454.—THE WENGERN-ALP,
(a sloping pasture on the way from Grindelwald to the Jungfrau.)

Their depth can with difficulty be ascertained; but is supposed to vary from 100 to 600 feet. The total extent of their surface has been calculated at 1,000 sq. m. (See GLACIERS.)—*Rivers.* Numerous, but rapid, and therefore mostly unnavigable. The principal are the Rhone, the Ticino, the Aar, the Rhine with its tributaries, the Thur, the Limmat, the Reuss, and the Aar. *Lakes.* Numerous and beautiful. The principal are those of Geneva, or Leman, Constance, Neufchâtel, Bienne, Zurich, Wallenstadt, Waldstädter, or Lucerne, Thun, and Brienz. Many of these have a blue appearance, owing to their great depth, while the scenery by which they are surrounded is distinguished for its great beauty.—*Climate.* Extremely variable.—*Zoölogy.* The summits of the Alps are frequented by the chamois, the wild goat, the white and red foxes. The bear, the wolf, and the marmot, are also found. Of birds, the eagle and the vulture appear, and the lakes abound with fish.—*Prod.* Agriculture is followed principally in the valleys, where wheat, barley, oats, maize, flax, hemp, and tobacco, are produced. The fruits of most frequent occurrence are grapes, chestnuts, prunes, peaches, walnuts, and cherries; in the colder situations, apples and pears; and in the southern valleys, the almond and fig; the latter, however, in small quantities. Cheese, butter, tallow, hides, form the chief articles of export from the pastoral districts. After large cattle the animals chiefly raised are goats, sheep, and hogs.

Minerals. There are mines of silver, copper, iron, and lead, in different parts; also quarries of rock-salt. Marble, porphyry, alabaster, crystal, and sulphur, are occasionally found in the mountains. The principal salt-springs are at Bex, in the valley of the Rhone. There are, besides, many mineral springs. — *Manuf.* Linen, lace, thread, woollens, and cottons; clocks and watches have long been staple articles at Geneva and Neufchâtel; while leather, gloves, silks, porcelain, pottery, toys, tobacco, and snuff, are made in various places.—*Education.* S. has universities at Basel, Bern, Geneva, and Zurich, besides a polytechnic school at Zurich, and a military academy at Thun. Instruction is obligatory for all children between 7 and 14 yrs. The total number

Fig. 2455. — THE FALL OF STAUBBACH,
(near Lauterbrunnen. — The Jungfrau in the distance.)

of public schools is over 7,000, with abt. 480,000 pupils.—*Races.* Mostly Teutonic, but also Greek-Latin. The German, in various kinds of patois, is spoken by upwards of a million and a half; the French is spoken on the Jura, and on the table-land W. of the lakes of Bienne and Morat; and S. of the Alps the Italian is spoken.—*Govt.* The republic of *S.*, formerly a league of semi-independent states, or *Staatenbund*, has become a united confederacy, or *Bundesstaat*, since the year 1848. The Constitution vests the supreme legislative and executive authority in a Congress of two chambers, a *Ständerath*, or State Council, and a *Nationalrath*, or National Council. The first is composed of 44 members, chosen by the 22 cantons of the Confederation, 2 for each canton. The *Nationalrath* consists of 135 representatives of the Swiss people, chosen in direct election, at the rate of one deputy for every 20,000 souls. A general election of representatives takes place every three years. Every citizen of the republic who has attained the age of 20 years is entitled to a vote; and any voter, not a clergyman, may be elected a deputy. Both chambers united are called the *Bundes-Versammlung*, or Federal Assembly, and as such represent the Supreme Government of the republic. The chief executive authority is deputed to a *Bundesrath*, or Federal Council, consisting of seven members, elected for three years, by the Federal Assembly. Every citizen who has a vote for the National Council is capable of becoming a member of the executive. The president and vice-president of the Federal Council are the first magistrates of the republic, occupying relatively the position of president and vice-president of Switzerland. Both are elected by the Federal Assembly for the term of one year, and are not re-eligible till after the expiration of another year. The election takes place at a united meeting of the State Council and the National Council. The Federal Assembly alone has the right to declare war, to make peace, and to conclude alliances and treaties with other nations. Independent of the Federal Assembly, though issuing from the same, is the *Bundes-Gericht*, or Federal Tribunal. It consists of nine members, elected for six years by the Federal Assembly. The Federal Tribunal decides, in the last instance, all matters in dispute between the various cantons of the republic, as well as between the cantons and the Federal Government, and acts in general as high court of appeal. There is no standing army in Switzerland, but every citizen is obliged to serve as a soldier, and military drill is taught at all the schools. The effective force of Switzerland, January, 1897, numbered 495,000 men. The annual national revenue and expenditure are estimated at about $13,000,000.—*Religion.* The Swiss Reformation spread chiefly from Basle, Berne, and Geneva, and the chief Protestant districts are the countries communicating with these towns. The Alpine region is almost entirely Roman Catholic, the seven Catholic cantons being Lucerne, Zug, Schwyz, Uri, Unterwalden, Valais, and Ticino. Out of every 1,000 Swiss, 411 are Roman Catholics, 587 Protestants, and 2 Jews. — *Hist.* After the conquest of Helvetia by Julius Cæsar, the Romans founded in it several flourishing cities, which were afterwards destroyed by the barbarians. On the decline of the Roman empire, it successively formed a part of the kingdom of Burgundy and the dominions of the Merovingian and Carlovingian kings; while the E. part of *S.* became first subject to the Allemanni, and subsequently it was wholly included in the German empire under Conrad II. in 1037. The house of Hapsburg had, from an early period, the supremacy over all the E. part of *S.*; and it preserved its ascendency till about 1307, when Uri, Schwyz, and Unterwalden entered into a confederacy for mutual aid against Austria, which compact was confirmed after the defeat of Leopold Duke of Austria, at the battle of Morgarten, in 1315. From 1332 to 1353, Lucerne, Zurich, Glarus, Zug, and Berne joined this confederation. Aargau was conquered from Austria in 1415; the abbey and town of St. Gall joined the other cantons in 1451–54; Thurgau was annexed in 1460; Freiburg and Solothurn admitted in 1481; the Grisons in 1497; Basle and Schaffhausen in 1501; and Appenzell in 1513. About this time Ticino was conquered from the Milanese, and Vaud taken from Savoy by the Bernese, in 1560. The remaining cantons were not finally united to the confederation till the time of Napoleon; and the compact, by which all were placed on a perfect equality, only dates from the peace of 1814. Following the political and religious troubles which culminated in the adoption of the liberal constitution of 1848, and from which we have quoted, Neufchâtel declared itself independent of the King of Prussia in his title of Prince of Neufchâtel. The canton was declared a republic, with a constitution similar to that of the other Swiss States. The King protested, but in vain, and in 1857 he finally relinquished his claim. In May, 1874, another revision of the constitution was adopted. By it civil marriages are compulsory, establishes complete liberty of creed, prohibits the appointment of new bishoprics except under federal approval, excludes Jesuits, forbids new convents, and authorizes the govt. to expel dangerous foreigners, &c. *Cap.* Berne. *Pop.* (1897) 3,222,050.

—In *Indiana*, a S.E. co., bordering on the Ohio; *area*, 230 sq. m. *Cap.* Vevay. *Pop.* (1897) 14,250.

Swivel, (*swĭv'l,*) *n.* [A. S. *swifan*, to revolve; Icel. *swif*, a revolving handle.] That which is so fixed as to turn or sweep round; specifically,

(*Mech.*) A kind of ring made to turn round in a staple or other ring. — *Swivel-joint*, a joint composed of two pieces which turns round, with respect to each other, on a longitudinal pin or axis, as in a chain, to prevent twisting.

(*Ord.*) A gun fixed on a swivel, by means of which it may be directed to any object; they are principally used on shipboard; — called, also, *swivel-gun.*

—*v. a.* To turn on a staple, pin, or pivot.

Swiv'el-bridge, (*-brĭj,*) *n.* Same as SWING-BRIDGE.

Swiv'el-eyed, (*-īd,*) *a.* Having the eyes oblique or asquint.

Swiv'el-hook, *n.* A hook that turns in the end of an iron block-strap, for readily taking the turns out of a tackle.

Swizzle, (*swiz'zl,*) *v. a.* To drink plentifully; to swill; to guzzle.

—*n.* Ale and porter mixed.

Swob'ber, *n.* Same as SWABBER, *q. v.*

—*pl.* (*Games.*) In Whist, four privileged cards, used only incidentally in betting on the game.

Swollen, (*swōln,*) **Swoln,** obs. *pp.* of SWELL, *q. v.*

Swoon, *v. a.* [A. S. *aswunan.*] To faint; to sink into a fainting fit, in which there is an apparent suspension of the vital functions and mental powers.

—*n.* Act of swooning; — also, a fainting; syncope.

—*adv.* In a swooning or syncopal manner.

Swoop, *v. a.* (*imp.* and *pp.* SWOOPED,) (*swōōpt.*) [From *sweep.*] To fall on at once and seize; to pounce upon while on the wing; as, a kite *swoops* a pigeon. — To take or seize with a sweeping action; to catch up; as, to *swoop* up loose money.

—*v. n.* To stoop, or descend with closed wings from a height upon prey or quarry, as a hawk or eagle.

—*n.* A falling on or seizing, as of a rapacious bird on his prey; — hence, by analogy, the sudden sweeping away of anything; as, he lost all his money at one *swoop.*

Swoop, *v. a.* and *n.* Same as SWAP, *q. v.*

Sword, (*sōrd,*) *n.* [A. S. *sword, swyrd*; Du. *zwaard*; Icel. *sverth*; Ger. *schwert.*] A warlike, offensive weapon, worn at the side, and used by hand either for thrusting or cutting. — Hence, figuratively, destruction by war, vengeance, or justice; as, to ravage a country with fire and *sword.* — Hence, also, the emblem of authority and power, or of triumph and protection; as, "Justice quits the balance, and resigns the *sword.*" (*Dryden.*) — The military power of a state or nation, as typified by the sword.

Sword'-blade, *n.* The cutting part of a sword.

Sword'-cane, *n.* A cane that forms a sheath for a sword.

Sword'-cutter, *n.* A metal-worker who makes swords.

Sword'-dance, *n.* A favorite dance among the Scots Highlanders, in which two naked swords are placed on the ground cross-wise, for the dancers to step between.

Sword'-fight, Sword'-play, *n.* A combat with swords; a trial of skill in fencing.

Sword'-fish, *n.* (*Zoöl.*) See XIPHIAS.

Sword'-knot, (*-not,*) *n.* A knot of ribbon fastened to the hilt of a sword.

Sword'-law, *n.* Government by the sword; military despotism.

Sword'-player, *n.* A fencer; one who exhibits his skill in the use of the sword.

Sword'-shaped, *a.* (*Bot.*) Fusiform; as, a *sword-shaped* leaf.

Swords'man, *n.*; *pl.* SWORDSMEN. A fighting man; a soldier. — Specifically, a person skilled in the use of the sword; — also, a professor of the science of fencing.

Swords'manship, *n.* State of being a swordsman; skill in the use of the sword.

Swore, *imp.* of SWEAR, *q. v.*

Sworn, (*swōrn,*) *pp.* or *p. a.* from SWEAR, *q. v.*

Sworn enemies, parties at irreconcilable feud with each other. — *Sworn friends*, close or constant friends and allies.

Swum, *imp.* and *pp.* of SWIM, *q. v.*

Swung, *imp.* and *pp.* of SWING, *q. v.*

Syb'arite, *n.* A term used metaphorically to designate an effeminate voluptuary; so called from the inhabitants of Sybaris, formerly a town of Italy, on the Gulf of Tarentum, who were said to have been so enfeebled by sensual indulgence that they became an easy prey to the Crotonians, a people comparatively insignificant in point of numbers, by whom their city was levelled to the ground, B. C. 310.

Sybarit'ic, Sybarit'ical, *a.* [Fr. *sybaritique*; Gr. *sybaritikos.*] Pertaining to, or resembling, the ancient Sybarites; — hence, luxurious; effeminate; wanton; sensual.

Syb'aritism, (*-izm,*) *n.* The habit or practice of extreme luxury or voluptuousness.

Syc'aminc, *n.* [Lat. *sycamĭnus.*] A Scriptural name for the mulberry-tree; — sometimes confounded with the *sycamore.*

Sycamore, (*sĭk'a-mōr,*) *n.* [Fr.; Lat. *sycamorus*; Gr. *sykamoros*, the Fig-mulberry.] (*Bot.*) A name applied in the U States to the *Platanus occidentalis* (see PLATANUS), and in Europe to a species of Maple, *Acer pseudoplantanus*, of which there are several distinct and beautiful varieties known. The *S.* of Scriptures is a species of Fig, *Ficus sicamorus* (see FICUS), a native of Egypt, where it becomes a considerable timber-tree. Its branches spread out widely, affording a grateful shade, and the trees are therefore planted by the seashore, and by the roadsides. The figs, which are sweet and delicate, are produced in clustered racemes on the trunks and limbs, instead of the new shoots.

Syc'amore, in *Illinois*, a thriving city and township, cap. of De Kalb co., 208 m. N.E. of Springfield. *Pop.* (1897) 3,450.

Sycamore, in *Ohio*, a township of Hamilton county. A post-village and township of Wyandott co., abt. 45 m. S.W. of Sandusky City.

Syc'amore Creek, or **Slough,** in *California*, rises in Colusa co., and flows into the Sacramento River, 60 m. S. of Shasta City.

Sycamore Creek, in *Michigan*, rises in Ingham co., and falls into Red Cedar River at its confluence with Grand River.

Sycamore Creek, in *Tennessee*, flows into the Cumberland River from Davidson co.

Syc'amore-moth, *n.* (*Zoöl.*) A species of moth, whose larvæ prey upon the leaves of the sycamore.

Sycee, Sycee-silver, (*sĭs-sē',*) *n.* In China and the E. Indies, silver bullion stamped with the mark of the office whence it issues, and used as currency.

Sychnocarpous, (*sĭk-no-kar'pŭs,*) *a.* [Gr. *sychnos*, frequent, and *karpos*, fruit.] (*Bot.*) Having the capacity of bearing frequent crops of fruit without perishing, as trees, shrubs, and perennials.

Syc'oma, *n.* [Gr., from *sykon*, a fig.] (*Med.*) A fig-shaped tumor.

Sy'conus, *n.* [Gr. *sykon*, a fig.] (*Bot.*) A collective fruit, formed of an enlarged and more or less succulent receptacle, which bears a number of separate flowers. The fig is an example. The flowers are almost entirely inclosed by the enlarged, hollow, pear-shaped receptacle; and what are commonly called seeds are in reality one-seeded fruits resembling *Achænia.*

Sycophancy, (*sĭk-o-fan'se,*) *n.* [Gr. *sykophantia.*] The character, behavior, or conduct of a sycophant; — hence, servility; obsequious flattery; toadyism; currying favor by tale-bearing and other meanness.

Sycophant, (*sĭk-o-fant',*) *n.* [Fr. *sycophante*; Gr. *sykophantes*, said to be from *sykon*, a fig, and *phainō*, to inform against.] In its original sense, the name of an informer against those who stole figs, or exported them from Attica contrary to law. — Hence, in modern usage, a false accuser; a mean tale-bearer or informer in general; a parasite; an obsequious flatterer; especially, a flatterer or toady of men high in rank or station; — hence, also, an impostor; a deceiver; a humbug.

—*v. a.* To act the part of a sycophant toward; to flatter meanly or obsequiously; to toady officiously; to curry favor with by tale-bearing and informing of others; also, to vilify; to calumniate; to deceive by backbiting.

—*v. n.* To play the sycophant; — also *sycophantize.*

Sycophan'tic, Sycophan'tical, *a.* Pertaining or relating to, or like, a sycophant; tale-bearing; more generally, courting favor by mean adulation; parasitic; toadyish; obsequiously or sneakingly flattering; as, a *sycophantic* hanger-on.

Sycophantic plants. (*Bot.*) Parasitic plants.

Sycophan'tish, *a.* After the manner of a sycophant.

Sycophantism, (*-fan'tizm,*) *n.* Sycophancy; mean adulation or bare-faced flattery.

Sycophan'tize, *v. n.* See the verb SYCOPHANT.

Syco'sis, *n.* [Fr. *sycose*; Gr., from *sykon*, a fig.] (*Med.*) A tubercular eruption upon the scalp or bearded part of the face. It sometimes forms a very troublesome obstacle to shaving.

Syd'enham, THOMAS, a celebrated English physician; B. 1624, D. 1689. His writings have been often republished, the edition entitled *Opera Medica*, which appeared at Geneva in 1716, being the best.

Syd'erolite, *n.* (*Ceramics.*) A kind of Bohemian earthenware, resembling the pottery called *Wedgwood-ware.*

Sydney, (*sĭd'ne,*) the oldest city of Australia, and the cap. of the New South Wales colony, a large, important, and rapidly increasing town, situated on the S. side of a lovely bay called Fort Jackson; Lat. 35° 55′ S., and Lon. 151° 25′ E. The streets of *S.* are long and spacious, the buildings well erected, and the town adorned with many

very superior public institutions or erections of a beautiful architectural design. The shops of *S.* are particularly fine, indeed imposing, and in many instances hardly second to those of our large cities. *S.* is the residence of the governor of the state, and may be regarded as the great centre of literature for all the Australian colonies, New Zealand, and adjacent British islands, and is in every respect the metropolis of British Australia. Wool constitutes its staple export; and next to this are oil, spermaceti, whalebone, and valuable timber. The harbor of Port Jackson is navigable for vessels of any burden for about 7 miles above the town, or 15 miles from the entrance, and possesses the best anchorage in the world. An International Exposition was held in *S.* in 1882; the building and contents were destroyed by fire. Loss est. at $2,500,000.

Syd'ney, now ANTIGONISH, in Nova Scotia, an E. co., bordering on the Gulf of St. Lawrence. *Cap.* Antigonish.—A seaport, cap. of Cape Breton co., on the Atlantic, about 200 m. N.E. of Halifax.

Syd'norsville, in *Va.*, a p. v. of Franklin co.

Sye'ne. (*Anc. Geog*) A city on the S. frontiers of Egypt, towards Ethiopia, between Thebes and the cataracts of the Nile, and now called *Assouan.* In its vicinity are quarries of the Egyptian granite called *Syenite,* which furnished the material for numerous obelisks and colossal statues.

Sy'enite, *n.* (*Min.*) See SYENE.

Sykes'ville, in *Maryland,* a post-village of Carroll co., 32 m. W. of Baltimore.

Sylacau'gar. or **Sylacau'ga,** in *Alabama,* a post-village of Talladega co., 65 m. N. of Montgomery.

Syl'amore, in *Arkansas,* a post-township of Stone co. *Pop.* about 820.

Sylla, or **Sulla,** LUCIUS CORNELIUS, (*sil'la,*) a celebrated Roman general and statesman, was descended from a branch of the once illustrious family of the Cornelii; passed his youth in dissipation; and having obtained wealth by the bequests of a courtesan and of his mother-in-law, he aspired to political distinction, and in 107 B. C. was chosen quæstor. He served with reputation under Marius, in Africa, in Pontus, and on various other occasions; and he rose to the consulship in the forty-ninth year of his age. At its expiration he set sail for the East; and having landed in Thessaly and received the submission of several Greek cities, he besieged and took Athens, and slaughtered multitudes of its inhabitants. He then proceeded to Asia; and after repeatedly defeating Mithridates, he concluded a very advantageous treaty with that powerful enemy. During his 3 years' absence from Italy, his enemies had regained the superiority in Rome. Marius had been recalled; the blood of the friends of *S.* had been shed in torrents; he himself had been proscribed, and his property confiscated. Meanwhile Marius died; and as soon as *S.* returned with his victorious army, they entered Rome and began the dreadful work of retaliation. At length, having glutted his vengeance by the murder or proscription of many thousand citizens, and the desolation of many Italian cities, he celebrated his bloody deeds by a triumph, exceeding in splendor any that preceded it, and caused himself to be named dictator, B. C. 81. He now ruled without restraint, repealed and made laws, abolished the tribuneship, added 300 knights to the senate, and admitted 10,000 slaves of persons proscribed to the rights of citizenship. Having governed the Roman world 2 years as dictator, he voluntarily laid down his power, and retired to private life. But resuming his early habits of debauchery, he was attacked with a disgusting disease; and he died B. C. 78, aged 60.

Syllab'ic, Syllab'ical. (*sil-,*) *a.* [Fr. *syllabique;* Gr. *syllabikos.*] Pertaining, or having reference to a syllable or syllables; as, *syllabic* accentuation.—Consisting of, or characterized by, a syllable or syllables; as, a *syllabic* augment.

Syllab'ically, *adv.* In a syllabic manner.

Syllab'icate, *v. a.* To form into syllables.

Syllabication, (*-kā'shun.*) *n.* [Lat. *syllaba,* and *fĭcio,* to make.] Act of forming syllables; also, act or method of dividing words into syllables.

Syllab'ify, *v. a.* (*imp.* and *pp.* SYLLABIFIED.) To form or divide into syllables; to syllabicate.

Syl'labist, *n.* One who forms words into syllables; one skilled in syllabification.

Syllable, (*sĭl'la-bl.*) *n.* [Fr. *syllabe;* Lat. *syllaba;* Gr. *syllabē*—*syn,* and *lambanō, elăbon,* to comprehend or comprise.] (*Pros.*) Several letters taken together, so as to form one sound; or, a part of a word consisting of one, two, or more letters, uttered with a single impulse of the voice, and forming a perfect sound.—One or more letters which represent such syllables in written composition, and which may or may not correspond to a syllable in spoken language.—Something proverbially written or spoken short, laconic, or concise; as, a story without one *syllable* of truth in it.

Syllabus, (*sĭl'la-bŭs,*) *n.*; Eng. *pl.* SYLLABUSES; Lat. *pl.* SYLLABI. [Lat., from the root of *syllable.*] An abstract; a compendium containing the heads of a discourse, treatise, &c.; an epitome.

Syllep'sis, *n.* [Lat. and Gr., a taking together.] (*Rhet.*) A trope by which a word is taken at once in the literal and the metaphorical senses.

(*Gram.*) A name sometimes given to that idiom of the Greek and Latin languages whereby an adjective predicated of a masculine and feminine substantive is made to accord in gender with the former; e. g. *rex et regina beati.*

Sylleptic, (*sĭl-lĕp'tik.*) **Syllep'tical,** *a.* Pertaining or relating to, or containing syllepsis.

Syllep'tically, *adv.* In a sylleptical manner.

Syllogism, (*sĭl'lo-jizm,*) *n.* [Fr. *syllogisme;* Lat. *syllogismus;* Gr. *syllogismos*—*syn,* and *logizomai,* to reckon.] (*Logic.*) A bringing together of premises, and drawing a conclusion therefrom; a form of reasoning or argument, consisting of three propositions, of which the first two are respectively called the *major* and *minor premises,* and the last the *conclusion,* which necessarily follows from the former.

Syllogistic, (*sĭl-lo-jĭs'tik,*) **Syllogis'tical,** *a.* [Gr. *syllogistikos.*] Pertaining or relating to a syllogism; consisting of a syllogism, or of the form of reasoning by syllogisms; as, *syllogistic* arguments.

Syllogis'tically, *adv.* In the form, or by means, of syllogisms.

Syllogize, (*sĭl'lo-jīz,*) *v. a.* To reason by syllogisms.

Syl'logizer, *n.* A reasoner by syllogisms.

Sylph, (*sĭlf,*) *n.* [Fr. *sylphe;* Gr. *silphē,* a kind of grub or beetle.] An imaginary spirit inhabiting the air; a fairy.—Hence, by analogy, a woman of fairy-like aspect or proportions; as, she is a perfect *sylph.* (Colloq.)

Sylph'id, Sylph'ide, *a.* Resembling a sylph; fairy-like; as, a woman of *sylphide* form.

—*n.* [Dim. of *sylph.*] A little sylph; a fay.

Sylph'like, *a.* Resembling a sylph.

Sylva, (*sĭl'vah,*) *n.*; *pl.* SYLVÆ. [Lat. *sylva, silva,* a wood or forest, also a crowded mass.] The forest-trees characterizing any region or country.

(*Bot.*) A word purporting to be a botanical description of the forest-trees of any region or country; as, Evelyn's *Sylva.*

(*Poet.*) A poetical composition conceived in a kind of start or transport.—A miscellany or olio of poetical pieces.

Syl'van, Sil'van, *a.* Belonging, or having reference to a sylva; arboreous; forestal; hence, rural; rustic; bucolic; as, a *sylvan* life.—Woody; umbrageous; bosky; abounding in forests or in trees; as, a *sylvan* scene.

—*n.* [Lat. *sylvanus,* from *sylva.*] A satyr; a faun; a fabled deity of the woods;—hence, rarely, a rustic; as, lawless *sylvans.*

Syl'van, in *Michigan,* a post-village and township of Washtenaw co.

Sylvan, in *Wisconsin,* a post-township of Richland co., abt. 70 m. W.N.W. of Madison.

Sylva'nia, in *Georgia,* a post-town, cap. of Screven co., 60 m. S.E. of Augusta.

Sylvania, in *Missouri,* a post-village of Dade co., about 48 m. W.N.W. of Springfield.

Sylvania, in *Ohio,* a post-village and township of Lucas co., 11 m. W.N.W. of Toledo.

Sylvania, in *Pennsylvania,* a post-borough of Bradford co., about 24 m. S. of Elmira, N. Y.

—A township of Potter co.

Sylvanus, (*sil-vai'nus.*) (*Myth.*) A rural Latin deity, who is generally represented as half a man and half a goat. He was sometimes represented as holding a cypress in his hand.

Sylvester I., Pope in 314, D. 323, and was canonized.

SYLVESTER II., (*Gerbert,*) a native of Auvergne, was of an obscure family, but received a superior education, studying first in the monastery of Aurillac, and afterwards in Spain. He was made abbot of Bobbio by the Emperor Otto II., and became very distinguished as a teacher. His attainments in science procured him the reputation of a magician. Among the numerous useful inventions attributed to *S.* is the balance-clock, which was in use till the adoption of the pendulum in 1650. *S.* was tutor to Otho III., and subsequently head of the school of Rheims, which he made one of the first in Europe. Robert, afterwards king of France, was among his pupils. He was called to the papal chair on the death of Gregory V., and administered the affairs of the church with much prudence and moderation. He was the first French pope. D. at a great age, 1003.

SYLVESTER III., was an anti-pope set up in 1044.

Sylves'ter, in *Wisconsin,* a post-village and township of Greene co., 35 m. S.W. of Madison.

Syl'vic Acid, *n.* (*Chem.*) One of the two acids of which common rosin or *colophony* consists. It is dissolved by hot alcohol, and crystallizes in colorless prisms.

Sylvicola, or **Dendroica,** *n.* (*Zoöl.*) A genus of birds, family *Sylvicolidæ,* has the bill attenuated, depressed at the base, compressed from the middle, distinctly notched, bristles short but distinct, tarsi long, the hind claw long, the wings long and pointed, the second quill usually a very little longer than the first, tail slightly rounded, and always with a white spot. More than 20 species belonging to this genus are found in the U. States. The Blackburnian Warbler, *S.* or *D. blackburniæ* of N. America E. of the Missouri, is 5¼ inches long, the wing less than 3 inches, the back black, throat bright-yellow, and a patch on the wing and outer tail-feathers white.

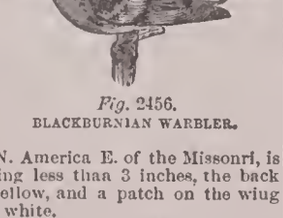

Fig. 2456.
BLACKBURNIAN WARBLER.

Sylvicol'idæ, or SYLVIADÆ, *n. pl.* (*Zoöl.*) The Warbler family, comprising a large number of small Insessorial birds, with rather long and slender bills, with the tip slightly curved and toothed; and it contains a large proportion of the species which are most remarkable for their power of song. The chief peculiarity which runs through this numerous family, is the very small size and delicate structure of its individuals. Excepting the Humming-birds, we find among these elegant little creatures the smallest birds in the creation. The diminutive Golden-crests, the Nightingale, the White-throat, and the Wood-wren, are all well-known examples of genuine Warblers. The groups of this extensive family, spread over all the habitable regions of the globe, are destined to perform an important part in the economy of nature; to them appears intrusted the subjugation of those innumerable minute insects which lurk within the buds, the foliage, or the flowers of plants: and, thus protected, escape that destruction from swallows, to which they are only exposed during flight.

Symbol, (*sim'-,*) *n.* [Lat. *symbolum;* Gr. *symbŏlon*—*syn,* and *ballo,* to throw, bring, or put together.] The sign or representation of any moral or intellectual thing by the images or properties of natural things; a type; an emblem; a figure; as, an anchor is the *symbol* of hope, a lamb is the *symbol* of meekness.—A significatory letter or character; as, the Indian letters are commonly *symbols.*

(*Math.*) A certain mark or figure by which a number, quantity, or operation is represented.

(*Theol.*) The creed, or an epitome of the articles of religion; an abstract or compendium of faith or doctrine.

(*Chem.*) See ATOMIC THEORY.

(*Bot.*) In their description of plants, botanists use certain signs or abbreviations to convey information in the most ready way on certain general facts which have to be recorded, or to express particular attributes in the subject under description. The signs or symbols in most frequent use are the following:

♂ = male.
♀ = female.
☿ = hermaphrodite, or bisexual.
♂-☿-♀ = polygamous.
♂ ♀ = dicœious.
♀ = monœcious.
♂-☿-♀ = triœcious.
◯ or ◯ = annual.
◯ or ♂ = biennial.
♃ = perennial.
ħ = a tree or shrub.
00 = an indefinite and considerable number of anything.

I placed after a person's name indicates that an authentic specimen from that person has been seen.

* at the end of a citation denotes that a point is fully described in the place referred to.

v.v. = seen alive.
v.s. = seen in a dried state.
v.c. = seen cultivated.
v.sp. = seen wild.
′ ″ ‴ When these signs are placed after a number, they express a foot, an inch, or a line respectively; thus, 5′ = 5 feet; 5″ = 5 inches; 5‴ = 5 lines.

Symbol'ic, Symbol'ics, *n. sing.* (*Theol.*) The science of creeds: symbolism.

Symbol'ic, Symbol'ical, *a.* Pertaining or relating, in the nature or character of, or serving as, a symbol; figurative; representative; exhibiting or exemplifying by resemblance or typical signs; as, idols are *symbolical* of paganism.

Symbolical delivery. (*Law.*) The delivery of something as a representation or sign of the delivery of some other. (*Bouvier.*)—*Symbolical philosophy,* that philosophy which is expressed by hieroglyphics or ideographic characters.

Symbol'ically, *adv.* In a symbolical manner.

Sym'bolism, (*-izm,*) *n.* A system of symbols, types, or representations.

(*Theol.*) An exposition or comparison of symbols or creeds; the science of creeds.

(*Chem.*) A combining together of parts or ingredients.

Sym'bolist, *n.* One who employs, or expresses by, symbols.

Symbolis'tic, Symbolis'tical, *a.* Characterized by the application of symbols; as, *symbolistic* verse.

Symbolization, (*-zā'shun.*) *n.* Act of symbolizing.

Sym'bolize, *v. a.* [Fr. *symboliser.*] To be symbolical; to have a resemblance of qualities or properties; as, air and water are *symbolizing* elements. (*Boyle.*)—To agree; to be identified with the same creed or religious faith. (R.)

—*v. a.* To represent by a symbol or symbols.—To make representative or typical of something; as, "Some *symbolize* the same from the mystery of its colors." (*Browne.*)—To cause to accord in properties or qualities.

Symbological, (*lŏj'-,*) *a.* Versed in, or partaking of the character of, symbology.

Symbology, (*sim-bŏl'o-je,*) *n.* [Gr. *symbolon,* symbol, and *logos,* treatise.] The art of symbolic expression.

Symi, (*sy'me.*) an island near the coast of Asia Minor, 15 m. from Rhodes, Lat. 36° 30′ N., Lon. 27° 54′ E.; *ext.* 6 m. long, and 6 broad. It is usually barren, but every piece of ground is cultivated. The whole number of inhabitants reside in the town, which is built near the top of a high rocky mountain. *Pop.* 7,000.

Symmachus, QUINTUS AURELIUS, (*sim'ma-kus,*) a prætect, pontiff, and augur of Rome in its declining age, remarkable for his eloquent appeal against the ruin threatened by the triumph of Christianity; he is the author of *Epistles* still extant, and became consul under Theodosius in 391.

Symmes, (*simz,*) in *Ohio,* a post-township of Hamilton county.—A township of Lawrence county.

Symmes' Creek, in *Ohio,* rises in Jackson county, and falls into the Ohio 5 miles east of Burlington.

Symme'trian, *n.* One eminently studious of symmetry, or proportion of parts. (R.)

Symmet'rical, *a.* [Fr. *symétrique.*] Having, presenting, or involving symmetry; harmonious in proportion of its parts; having its parts in due proportion in a dimensive sense; as, a *symmetrical* body.

(*Math.*) Characterized by corresponding parts or relations.

(*Bot.*) Having an equal number of parts of each sort, or in each set or circle of organs, as five sepals, five petals, and five stamens.

S. determinant. (*Math.*) A determinant in which those constituents are equal which are symmetrically situated with respect to the principal diagonal. — *S. function.* (*Alg.*) A function of two or more quantities is said to be *symmetrical* with respect to those quantities if, independently of their particular values or any relation subsisting among them, the function is unaltered when any two of the quantities whatsoever are interchanged.

Symmet'rically, *adv.* In a symmetrical manner.

Symmet'ricalness, *n.* State or quality of being symmetrical.

Symmetrician, (*-trĭsh'an,*) **Sym'metrist,** *n.* Same as Symmetrian, *q. v.*

Sym'metrize, *v. a.* [Fr. *symetriser.*] To make symmetrical or proportional in its parts; to reduce to symmetry.

Sym'metry, *n.* [Gr. *symmetria* — *syn,* and *metron,* measure.] State or quality of having one part commensurate with another; a due proportion of the several parts of a body to each other; the union and conformity of the members of a work to the whole; harmony of parts; that relation of equal and similar figures which refers to their position merely, and consists in their uniformity, as regards the answering of one portion to another; proportion; harmony.

(*Bot.*) That kind of arrangement in which the number of parts of one series corresponds with that of the other series; as, for example, when a flower has five petals, and five, or ten, or fifteen stamens.

(*Fine Arts.*) See Proportion.

Symm's Corners, in *Ohio,* a post-village of Butler co., 4 m. S. of Hamilton.

Sympathet'ic, Sympathet'ical, *a.* [Fr. *sympathetique.*] Pertaining, having, expressing, or evoking, sympathy; having common feelings with another; susceptible of being affected by feelings like those of another, or of feelings in consequence of what another has experience of; compassionate; as, a *sympathetic* soul.

(*Med.*) Produced by sympathy or affinity; — said of certain symptoms or affections superinduced by the presence of similar ailments in other, or remote parts of the same body.

Sympathetic ink. See Ink. — *Sympathetic nerve* and *ganglia.* (See Nerve, Ganglion.) — *Sympathetic sounds.* (*Acoustics.*) Sounds elicited from solid bodies by the reverberatory action of some sonorous body, such vibrations being conveyed by means of the air or some intervening solid body.

Sympathet'ically, *adv.* In a sympathetic manner.

Sym'pathist, *n.* A sympathizer; one who sympathizes. (R.)

Sym'pathize, *v. a.* [Fr. *sympathiser.*] To have or to feel sympathy; to experience a common feeling, as of bodily pleasure or pain; as, the mind *sympathizes,* in most cases, with the sensations of the body. — To be affected by feelings similar to those of another, consequent upon cognition of such person being so affected; as, to *sympathize* with the grief of a widowed mother.

Sym'pathizer, *n.* One who sympathizes; a sympathist.

Sym'pathy, *n.* [Fr. *sympathie;* Gr. *sympatheia* — *syn,* and *pathein* — *paschō,* to receive an impression from without, one's self being passive.] Fellow-feeling; feeling in affinity with that felt by another; the quality of being affected by the condition of another, with feelings correspondent in nature, if not in degree. — A consonance or agreement of affections or inclinations, or a conformity of natural temper, which brings two persons into harmony of disposition toward each other; — correlative to *antipathy.* — Pity; commiseration; kindness or compassion of feeling evinced toward one who suffers; as, I felt a sincere *sympathy* for him in his distress.

(*Med.*) A correspondence of various parts or organs of the body in similar sensations, symptoms, or affections; or, an affection of the whole body, or some part of it, in consequence of an injury or disease of another part, or of a local affection.

(*Fine Arts.*) Generally, the conformity of parts to each other; specifically, in painting, the effective union or blending of colors.

Symphonic, (*sĭm-fon'ik,*) *a.* [From *symphony.*] Symphonious.

(*Mus.*) Pertaining or relating to, or characterized by the manner of, a symphony; as, the *symphonic* style of composition.

Symphonious, (*-fō'ni-ŭs,*) *a.* Accordant; harmonious; consonant; agreeing in sound.

(*Mus.*) Symphonic.

Sym'phonist, *n.* A composer of symphonies.

Sym'phonize, *v. a.* To be in harmony, agreement, or accordance with. (R.)

Symphony, (*sim'fo-nē,*) *n.* [Fr. *symphonie;* It. *sinfonia;* Gr. *symphōnie* — *syn,* with, and *phmē,* sound.] Union, consonance, or harmony of sounds agreeable to the ear, whether such sounds are vocal or instrumental, or both; as, "The trumpets' . . . warlike *symphony.*" *Dryden.*

(*Mus.*) Among the ancients, the word *S.* indicated a union of concerted sounds, and was used in contradistinction to *antiphony,* which was employed when half the consonants were in the octave or double octave, to the other half. In modern music, however, the word *S.* is applied to certain instrumental compositions, containing various movements, and designed for a full band. As specimens of this species of composition, we may mention Beethoven's "Sinphonia Pastorale," and his *S.* in C minor. Mendelssohn, Mozart, and Haydn also excelled in the composition of symphonies.

Symphoricar'pus, *n.* [Gr. *syn,* together, *phero,* to bear, *karpos,* fruit.] (*Bot.*) A genus of plants, order *Caprifoliaceæ,* consisting of small herbs, with entire leaves and small flowers. *S. racemosus,* the Snow-berry or Indian Currant, is a smooth, handsome shrub, 2–3 feet high, common in cultivation, and native in N. Y., Canada, &c. It has a rose-colored corolla, with the throat filled with hairs; berries large, round, or ovoid, of a snowy white, and very ornamental when mature.

Fig. 2457. Snow-berry.

Symphyseot'omy, Symphysot'omy, *n.* [Gr. *symphysis,* and *tomē,* cutting.] (*Surg.*) The operation of dividing the symphysis pubis for the purpose of facilitating labor; the Siganltian section.

Symphysis, (*sim-fi'sis,*) *n.* [Gr. *syn,* with, and *phyein,* to grow.] (*Anat.*) A term applied to the junction of certain bones, or to joints not admitting of motion; as, the *symphysis* of the pubis.

Symphytum, (*sim'fi-tum,*) *n.* [Gr. *symphus,* I unite, because believed to agglutinate the lips of wounds.] (*Bot.*) A genus of plants, order *Boraginaceæ. S. officinale* is the herb Comfrey, which has always been reputed vulnerary. The young leaves and shoots are sometimes eaten as table-vegetables. When bruised, comfrey forms an excellent bandage for broken limbs, on account of the starch and mucilaginous matters it contains.

Sympiesom'eter, *n.* [Gr. *sympiezō,* I compress, and *metron,* measure.] (*Physics.*) An instrument for measuring the weight of the atmosphere by the compression of a column of gas.

Symplocar'pus, *n.* [Gr. *symploka,* connection, and *karpos,* fruit.] (*Bot.*) A genus of perennial, aquatic, acaulescent herbs, order *Lemnaceæ.* The Skunk Cabbage, *S. fœtidus,* is a common plant of Canada, New England, and the Middle and Western States, growing in swamps, meadows, and ditches, renowned for its odor, which is scarcely less offensive than that of the animal whose name it bears. Early in spring, the swelling spathe is seen emerging first from the ground or water, more or less covered with purplish spots, its edges partly unfolded, and its point incurved. It encloses the spadix, which is oval, covered with flowers of a dull purple. The leaves, which arise after the flowers, are of a bright green, numerous, becoming very large.

Symploce, (*sĭm'plo-se,*) *n.* [Lat., from Gr. *symplekein,* to twine together.] (*Gram.*) The repetition of a word at the commencement and another at the termination of successive clauses; as, *My friend* and myself went *fishing; My friend* went home and left me *fishing.*

Sym'ploket, *n.* (*Bot.*) A genus of plants, order *Styracaceæ.* Some species are used in dyeing yellow, as *S. tinctoria,* called Horse-sugar or Sweet-leaf; its root is bitter and aromatic. Others, as *S. alstonia,* are employed as tea, on account of a slight astringency in their leaves.

Symposiac, (*sim-pō'zi-ak,*) *a.* [Gr. *symposiakos.*] Pertaining or relating to a symposium, or to symposia; having reference to compotations, drinking-bouts, or merry-makings; occurring where boon-companions are revelling together; as, *symposiac* mirth.

—*n.* A tournament of discussion or conversation, as of savans or philosophers at a banquet or convivial meeting.

Symposiast, (*-pō'zi-ast,*) *n.* A participator with others in a carousal or merry-making.

Symposium, (*sim-pō'zi-um,*) *n.; pl.* Symposia. [Lat.; Gr. *symposion* — *syn,* and *posis,* a drinking.] A drinking-bout enlivened by songs and conversation; a merry-making; a jovial feast; a carouse; a revel.

Symptom, (*sĭm'tum,*) *n.* [Fr. *symptome;* Gr. *symptoma* — *syn,* and *piptō.*] Properly, something that befalls or happens in concurrence with another thing, as an attendant.

(*Med.*) That which indicates the presence of disease; any affection which accompanies disease; a perceptible change in the body or the animal functions, indicative of disease; as, he exhibited *symptoms* of apoplexy.

—A sign; a token; a mark; an indication; that which points to the existence of something else; as, seditious meetings are often the *symptom* of a forthcoming insurrectionary outbreak.

Symptomat'ic, Symptomat'ical, *a.* Pertaining or having reference to symptoms; happening concurrently with something; indicating the existence of another thing; as, suspicion is *symptomatic* of a weak mind.

(*Med.*) Noting a disease which proceeds from some prior disorder in some part of the body; according to symptoms; as, a *symptomatical* diagnosis of disease.

Symptomat'ically, *adv.* In a symptomatical manner.

Symptomatology, (*-tōl'o-je,*) *n.* [From Gr. *symptoma,* and *logos,* treatise.] (*Med.*) The doctrine or theory of symptoms; that branch of medical science which treats of the symptoms of diseases; semeiology. — See Diagnosis and Prognosis.

Synæresis, Syneresis, (*sin-ĕr'-,*) *n.* [Gr., from *syn,* with, and *airein,* to grasp.] (*Gram.*) The contraction of two syllables into one by the formation of a diphthong, or by rendering one of them mute; as, for example, *Atreïdes* for *Atrēides.*

Synagog'ical, *a.* Pertaining, or having reference to a synagogue.

Synagogue, (*sĭn'a-gŏg,*) *n.* [Fr.; Gr. *synagōgē* — *syn,* and *agō,* to lead.] A congregation or assembly of Jews, met for the purpose of public worship, or for the performance of religious rites. — The house appropriated to the religious worship of the Jews. — The tribunal of the seventy Jewish elders. See Sanhedrim.

Synalepha, (*-lē'fah,*) **Synalæ'pha,** *n.* [Gr. *synaloiphē,* from *aleiphē,* I anoint, from the melting together of two sounds.] (*Gram.*) In classical prosody, the usage by which, when a word ends with a vowel, and the next begins with a vowel, the final syllable of the one runs into the first of the other. — See Elision.

Synallagmat'ic, *a.* [From Gr. *synallagma,* a contract.] (*Civil Law.*) Imposing reciprocal obligations upon the parties concerned; as, a *synallagmatic* agreement.

Synan'therous, *a.* (*Bot.*) With the stamens united by their anthers.

Synan'thus, *a.* [Gr. *syn,* together, and *anthos,* flower.] (*Bot.*) Appearing in flower and leaf at the same time, as certain plants.

Syn'archy, *n.* [Gr. *syn,* with, and *archē,* rule.] Joint rule; co-sovereignty. (R.)

Synarthro'dial, *a.* Pertaining, or relating, to synarthrosis.

Synarthro'sis, *n.* [Gr., from *arthron,* a joint.] (*Anat.*) The immovable connection of one bone with another.

Synax'is, *n.* [Gr.; Fr. *synaxe.*] A congregation; — also, anciently, the Holy Supper.

Syncar'pium, *n.* [Gr. *syn,* and *karpos,* fruit.] (*Bot.*) A fruit consisting of many carpels consolidated and adhering to a central receptacle or growing point, as in the Magnolia.

Syncar'pous, *a.* (*Bot.*) Denoting the carpels of a compound pistil, when they are completely consolidated into an undivided body, as in the Orange.

Syncategoremat'ic, *n.* [Gr. *syn,* with, and *kategorēma,* a predicate.] (*Logic.*) A word which cannot be employed by itself as a term, but must be conjoined with another or others for that purpose. Such are adverbs, prepositions, nouns in other cases beside the nominative, &c.

Synchondro'sis, *n.* [Gr. *syn,* and *chondros,* cartilage.] (*Anat.*) The junction of one bone with another by an intervening cartilage.

Synchondrot'omy, *n.* (*Surg.*) Same as Symphysiotomy, *q. v.*

Synchore'sis, *n.* (*Rhet.*) A concession granted for the purpose of reserving a stronger retort.

Synchronal, (*sĭnk'ro-nal,*) *a.* [Gr. *syn,* and *chronos,* time.] Simultaneous; happening at the one time; synchronous.

—*n.* That which is coincident with something else, or which happens at the same time.

Synchronical, (*sin-krŏn'ik-al,*) *a.* Synchronal; simultaneous; occurring at the same time.

Synchron'ically, *adv.* In a synchronical manner.

Synchronism, (*sĭnk'ro-nizm,*) *n.* [Gr. *syn,* together, and *chronos,* time.] Coincidental occurrence in time of two or more events.

(*Chron.*) The tabular arrangement of history according to dates, by which contemporary persons and things in different countries are brought together.

(*Paint.*) A representation of two or more events, happening at different times, in the same picture; — a favorite practice among the mediæval painters; as, for instance, the Prodigal Son is frequently represented leaving his father's house, banqueting with his companions, and feeding swine — all in the one work of art.

Synchronis'tic, *a.* Arranged in accordance with contemporaneous existence; as, *synchronistic* tables in chronology.

Synchroniza'tion, (*sĭnk-ro-ni-zā'shun,*) *n.* Simultaneousness of events.

Synch'ronize, *v. n.* To accord in time; to be simultaneous.

Synchronology, (*sĭnk-ro-nŏl'o-je,*) *n.* [Gr. *syn,* together, *chronos,* time, and *logos,* account.] Contemporaneous chronology.

Synch'ronous, *a.* Simultaneous; synchronal.

Synch'ronously, *a.* Same as Synchronically, *q. v.*

Synchysis, (*sĭnk'y-sĭs,*) *n.* [Gr., from *syn,* with, and *chysis,* a pouring; Fr. *synchise.*] An aberration or derangement of any kind, as of words in a sentence, or of bile in the stomach.

Syncli'nal, *a.* [From Gr. *syn,* with, and *klinein,* to incline.] Having a downward inclination from opposite directions, so as to effect a junction in a common focus.

(*Geol.*) When strata dip towards a common line of depression, the axis is termed *synclinal,* and the depression so formed is described as a trough or basin.

Syncopal, (*sĭnk'o-pal,*) *a.* Pertaining or relating to, or resembling, syncope.

Syn'copate, *v. a.* [Gr. *syn.* and *koptō,* to cut off.] To contract, or cut down, as a word, by withdrawing one or more syllables from the middle.

(*Mus.*) To prolong, as a note begun on the unaccented part of a bar, to the accented part of the next bar; or to end, as a note of one part in the middle of a note of another part.

Syncopation, (*sĭn-ko-pā'shun,*) *n.* (*Gram.*) The contraction of a word by taking a letter, letters, or a syllable from the middle.

(*Mus.*) Act of syncopating.

Syncope, (*sing'kō-pē,*) *n.* [Gr. *syngkopē* — *syn,* and

kopto, to cut short.] A sudden pause, cessation, or suspension. (R.)

(*Mus.*) See SYNCOPATION.

(*Gram.*) An elision or contraction, retrenching one or more letters or a syllable from the middle of a word; as, *whatsoe'er* for *whatsoever*, *Fra's* for *Francis*, &c.

(*Med.*) A fainting fit. See FAINTING.

Syn'copist, *n.* One who syncopates or contracts words.

Syn'copize, *v. a.* To syncopate. (R.)

Syn'cratism, *n.* Same as SYNCRETISM, *q. v.*

Syncretic, (*sin-krĕt'ik,*) *a.* Associating or blending together different systems, as of philosophy, religion, or ethics.

Syn'cretism, Syn'cratism, *n.* [Fr. *syncrétisme*, from Gr. *synkrētismos.*] Attempt to establish a comprehensive scheme intended to unite or blend harmoniously one with the other principles or parties in irreconcilable antagonism.—Specifically, in philosophy, the blending of the tenets of different schools into a universal system. A party among the Platonists, at the revival of letters, to which belonged Ammonius, Pico della Mirandola, Bessarion, and other eminent men, have received the name of *Syncretists.*

Syn'cretist, *n.* [Fr. *syncrétiste.*] (*Eccl. Hist.*) A follower of the doctrines of George Calixtus, a Lutheran divine of the 16th century, who endeavored to found a system which should unite the different professors of Christianity. The opinions of Calixtus raised a strong controversy in the Lutheran Church. A new confession of faith was drawn up in Saxony for the purpose of excluding his partisans; but his doctrines, however, did not long survive his death, although they were not without effect on the spirit of the age.

(*Philos.*) See SYNCRETISM.

Syncretis'tic, *a.* Belonging or relating to syncretism.

Syncrisis, (*sĭn'kri-sĭs*) *n.* [Gr., a comparison.] (*Rhet.*) A figure of speech which brings opposite persons or things into comparison.

Syndactyl, (*sin-dăk'til,*) *n.* [Gr. *syn*, with, and *daktylos*, a toe or digit.] (*Zoöl.*) One of a tribe of perching birds which have the external and middle toe united as far as the second joint. See ALCEDINIDÆ.

Syndesmography, (*sĭn-des-mŏg'ra-fe,*) *n.* [Gr. *syndesmos*, ligament, and *graphein*, to depict.] (*Anat.*) A description of the ligaments that connect the bones of the skeleton.

Syndesmol'ogy, *n.* [Gr. *syndesmos*, and *logos*, treatise.] (*Anat.*) A treatise upon the connecting ligaments of the skeleton.

Syndesmo'sis, *n.* [Gr. *syn*, with, and *desmos*, a band, ligature.] The union of one bone with another by means of ligaments.

Syndesmot'omy, *n.* [Gr. *syndesmos*, and *tomē*, a cutting.] (*Anat.*) Act, art, or process of dissecting the ligaments.

Syndic, (*sĭn'dik,*) *n.* [Fr.; Gr. *syndikos*—*syn*, with, and *dikē*, justice.] An officer of government, invested with different powers in different countries; also, a delegate chosen to represent, or transact business for, others.

—In France, under the old régime, officers delegated by the municipalities as agents or mandatories. Such also were the *syndics* of trading companies. The auditors of a bankrupt, under French law, appoint *syndics* or directors from among their number, corresponding with the English *assignees.* [of Geneva.

—In Switzerland, the title born by the chief magistrate

Syn'dicate, *n.* (*sin'dik-at.*) An association formed to promote a particular enterprise. [L. Lat. *syndicatus.*] A council, or body of syndics.

Syndrome, (*sin'dro-me,*) *n.* [Gr., from *syn*, and *dromos*, a course.] Concurrence, or concurrent action.

(*Med.*) The combination or coincidence of symptoms in a disease.

Synecdoche, (*sin-ĕk'do-kē,*) *n.* [Gr. *synekdochē*—*syn*, and *ekdechomai*, to take or understand in a certain sense.] (*Rhet.*) A figure in which the whole is put for a part, or part for the whole. It is a species of *trope.* There are six ordinary instances of *S.*: 1. When genus is put for species (as *being* in the sense of *man*). 2. When species is put for genus. 3. When the essential whole is put for one of its parts. 4. When the matter, or form, is put for the whole being. 5. The whole for a part. 6. The part for the whole.

Synechia, (*sin-ē-ki'ah.*) *n.* [Lat.; Gr. *synecheia*—*syn*, and *echein*, to have.] (*Med.*) A disease of the eye in which the iris adheres to the cornea, or to the capsule of the crystalline lens.

Synecphonesis, (*-ĕk-fo-nē'sis,*) *n.* [From Gr. *syn*, and *ekphōnein*, to cry out.] (*Gram.*) A contraction of two syllables into one; synizesis.

Syn'epy, *n.* [Gr. *synepeia*—*syn*, and *epos*, a word.] (*Rhet.*) The mutual joining of words in uttering the clauses of sentences.

Synergetic, (*sĭn-er-jĕt'ik,*) *a.* [Gr. *synergetikos*—*syn*, with, and *ergon*, work.] Coöperating, or working in combination or association.

Syn'ergism, (*-jizm,*) *n.* [Gr. *syn*, and *ergein*, a word.] (*Theol.*) The doctrine that the divine grace requires a correspondent action of the human will in order to become effectual; which doctrine, or something resembling it, is termed *Semi-Pelagian* in early ecclesiastical history; —some sentiments expressed by Melanchthon, toward the close of his life, would appear to have introduced *S.* into the Lutheran Church.

Synergist, (*sĭn'er-jist,*) *n.* A believer in the doctrine of Synergism.

Synergist'ic, *a.* Pertaining or relating to Synergism. —Coöperating; acting in combination; synergetic.

Synergy, (*sĭn'er-je,*) *n.* [Gr. *syn*, with, and *ergein*, to labor.] (*Med.*) The associated competent action of every organ of a particular system; as, the renal *synergy.*

Synesius, of Cyrene, an ancient father, and bishop of the church, who flourished at the beginning of the 5th century. His works, consisting of about 150 epistles on philosophical and polemical subjects, are in high esteem with the learned.

Syngenesia, (*sĭn-je-nē'zha,*) *n.* [From Gr. *syn*, together, and *genesis*, birth.] (*Bot.*) The 19th class of the system of Linnæus, including all plants whose stamens are united by the anthers.

Syngnathidæ, *n. pl.* (*Zoöl.*) A family of fishes, in which are usually included all the LOPHOBRANCHIATES, *q. v.*

Syngraph, (*sĭn'graf,*) *n.* [Gr. *syngraphē*—*syn*, and *graphō* I write.] (*Law.*) A document signed by both or all the parties to a deed, contract, or bond; and of which a duplicate original is kept by each.

Synize'sis, *n.* [Lat. and Gr., from *syn*, with, and *izein*, to seat.] (*Med.*) A closed pupil; an obliteration of the pupil of the eye.

(*Gram.*) Same as SYNECPHONESIS, *q. v.*

Synneurosis, (*-nū-rō'-*) *n.* [Fr. *synerrose*, from Gr. *syn*, and *neuron*, a sinew.] (*Anat.*) The junction of one bone with another by means of an intervening membrane.

Synod, (*-sĭn'od,*) *n.* [Fr. *synode*; Gr. *synodos*—*syn*, and *hodos*, a way, a journeying.] A meeting, assembly, council, or convention.

(*Eccl.*) Specifically, a council or assembly of ecclesiastics to consult on theological matters; as, the *Synod* of Dort. (See DORT.)—*S.* are generally divided into four kinds, viz.: 1. *General* or *Œcumenical*; 2. *National*; 3. *Provincial* (see CONVOCATION); and 4. *Diocesan.*

—In the Presbyterian church, an assembly composed of two or more presbyteries.

Syn'odal, *n.* A constitution formed in a provincial or diocesan synod.

Synod'ic, Synod'ical, Syn'odal, *a.* [Fr. *synodique.*] Pertaining, or having relation to a synod.

(*Astron.*) Pertaining, or having reference to the period in which two or more heavenly bodies pass from one conjunction to another; as, the *synodical* revolution of a planet.

Synodic month. See LUNAR MONTH.

Synod'ically, *adv.* In a synodical manner; by synodic authority.

Syn'odist, *n.* One who adheres to a synod.

Synomosy, (*sĭn-ŏm'o-se,*) *n.* [Gr. *synōmosia.*] A sworn brotherhood; a secret fraternity or society.

Synonym, Synonyme, (*sĭn'o-nĭm,*) *n.*; *pl.* SYNONYMS, or SYNONYMES. [Fr. *synonyme*; Gr. *synōnumia*, likeness of name—*syn*, and *onoma*, an appellation.] A word equivalent to, or having the same intrinsic signification as, another word of the same language. Strictly speaking, words having exactly the same signification are not to be found in any language unless one of them has been borrowed from another language; but in this case the shades of difference are often so slight that words may be frequently used for one another, and this interchange produces a pleasing variety in composition, necessary in poetry. The chief works on this subject are, the *Onomastikon* on Greek; Dumesnil on Latin; Blair, Crabb, and Taylor on English; Stosch and Eberhard on German; and Giraud, Beauzée, Ronbaud, and Guizot on French synonyms.

Synonymic, (*sĭn-o-nĭm'ik,*) *n.* (*Gram.*) The explanation of synonyms.

Synonym'ic, Synonym'ical, *a.* Pertaining or having reference to synonyms, or synonymics; synonymous.

Synonymicon, (*sĭn-o-nĭm'i-kon,*) *n.* A vocabulary of synonyms.

Synon'ymist, *n.* One who collects and elucidates synonymous words.

(*Bot.*) One who collects and classifies the synonyms of plants.

Synon'ymize, *v. a.* To express the same meaning in different words; to express by the use of synonyms.

Synonymous, (*sĭn-ŏn'y-mŭs,*) *a.* Relating to synonyms.—Expressing the same meaning; conveying the same sense or signification; expressing the same idea; equivalent to the same thing; as, "Wave and billow, mead and meadow, are called *synonymous* words." *Watts.*

Synon'ymously, *adv.* In a synonymous manner.

Synon'ymy, *n.* [Fr. *synonymie.*] Quality of being synonymous.

(*Rhet.*) A figure which serves to amplify diction by an employment of synonyms.

Synop'sis, *n.*; *pl.* SYNOPSES. [Lat.; Gr. *syn*, and *opsis*, a view.] A collective view of any subject; a generalized conspectus; an outline of the nature or contents of a whole; a collection of things or parts so arranged as to exhibit the whole or the principal features in a general view; a summary; an epitome; as, a *synopsis* of Natural History.

Synop'tic, Synop'tical, *a.* Relating to a synopsis; affording a general and comprehensive view of the whole, or of the principal parts of a thing, as of a book.

Synop'tically, *adv.* In a synoptical manner.

Synosteology, (*-ŏl'o-je,*) *n.* [Gr. *syn*, together, *osteon*, bone, and *logos*, account.] (*Anat.*) A treatise upon the joints of the human body.

Synosteo'sis, *n.* [Gr. *syn*, and *osteon*, bone.] (*Anat.*) Junction or combination by osseous connection.

Synosteot'omy, *n.* [Gr. *syn*, with, *osteon*, bone, and *tomē*, a cutting.] (*Anat.*) Dissection of the joints.

Syno'via, *n.* [Fr. *synovie*; Gr. *syn*, with, and *ōon*, egg.] (*Anat.*) The fluid which lubricates the cartilaginous surfaces of the joints; it is glairy, and resembles the white of egg.

Syno'vial, *a.* [Lat. *synovialis.*] Pertaining, or relating to the synovia.

Syntac'tic, Syntac'tical, *a.* [Gr. *syntaktikos.*] Pertaining, or having reference, to syntax, or the construction of sentences; according to the rules of syntax, or grammatical construction; as, *syntactical* rules.

Syntac'tically, *adv.* In a syntactical manner.

Syntax, (*sĭn'taks,*) **Syntax'is,** *n.* [Fr. *syntaxe*; Lat. = Gr. *syntaxis*—*syn*, and *taxis*, from *tassō*, *taxō*, to put in order.] (*Gram.*) The grammatical construction of sentences, or the due arrangement of words in sentences, according to established usage. See GRAMMAR.

Syntec'tical, *a.* Pertaining, or relating, to syntaxis, or consumption of the animal body; syntetic.

Syntere'sis, *n.* [Gr., a watching closely—*syn*, and *tereïn*, to guard.] (*Med.*) Preventive treatment, as of a disease.

(*Metaph.*) Conscience viewed as the internal repository of the laws of right.

Syntet'ic, *a.* [Gr. *syntērētikos*, guarding.] (*Med.*) Preserving health, or preventing disease.

Syntet'ic, *a.* [Fr. *syntetique*; Gr. *syntētikos.*] Pertaining, or having reference, to syntexis; syntetical; wasting with consumption.

Syntex'is, *n.* [Lat.; Gr. *syn*, with, and *tēkein*, to consume.] (*Med.*) Consumption; a wasting of the body, as from consumption; colliquation.

Synther'mal, *a.* [Gr. *syn*, with, and *thermē*, heat.] Possessing the same degree of heat.

Syn'thesis, *n.*; *pl.* SYNTHESES. [Lat.; Fr. *synthèse*; Gr. *syn*, and *tithēmi*, to put, set, or place.] A compounding or mixing; composition; the putting of two or more things together, as in compound medicines.

(*Chem.*) The putting together of different bodies to form new ones possessing distinct properties. It is directly opposed to *analysis*, which is the process of separating bodies into their proximate or ultimate constituents. The synthetic production of inorganic compounds, such as sulphuric acid and sulphate of iron, from their elementary constituents, are every-day instances of the practice of this part of chemical science. Of late years, the researches of Rollie, Wöhler, Strecker, Berthelot, and a number of other eminent chemists, have shown that the *S.* of numerous organic compounds, hitherto of a purely organic origin, may be formed from their elementary constituents. Thus Rollie has succeeded in forming acetic acid, Wöhler urea, Strecker sanrine, Berthelot alcohol, formic acid, and a number of other substances of more or less complicated composition.

(*Logic.*) That process of reasoning in which we advance by a regular chain from principles before established or assumed, and propositions already proved, till we arrive at the conclusion; —correlative to *analysis.*

(*Surg.*) The operation by which dislocated or divided parts are reunited.

Syn'thetist, *n.* One who uses synthesis, or who follows synthetic methods.

Synthet'ic, Synthet'ical, *a.* [Gr. *synthetikos*, skilled in putting together.] Pertaining, or relating, to synthesis; consisting in synthesis, composition, or combination; as, a *synthetic* method, in distinction from the *analytical.*

Synthet'ically, *adv.* In a synthetic manner.

Syn'thetize, *v. a.* To put together;—opposed to *analyze.* (R.)

Syn'tomy, *n.* [Gr. *syntomia*—*syn*, and *temnein*, to cut.] Brevity; terseness; curtness; conciseness; laconism.

Syntonic, *n.* [Gr. *syntonos*—*syn*, with, and *teinein*, to stretch.] (*Mus.*) Sharp; acute; intense. (R.)

Syphering, (*sī'fer-,*) *n.* (*Ship-building.*) The operation of lapping one edge of a plank over the edge of another for bulkheads.

Syphilis, (*sĭf'i-lĭs,*) *n.* [Etymol. uncertain; perhaps coined from Gr. *syphlos*, crippled, disabled, defective.] (*Med.*) The venereal disease proper; the pox.

Syphilit'ic, *a.* Pertaining, or having reference, to syphilis; infected with syphilis; as, a *syphilitic* sore.

Syphilit'ically, *adv.* In a syphilitic manner.

Syphilization, (*-zū'shun,*) *n.* Saturation of the system by inoculation with syphilis.

Syph'ilize, *v. a.* To inoculate with syphilitic matter.

Syph'iloid, *a.* Resembling syphilis.

Syphon, (*sī'fon.*) *n.* See SIPHON.

Sy'ra, (anc. *Syros,*) a mountainous but fertile island of the Grecian Archipelago, in the middle of the Cyclades, near Delos; Lat. 37° 22′ N., Lon. 24° 34′ E.; *area*, 65 sq. m. *Pop.* 30,000. The cap. is of the same name, and has a population of 20,996. It is the principal city of the Archipelago, and has steamers plying to and from Constantinople.

Syracuse, (*sĭr'a-kūz,*) a city of Italy, in Sicily, on the E. coast of the island; Lat. 37° 3′ N., Lon. 15° 27′ 3″ E. Founded by a colony of Corinthians about 736 B. C. *S.* was one of the most celebrated cities of antiquity. The part of the ancient city now inhabited is insulated, walled, and entered by drawbridges. *S.* contains many remains of antiquity, such as baths, walls, gates, and the Palace of Sixty Beds constructed by Agathocles. The harbor exists in all its beauty: it is capable of receiving vessels of the greatest burden, and of containing a very numerous fleet. Though at present entirely neglected, it might easily be rendered a great naval and commercial station. The exports are limited to wine, oil, hemp, nitre, and some wheat. The wine called *Syracuse*, though made in different parts of Italy, is a luscious red wine of the muscadine kind. This city was taken by the Romans 200 B. C., and by the Saracens in 878. In 1639 an earthquake nearly destroyed it. It is the birthplace of Plato, Simonides, Zeno, and Cicero; of Theocritus and Moschus, the poets; and of Archimedes, the philosopher *Pop.* 20,176.

Syr'acuse, in *Illinois,* a village of De Kalb co., 70 m. W. of Chicago.

Syracuse, In *Indiana,* a post-towu of Kosciusko co., 128 m. N.E. of Indianapolis.

Syracuse, in *Iowa,* a village of Bremer co., about 12 m. N.W. of Waverly.

Syracuse, in *Missouri,* a post-village of Morgau co., 43 m. W. of Jefferson City.

Syracuse, in *Nebraska,* a post-village of Otoe co., about 25 m. W. of Nebraska City.

Syracuse, in *New York,* a fine and thriving city, cap. of Ouondaga co., ou Ouondaga Lake, aud ou the Erie Canal, 80 m. S.E. of Rochester; Lat. 43° 4′ N., Lon. 76° 12′ W. From its central position, it is a favorite poiut for holding State conventions, and hence Is styled the *City of Conventions.* It is the depôt of the greatest salt-producing region in the Uniou; and also contaius numerous manufactories of silver-ware, tin-ware, sheet-iron, coach and wagon factories, iron furnaces, machine shops, manufactures of farming implements, woollen goods, leather, &c. Syracuse has a handsome court-house, a State arsenal, and a State insane asylum· seat of Syracuse University *Pop* (1897) 101,460

Syr'aense, in *Ohio,* a post-village of Meigs county, on the Ohio River, about 6 miles south-east of Pomeroy.

Syr'en, *n.* A frequent orthography of SIREN, *q. v.*

Syria, (*sir'e-a.*) [Ar. *Esh'sham,* tbe *Aram* of the Scriptures.] A large division of Asiatic Turkey, including Palestine, and lying along the coast of tho Mediterranean, which bounds it on the west; while on the north Mount Taurus and its branches divide it from Asia Minor; aud on the east is a vast and trackless desert, stretching northwards from Arabia, between Lat. 31° and 37° 35′ N., and Lon. 34° and 38° 45′ E.; *area,* 144,433 sq. m. It Is divided into the pashalics of Aleppo or Haleb, Tripoli or Tarablooz, Acre or Akka, Gaza, and Damascus, named from their respective capitals. On the south Is Palestine. The leading feature in tbe physical aspect of Syria consists in the great mountain-chain traversing it from S. to N., and known, from its highest pinnacle near Tripoli and Beyrout, under tho name of Lebanon, or Libanus. Connected with the Jebel-Akrah, which stretches towards the N., it forms a continued range, running into Mount Taurus on the frontier of Asia Minor. While Lebanon faces the Mediterranean, a parallel chain, called Anti-Libanus, looks eastward upon the Syrian desert. Thus Syria, in its inhabited districts, may be cousidered as a country of valleys, many of which are extremely fertile. Of these, the plains of Haouran in the E., Antioch and Aleppo in the N., aud Sharon in the S., may be noticed for their richness. *Rivers.* The Jordan, Azy, or Orontes, and the Litany. *Lakes.* The priucipal are those of Genessareth

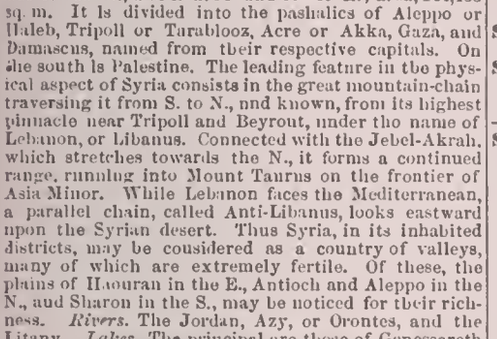

Fig. 2458. — GAZA.

and El Huleh, both in the valley of Jordan. There are, besides, some smaller lakes near Damascus. — *Climate.* Varied. Along the coast the heat is great, even where the mountains are covered with snow. In the N. and E. the climate is colder; but, at Aleppo, frosts are rarely severe. Iu summer, the samiel, a wind like the simoom of the desert, sometimes sweeps over the country, when earthquake-shocks are felt. — *Produce.* Wheat, barley, maize, millet, lentils, and sesamum; cotton and the mulberry flourish on the coast, and silk is produced on the slopes of Lebanon. Its fruits are held in especial estcem, particularly the oranges of Tripoli, tho figs of Beyrout, and the pistachios of Aleppo. As we ascend the sloping sides of Lebanon, all the varieties of European climate are successively experienced. The vine is reared by care to great perfection; and silk and wines which rival those of Italy and France, are produced. Olives and tobacco are also cultivated successfully, .. ! to a great extent. The other products are sugar, indigo, and scammony, and other gums. Madder is also produced, and sheep form a principal part of the wealth of the inhabitants. Sponge Is fished on the Mediterranean coast; but other fisheries are comparatively unimportant. The commerce of Syria is greatly impeded by the want of good roads. As it is the high-road, however, from Bagdad, Mosul, and Erzeroum, to Mecca, it is traversed by caravans, carrying its own and the products of Asia Minor, Mesopotamia, and Persia, to be exchanged here for European manufactures and cochineal. Scanderoon, Tripoli, Saida, and other ports on the Mediterranean, are the residence of a few Frank merchants, and carry on a limited intercourse with Europe. — *Inhabitants.* Few countries present a greater variety of population. Its open plains separated by no defined boundary from Arabia, Persia, and Asia Minor, are, here and there, covered by the wandering population of those respective countries. Turks and Greeks form, as elsewhere, the basis of population iu the cities. The only tribes which can be considered as appropriate to Syria are the tenants of the heights of Lebanon. The most remarkable of these are the Druses and the Maronites. The Mohammedans are the most numerous Iu the secondary towns und tbo rural districts. In the earliest periods of Jewish history, Syria was formed into a powerful kingdom, having Damascus for its capital. Its most remarkable district, however, consisted of a tract on the sea-coast, entitled Phœnicia, in which commerce flourished to a degree unexampled in ancient times. After the conquests aud death of Alexander the Great, Syria was erected by his lieutenant, Seleucus, into a separate kingdom; but under Antiochus, it was reduced by the Romans. It then fell under the Saracen sway, and afterwards became one of the richest appendages of tbe Turkish empire. The celebrated Djezzar Pasha, successor of powerful Arabian sheiks, who, from about 1750, had exercised an almost independent power, joined with the British in resisting the invasion of Napoleon I. After the demise of Djezzar, the power reverted to the Porte, and Suleiman was appointed pasha. In 1861, In the district of the Lebanon, the old feuds between the Maronite and Druse populations broke out, and the result was a terrible slaughter on both sides. *Estimated pop.* 2,000,000.

Syriac, (*sir'i-ăk.*) *a.* [Lat. *Syriacus,* from *Syria;* Fr. *Syriaque.*] (*Geog.*) Pertaining or relating to Syria, or its language; as, the *Syriac* rendering of tbe Bible.

—*n.* The language, or, more properly the ancient language, of Syria.

Syriacism, Syrianism, (*sir'i-a-sizm,*) *n.* An idlom of the old Syriac language.

Syrian, (*-sir'-,*) *a.* [Fr. *Syrién;* Lat. *Syrius.*] (*Geog.*) Syriac; belongiug or hnving reference to Syria, or to its people.

—*n.* (*Geol.*) A native or Inhabitant of Syria.

Syrin'ga, *n.* [Gr. *syrinx,* a pipe or tube.] (*Bot.*) A genus of plants, order *Oleaceæ,* of which familiar examples occur in the various Lilacs of our gardens. Tbe native couutry of somo of these is not well ascertained, although the genus appears to be confined to S.E. Europo and Ceutral aud E Asia. They are deciduous shrubs with entire leaves, and terminal more or less pyramidal panicles of usually sweet-smelling flowers. The Commou Lilac, *S. vulgaris* (Fig. 2459), Is the largest species and also one of the most familiar and most beautiful of our spring-flowering ornamental shrubs. The Persian Lilac, *S. persica,* is smaller, seldom growing more than 6 or 7 feet high.

Fig. 2459. — SYRINGA CÆRULEA. (A variety of *S. vulgaris.*)

Syringe, (*sir'inj.*) *n.* [Fr. *seringue;* Gr. *syrinx, syringos.*] An instrument cousisting of a tube and piston; especially, an instrument for injecting liqnids into animal bodies, into wounds, &c., or an instrument iu the form of a pump, serving to draw in any fluid, and theu to expel it with force.

Garden syringe, a large syringe used for ejecting liquids upon plants, shrubs, &c.

—*v. a.* To inject by means of a syringo. — To wash and cleanse by injection of liquids from a syringe; as, to *syringe* a wound.

Syrin'gine, *n.* (*Chem.*) See LILACINE.

Syringot'omy, *n.* [Gr. *syrinx,* a hollow sore, and *temnein,* to cut.] (*Surg.*) The operation of cuttiug for the fistula.

Syr'inx, *n.* [Gr., a pipe.] (*Mus.*) The Pandean pipes. See PANDEAN.

Sysrau, (*sis-ran',*) a town of European Russia, govt. of Simbirsk, 78 m. from Simbirsk; *pop.* 8,872.

Syrup, (*sir'up,*) *n.* A common orthography of SIRUP, *q. v.*

Syssarco'sis, *n.* [Fr. *syssarcose;* Gr., from *syn,* with, and *sarx, sarkos,* flesh.] (*Anat.*) The junction of bones by intervening muscles.

Systal'tic, *a.* [From Gr. *systellein,* to draw together.] (*Physiol.*) Susceptible of, or superinduced by, alternate contraction and dilation; as, the *systallic* action of the heart.

Sys'tem, (*sis-,*) *n.* [Gr. *systēma* — *syn,* and *histēmi,* to place or set.] A whole compounded of several parts or members; a complete whole; an assemblage arranged or adjusted into a regular whole or entirety; or, a whole plan or scheme consisting of many things connected in such a manner as to create a chain of mutual dependencies; or, an harmonious arrangement of bodies with respect to one another, and of the laws by which their motions, functions, or developments are supposed to be regulated; as, a *system* of government, ethics, philosophy, botany, and the like; the solar *system,* &c. — Hence, the universe, as being the entire schemo of created things regarded as constituting one grand and complete plan or whole. — Regular or methodical plan, mode, or order; as, to conduct business on a thorough *system.*

(*Fine Arts.*) A collection of the rules and principles upon which an artist works.

(*Astron.*) An hypothesis of a certain order and arrangement of the celestial bodies, by which their apparent motions are explained.

(*Mus.*) An interval composed, or supposed to be composed, of several lesser ones, as an octave, which is a *system.*

(*Physiol.*) Tho totality of bodily parts, performing an identical or an analogous or connected function; as, the digestive *system;* also, the body as a coöperative unity or whole; as, his *system* is out of order.

Systemat'ic, Systemat'ical, *a.* Pertaining or relating to system; consisting in, or characterized by, system; methodical; designed with regular adaptation or subjection of parts to each other, and to the scheme of the whole; as, a *systematic* way of doing business, a *systematic* course of reading. — Proceeding according to system or appropriato or regular method; as, a *systematic* swindler. — Cosmical; pertaining or having reference to the system of the universe; as, *systematical* phenomena.

Systemat'ically, *adv.* In a systematic manner.

Systematism, (*sis'tem-a-tizm,*) *n.* Reduction of facts or principles to a system.

Sys'tematist, *n.* One who devises a system; or, one who reduces things to a system.

Sys'tematize, *v. a.* To reduce to a system or regular method; as, to *systematize* plants.

Sys'tematizer, Sys'temizer, *n.* One who reduces things to a system; a systematist.

Systematology, (*-tŏl'o-je,*) *n.* Tbe doctrine of, or a treatise on, systems.

System'ic, *a.* Pertaining to, or characterized by, system.

(*Med.*) Designating the circulation of the general system of the body, beginning at the left ventricle und aorta, and ending at the venæ cavæ and right auricle.

Systemization, (*-zā'shun.*) *n.* Act or operation of systematizing; — also, the reductiou of things to system, or regular method.

Sys'temize, *v. a.* Same as SYSTEMATIZE, *q. v.* (R.)

Systole, (*sis'to-le,*) *n.* [Fr.; Gr., from *systellō,* to draw together — *syn,* and *stellō,* to sound.] (*Gram.*) In prosody, the shortening of a long syllable.

(*Physiol.*) The contraction of tho heart and arteries for expelling the blood and carryiug on the circulation; — correlativo to *diastole.*

Systol'ic, *a.* Pertaining or having reference to systole, or contraction.

Systyle, (*sis'tīl,*) *n.* [Fr.; Gr. *systylos—syn,* and *stylos,* pillar.] (*Arch.*) A term applied to a buildiug in which the pillars are closely placed, but not quite so close as in the pycnostyle, the intercolnmuiation being only two diameters, or four modules, of the columns. — A temple or other edifice which has a row of columns set close together around it, as in the case of the Partheuon, at Athens.

Syz'ran, a town of European Russia, govt. of Simbirsk, on the Volga, abt. 150 m. below the town of Simbirsk, in the middle of a district teemiug with agricultural produce.

Syzygies, (*siz-y-jiz,*) *n. pl.* [Fr. *syzygie;* Lat. and Gr. *syzygia*]. (*Astron.*) Tbe places of the moon or plunets when in conjunction or opposition with the sun.

Line of syzygies, the straight line connecting the earth and a heavenly body, particularly the moon, when the latter is in conjunction or opposition.

Szaj'belyite, *n.* (*Min.*) A native hydrated borate of magnesia, lately discovered in limestone, in Hungary.

Szalonta, (*za-lon'ta,*) a town of Hungary, co. of Bihar, 22 m. from Grosswardein; *pop.* 7,916.

Szarygrad, (*zar-grad.*) a towu of Europcan Russia, govt. of Podolia; *pop.* 7,000.

Szathmar-Nemethi, (*zat-mar-nem'et-e,*) a town of Austria, in E. Hungary, on tbe S., 60 m. from Debreczin; *pop.* 12,000.

Sze-Chuen, (*se-choo-en'.*) [Chi., four streams.] A prov. of China, between Lat. 26° and 33° N., Lon. 101° and 110° E. *Area,* 166,800 sq. m. The surface is mountainous, and watered by the Yang-tse-kiang and its tributaries. *Prod.* Sugar, rhubarb, silk, musk, &c. *Cap.* Chingtoo-foo. *Pop.* 28,000,000.

Szegedin, (*zeg'dēn,*) one of the most important towns of Hungary, opposite to the confluences of the rivers Theiss and Maros, 118 m. from Pesth by railway. *Manuf.* Soda, tobacco, coarse cloth, &c. It carries on an extensive river-trade in wood and corn with Transylvania and the Banat, and its markets rauk next to those of Pesth and Debreczin.

Szekely-keresztur, (*zek'e-le ke-res'tur,*) a town of Transylvania, on the Great Kukel, 12 m. from Segesvar; *pop.* 5,600.

Szekszard, (*sek-zard,*) a town of Hungary, on the Sarvitz, 162 m. from Vienna; *pop.* 8,700.

Szenta, (*zen'ta,*) a town of Austria, on the Theiss, 16 m. from Zombor; *pop.* 15,000. Here, in 1696, Prince Eugene gained an important victory over the Turks.

Szentes, (*zen-tess,*) a town of Hungary, near the Theiss, 30 m from Szegedin; *pop.* 25,000.

Szolnok, (*zol-nok,*) a town of Hungary, on the Theiss, 54 m. from Pesth.

Sztaniesies, (*stan'i-chich,*) a town of Hungary, on the Bacs, 10 m. from Zombor; *pop.* 5,400.

Szurul, (*zoo-rool,*) the highest summit of the Lower Carpathians, between Wallachia and Transylvania, near the Rothenthurm Pass. *Height,* 7,547 feet above sea.

S.--SECTION II.

Sabeth'a, in *Kansas*, a post-village of Nemaha co., 16 m. E. by N. of Seneca; has manufactures of plows, wagons, furniture, and cheese. *Pop.* (1895) 1,488.

Sa'ble Is'lands. (*Geog.*) There are two Sable Islands—one near Cape Sable, at the southeastern corner of Nova Scotia, and the other, and far more important, 110 m. E. of the center of the Nova Scotian coast, in 44° N. Lat., and 60° W. Lon. This is a very low-lying island, which is gradually sinking, so that the light-houses built upon it are constantly undermined and swept away. During the present century it has been reduced from 40 to 20 m. in length. There are sand-banks near it which probably were once a part of it; and the whole region is so dangerous to navigation, and has caused the wreck of so many boats, that the island is known as "The Sailors' Grave."

Sac'charin, *n.* (*Chem.*) A white crystalline compound, $C_7H_5NO_3S$, 300 times as sweet as cane-sugar, discovered in 1879 by Remsen and Fahlberg, of Johns Hopkins University, and named by them anhydro-orthosulphaminebenzoic acid. It may be prepared by oxidizing orthotoluene, a product of coal-tar, with potassium permanganate. When taken into the system it passes through unchanged. It may prove a desirable substitute for sugar to persons suffering from diabetes.

Sachs, BERNARD, neurologist, was born in Maryland, Jan. 2, 1858; graduated at Harvard; studied medicine at Strasburg, Berlin, Vienna, and London; returned to New York, and was made professor of nervous diseases in New York Polyclinic (1888); neurologist at Montefiere Home (1890); and 1893 to Mount Sinai Hospital; president of the American Neurological Association (1894). His published works are chiefly monographs containing an account of original investigations, especially in the nervous diseases of children.

Sack'ville (LIONEL SACKVILLE WEST), BARON, diplomatist, was born July 19, 1827, at Bourn Hall, Cambridgeshire, Eng.; entered the diplomatic service in 1847, and for more than 40 years was constantly employed in this profession; was minister plenipotentiary to the U. S. in 1881, and again in 1887; negotiated, in conjunction with Mr. Joseph Chamberlain and Sir Charles Tupper, the fisheries treaty of Washington (1888); received his passports from the U. S. government (1889) and was recalled to England, as the result of an injudicious letter to a Mr. Osgoodby, alias Murchison.

Sacr-, Sacri-, Sacro-. An initial compounding element, derived from *sacrum* (*os*) (*q. v.*).

Safes and Safe'-locks. Safes are usually distinguished as either fire-proof or burglar-proof. For the former purpose the framework of the safe is made of iron, with a filling of some non-conducting material. The nature of this material has been the subject of many patents, and the difference in its composition and arrangement is the principal distinguishing feature of the various makes. Powdered alum and gypsum, plaster of Paris, concrete, clay, various salts and vaporizing substances have been used most commonly. As a matter of fact, no safe is absolutely fire-proof, as there is a degree of heat which will overcome the best of them, but they are made to withstand all the heat to which it is reasonable to suppose they will be subjected. If embedded in brickwork, additional protection is afforded.

Burglar-proof safes, so-called, are made on three general systems. In one, the whole structure is made of a solid mass of steel, usually alloyed with chromium, or some toughening alloy, which admits of the steel being brought to a great degree of hardness. Of this class are the spherical safes, often made with screw-doors, which are closed by screwing them up tightly, leaving very small chance for the introduction of explosives, and rendering drilling tedious and difficult because of their extreme hardness. Another class of safes are formed by a framework of steel bars, about which is cast molten iron or steel, so as to enclose the whole. In drilling into such a safe, the drilling tool is sure, after going a little way, to strike a place where the metal is soft on the one side and hard on the other. This causes the drill to work over toward the soft metal, and as such drills are necessarily hard and brittle, a very little of such twisting of the hole breaks the drill, and no further advance can be readily made in that hole. A third class of safes are made by forming alternate layers of steel and wrought-iron, and some of these also contain layers of hard cast-iron. The majority of burglar-proof safes are now made according to the latter plan, or some similar combination of plates. A common method is to build up a safe from half-inch plates, each plate being formed of alternate layers of iron and steel, or of soft steel and hard steel. The walls of the safe are built up of such plates in such a manner that the joints of the lower plates are always covered by the next plate above. The bolts are also made short, so as to join but two plates, and are always in a different position in each plate. The top plate is usually an inch thick, and contains more steel than the others, and as the bolts are also made of combined steel and iron, drilling of a safe so made becomes very difficult. It is possible for a good mechanic with good tools to drill into any safe, if he have sufficient time, and once a hole is bored, an explosive can be used to burst the walls. The manufacturers, therefore, simply try to make safes which cannot be drilled inside of fifteen hours' time, which is assumed to be the longest period during which any safe will be left unguarded. Safe-doors are fitted with great exactness, so that there may be no opportunity to blow in any form of powdered explosive. The edges are also made in steps, which adds to the difficulty of effecting an entrance in this way. Very heavy doors are usually hung on ball-bearings, in order that they may be swung without too great effort.

The locks most used with safes are the combination, permutation, and time-locks. In the most familiar and simple forms a series of notched rings is placed within the door, directly operable by turning a central knob on the outside. This outside knob turns in a plate bearing a series of numbers, and the inside notched rings are set so that when the knob is turned to certain numbers, they are brought into position to allow the fall of tumblers. When the knob has been turned to each of the numbers representing each of the notched rings, all the tumblers fall, and the bolts of the door may be shot by turning the handle. This form of lock presents one objection. It necessitates the placing of a hole part way through the safe-door for the mechanism, and this becomes an object of attack, for if a safe-breaker can get at the hole and introduce an explosive, he can blow open the safe. The time-lock can be arranged to overcome this danger. Its principle is simple, a clock or watch-mechanism being provided, and so adjusted that when the watch is wound up it sets a stop-plate or the like at a certain hour, so that it is impossible to operate the lock until the watch passes the time at which the stop-plate is released, thus allowing the lock to be operated. The Yale time-lock has two watches set in the safe-door, the dial of each having pins marked for every hour. Any or all of these pins can be pulled out a little, and during each hour marked by a pulled-out pin the watch allows a weighted lever to stop the operation of the bolts. The second watch is connected with the first, and works similarly, the only object in having two being to provide an extra one that may be used should the first break down or stop. The only key required with this lock is a minute watch-key for winding. So far as known, no time-lock has ever been picked. An expert workman from a lock factory can usually open any permutation or combination lock after a little time.

Safe'ty Appli'ances for Mines. The miner's safety-lamp (see DAVY) was probably the first invention of any consequence designed to reduce the number of dangers to which the toilers underground are subjected. The introduction of wire rope for hoisting the cages was another great safeguard, while the hand-brake, for stopping the windlass in case of accident to the hoisting machinery, was still another step in advance. Other improvements looking to the safety of the cage are hooks for clutching side supports if the rope breaks. An approved form of device for this purpose, which insures absolute support for the cage should the rope fail, consists of the use of thrust-pieces arranged to project from the sides of the cage against projections in the timbering of the shaft, by the release of a spring, which flies out the instant the rope's tension is released. Tool cages are also so shaped as to prevent accident from handles, &c., carelessly allowed to project from the cage. Landing-dogs have been provided for support at the different levels at which the cage may stop, positively holding the cage irrespective of the hoisting apparatus. The one shown in the illustration has the dogs thrown out to support the cage. By throwing the lever into the position indicated by the dotted lines, the support is withdrawn. The landing-dogs, as recently constructed, may be operated by electrical connection from the engine room, an indicator being placed there to show the engineer who does the hoisting the position of every dog, so that he cannot be misled; neither can the dogs be withdrawn, as by evil intent, without his being informed of the fact. The danger in mines from explosions has been largely diminished by the introduction of safety-fuses, designed so that they cannot explode the blast in less than a certain time, and by electrical fuses, which are set off from a distance. The

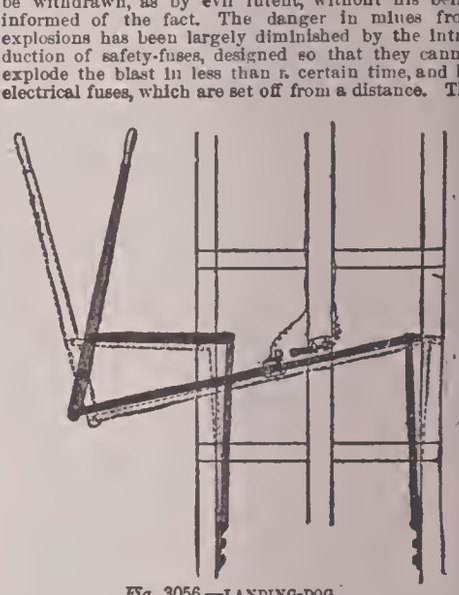

Fig. 3056.—LANDING-DOG.

dangers from bad air are largely overcome by improved mechanism for ventilating, supplying every portion of a mine with fresh air.

Safe'ty-chain, *n.* A slack chain attaching a truck to a car-body to prevent dangerous swaying, or to hold cars together in case of accident to the coupling.

Safety-grate, *n.* A perforated plate over the fire-box of a railroad-car to retain the burning coals in case the car is overturned.

Safety-hatch, *n.* The door of a hatchway or elevator-shaft, closed automatically by the passing of the cage, or by the burning of a rope in case of fire.

Safety-ink, *n.* An ink for use on checks or other important papers which, if tampered with, will at once disclose the fact in some way, as by change of color.

Safety-match, *n.* A match tipped with a substance that will only ignite by intense heat, or by friction on a specially prepared surface.

Safety-pa'per, *n.* A paper chemically or mechanically prepared so that its color or texture will be changed by its being tampered with, or so made as to prevent the photographing of the writing or printing on it.

Safety-pin, *n.* A pin for fastening clothing, having its point covered with a sort of sheath to prevent its pricking or scratching, and held in place by a spring.

Safety-tank, *n.* A tank of water so placed as to extinguish the fire of a car-stove in case of accident.

Sage, RUSSELL, capitalist, was born in Oneida co., N. Y., Aug. 4, 1816; amassed a fortune by shrewd railroad investments; has also been interested in the elevated railway system of New York city, and in various cable and telegraph companies. He was a congressman from New York in 1853–7.

Sagnache (*sā-wāch'*), in *Colorado*, a S. central co.; *area*, 3,240 sq. m.; drained by the Sagnache and Cochetopa rivers. *Surface*, partly mountainous, and comprises a large part of the San Luis Park, in which the soil is fertile. Gold, silver, and lead mining. *Cap.* Saguache. *Pop.* (1897) 3,450.

Saha'ranpur. (*Geog.*) A district and city in the northwest provinces of British India, between the Ganges river and the Jumna; the town is 125 miles by rail north of Delhi; it has an old Rohilla fort, a fine Mohammedan mosque, St. Thomas' Church, various government buildings, a botanic garden, and is the station for the hill sanitarium of Masuri. The population of the city was 63,194 in 1891, and the population

of the district 1,000,000. The district is fertile and well adapted to grain, being the most northern portion of the Doab, or great alluvial plain; its area is 2,221 square miles.

Sahib (*sä'-hĕb*), *n.* [Hind. master.] A term like the English Mr. or Sir, used in India and Persia in addressing foreigners, or as a title of respect in speaking of a Hindu or Moslem.

Sail'or's Snug Harbor. An asylum for aged and infirm seamen, founded in 1807, and situated on the north shore of Staten Island, in the city of New York. It is arranged for 1,000 inmates, and usually contains from 700 to 800, who are comfortably cared for in beautiful buildings and grounds, maintained by the income of a bequest made by Captain Richard Randall of property in the heart of the city, the value of which has increased from $40,000 early in the century to over $18,000,000.

St. Eli'as, Alps, Ascent' of. This gigantic peak, near where the 141st meridian touches the shore of Alaska, was first seen and named by Bering, in 1741, in honor of the patron saint of the day (July 20, O.S.). Subsequent voyagers regarded the peak and its attendant range, now called St. Elias Alps, which are visible far out at sea, with vast interest. La Pérouse (1786) halted his expedition long enough to let his astronomer calculate its height at 12,660 feet. Malaspina (1792) more carefully computed its altitude at 17,847 ft. The U. S. Coast Survey charts (1874) make it 19,500 ft. Little attempt to reach the mountain itself was made until a century later, however, when the late Lieutenant F. Schwatka, U.S.N., led an expedition equipped by *The New York Times* in an attempt to climb it. As the party included Prof. Wm. Libbey, Jr., and Mr. H. W. Seton-Karr, much has been published in regard to its experiences, although it reached only the foot-hills. Another party, in 1888, reached an altitude of about 11,500 ft. These were followed by the first really scientific attempt at an exploration of these ice-guarded alps —the expedition sent in 1890 by the National Geographical Society, under Israel C. Russell, of the U. S. Geological Survey. This expedition did a large amount of accurate surveying and excellent work upon the mountains, but was prevented by extraordinary storms from ascending higher than about 14,000 ft. It demonstrated that the whole range is an uplift of sedimentary rocks, elevated since the Tertiary epoch, and that consequently the early reports of smoke and flames issuing from it arose from the imagination. It has no crater nor any evidence of volcanic origin or disturbance. "The breaking of the rocks and their upheaval is an event of such recent date that erosion has scarcely modified the forms which the mountains had at their birth. The formation of glaciers followed the elevation so quickly that there was no opportunity for streams to act. . . . The crests of the mountains are always sharp and angular. . . . The peaks on the summits of the St. Elias range are either pyramids or roof-like crests with triangular gables. These forms have resulted from the weathering of the schist, in which the planes of bedding are crossed by lines of jointing." (*Russell.*) Though Russell was prevented from reaching the summit of Mt. St. Elias, he determined the altitude closely as "18,100 plus or minus a probable error of 100 ft." This question of altitude was set at rest in 1897, and Russell's geological and topographical conclusions were confirmed, by an expedition led with wisdom and success by an Italian, Prince Louis of Savoy, accompanied by Swiss and Italian mountaineers. These experienced men, putting into service Alpine knowledge and methods, achieved the ascent on July 31, 1897, and found its altitude (determined by mercurial barometer) to be 18,060 ft. Unless this should be exceeded by Mt. Logan, an unclimbed summit of the same range near by, this makes St. Elias the second highest peak of North America, Orizaba, in Mexico (18,250 ft.), standing first. Henry G. Bryant, of Philadelphia, also attempted the ascent of Mt. St. Elias, in July, 1897, but was unfortunately prevented by the illness of some of his party from doing so.

Saint Gau'dens, Augustus, sculptor, was born in Dublin, Ireland, March 1, 1848; removed to New York, in infancy; studied drawing at Cooper Institute and at the Academy of Design (1865–66); in Paris, at the École des Beaux-Arts (1867–70); spent 2 years in Rome, then returned to New York. He has executed many statues and portrait-busts, among them statues of Admiral Farragut and Abraham Lincoln; and busts of William M. Evarts, Theodore D. Woolsey, and Gen. Sherman. He was a member of the jury of acceptance in the sculpture department of the U. S. fine-art exhibit at the Columbian Exposition, in 1893.

St. Goth'ard Pass. (*Geog.*) The road that crosses this pass of the Alps runs from Lake Lucerne, in Switzerland, to Lago Maggiore, in Italy. The pass, 6,936 feet above the level of the sea, is on a mountain knob of the Alps which holds the sources of the Rhine and the Rhone, the Ticino and the Reuss, and so sends the water from its melted snow to the German Ocean, the Mediterranean, and the Adriatic. The route through the pass was first used by the Longobardi, in the 6th century, but down to 1820 it was but 13 feet wide. In 1820-24 it was widened to 18 feet and smoothed for carriages. Near the summit of the pass are two hotels and a *hospice*, the latter for poor travellers. There is a railway tunnel about 3,000 feet below the pass, constructed 1872-80, which is 9¼ miles long, 26 feet wide, and 21 high. The St. Gothard railway and tunnel cost £9,080,000, of which Switzerland contributed as a subvention £1,120,000, Italy £2,200,000, and Germany £1,200,000. The remainder of the cost was raised by shares and a mortgage. The road has proved a great success financially, the shareholders' dividends increasing every year.

St. John, John Pierce, publicist, was born in Brookville, Franklin co., Ind., Feb. 25, 1833; moved to California, and was in the midst of the Indian disturbances; travelled in Mexico, South America, and the Sandwich Islands; returned to Charleston, Ill. (1860), and studied law; took part in the Civil War, attaining the rank of colonel; removed to Kansas (1869); was State senator (1873–74); governor of Kansas (1879–83); candidate of the Prohibition party for President (1884).

St. Lou'is, a West African town on an island near the mouth of the Senegal river; it is the capital of the French colony of Senegal, and has a commerce amounting to about $5,000,000 a year. Bridges connect it with N'dar Toute, a summer watering-place on the right bank, and with Bouetville, the railroad terminus, on the left bank. Ocean steamers cannot land at St. Louis on account of shifting bars at the mouth of the Senegal, so goods and passengers are forwarded by railroad from Dakar, on Cape Verde, 100 miles to the southwest. The population is about 20,000.

St. Mar'tin's Sum'mer. The English equivalent of the American Indian summer, a period of warm, hazy weather coming late in the fall, about the time of St. Martin's Day, November 11.

St. Mary's, in *Kansas*, a post-village of Pottawatomie co., 23 m. N.W. of Topeka; has flour and lumber mills. *Pop.* (1895) 1,196.

St. Mary's, in *Pennsylvania*, a post-borough of Elk co., 10 m. E. of Ridgway; has saw and planing mills, flour mills, tanneries, &c.; coal, lumber, and brick are the leading shipments. *Pop.* (1897) 2,120.

Saint Nich'olas, *n.* See Santa Claus.

St. Paul, in *Nebraska*, a city, cap. of Howard co., 22 m. N. of Grand Island; has large flour mills. *Pop.* (1897) 1,485.

St. Paul Park, in *Minnesota*, a post-village of Washington co., 17 m. S.W. of Stillwater. *Pop.* (1895) 1,173.

St. Regis Falls, in *New York*, a post-village of Franklin co., 11 m. S. of Meira. *Pop.* (1897) 1,262.

Saint-Saens (*săn-song'*), Charles Camille, composer, was born in Paris, France, Oct. 9, 1835; studied at the Paris conservatory, and distinguished himself as an organist and composer; became organist of the Church of St. Merri (1853), of the Madeleine, Paris (1858–77); composed several operas, among them *Samson and Delilah*, and many shorter pieces. He published his musical criticisms in a volume under the title, *Harmonie et Melodie* (1885). He was elected a member of the Institute, Feb. 19, 1881.

Saints'bury, George Edward Bateman, literary critic, was born at Southampton, England, Oct. 23, 1845; a graduate of King's College, London, and Merton, Oxford; taught for ten years, his specialty being French and English literature. His criticisms of French literature are especially valuable.

Sa'is, a town of ancient Egypt on the right bank of the Rosetta Branch of the Nile. It was a great seat of learning, much visited by Greek philosophers, and it gave its name to the 24th, the 26th, and 28th Egyptian dynasties, founded by natives of the town. During the 26th dynasty it became the capital of Lower Egypt and rose to great splendor. Its chief local deity was Neith, to whom there was a famous temple. The ruins of Sais are near the modern village of Sa-el-hagar.

Sa'la, George Augustus, journalist and author, was born in London in 1828; began his literary work with Charles Dickens' *Household Words;* he founded *Temple Bar;* was afterward connected with the *Daily Telegraph* as its regular correspondent; in the U. S. during the Civil War; in France, 1870–71; in Russia, 1876, and in Australia, 1885. In 1892 he started *Sala's Journal.* Many of his newspaper letters have been collected in book form. His latest book was *Things I Have Seen, and People I Have Known.* Died Dec. 8, 1895.

Salaman'ca, in *New York*, a post-village of Cattaraugus co.; has machine shops of three railroads, a large tannery, and embroidery factory, and is largely engaged in the lumber business. *Pop.* (1897) 4,050.

Sales'woman, *n.* A woman who is employed in selling goods in a store or elsewhere. The vulgar term "saleslady" should be avoided. No one speaks of a *salesgentleman.*

Sali'da, in *Colorado*, a post-town of Chaffee co., 97 m. W. of Pueblo; has large railroad shops, and abundant deposits of silver, iron, and copper. *Pop.* (1897) 3,200.

Sali'na, in *Kansas*, a city, cap. of Saline co., 47 m. W. by S. of Junction City; has numerous mills, machine shops, and factories. Salt and gypsum quarries in the vicinity. Here are the Kansas Wesleyan University and the Salina Normal University. *Pop.* (1895) 5,703.

Sali'nas, in *California*, a post-town, cap. of Monterey co., about 18 m. E. of Monterey. Trade center for a fertile agricultural valley. *Pop.* (1897) 2,650.

Saline', in *Kansas*, a central co.; *area*, 720 sq. m.; intersected by the Kansas, Smoky Hill, and Saline rivers. *Surface*, undulating, chiefly prairie; *soil*, fertile; numerous salt springs. *Cap.* Salina. *Pop.* (1895) 17,475.

Saline, in *Nebraska*, a S. E. co.; *area*, 576 sq. m.; drained by Big Blue river and tributary streams. *Surface*, undulating; *soil*, fertile. *Cap.* Wilber. *Pop.* (1897) 22,450.

Salisbury (*sälz'bŭr-y*) (Robert Arthur Talbot Gascoigne Cecil), Marquis of, statesman, was born at Hatfield, Herts, Feb. 13, 1830; educated at Eton and Christ Church, Oxford; was elected a fellow of All Souls' College; member of Parliament for Stamford, from 1853 to April 12, 1868, when he succeeded to the marquisate; was known as Lord Robert Cecil until June 14, 1865, when he assumed the courtesy title of Viscount Cranborne. He was secretary of state for India from July, 1866, to March 2, 1867; and again in Feb., 1874. At the close of the war between Turkey and Servia, differences arose between Russia and Turkey, and the Marquis of *S.* was sent as special ambassador to the Porte; and he and Sir Henry Elliott acted as joint plenipotentiaries of Great Britain at the conference of Constantinople. On April 2, 1878, he became secretary of state for foreign affairs, and clearly enunciated the policy of the English government with regard to the Eastern question. Soon afterward he and the Earl of Beaconsfield represented Great Britain at the conference of Berlin. He went out of office with his party, defeated at the general election of April, 1880. After the death of Lord Beaconsfield, the Conservative peers held a meeting, and elected the Marquis of *S.* leader of the Conservative party in the House of Lords; since then his career has been identified with that of his party. When Mr. Gladstone resigned on June 9, 1885, Lord *S.* took office as Premier. After the general election of Nov., 1885, he resigned without meeting Parliament. He vigorously opposed Mr. Gladstone's policy, and after the second general election in 1886, once more became Premier; resigned in 1892, after the Conservative defeat in the general election; came into power again, June 26, 1895, being called to form a Conservative cabinet after the defeat of Lord Rosebery's government in the House of Commons. Lord *S.* in his younger days was a frequent contributor to the *Quarterly Review.* He was a student of the physical sciences, and had a fine laboratory in his home at Hatfield. He was elected chancellor of the University of Oxford in 1869 and warden of the Cinque Ports in 1896. He withdrew from the Premiership July 11, 1902, after over 13 year's service. Died Aug. 23, 1903.

Salisbury, in *Missouri*, a post-village of Chariton co., 21 m. W. of Moberly. *Pop.* (1897) 1,725.

Salm'on of North Amer'ica and Salmon Can'ning In'dustry. Perhaps no family of fishes is more interesting or more important than that of the salmons (*Salmonidæ*). Its representatives are almost everywhere abundant throughout the north temperate and arctic zones, and especially so on the northwestern coast of North America. Made to include the smelts (*Argentinids*) and the Oriental salaugids, as has been done by most ichthyologists, the family includes about 125 species; but if these two families are separated, as is now preferred, the salmon family embraces less than 100 species, known as salmons, trouts, chars, whitefishes, graylings, &c. (See Trout and Whitefish.) Most of these are game-fish, all are highly regarded as delicate and nutritious food, and many of them sustain important commercial fisheries and preserving factories in various parts of the world. The present article will be restricted to those species, chiefly American, popularly known as *salmon.* The salmon (*Salmo salar*), a marine, anadromous fish, ascending all suitable rivers in northern Europe (Scandinavia) and in North America north of the Merrimac; formerly it abounded as far south as the Hudson. Many still reach market from the Penobscot and other rivers of Maine and the Maritime Provinces. It is "sometimes permanently landlocked in lakes, where its habits and coloration . . . change somewhat, when it becomes variety *sebago.*" It is considered the first in rank among game-fishes by anglers, who take great pride in its skilful capture. Certain preserved rivers of Scotland and Norway, and the Upper St. John and Miramichi rivers in New Brunswick, are regarded as the best salmon streams. This is the only Atlantic salmon. All the following belong to Pacific waters and to a different genus, *Oncorhynchus*, which differs from *Salmo* in the structure of the vomer and an increased number of fin-rays, especially in the tail; it includes five species, often called the king salmons, as follows: (1) *O. gorbuscha*, gorbuscha, or humpback. This is the smallest (3 to 6 lbs.). Bluish above, silvery below, the posterior and upper parts with many round black spots, and the dorsal hump much developed in the males; scales very small. From the Sacramento north, and Siberia. The males in the fall are red and more distorted than those of any other species. (2) *O. keta*, dog salmon. Weight about 12 lbs. Dusky above, sides paler, with little luster; no defined spots; males in the fall distorted and brick-red. San Francisco to Kamtchatka. Neither this nor the humpback has any value to civilized people, because they run only in the fall, when they are worthless. (3) *O. kisutch*, silver salmon. Weight, 3 to 8 lbs. Bluish-green, sides silvery, unspotted. Abundant from San Francisco northward, ascending streams a short distance, and of some value in Puget Sound and northerly in early autumn. (4) *O. nerka*, blue-back, redfish, or Fraser river salmon. Weight, 5 to 8 lbs. Scales large; color clear, bright blue above, sides silvery; lower fins pale, upper dusky; no spots; males in the fall deep crimson red. Columbia river to Kamtchatka, ascending streams in the spring to great distances, and often frequenting mountain lakes in the fall. This is one of the commonest, best, and most valuable of the salmon. (5) *O. chonicha*, the quinnat, chouicha, Columbia, or Sacramento salmon. Weight, 16 to 100 lbs., averaging about 22 lbs. in the Columbia, where it is especially abundant. Color, dusky above, often tinged with olive, and slaty on the head; back, dorsal fin, and tail profusely covered with round black spots. California to Alaska and Northern China, ascending all the large streams in spring and summer, moving up, without feeding, until the spawning season, by which time many of those which started first have

travelled more than 1,500 miles. After spawning, most or all of those that have reached the upper waters perish from exhaustion before regaining the sea. This is by far the most valuable of all the Pacific Coast salmon, and also the one whose deep red flesh is most toothsome.

These Pacific salmon will rarely take a hook, and afford the angler little sport. They are caught in seines, gill-nets, hand dip-nets, &c., in pounds, by spearing, in revolving scoops or "wheels" (now illegal in some States), and by various ingenious contrivances among the Indians, large tribes of whom subsist almost wholly upon their flesh—fresh, dried or smoked. It was foreseen, long ago, that the wholesale destruction of salmon entering the rivers of California and the Columbia basin would soon deplete and later extinguish this most valuable fish, unless moderation was exercised. Laws have therefore been passed in each of the Pacific Coast States, and in British Columbia, restricting the seasons at which salmon may be caught, forbidding certain engines of destruction, reserving closed spawning-grounds, and otherwise protecting the annual reproduction of the fish. In addition to this, the United States Fish Commission has in operation three propagating stations, at Baird and Fort Gaston (Redwood) in California, and Clackamas, Ore., where salmon eggs are hatched, and the fry used to restock abandoned streams, or to introduce the species into the Eastern waters. It is probable that similar remedial methods must soon be applied to Alaska, where enormous quantities of salmon (especially quinnat) are caught annually, and where it is especially necessary that this fish should not become extinct, because it forms the main food-supply of the whole native inland population.

The *canning of salmon* (preserving their cooked flesh in hermetically-sealed tin cans) is one of the most important maritime industries of the Pacific coast from San Francisco north, but especially in the Sacramento and Columbia valleys, and along the coast of British Columbia and southern Alaska. The canneries employ during the summer a large and motley collection of white, Chinese, Japanese, and Indians of both sexes, more than 30,000 persons being employed in the fisheries and canneries in American waters and a large number in British Columbia. The value of the products of the United States fisheries in these waters in 1906 aggregated $14,000,000.

The most picturesque presentation of this industry is in Alaska, where a score of canneries exist along the coast. Miss E. R. Scidmore describes them as follows:

"The seining and outdoor work are done by white men, a few Indians being sometimes employed under them. While industrious to a degree, the Tlingit cannot be depended upon; and the native is too apt to strike, to start upon a prolonged potlatch, or go berrying or fishing on his own account, in the height of the salmon run. In the skilful manipulation of the cans and machines within doors, neither he nor the white man can approach the automatic exactness and dexterity of the Chinese, who, being paid by the piece, take no account of a day's working hours, and keep the machinery moving as long as there are fish in the cannery. . . . The Alaska canners are not held to any restrictions as in British Columbia, not taxed or hindered in any way. They may take any piece of ground they see fit in tracts of 160 acres, and receive a patent after paying $1·25 an acre and the cost of survey. There is no tax upon canuery boats, no limit to the size of net-meshes, no close season, and the salmon inspector, who is supposed to prevent the placing of weirs and traps in the streams, has no vessel at his command with which to enforce the laws. The canneries drain the country of their natural wealth; make no permanent settlements, nor any improvements; spend almost nothing of their profits in the Territory; and are a fruitful source of trouble and corruption among the native people."

Salton Sea (*geog.*), a large artificial lake in Southern California, formed by the overflow of the Colorado River, as a result of misdirected efforts at irrigation. Of late years, in the extreme south-west corner of California, there has been a notable agricultural development, a former desert region having been largely reclaimed by irrigation from the waters of the Colorado. Just north of this cultivated region, known as the Imperial Valley, lies the great Salton depression, nearly 300 feet below sea-level and once the head of the Gulf of California, now 150 miles farther south. The work of irrigation in this region began in 1891, a canal being made to divert water from the Colorado in to an ancient channel of this stream, called the Alamo. This project did not prove fully successful, and in 1904 a new canal was cut, this time just below the Mexican border line. The result proved disastrous. In the June flood of 1905 the river began to cut a new channel, into which it poured so strongly that by September the bulk of the water was following this route and making its way by the ancient channels to the Salton sink, which rapidly began to fill. In 1906 a large river flowed in this direction, rapidly forming what is now known as the Salton Sea, and imperilling the safety of 70,000 acres of fertile farm lands and a settlement of over 12,000 people. The property endangered is estimated as worth $100,000,000. Up to the end of 1906 the Salton Sea had gained a depth of 90 feet and covered an area of 400 square miles. One of the chief losers has been the Southern Pacific Railroad, the main line of which traverses this country. Several movings of the track to higher ground have been made and an expensive dam has been built to check the outflow. This at first appeared successful, but late in 1906 the river mined a channel round the dam and resumed its dangerous overflow. A great Niagara-like cataract, nearly 1500 feet wide and 100 feet deep, formed in the new channel and cut back at a rate that threatened to deprive of water all the farmers along the Colorado Valley. In February, 1907, the damming operations succeeded in stopping the overflow of the Colorado, and at present the difficulty seems to be overcome. It will take years for the Salton Sea to disappear by evaporation.

Sal'vage Regula'tions. (*Marit. Law.*) In all countries salvage is allowed to persons who save a ship or boat, or its cargo, or the lives of persons belonging to it, from danger or loss, either from shipwreck or capture, or abandonment. The amount of such salvage or remuneration is settled by maritime law, and depends upon the amount of risk encountered and enterprise shown by the salvors in going to the assistance of a ship; upon the imminence of the danger from which the vessel or the cargo is saved; upon the amount of work, ability, and time used in the rescue; upon the worth of what is rescued, and upon the degree of success in the accomplishment. The admiralty and maritime jurisdiction, which settles all questions of salvage in the United States and Great Britain, extends not only over the high seas, but over the seacoasts and navigable rivers as far as the ebb and flow of the tide. In order to be entitled to salvage the service performed must be voluntary, as distinguished from the efforts of the master and crew of the rescued vessel, who are under agreement to do their utmost for its safety; or even the efforts of the passengers, for it is considered that in case of a common danger it is the duty of all to do what they can for the common safety. If, however, the efforts of any passenger or member of the crew surpass what can justly be expected of him under the circumstances, he is usually judged to have earned a right to salvage. The effort of salvors must also be effective in order to earn reward, except when their services have been called for and engaged by the ship in peril. In that case their title to salvage is in proportion to the effort made, whether successful or not; in all other cases, the undertaking being at their own risk, is only rewarded in proportion to its success. If part of a salvage service is accomplished by one company of rescuers and the rest by another, the salvage must be divided between them, unless it can be proved that the first company had entirely abandoned the effort, in which case the reward is all given to the second. On the other hand, if, while one set of rescuers is at work, another joins in the enterprise, the law favors the first comers, and the second have to prove that their aid was either actually necessary or at least beneficial before they can claim reward. No salvage at all can be collected for help which the master of a boat can prove to have been given against his will and protest, or in the absence of risk or damage; although, if he consents to receive aid, salvage may be collected when the danger, though actual, was not imminent. Where one ship rescues another ship, or its cargo, the owner of the rescuing ship (even if he chance to be part owner of the injured ship as well), the master, and all the members of the crew are entitled to share in the reward. It is not necessary that all the seamen should actually have taken part in the rescue, as long as they were in readiness to do so. Pilots can seldom collect salvage; it is their duty to render assistance, and usually they can only collect their fees for pilotage. The same is true of tugs and steamers, unless they endanger themselves in bringing in an injured boat, or unless the boat is a derelict (that is, permanently deserted by master and crew), in which case the first to take possession is entitled to collect a very large salvage, which formerly was always one-half of the value of the deserted boat, but now varies, sometimes being less, but very seldom more. The recapture of a boat which has been taken by an enemy is rewarded with salvage if it is effected before the boat is condemned as a prize, and when there is sufficient cause for thinking that it would have been condemned, but a claim for salvage on any grounds may be annulled or lessened by neglect or blunders of the salvors, resulting in injury to that which has been saved. Unless they have special contracts, the salvors must also share any unavoidable depreciation in value of the rescued property occurring before the settlement of their claim, which is not like that of a creditor, which must be satisfied in full, but, for the time, is that of a partner. Until their claim is settled, however, they have a lien upon the property saved, and can bring suit against its owner; a maritime lien is independent of possession, and consequently is the simplest way of assuring payment of salvage. No reward can be collected in the United States for the saving of life unless in connection with property, but in some cases such reward has been adjudged in England.

Salva'tion Ar'my. In 1865 Rev. William Booth, who had left the Methodist Church to devote himself more fully to revival work, began a series of open-air meetings in East London, and succeeded in rousing enough interest to enable him to found the *East London Mission*, and to rent a hall. His work gradually attracted outside attention and aid, and he was able to broaden the field of his mission and to establish branches. In 1869 he changed its name to the Christian Mission, and in 1878 the government of its widespread divisions and sub-divisions had become so cumbersome under the Methodist polity, which had been followed, that a conference decided to change the name of the whole system to the *Salvation Army*, and to adopt a complete military organization and government, with William Booth as general, having full controlling power. The novelty of the military idea and titles attracted attention, and so did the martial music, with the parades and open-air preaching of the uniformed Salvationists. At first, although making many converts among the poor, they met with little except ridicule from the better classes, but gradually, as it became evident that they were reaching a grade of people for whom other religious societies were doing comparatively little, the Salvation Army became recognized as one of the most effective religious and philanthropic organizations in existence. In doctrine the Salvation Army follows the fundamental beliefs of the evangelical churches, preaching repentance, forgiveness, and redemption, emphasizing the acceptance of Christ as an atonement for sin, but purposely avoiding a formal creed and all those details of dogma over which the evangelical churches disagree. Every Salvationist is taught that he is a part of a church militant, and that he must make it his personal responsibility to bring about the conversion of everyone with whom he comes in contact. The officers, moreover, are specially set apart and maintained by the others, in order that no care shall come between them and the salvation of souls. They are trained in the knowledge of spiritual ways and means, and the giving of their commissions is a religious ceremony. Women and men have equal rights and duties, there being no position in the army which a woman may not fill. The service is purely voluntary; recruits must give satisfactory evidence of conversion, and must sign "the articles of war," in which they promise to live for God and the army, to be obedient to lawful orders, and to lead pure lives; they are then expected to take up active work, but they may retire from the army at any time. Every corps, division, and territory supports itself, and no salaries are promised, the officers receiving only what they actually need. Besides regular members of the army, there is an auxiliary league, made up of those who are unable to take active part in the work, but wish to give it the support of their names, money, or influence.

From 1878 to 1891, the army increased from 80 corps and 127 workers, or "officers," to 4,291 corps and 10,617 officers, of whom 4,539 were in Great Britain, and 1,331 in the U. S. The movement in the U. S. dates from March, 1880, when Commissioner George Scott Railton, and a company of seven workers, came from England and began it. In spite of a secession, in 1884, the force increased rapidly; in 1894 the army was established in 620 cities and towns, and numbered 754 corps, counting the outpost. In 1896 Mr. and Mrs. Ballington Booth, who were then in command in America, were ordered away; not wishing to leave the field of work with which they had identified themselves, they resigned from the main army and started a division called the *Volunteers of America*, under their own control. On Jan. 1, 1897, this new organization had already grown to three regiments of ten battalions, with 150 staff officers, distributed among 76 cities and towns, with 130 organized posts. In 1897 the main army had increased to 5,469 corps, with about 15,000 officers, of which 675 corps and 2,125 officers are in the U. S. In 1890 Gen. Wm. Booth published *In Darkest England, and the Way Out*, giving a minute account of a philanthropic scheme which has since come into partial operation with great success. Its proposed "city colony," into which outcasts are to be received and offered work, and its "farm colony," to which those found anxious to work are sent from the city colony, are already practically established in the form of numerous homes, shelters, factories, and farms; and the "over-sea-colony" is likely soon to be arranged for. All the property of the army is held by the general, as trustee; the strictest accounts are kept, and published yearly. The revenue of the army comes from numerous business enterprises, among them the publication of its papers, pamphlets, books, and song-books, from collections in the meetings, and from other gifts. The *War Cry* is its best-known publication, having a circulation of over 400,000 in Great Britain alone, and also being issued locally, under the same, or a similar name, in all parts of the world where the army is represented.

Salvini (*säl-vē'-ny*), Tommaso, tragedian, was born in Milan, Italy, in 1830; received an excellent literary education from his father; adopted the theatrical profession, and played first at the Royal Theater, in Naples; afterward, for 6 years, was a member of a troupe, and played in several of the leading Italian theaters; was for some time with Madame Ristori. He made his greatest success in 1865, at Florence, at the celebration of the six-hundredth anniversary of Dante's birth, the play being *Francesca da Rimini*, with Madame Ristori as *Francesca*. Florence presented him with a statuette of Dante. He visited the United States in 1875 and in 1881, his *Othello* attracting universal attention, and the almost unanimous praise of art critics. His last appearance in England was in 1884. He was knighted by King Victor Emanuel.—His son, Alexander Salvini, achieved some success as a tragedian, especially in *The Three Guardsmen*; died Dec. 15, 1896.

Samana (*sah-ma'nah*). A peninsula, bay, and splendid harbor on the E. coast of San Domingo, West Indies. On Jan. 10, 1873, this portion of the island came into the control of a company of American capitalists, who had, by treaty with the government of San Domingo, purchased the rights of sovereignty over it, together with other important concessions, such as the right to organize a police and navy for protection, and of carrying a flag; but on March 25, 1874, all the rights of the company were confiscated for non-payment of the stipulated annual rent. See Hayti.

Sams'hui, a small town in the province of Kwang-tung, China, on the West, or Si, river, not far above its mouth. It has been recently created an open port by

the Chinese government, and though at present unimportant in itself, it stands at the junction of three river systems and is connected by creeks and canals with the river on which Canton is situated, so that it must eventually become an important point of distribution, through which will pass much of the imports and exports of the provinces of Kwansi, Yun-nan, and Kweichou.

San An'gelo, in *Texas*, a post-town, cap. of Tom Green co. *Pop.* (1897) 2,820.

San Die'go, in *Texas*, a post-town, cap. of Duval co., 53 m. W. of Corpus Christi. *Pop.* (1897) 2,025.

San Eliza'rio, in *Texas*, a post-town of El Paso co. *Pop.* (1897) 1,495.

San Jacin'to, in *Texas*, a S.E. co.; *area*, 640 sq. m.; bounded N.E. by Trinity river. *Surface*, undulating, heavily timbered; *soil*, varied. *Cap.* Cold Spring. *Pop.* (1897) 8,150.

San Juan', in *Colorado*, a S.W. co.; *area*, 500 sq. m.; drained by Uncompahgre river, and other small streams. *Surface*, mountainous. Has rich mines of silver and gold; copper, galena, and coal are also found. *Cap.* Silverton. *Pop.* (1897) 3,450.

San Juan, in *New Mexico*, extreme N.W. co., adjoining Colorado and Arizona; *area*, 6,008 sq. m.; intersected by San Juan river. *Surface*, plateaus and hills, with several well-watered valleys; *soil*, fertile in valley, and on mesas when irrigated. Has coal and limestone; not much timber. *Cap.* Aztec. *Pop.* (1897) 2,075.

San Juan, in *Utah*, extreme S.E. co.; *area*, 9,178 sq. m.; bounded W. by Colorado river, and intersected by San Juan river. *Surface*, mountainous; good, fertile soil; timber limited. Stock raising is the chief occupation. *Cap.* Bluff. *Pop.* (1895) 500.

San Juan, in *Washington*, a N.W. co., comprising the island of San Juan and other islands in the Strait of Juan de Fuca and Gulf of Georgia, near the north end of Puget Sound; *area*, 600 sq. m. *Surface*, northern part mountainous and heavily wooded; southern part mostly rolling prairie; *soil*, fertile. *Min.* Silver, copper, and galena. *Cap.* Friday Harbor. *Pop.* (1897) 2,460.

San Mig'uel, in *Colorado*, a S.W. co.; *area*, 1,300 sq. m.; intersected by Dolores and San Miguel rivers. *Surface*, principally mountainous, with excellent stock ranges and a small area of farming land. *Cap.* Telluride. *Pop.* (1897) 5,500.

Sanato'rium, *n.* [Low Lat., *sanatorius*, health-giving.] A place to which people resort for the preservation or restoration of health; especially, in tropical climates, an elevated summer-residence station.—An institution, or hospital, for the treatment of disease or the care of invalids; usually so located as to render available the use of natural therapeutic agents or conditions.

San'born, in *Iowa*, a post-town of O'Brien co., 25 m. W. of Spencer; has railroad roundhouse and repair shops. *Pop.* (1895) 1,242.

Sanborn, in *South Dakota*, a S.E. central co.; *area*, 580 sq. m.; intersected by the Dakota river. *Surface*, gently rolling prairie; *soil*, dark, rich sandy loam. *Cap.* Woonsocket. *Pop.* (1895) 4,326.

Sand Beach, in *Michigan*, a post-village of Huron co., on Lake Huron, 62 m. N. of Port Huron; has extensive manufactures of flour, salt, and lumber, and is the chief grain market for the northern peninsula of Michigan. Here is a government breakwater which encloses one of the best harbors on the Lakes. *Pop.* (1894) 1,273.

Sand'-blast, *n.* A process invented by C. Tilghman, of Philadelphia, about 1870, in which a stream of sand is introduced into a rapid jet of steam or air so as to acquire a high velocity, and is then directed upon a hard substance so as to cut or wear away its surface. The apparatus has been found useful for a variety of industrial purposes, such as lettering stone, ornamenting glass, cutting holes in crockery, &c. To produce ornaments or inscriptions on stone, either in relief or intaglio, a stencil of iron or caoutchouc is held or cemented to the stone, and the sand jet is applied with an even and steady motion over the whole surface, so that all the exposed parts may be cut to the same depth. The apparatus used consists essentially of a receptacle or hopper filled with sharp sand, and fed down through a tube until it reaches a point where a blast of air or a jet of steam under pressure joins it and carries it along in a flexible tube to be directed over the work. In using steam as the impelling force, appliances are provided for directing it away again, so that the sand is practically dry when it strikes the work. If a slight effect only is required, as in obscuring the face of glass or in frosting metal, a pressure of only a few pounds to the inch is sufficient, and by keeping the work at a considerable distance from the nozzle of the blast the sand is spread and a large surface is quickly covered. If deep cutting is required, however, a pressure of 100 or 150 pounds of air is often used. The tendency of the sand is to cut every hard and brittle substance, but to leave every soft and yielding substance uninjured. Hence rubber, lace, paper, &c., may be used for patterns, and the hands may be thrust under the blast with impunity if the finger-nails be protected by soft leather or the like.

Sand'man, *n.* (*Nursery lore.*) The mythical being that causes children to be sleepy, who are told when they rub their eyes that "the saudman is around."

Sand'pipe, or **Sand'gall,** *n.* (*Geol.*) A deep cylindrical, vertical cavity, penetrating calcareous rock in England, France, and elsewhere, and filled with sand or gravel. One was mentioned by Lyell as being 12 feet in diameter and over 60 feet deep. Lyell attributes them to the chemical action of water charged with carbonic acid, derived from the vegetable soil and the roots of trees, on the chalk below.

Sand'pipers, *n. pl.* (*Ornith.*) A group of shore-birds (*Totaninæ*), including those in which the bill is straight or slightly upturned, and the toes at the base partly webbed. They occur inland, along the beaches of lakes and margins of streams, but are most numerous along the seashore, running swiftly back and forth with the ripples, and finding their food between tide-marks by thrusting their bills, which are highly sensitive at the point, into the sand in search of small animals. Their colors are usually in neutral tint, beautifully disposed when closely examined, but inconspicuous at a distance; some, however, have brighter dresses. They gather in small flocks, and are exceedingly alert, some member of the company being always on the watch, and ready to alarm the rest by loud shrieks, a cause of frequent discomfiture to sportsmen when shooting along shore or in the marshes, and finding their game repeatedly warned by officious sandpipers. All are migratory in temperate regions, and many go to the remotest arctic shores and islands to breed, being seen in the U. S. only during the migrations, and several are circumpolar in their distribution. The ruff and some others develop a remarkable outgrowth of feathers on the breast and neck in the males during the breeding season, and they expand these in a manner intended to be terrifying when engaged in fighting, in which a large part of their time seems to be spent. Another one, the Alaskan pectoral sandpiper, can fill its œsophagus with air until it is swollen almost as large as its body. This is a part of its love-making, and it is accompanied by short, erratic flights, and the utterance of very sweet and prolonged notes. These birds lay their eggs on the beach sand, with little or no nest beneath them; and the four eggs are darkly spotted, and sharply conical in form. Few of the species are considered of much value to sportsmen. The most common, widespread, and closely resident species in the U. S. is the tip-up, or teeter-tail, of every stream, lake, and coast.

San'ford, in *Florida*, a city of Orange co., on St. John's river, 193 m. S. of Jacksonville; has large saw mills, machine shops, and cigar factories. Ships oranges and early vegetables north. *Pop.* (1897) 2,150.

Sanford, in *Maine*, a post-town of York co., 36 m. W.S.W. of Portland; has manufactures of woollen goods. *Pop.* (1897) 4,000.

Sanita'tion, *n.* The devising and carrying out of methods for promoting the public health, by the use of preventive measures, the destruction of disease-germs, and the securing of the enforcement of hygienic rules and regulations.

Sank'ey, Ira D., evangelist, was born in Lawrence co., Pa., Aug. 28, 1840. Always musical, he led a church choir in New Castle, and was active in the Y. M. C. A.; met Mr. Moody at a convention in Indianapolis, and from that time worked with him in the evangelistic field, being the possessor of a fine baritone voice, and exceedingly popular. He has published *Sacred Songs and Solos*, which has had a wide circulation.

San'ta A'na, in *California*, a post-village, cap. of Orange co., 33 m. S.E. of Los Angeles; in a fruit-growing district. *Pop.* (1897) 4,250.

San'ta Claus, or **Klaus,** *n.* [Du. for *Saint Nicholas*, the patron saint of children.] (*Nursery lore.*) The mythical friend of children; the short, fat, and jolly old man who on Christmas Eve is supposed to drive over the roofs in a sledge, drawn by reindeer, and to descend the chimneys to fill the stockings with toys and goodies.

Santa Mon'ica, in *California*, a post-village of Los Angeles co., on the Pacific Ocean, 17 m. W. of Los Angeles; a summer resort and shipping port. *Pop.* (1897) 2,125.

Santos-Du'mont, Alberto, aeronaut, was born in Brazil in 1873, son of a wealthy coffee planter. He began his experiments in aerostation at Paris in 1898, constructing a succession of air-ships, in the control of which he had great success. In 1901 he won the M. Deutsch prize of 100,000 francs by starting from the Aero Club Park, sailing to and around the Eiffel Tower, and returning to the starting point, a trip of about 8 miles, within half an hour, thus demonstrating that an air-ship could be navigated against the wind. In January, 1902, removing his air-ship, Santos-Dumont VI., to Monte Carlo, he made successful trips over the bay at that place, his purpose being to follow this success with a trip across the Mediterranean. See Aeronautics.

Sa'pient, Sapien'tial, *a.* [Lat. *sapiens* (gen. *sapientis*), wise.] Possessed of wisdom or sagacity; sage.

Sap'rophyte, *n.* (*Bot.*) An organism which grows on rotting vegetable matter, as certain fungi and plants, like the Indian-pipe, that contain no chlorophyll.

Sarasa'te, Martin Meliton, violinist, was born in Pampaluna, Spain, March 10, 1844; entered the Paris Conservatory (1856), and won first prizes for solfeggio and violin; entered Reber's harmony class, and won a *premier accessit* in 1859; soon after he abandoned composition for violin practice; gave concerts all over Europe with great success; visited America, North and South, in 1890 and 1894.

Sarc-, Sarco-. An initial compounding element, derived from the Gr. *sarx* (gen. *sarkos*), flesh.

Sar'cey, Francisque, dramatic critic, was born at Dourdan, France, Oct. 8, 1828; has been dramatic critic of *Figaro*, *Revue Nationale*, and *Temps*; has written several novels, and 2 volumes of reminiscences. *My Youth* (1885), and *Souvenirs of My Age* (1892). Also published *The Theater* (1893).

Sardou', Victorien, dramatist, was born in Paris, Sept. 7, 1831; has written many successful plays, including *Fedora*, *Theodora*, and *La Tosca*, which were written for Mme. Bernhardt, and also played by Fanny Davenport. His *Gismonda* was produced by Mme. Bernhardt, in Paris, in 1894; and his *Madame Sans Gêne* was presented in New York in 1895. He was decorated with the Legion of Honor in 1863, and elected a member of the French Academy in 1877.

Sargas'so Sea. The name given to several immense areas of floating meadows found in mid-ocean in different parts of the globe, and formed by a sea-weed called by the botanists *Sargassum bacciferum*, and popularly Gulf-weed, Sea-lentils, Sea-grasses, and Sargasso. The most celebrated occupies the greater portion of that breadth of the Atlantic Ocean between the coast of Africa and the region of the West Indies, from 20° to about 65° of west longitude, and from the parallel of 20° to that of 45°. It was first discovered by Columbus, unless indeed the Phœnicians fell in with it during their early voyages, as seems possible from a passage in Aristotle. Dr. Collingwood, who has recently published an interesting account of that Sargasso Sea, compares its area to that of the Mississippi Valley; and this immense bed of floating sea-weed was at one time supposed to be derived from plants originally attached to the bottom, and subsequently torn off by some severe storm; but it is now understood that the plants composing it increase by rapid growth, although in this condition they never produce either roots or fruit. This meadow of sea-weed is remarkable not only for the immense extent of vegetation, but for the great variety of animal life abounding in its midst. Innumerable species of crustacea, many annelids, mollusca, polyzoa, polyps, and fishes are found in it. Investigations of patches of the weed always furnish a fruitful field of research to naturalists. It is mentioned as an interesting circumstance that all the animals found harboring in the Sargasso sea-weed are of the same general tint as that of the weed itself, assimilating themselves so closely that it is sometimes difficult to distinguish them at first sight. It is not at all improbable that, in view of the immense amount of minute animal life in these localities, many of our wandering fishes, such as various species of mackerel, etc., find in such places those breeding regions that we have hitherto sought for in vain. The position of the Sargasso Sea in the Atlantic, as well as similar patches in other oceans, is believed to be determined by the course of the greater oceanic currents, as it occupies the eddy formed by the northern drift of the Gulf Stream toward the west, and its southward branch, which is deflected from the Banks of Newfoundland, and extends to the south, by the way of the Azores, along the coast of Africa. Another tract of the Sargasso Sea is found in the Pacific, off the coast of Lower California; and still another extends along in the Antarctic waters from Australia to the Falkland Islands. Sargassum is eaten in China and other parts of the East.

Sar'gent, Epes, journalist, was born at Gloucester, Mass., Sept. 27, 1813; was editorially connected with Boston and New York papers; issued a series of school text-books, and wrote several dramas and poems. Of the latter the best known is, *A Life on the Ocean Wave*. Died Dec. 31, 1880.

Sargent, John Singer, painter, was born of American parents at Florence, Italy, in 1856; studied under Carolus Duran, in Paris; received second-class medal at the Salon in 1881; medal of honor at the Paris Exposition of 1889; and Cross of the Legion of Honor in the same year. He is particularly strong in portrait-painting. His *La Carmencita* was purchased by the French government in 1892.

Sargent, in *North Dakota*, a S.E. co.; *area*, 864 sq. m. Agriculture is the leading industry. *Cap.* Forman. *Pop.* (1897) 5,550.

Saro'ny, Napoleon, artist, was born in Quebec, Canada, in 1821. He was successful first as a lithographer; but after the Civil War opened a photographic studio in New York city, and became the most popular and voluminous artist in his line; his collection of photographs, the accumulation of 30 years, numbered over 60,000, and included the portraits of the most notable Americans, and many distinguished foreign visitors. Died Nov. 9, 1896.

Sa'ros, *n.* (*Astron.*) A cycle of eclipses; being 18 years, 10 days, 7 hours, and 42 minutes, during which period all eclipses, whether solar or lunar, occurring during one saros are repeated during the next saros, and nearly in the same order. This cycle was known to the Chaldeans, but the cause was not ascertained until a long time after. The cause arises from a lack of exact coincidence between 223 synodical periods of the moon = 6,585·321 days = 18y. 10d. 7h. 42m. and 19 revolutions of the sun with respect to the moon's node = 6,585·772 days. The difference between the periods is 10h. 49·6m., during which time the sun moves 28′ relative to the moon's node. From these curious circumstances the following phenomena result. Suppose, for a solar eclipse, that the sun and moon are near the descending node, and just within the eclipse limits; there will then be a very small eclipse at the north pole. Now, at the beginning of the next saros, the sun and moon will be near together again, but 28′ nearer the node, and the same eclipse will take place again, but happening nearer the node, the shadow will pass across the earth a little farther south than it did before. Again, after the lapse of another sarosic cycle, the sun and moon will once more be within the eclipse limit, but 28′ still nearer the node, and therefore the eclipse will be still farther south. Now, after this eclipse has appeared some 33 to

36 times, requiring about 650 years, the eclipse will take place at the node and on the equator. After appearing a like number of times south of the equator, it will pass off the earth at the south pole, after having appeared some 65 to 70 times, occupying nearly 1,300 years. If during the saros there have been 4 leap years, the interval between the recurrence of the eclipse will be 18y. 10d. 7h. 42m., and one day more if the 29th of February has occurred 5 times. The above remarks apply to not only one eclipse, but to all, solar and lunar, that come in at the descending node, or at the ascending node. In the latter case, however, the eclipse will come in at the south pole, and pass off the earth at the north pole. At whatever day, therefore, an eclipse takes place, it will occur again in 18 years and 10 or 11 days. By this means, which the ancients called the saros, they were enabled to roughly calculate the occurrence of eclipses. It must be borne in mind that the moon's nodes make a retrograde revolution around the sky in 18y. 218d. 21h. 22m. 46s., and but for this motion there would be no saros. If the direction of the moon's nodes from the earth's center were always the same, eclipses would occur in opposite months, as do the transits of Mercury and Venus. See NODE; ECLIPSE; MOON.

Sartain', JOHN, engraver, was born in London, Eng., in 1808; came to America, and settled in Philadelphia in 1830; introduced mezzotint engraving; practiced oil and miniature painting on ivory and vellum, and practiced mingled line, mezzotints, and stippling in his plates. He was the editor of *The Foreign Semi-monthly Magazine*, and the founder of *Sartain's Union Magazine*. He designed the monument to Washington and Lafayette in Monument Cemetery, Philadelphia. Died Oct. 25, 1897.—His daughter, EMILY SARTAIN, is the principal of the Philadelphia School of Design for Women.

Saskatch'ewan, Province of. See NORTHWEST TERRITORIES.

Sateen', *n.* [From *satin.*] A woollen or cotton fabric, with a glossy surface in imitation of satin, made thin and light, or stout and heavy, for different uses, as for dresses, linings, &c.

Sat'ellites, *n. pl.* (*Astron.*) The only satellite known to the ancients is the earth's moon, which is the nearest satellite to the sun, Mercury and Venus having none. The next satellites discovered were four of the planet Jupiter, by Galileo, in 1610. Their discovery marked an eventful era in astronomy at a time when men's minds were wavering between the ancient and modern ideas of the structure of the universe; it exerted a powerful influence, and afforded an argument of overwhelming force in favor of the truth of the Copernican system, and against the dogma that had so long held sway, that this little speck of matter, the earth, is the center of the universe, and that the sun, and all the planets, and stars, and comets, and nebulæ revolved around it as a guiding and controlling center. On Jan. 7, 1610, with his little spyglass, Galileo saw what

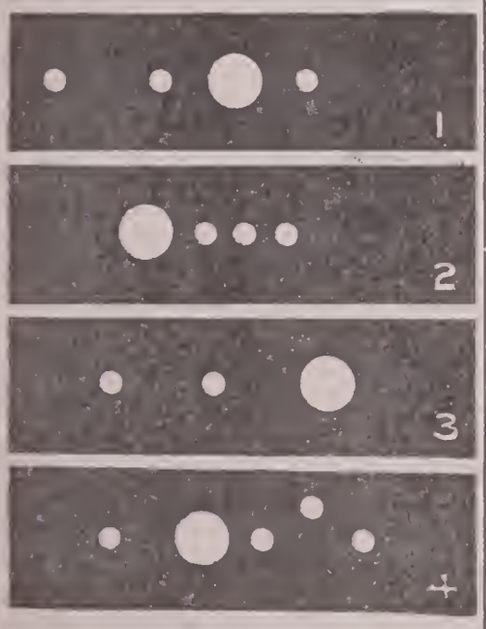

Fig. 3057.

no human eye had ever before beheld—three bodies in a line near Jupiter, two on the E. side and one on the W., as in No. 1. These he took to be stars. On the following night three also were visible, but, strangely to him, all were on the west side, and in a line, as in No. 2. On the evening of the 10th (the 9th having been cloudy) his surprise was still greater to find but two, both on the E. side (No. 3). On the 13th four were visible, one on the E. and three on the W., as in No. 4. No wonder the man was filled with astonishment at such an array of contradictions to law and order. No discovery in astronomy ever created so much excitement and discussion. The populace called the telescope a diabolical one; refused to look at the pestilent worlds. The climax of stupidity and bigotry was reached by one Sizzi, who published the following bombastic harangue against Galileo's discovery: "There are seven holes in a man's head—two eyes, two ears, two nostrils, and a mouth—and there are seven days in a week, and seven notes in music, and seven metals, and therefore there are seven planets, and can be but seven. Now, this whole system falls to the ground if the number of planets be increased." (See JUPITER.) As the earth had one moon, and Jupiter four, efforts were early made to discover satellites to Mercury, Venus, Mars, and Saturn; but no success rewarded the search until 1655, when Huyghens discovered one to Saturn, which received the name Titan. In 1671, Cassini discovered Japetus, and the following year Rhea, and in 1684 he added two more, Tethys and Dione. Nearly 100 years elapsed before an addition was made to the number known, when Sir William Herschel, in 1789, discovered two others, bringing the number up to seven. The last were named Mimas and Enceladus. Fifty-nine years later, Bond, of Harvard College Observatory, discovered Hyperion, making eight in all. A ninth was discovered in 1898 by Prof. E. C. Pickering, by the aid of photography. It is the most distant and the smallest of the moons, its diameter being only 200 miles. Uranus has four satellites—not six, as was formerly supposed. Two were found by Herschel, and two by William Lassel. But little is known about them except that their revolutions are performed in a retrograde direction. Their names are Ariel, Umbriel, Titania, and Oberon. Their sidereal periods are: Ariel, 2d. 12h. 28m.; Umbriel, 4d. 3h. 27m.; Titania, 8d. 16h. 55m.; Oberon, 13d. 11h. 6m. Neptune, as far as known, has but one moon, which, like those of Uranus, revolves in a retrograde direction; it has never been honored with a name. It was discovered in 1846 by Lassel. Its sidereal period is 5d. 21h. 8m., and it shines as a star of the 14th magnitude. The earth, like Neptune, has but one moon. She completes her sidereal revolutions around the earth in 27d. 7h. 43m. 11·5s., at a mean distance 238,830 miles from the center of each. The above period is from star to star, and not from new moon to new again. As during the time the sun has been advancing easterly nearly a degree a day, the moon, to overtake the sun, must make more than a completo revolution, to do which requires 2d. 5h. 0m. 52s. This added to the length of the sidereal period makes the synodic period (or month) 29d. 12h. 44m. 3s. (See MOON.) As the moon rotates on her axis in exactly the same time that she revolves around the earth, one side is constantly presented to the earth. It has always been conceded that neither Mercury, Venus, nor Mars had a satellite, and great was the astonishment when (1887) Prof. Asaph Hall, of the Naval Observatory, Washington, announced the discovery of two little moons to Mars, bringing the number of known satellites in the solar system up to 21 members. They have been named Phobos and Deimos. The distance of Phobos from the surface of Mars is but 3,700 miles. A magnifying power, therefore, of 3,700 diameters would bring it to within one mile, near enough to distinguish inhabitants if any existed. Its diameter is estimated to be from 20 to 25 miles. As Mars rotates in 24h. 37m., and the satellite revolves around him in 7h. 39m., it results that the latter rises in the W. and sets in the E. Let the reader stop a moment and reflect what is involved in the idea of a month of only a little over 7½ hours' duration, the moon, in only a little longer time than that, going through all its changes from new to full, and to new again, passing like a rocket across the sky from west to east. Deimos performs its revolution in 30h. 17m. 54s., at a distance of 12,000 miles from the surface of Mars. As the time of revolution exceeds that of the rotation of Mars, it must rise in the E. and set in the W. Its diameter is too small to measure, but is thought to be only from 5 to 10 miles, being the smallest heavenly body known, except the meteoroids. There is not the remotest probability that a satellite will ever be discovered to either Mercury or Venus, as they would have been seen during the transits of those planets across the sun if any existed.

Satol'li, FRANCIS, a Roman Catholic prelate, and diplomat of the Holy See, was born in Perugia, Italy, in 1841. On the accession of Pope Leo XIII., S., who had been his pupil in the diocesan seminary, was chosen his chief assistant in the work of promoting theological studies; by successive promotions, he became archbishop of Lepanto; in 1889, was sent by the Pope to represent him at Baltimore, in the matter of the Catholic University, at Washington; in 1893, was appointed apostolic delegate to the U. S.; in 1896, was made a cardinal, Sebastian Martinelli succeeding him as delegate. He has written a *Course of Philosophy* on the *Summa* of St. Thomas, and various philosophical essays.

Sat'urday, *n.* [Lat. *dies Saturni.*] The seventh or last day of the week; the day of the Jewish Sabbath; the day following Friday and preceding Sunday;—so called from being dedicated by the Romans to Saturn.

Satureja (*săt-ur-e-yā*), *n.* [Gr. *saturoi*, satyrs.] (*Bot.*) A genus of plants, order *Lamiaceæ*. It includes the herb known as savory, of which two sorts, the *summer* and the *winter*, are cultivated, both highly esteemed in cookery for their powerful aromatic flavor.

Sat'urn, *n.* [Lat. *Saturnus*, said to have been so called from *sata*, sown lands, because the god presided over agriculture.] (*Myth.*) One of the oldest, and the principal of all the deities, was the son of Cœlus and Terra, and the father of Jupiter, and his brothers the Titans. Being displeased with his father's sovereignty, *S.* rebelled against the authority of Cœlus, and attacking him with a pruning-hook, inflicted a severe injury on his person, and, after deposing his parent and liberating his brothers, whom Cœlus had imprisoned in the bowels of the earth, he married Rhea and ascended the throne of heaven. Saturn, knowing by his celestial prescience that a fate would happen to himself similar to that which had overtaken his father by his means, should he have a son old enough to covet his sceptre, resolved to destroy all his children, and so avert the dreaded evil. Accordingly, he devoured every son born to him by Rhea directly on its birth. Rhea, having for a time submitted to this unnatural proceeding, was at length resolved to save some of her children by deceiving her lord and husband, and instead of a babe, sent the cannibal-god a substitute, which he devoured with equal satisfaction. The poets assert that Rhea sent Saturn a stone on each occasion; whatever it may have been fabled to be, she contrived to save and rear, in ignorance of their father, Jupiter, Neptune, and Pluto. The former, in time becoming conscious of his birth, asserted his right to the throne, and, driving his parent from heaven, assumed the absolute sovereignty of the universe. The dethroned monarch fled to Italy, and, sharing his earthly kingdom with Janus, established the Golden Age. Saturn is represented as an aged man, bent by the weight of years, holding in his right hand a scythe, with a serpent biting its own tail—emblem of time and eternity; and in his upraised left he grasps the body of a child, which he appears conveying to his mouth.

Saturna'lia, *n. pl.* [Lat.] (*Rom. Antiq.*) The festival of Saturn, celebrated about the middle of December, as a period of unrestrained license and merriment for all classes. —Hence, any period or occasion of general license, particularly one in which the lower classes of society are allowed unlimited freedom or association with their superiors; as, the Roman carnival is a kind of *Saturnalia*.

Saturna'lian, *a.* [From Lat. *Saturnalia*.] Pertaining, or relating, to the Saturnalia. —Hence, of loose and unrestrained jollity; sportive; dissolute; of rampant intemperance of manners or enjoyment; as, *Saturnalian* revelry.

Satur'nia, *n.* (*Zoöl.*) A genus of lepidopterous insects, family *Bombycidæ*, has the antennæ widely flattened only in the males, and the larva has small warts crowned with long prickles or branching spines, and these prickles sting severely. The American species, Proserpina, *S. maia*, expands about three inches, and both pairs of wings are crossed by a broad yellow-white band, near the middle of which, on each wing, there is a kidney-shaped spot of black, with a whitish crescent.

Saul'cy, LOUIS FELICIEN JOSEPH CAIGNART DE, numismatist and Orientalist, was born in Lille, France, March 19, 1807; received a military education; became keeper of the Artillery Museum, at Paris (1842); was widely known as an antiquary; became a member of the Academy (1842); travelled in Iceland, Greenland, Syria, and Palestine, and wrote numerous volumes bearing upon his journeys, and relative to his special researches. Died Nov. 4, 1880.

Sault (*soo*) **Ste. Marie.** (*Geog.*) The name applied by French explorers and fur-traders, from 1660 onward (first visited by Nicollet, in 1634), to the rapids near the head of the St. Mary's river, by which Lake Superior discharges into Lake Michigan. It was a favorite residence of the Chippewa Indians, on account of the constantly good fishing, and hence was chosen by the earliest frontier traders as a post; and afterward it became one of the most important centers of the Northwestern fur trade, and a place of military importance in the early border-wars, and again in 1812-14. Since then a U. S. military post has been maintained on the Michigan side, and important towns have grown up on this, as well as on the Canadian, side of the river. The American town was greatly stimulated about 1840 by the opening of copper mines in northern Michigan, and later (1853–55) by the building by the State of the first ship-canal around the Sault; it was 350 feet long, had two locks, cost $100,000, and greatly increased the Lake Superior trade. A few years later enlargement was required, and the old structure was replaced by a single lock of great size, built by the Federal government, which now owns and controls the whole affair as a free canal; it was 515 feet long, 80 feet wide, and 60 feet deep. The growth of commerce compelled a third increase, and in 1894 a second parallel canal was opened beside the old one. Both are taxed to their utmost during the season of navigation to pass vessels going to and from Lake Superior, which represent over one-eighth of the total commerce of the U. S., and carry 2¼ millions more tons of freight annually than the total tonnage passing through the Suez Canal. In 1889 the towns were connected by a railroad bridge spanning the rapids, and forming a link in the "Soo Line," or route of the Canadian Pacific Railway from Toronto and Montreal to St. Paul, Duluth, and Marquette; and in 1895 the Canadian government opened a ship-canal on the western side of the rapids, the gates of which are operated by electricity. The water-power afforded by the rapids is now extensively used for manufacturing purposes, especially in flour milling and woodworking industries—mainly making wood-pulp. The population of the American town is about 12,000, and of the Canadian 5,000. Excellent hotels make them attractive as summer resorts, where a cool climate and fine fishing are always to be enjoyed.

Saun'ders, in *Nebraska*, a S.E. co.; *area*, 740 sq. m.; bounded N. and E. by Platte river. *Surface*, undulating plain; timber scarce; *soil*, fertile. *Products*, Wheat, corn, oats, potatoes, hay, and considerable live stock. *Cap.* Wahoo. *Pop.* (1897) 25,200.

Saur-, Sauro-. An initial compounding element derived from the Gr. *sauros*, lizard.

Saurio'sis, *n.* [Gr. *sauros*, lizard.] (*Pathol.*) A form of ichthyosis (*q. v.*) in which the skin has an appearance like that of a lizard.

Saw'dust, Utiliza'tion of. The numerous uses which can be found for a product which is originally a waste is well illustrated by sawdust. Its most natural and general application is as a fuel, and many furnaces have been constructed for use in saw-mills, designed to be fed wholly or partially with sawdust fuel, so that the waste product of the saw's work is made to furnish the power to drive it. Sawdust is also mixed with glutinous material, pressed into blocks, and sold as a fire-kindler. It is useful for strewing wet on wooden floors, so that they may be swept without raising a dust.

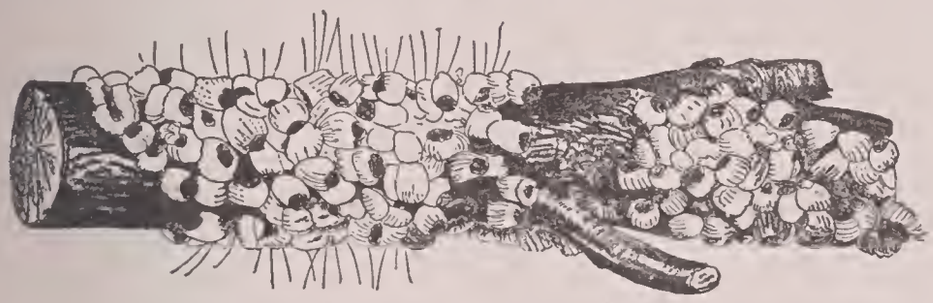

Fig. 3058.—BRANCH OF ORANGE TREE WITH SCALE INSECTS.
The *Icerya purchasi*, as they appear soon after death (two-thirds natural size).

As a polishing material it is highly valued, being used by jewellers, brass-finishers, tin-plate manufacturers, and in other trades; boxwood and beechwood sawdust are preferred by jewellers, as being free from turpentine or resinous matter. As a material for packing, stuffing, and filling, sawdust is in great demand; it is useful for filling in walls, tending to deaden sounds which would otherwise come through, and especially in cities for strewing on the floors of beer-saloons, restaurants, markets, &c., to absorb moisture and prevent both dampness and dust.

Saw'ing-machines', *n. pl.* (*Mech.*) The great majority of machines used for sawing employ circular saws, though hand-saws and straight-bladed saws are in common use for work to which they are specially suited. When first made the circular saws were sometimes constructed of great diameter, as the severing of a three-foot log, for instance, required a saw of a little more than six feet in diameter. Now, sawing-machines for making deep cuts are usually provided with two opposing circular saws, one being set a little in advance of the other, but rotating in the same direction, so that lumber fed in on the level will be wholly severed. This arrangement has a double advantage: only about one-half as much material is required to make two circular saws of a given diameter as for a saw of double the diameter, and the thickness of the saws being reduced, it is not necessary to cut so wide a kerf, thus saving both lumber and power—the latter because of reduced friction. The thinner a saw-blade can be made, and yet retain strength to do its work, the better. Band-sawing machines are made with a flat, endless blade bent over two large wheels, which are ordinarily rubber-tired, in order to afford a large frictional grip on the saw-blade. Several pairs of rollers are used to govern the feed, with adjustable guides to keep the band in place; or, if the work is heavy, a deflector may be used. The drag-saw is the most common form of straight-bladed saw used in a machine. It is a large saw used for severing logs, and the machine operates it in imitation of the movement it would receive in hand-sawing, dragging it back and forth with a crank motion. The machines used by lumber-dealers in sawing up and reducing the size of their stock are called resawing-machines. Most of these have but one circular blade, because they are not designed for making broad cuts. Sometimes the cross-cut saws are hung from an overhead swinging-frame, the work being mounted on a separate table below. These are called swing-saws, or pendulum-saws. For various small operations in sawing, the saw-table is ordinarily employed. This is a table with a top that may be adjusted to any convenient angle, and elevated more or less above the saw, which is commonly of small size, and projects through a slit in the table's top. Machines for sawing metal employ circular blades, both toothed and with smooth circumference. In either form they operate mostly by friction, being rotated at very high speeds. Band-saws are also used on metal, principally for cutting out parts, as crank-centers, or the like. Many sawing-machines have blades made up in gangs, for performing a large number of similar cuts at a single operation. These are arranged in numerous ways, to suit the special work in hand, as sawing of laths, scantling, &c., forming comb-teeth, or doing some other operation in special industries. For small, light work, the jig-saw is customarily used, having an upright reciprocating blade, working through a table, on which the work is placed, and turned about to make irregular or circular cuts.

Saw'yer, in *Wisconsin*, a N.W. co.; *area*, 1,368 sq. m.; drained by Chippewa and West Chippewa rivers, and contains numerous lakes. *Surface*, generally level; *soil*, fertile. Hardwood timber. Logging and lumbering are the chief industries. *Cap.* Hayward. *Pop.* (1895) 3,741.

Saxe, JOHN GODFREY, poet, was born in Highgate, Vt., June 2, 1816; became a lawyer and filled several political offices, but is best known as a writer of witty and humorous poems, and as a popular lecturer. He wrote *The Money King*, and *The Proud Miss McBride*; several clever burlesques of classical myths, *Pyramus and Thisbe*, *Phaeton's Ride*, &c., and many shorter poems in whimsical vein. His later years were clouded with melancholy, and he lived in seclusion until his death, March 31, 1887.

Sax'ton, JOSEPH, inventor, was born in Huntingdon co., Pa., March 22, 1799; made many inventions and improvements in the construction of clocks; made the clock for the tower of Independence Hall, Philadelphia, and superintended the construction of the machinery and balances for the Philadelphia Mint. While in England (1828–1837) he made the machine by which the first electric spark was obtained; also made much of the apparatus used by Wheatstone. He invented a deep-sea thermometer, a self-registering tide gauge, and an immersed hydrometer. Died Oct. 26, 1873.

Say, JEAN BAPTISTE LÉON, statesman, was born in Paris, June 6, 1826; devoted himself to the study of political economy, and was for many years the editor of the *Journal des Débats*. He cordially favored the republic after the fall of Napoleon III., and in February, 1871, he was returned to the National Assembly; in June following became prefect of the Department of the Seine; on Dec. 7, 1872, was made minister of finance by M. Thiers, an office which he filled under successive administrations for the next ten years, except for brief periods when he filled the office of senator. He wrote several works on political subjects. In 1874 he was elected a member of the French Academy of Moral and Political Sciences. Died April 21, 1896.

Sca'lage, *n.* An allowance of a certain percentage in weight on different sorts of dry hides for scalings which may fall off. The usual allowance is about 16 per cent.

Fig. 3059.—SCALE INSECTS ON THE ORANGE.
On leaf, *Mytilaspis citricola*, natural size; *a*, scale of female, dorsal view; *b*, scale of female, with ventral scale and eggs; *c*, scale of male—enlarged.

Scale In'sects. Fruit trees, and many ornamental shrubs and plants are often greatly injured by scale insects (*Coccidæ*), which fasten themselves upon the bark, piercing it with a sort of sucker or beak, through which they feed upon the juices of the plant, which is not only weakened by loss of sap, but is injured by the mere presence of the insects, which usually secrete a horny, resinous, waxy, or powdery scale, which is glued fast to the leaf or bark, covering all the stomata or breathing pores. Scale insects, or bark lice, as they are more comprehensively called, constitute a striking group of insects, remarkable for the peculiarities of their development. In this family the females never progress to the winged state; on the contrary, in many of the species, after a short larval period, they undergo a change of form, and retrograde, becoming, when adult, mere living egg sacks, with organs only of the simplest sorts, such as are needed for reproducing their kind, and to support an almost plant-like existence. The males, on the other hand, advance farther and pass through the usual metamorphoses of insects, finally appearing in the winged state. They differ, however, from other insects of their order (*Homoptera*) by possessing but one pair of wings, the hind pair being aborted, and reduced to stumps, which are provided with a hook that grapples the forewing, and apparently aids in steadying or directing flight. The existence of the male after reaching the adult stage lasts at most but a day or two, during which he takes no food, being unprovided in this final stage with mouth or digestive organs of any sort.

The scales of some bark lice afford products useful in the arts; the white wax of commerce, and lac, from which shellac is made, are substances of this sort. The dried-up bodies of certain other species yield purple or red dyes, of which the best known in modern times is cochineal. Many of the species, and especially the naked kinds, eject honey-dew (*q.v.*), a sweetish liquid, which is greedily lapped up by ants, bees, and many other insects. Some forms of honey-dew solidify into "manna," which is given as a food to invalids, and has a limited use in pharmacy. These few economical benefits are more than balanced, however, by the great injury which bark lice cause to useful trees. The orange and nearly all deciduous trees are subject to their attacks, which are not only constant, but sometimes increase like an epidemic, seriously threatening some branch of horticulture. Such was the case in California a few years ago, when the fluted, or cottony-cushion scale, had been imported from Australia, and was killing whole orchards, besides infesting roses, camellias, and nearly every tree and shrub in the State. Fortunately all scale insects have predaceous or parasitic insect enemies which, as a rule, keep them within a certain boundary, limiting their harmfulness, which, even thus limited, is still greater than any other class of injurious insects.

The orange is particularly subject to the attacks of bark lice, its dense shade and the succulence of its young growth rendering it attractive to them. The long scale (*Mytilaspis gloverii*), the purple scale (*Mytilaspis citricola*), the red scale of Florida (*Aspidiotus ficus*), the red scale of California (*Aspidiotus aurantiæ*), the white scale (*Aspidiotus nerii*), and the chaff scale (*Parlatoria pergandii*), among the armored scales, in which the scale is shield-like, covering the insect above and wholly or partially protecting it beneath, all live upon the orange, and are among the most difficult to exterminate by artificial means, for the upper scale is impervious to most liquids, and is not soluble in acid or alkaline solutions unless strong enough to injure the plant; there are times, however, before the scale is formed, or at the period of moulting, when spraying is effective, and if the insects on a tree were in the same stage of existence at the same time, it would be easy to exterminate them; unfortunately they are at all stages, so that it seems almost impossible to destroy them completely, although much may be accomplished against them.

Beside the *Diaspinæ*, or armored scales, there are two other groups of scale insects, of which one is the *Lecaninæ*, consisting of bark lice either naked, with tough-

ened, scale-like skins, or covered with a thick coating of waxy materia, but having no true scale; the other is the *Coccinæ*, a division including soft-bodied bark lice called "mealy-bugs," because of their loose coverlugs of white, fibrous, or powdery wax. The scale insects of the *Lecanidæ* are somewhat easier to combat than the armored scales, on account of their inferior protection; five species, the black scale (*Lecanium oleæ*), the turtle-backed scale (*Lecanium hesperidium*), the hemispherical scale (*Lecanium hemisphæricum*), the wax scale (*Ceroplastes floridensis*), and the barnacle scale (*Ceroplastes cirripediformis*), occur on the orange. The mealy-bugs rival even the armored scales in destructiveness; the common mealy-bug (*Dactylopius adonidum*) is a well-known pest of the garden and greenhouse, attacking nearly all plants, even pines and evergreens, and undoubtedly including the orange and its kind, at least in the gardens of southern Europe. In the U. S., however, this species has not been known to infest orange groves, but its place is supplied by a very closely related form, the destructive mealy-bug (*Dactylopius destructor*). The fluted or cottony-cushion scale (*Icerya purchasi*, see Fig. 3058) is also a mealy-bug, and these two, like the common garden insect, attack, with disastrous results, almost all varieties of fruit and shade trees, as well as shrubs and herbaceous plants of the most widely differing sorts.

Beside these scales which, although they may infest other plants, are especially known as injurious to the orange, there are many other bark lice which do not affect the orange, but are very injurious to other fruit trees. The San José scale is probably the best known, as well as the most dangerous, of these. It is an armored scale (*Aspidiotus perniciosus*) which was probably introduced into the U. S. from Japan, first making its appearance in California. It now occurs nearly all over the country, infesting all fruit trees and a great many forest trees and ornamental shrubs. It lives upon all parts of the plant, limbs, leaves, and fruit, lying very close together, even overlapping as the plant becomes badly infested, presenting the general appearance of a grayish, slightly roughened, scurfy deposit. The San José scale was formerly supposed to differ from all other scales in the peculiar reddening effect which it produces around it on the skin of the fruit and upon tender twigs, and although this sometimes occurs with other scales, it is particularly characteristic of this insect and renders it is easy to distinguish. The almost microscopic young scale might easily elude the most careful search, but the bright encircling ring makes it a conspicuous object. If the tree survives the attack, the infested wood eventually becomes knotty and irregular, partly from loss of sap, and partly, without doubt, from the poisoning of the sap as indicated by the discoloration. Young peach trees will ordinarily survive the scale only two or three years; pears are sometimes killed outright, but generally maintain a feeble, sickly existence for three or four years, making little or no growth.

All scale insects, being inconspicuous, are easily distributed from one region to another, chiefly by means of nursery stock, but the San José scale, from occurring on the fruit, is the most readily spread of all; the danger from it is now so thoroughly recognized by entomologists that they are urging the necessity of legislation to enforce active measures against it, and bills to that end have already been presented before the legislatures of New York and one or two other States, and the California State Board of Horticulture prohibits the sale of fruits of any kind affected with any insect, fungus, or blight injurious to the fruit interests of the State. Fumigating with hydrocyanic gas, spraying with various washes, and the introduction, when possible, of new insect and fungoid enemies of the various scales, are recommended in detail by the various bulletins of the Department of Agriculture, which is making a constant and energetic study of the entire subject. See INSECTICIDES.

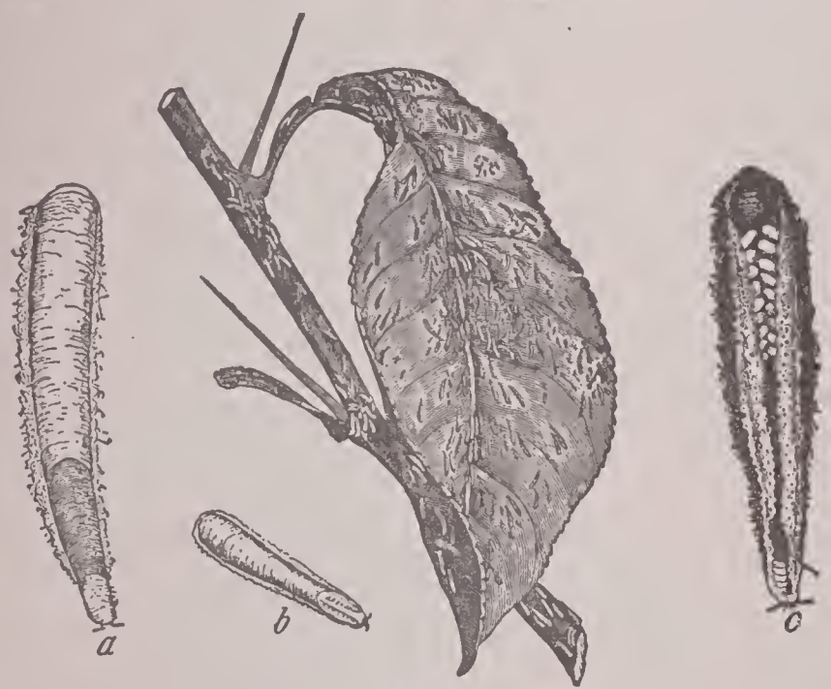

Fig. 3060.—SCALE INSECTS ON THE ORANGE.

On leaf, *Mytilaspis gloveri*, natural size; *a*, scale of female, dorsal view; *b*, scale of male; *c*, scale of female, with ventral scale and eggs—enlarged.

Scan'dian, *a.* A shortened form of *Scandinavian*, suggested by Skeat as equally explicit and much more convenient.

Scan'dium, *n.* [Lat. *Scandia*, Scandinavia, because found in certain Swedish minerals.] A chemical element discovered by Nilson in 1879, but not yet isolated. Its salts are white or colorless, and have an acid, astringent taste. *Symbol*, Sc.

Schaff, PHILIP, clergyman, was born in Coire, Switzerland, Jan. 1, 1819; educated at Tübingen, Halle, and Berlin; began to lecture on theology at Berlin in 1842; in 1844 went to America as professor of Church History and Exegesis in the theological seminary at Mercersburg, Pa.; was placed on trial for heresy, on account of his liberal views; was acquitted by the Synod of York, Pa. In 1854 he represented the German Reformed Church of the U. S. at the ecclesiastical diet in Frankfort, and in the Swiss pastoral conference at Basle. In 1862 he was appointed a lecturer at Andover Seminary, and in 1870 he was made professor of Apologetics and Symbolics in the Union Theological Seminary, New York; in 1872 was transferred to the chair of Hebrew, and in 1875 to that of Sacred Literature; the last-named office he filled actively until 1893, when he was retired as professor emeritus. His last public appearance was at the Parliament of Religions in Chicago, in Sept., 1893. Dr. *S.* was chosen president of the American committee on Bible revision (1871), and upon the completion of the work (1875) he went to England to look after its publication; the same year he attended a conference of Old Catholics, Greeks, and Protestants in Bonn, the purpose of which was to promote Christian unity. Dr. *S.* wrote several works, mainly historical and exegetical, some of which have been translated into many languages, especially those of the foreign mission fields. Died Oct. 20, 1893.

Scharwen'ka, XAVER, pianist and composer, was born at Samter, East Prussia, Jan. 6, 1850. He was a pupil and teacher at Kullak's academy, and played in concerts at Berlin (1869), in England (1879), and later in the U. S. In 1891 he established a school of music in New York city. He has published a number of concertos, sonatas, songs, &c., and ranks as one of the leading piano-forte virtuosi in America.

Schenck (*skĕnk*), ROBERT CUMMING, soldier and diplomat, was born in Franklin, Ohio, Oct. 4, 1809; graduated at Miami University; studied law, and practiced at Dayton, Ohio; was a member of Congress from 1843 to 1851; in 1851 was appointed minister to Brazil, and afterward filled other diplomatic missions to South America. In 1861 he was appointed a brigadier-general of volunteers; served actively until Dec., 1863, gaining the rank of major-general; resigned at that time, and resumed his seat in Congress, remaining until 1869, was minister to England (1871–76); returned to the U. S. and practiced law in Washington, D. C. Died March 23, 1890.

Schiaparel'li, GIOVANNI VIAGINIO, astronomer, was born in Savignano, Italy, March 4, 1835; director of the observatory of Milan (1862); became known by his remarkable discovery of the relation between the orbits of comets and meteors, and his observations on the planet Mars have brought him into prominence within more recent years. He has published *Astronomical Theory of Shooting Stars* (1867), and *The Precursors of Copernicus in Antiquity* (1873).

Schisto- (*skisto-*). An initial compounding element, derived from the Gr. *schistos*, cloven.

Schizæa (*skĭ-zē'ah*), *n.* (*Bot.*) A genus of ferns, order *Schizæaceæ*, bearing the sporangia on one side of close distichous spikes, which are separate segments at the apex of the fronds. They are very curious plants, often with dichotomously branched, wiry-looking fronds; and are widely dispersed, occurring in North and South America, the West Indies, India, New Holland, the Pacific islands, and the Cape of Good Hope. *S. flabellum*, of Brazil, and some other species form very handsome fan-shaped fronds, with a fringe of the fertile appendages on the upper margin. The segments of these appendages are beautiful objects under a microscope. Another species, *S. pusilla*, inhabits the sandy pine-barrens of New Jersey, in very rare places, and is the only species in North America. It bears insignificant, grass-like fronds, the upstarting fertile spikes of sporangia, on delicate stems, being the most conspicuous part of the plant.

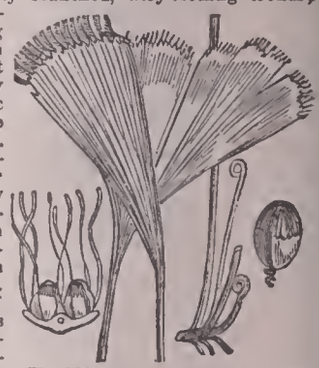

Fig. 3061.—SCHIZÆA FLABELLUM.

Schley, WINFIELD SCOTT, U. S. N., was born in Frederick co., Md., Oct. 9, 1839; graduated at the Naval Academy, and went into active service during the Civil War. In 1884 commanded the Greely Relief-ships, *Thetis*, *Bear*, and *Alert*, and brought back Greely and 6 others from Grinnell Land. In 1898, as commodore, he blockaded the Spanish squadron in the harbor of Santiago de Cuba, and was the senior officer of the squadron that destroyed the Spanish ships, Admiral Sampson being absent. After the war he was promoted rear-admiral, and served as chairman of the Commission for the evacuation of Porto Rico. In 1901 a Court of Inquiry was appointed, at the request of Admiral Schley, to consider his conduct in the Spanish-American war, which had been adversely criticised. The decision of the majority of the court held him blamable in several particulars, but gave him credit for courage, and Admiral Dewey, its president, spoke earnestly in his favor. The sentiment of the people at large was apparently strongly favorable to Schley.

Scho'field, JOHN MCALLISTER, U. S. A., was born in Chautauqua co., N. Y., Sept. 29, 1831, graduated at West Point (1853); in April, 1861, entered the volunteer service as major of the 1st Missouri Volunteers, and was appointed chief of staff of General Lyon. He served throughout the war, being promoted major-general of volunteers (1862), and thereafter in command of various divisions in the field. In 1864 he commanded the 23d army corps, in Sherman's army, in Georgia; afterward he defeated Hood's army in Tennessee; in 1865 was sent with his corps to North Carolina; captured Wilmington, was present at the surrender of Johnston's army, and executed the details of the capitulation; commanded the military district of Virginia (1866–68); succeeded Stanton as secretary of war, June 2, 1868, holding that office until March 12, 1869, when he was appointed major-general U. S. A., and ordered to the Department of the Missouri. He commanded the Department of the Pacific (1870–76), and (1882–83), in the interim being commandant at West Point; was in command of the Department of the Missouri (1883), and of the Department of the Atlantic (1886). In 1888, as senior major-general, he became general-in-chief of the U. S. A. The grade of lieutenant-general having been specially revived by Congress, he was appointed to that rank by President Cleveland, Feb. 6, 1895; retired Sept. 28, 1895.

Schrein'er, OLIVE (CRONWRIGHT), writer, was born in South Africa, the daughter of a Lutheran clergyman. Her *Story of an African Farm* made her literary reputation. She married Mr. Cronwright in 1894, and in 1895 and 1896 was active in her opposition to the South African policy of Mr. Rhodes.

Schu'mann, CLARA JOSEPHINE, pianist, daughter of Frederick Wieck, was born in Leipsic, Sept. 13, 1819, made her début as a pianist when 10 years old, became a superior interpreter of Chopin's music; visited England in 1856, in 1865, and frequently afterward, was principal teacher of piano at the Frankfort Conservatory, and composed a number of piano-forte pieces. She was married (1840) to Robert Schumann, the composer, a union of rare congeniality and mutual inspiration. She survived her husband many years. Died May 20, 1896.

Schur'man, JACOB GOULD, educator, was born in Freetown, Prince Edward Island, May 22, 1854; was educated in Canada, England, Scotland, France, and Germany; became president of Cornell University in 1892.

Schurz (*shoortz*), CARL, politician and journalist, was born in Libiar, near Cologne, Prussia, March 2, 1829; was educated at Bonn, but becoming actively involved in the insurrectionary movement in 1849, he left Germany and (1852) removed to the U. S., finally settling in Wisconsin (1859), where he practiced law, and became interested in the newly formed Republican party; was a stirring campaign speaker in 1860; was sent as U. S. minister to Spain in March, 1861, but resigned in December to enter the Federal army; in May, 1863, he was a major-general, and commanded a division at the second battle of Bull Run; afterward saw active service at Chancellorsville, Gettysburg, and Chattanooga. He was elected U. S. senator from Missouri in 1869. In 1877 he was appointed secretary of the interior; afterward edited the New York *Evening Post* (1881–83), and was a contributor to *Harper's Weekly* (1892–98). He was the author of excellent biographies of Henry Clay and Abraham Lincoln. Died May 14, 1906.

Schuy'ler, EUGENE, author and diplomatist, was born in Ithaca, N. Y., Feb. 25, 1840; educated at Yale and at Columbia Law School; appointed consul at Moscow (1867), and was thereafter constantly in the diplomatic service, chiefly in Russia and Turkey. He lectured in 1885, and wrote many books relative to these countries; was appointed consul-general at Cairo in 1889, and died there July 18, 1890.

Schuyler, in *Nebraska*, a city, cap. of Colfax co., 76 m. W. of Omaha; has large flour mills, sugar and syrup works, &c. *Pop.* (1897) 2,500.

Schwat'ka, FREDERICK, U. S. A., arctic explorer, was born in Galena, Ill., Sept. 29, 1849; graduated at West Point (1871); served on the frontier as lieutenant of cavalry till 1877, meanwhile taking a degree in medicine in New York, and being admitted to the bar in Nebraska. In 1878–80 he commanded the expedition to King William's Land; explored in Alaska in 1884 and in 1886; in Mexico (1889), and in Alaska again (1891); ended his life by suicide, Nov. 2, 1892.

Schwein'furth, GEORG AUGUST, explorer and naturalist, was born in Riga, Russia, December 9, 1836; educated at Riga and Heidelberg; explored northern Africa to investigate the flora and fauna of that region; has written extended descriptions of his discoveries, and has sent valuable collections of specimens to Germany.

Schwein'itz, EDMUND ALEXANDER DE, a Moravian bishop, son of Lewis D. de Schweinitz; was born at Bethlehem, Pa., March 20, 1825; educated at Bethlehem and at Berlin, Germany; was a prominent pastor in the Moravian Church, and as bishop (after 1870) was president of the Northern Conference of that Church in America. Died Dec. 18, 1887.

Schweinitz, LEWIS DAVIN DE, botanist, was born in Bethlehem, Pa., Feb. 13, 1780; educated in Germany; became Moravian pastor at Salem, S. C.; devoted attention to botany, and discovered 1,400 new species of American plants, of which 1,200 are fungi; wrote catalogues and descriptions of the same in 1818 and 1832. Died Feb. 8, 1834.

Schwenk'felders, *n. pl.* (*Ch. Hist.*) A sect founded by Kaspar Schwenkfeld, in Silesia, in the 16th century, but now found chiefly in Pennsylvania, U. S., where there are about 1,000 members. They are strict in discipline, choose their ministers by lot, reject infant baptism, and the Roman Catholic, Lutheran, and Zwinglian teachings regarding the Eucharist.

Sclænidæ (*sĭ-nĭ'ĭ-dē*), *n.* (*Ichth.*) A large and important family of bony marine food-fishes, the croakers, many of which reach a large size. They inhabit all warm seas, and number about 125 species, of which 25 belong to North American waters. All are carnivorous, and most of them make a peculiar noise, called variously croaking, grunting, drumming, or snoring. This sound, Jordan tells us, is supposed to be caused by forcing air from the air-bladder (unusually large and complicated in this family) into one of its lateral horns. The body in this family is compressed, more or less elongated, and covered with rather thin ctenoid scales, including the head. Mouth small or large, the teeth in one or more series; canines often present, but no molar or incisor teeth, nor any on the vomer, palatines, pterygoids, or tongue. Gills, 4, a slit behind the fourth; gill-rakers; branchiostegals, 7. Dorsal fin deeply notched or divided

Fig. 3062.—WEAKFISH.

into 2 fins, the soft dorsal the longer and compressible into a groove; anal, with 1 or 2 spines; ventral, thoracic, I, 5; pectoral, normal; caudal (tail), usually not forked. First among prominent American species is the fresh-water drum—the only one of the family not marine; it is a large fish (*Haploidonotus grunniens*), well known from the Great Lakes to Texas, but poor eating. *Pogonias* is a West Indian genus. *Scisena*, the typical genus, contains some familiar and highly esteemed fishes, as the silver perch or yellowtail (*S. punctata*), and channel or red bass (*S. ocellata*) of the Atlantic Coast, and the roncadors of the Pacific Coast. The spots, valued in the Southern States, form the genus *Liostomus*; and in genus *Menticirrus* are found the kingfish (*M. nebulosus*) and whitings of the Eastern coast, and the bagara (*M. undulatus*) of the West coast. Another large and valuable sciænid of California is the white sea-bass, sea-trout, or corvina (*Atractoscion nobile*), which reaches a weight of 60 or 70 pounds of firm rich flesh. Here come in also the Eastern weakfishes, and other California corvinas and sea-trout in the genus *Cynoscion*; and other genera might be mentioned. On the whole, this is one of the most useful of the families of food-fishes.

Scintillom'eter, *n.* [Lat. *scintilla*, a spark.] A device attached to a telescope for determining the amount of scintillation of a star, by causing the image to describe a circle, and noting the regularity or irregularity, and varying color of its path.

Scio'pticon, *n.* [Gr. *skia*, shade, and *optikos*, of seeing.] A form of magic lantern invented in America; the first to employ a two-wick paraffine lamp. Three, four, and five wicks have since been employed.

Scler-, Sclero-. An initial compounding element, derived from the Gr. *sklēros*, hard.

Sclero'sis, *n.* [Gr.] (*Path.*) Induration of the cellular tissue.

Sco'bey, in *South Dakota*, a W. co.; *area*, 1,045 sq. m.; bounded S. by Big Cheyenne river and its North Fork. Grazing and coal mining are the chief industries. *Pop.* (1897) 148.

-scope. A terminal compounding element, derived from the Gr. *skopos*, watcher; used mainly in names of instruments of observation.

-scopy. A terminal compounding element, derived from the Gr. *skopia*, watching; used in names of sciences and studies that involve observation.

Scorch'er, *n.* (*Colloq.*) That which is hot enough to scorch; applied to the weather, &c.—A burning or withering invective.—Something capable of high speed, as a race-horse, or bicycle, or the rider that achieves it.

Scorch'ing, *p. n.* A roughing out of tools on the dry grindstone before they are hardened and tempered; so called on account of the heat produced.—Riding at a high speed, or racing, as by a bicyclist.

Scores'by, WILLIAM, arctic explorer, clergyman, and student of electric magnetism, was born near Whitby, England, in 1789. At 11 years old he began sailing in the Greenland seas with his father, who was captain of a whaler, and he finally succeeded his father, spending the time between voyages in studying at Edinburgh University. In May, 1806, he sailed farther north than anyone had sailed before, and after making important observations on electricity in the arctic regions, returned to influence Sir Joseph Banks, president of the Royal Society, to induce the government to send out an exploring expedition into the arctic seas—the first ever sent, starting in 1817. In 1820, after having made 17 voyages to Greenland, he published his observations in two volumes, called *History and Description of the Arctic Regions*; in 1822 he surveyed 400 miles on the east coast of Greenland, and, after one more trip, published another book, *The Journal of a Voyage* (1823), and then left the sea to study for the ministry; when nearly 40 he graduated, and afterward filled pastorates at Liverpool, Exeter, and Bradford, doing valuable philanthropic work, but not losing his interest in magnetism; many of the 60 papers which followed his name in the lists of the Royal Society are connected with this subject, and, in order to get additional facts by which to test his theories, he made voyages to America in 1844 and 1848, and went to Australia in 1856. The result of all this research was embodied in *Magnetical Investigations* (1852), and in a posthumous book, *Journal of a Voyage to Australia for Magnetical Research* (1859). In addition to this scientific writing, he published many religious works and papers, and a biography of his father. His own life has been recorded by his nephew, Dr. R. E. Scoresby-Jackson. Died in 1857.

Scoresby Land. (*Geog.*) A portion of eastern Greenland, named by Nausen in honor of William Scoresby.

Scot'land, in *South Dakota*, a city of Bon Homme co., 12 m. N.E. of Tyndall; has some manuf., and is a shipping point of a grain and stock-raising district. *Pop.* (1895) 1,048.

Scotland, Church of. (*Eccles. Hist.*) Nowhere did the Reformation make more rapid progress than in Scotland. Inasmuch, however, as the leader of the Reformation in Scotland was John Knox, the obedient disciple and ardent follower of Calvin, the father of Presbyterianism, the Reformation in Scotland was that of Calvin and not of Luther. The Reformers were persecuted by the Scottish government; there were burnings at the stake and fines and imprisonment, but the Reformers kept up the struggle, especially during the minority of Mary, the young queen of Scots, when the regent was her mother. With her had been associated, as co-regent, James Hamilton, second Earl of Arran, but he resigned in 1554. In the year 1559, the Reformers felt themselves strong enough to set the regent at defiance. A parliament met at Edinburgh on the 1st of Aug., 1560, in which the Reforming party had the complete ascendency. Acts were passed by which the jurisdiction of the Pope was abolished, the mass was prescribed, and a Confession of Faith drawn up by Knox and his associates, and therefore strongly imbued with Calvinism, was ratified. The principal office-bearers of the church were declared to be ministers, elders, and deacons. Its chief governing, as well as legislative and judicial power, was entrusted to a General Assembly, which met yearly or half-yearly and was composed of the superintendents, ministers, and lay commissioners. Thus the Church of Scotland was constituted and established much as it is at this day. The bishops were subsequently restored for a time, and Cromwell prohibited the meetings of the General Assembly. At the Revolution of 1689, when William and Mary were called to the throne, Episcopacy was abolished, and at the end of that year a General Assembly was held, the first which had been allowed to meet since the one which was dissolved by the order of Cromwell. Presbyterianism was re-established. With the exception of some years in the reign of William III., the Assembly has continued to meet annually since the Revolution, and to transact business when it was not in session by a commission named by itself for that purpose. Quarrels arose from time to time on the question of patronage—that is, the right of presentation to benefices—and there were small secessions early in the 18th century, but in 1843 there was a great split which led to the formation of "The Free Church of Scotland," which carried off about one-half the members of the Establishment and became a rival communion in most of the parishes. The desirableness of a union between the Established Church and the Free Church is constantly discussed, but the two bodies seem farther apart than ever.

Scott, THOMAS ALEXANDER, railroad manager, was born in London, Pa, Dec. 28, 1824; was connected with the Pennsylvania Railroad Co. from the beginning, and became vice-president, and finally president of the road. He was also president of the Union Pacific R. R. During the Civil War he was for a time assistant secretary of war, having charge of questions regarding transportation; for his services he received a colonel's commission. Died May 21, 1881.

Scott's Bluff. in *Nebraska*, a W. co.; *area*, 756 sq. m.; traversed by North Platte river. *Surface*, rolling; *soil*, a very fertile sandy loam. *Cap.* Geriug. *Pop.* (1897) 2,121.

Scott'dale, in *Pennsylvania*, a post-borough of Westmoreland co., 17 m. S. of Greensburg; has iron foundries, rolling mill, gas and water-pipe works; in a bituminous coal field. Coal, coke, and iron are extensively shipped. *Pop.* (1897) 3,125.

Scotts'borough, in *Alabama*, a post-village, cap. of Jackson co., 41 m. E. of Huntsville; in a cotton and grain-raising, and coal and iron mining district. *Pop.* (1897) 1,085.

Scran'ton, in *Mississippi*, a post-town, cap. of Jackson co., ½ m. from the Gulf of Mexico, and 40 m. S.W. of Mobile, Ala. Lumber is extensively shipped. *Pop.* (1897) 1,445.

Screv'en, in *Georgia*, an E. co., adjoining South Carolina; *area*, 786 sq. m.; bounded E. by Savannah river, S.W. by Ogeechee river, and intersected by Brier creek. *Surface*, nearly level; *soil*, sandy; extensive pine forests. *Cap.* Sylvania. *Pop.* (1897) 16,250.

Scrib'ner, CHARLES, publisher, was born in New York city, Feb. 21, 1821; founder of the house of Charles Scribner & Company, now Charles Scribner's Sons. Died August 26, 1871.

Scripto'rium, *n.* A writing-room, especially a room in a monastery or abbey, set apart for writing or the copying of manuscripts, illuminating, &c.

Scud'der, HORACE ELISHA, author, was born at Boston, Mass., Oct. 16, 1838; educated at Williams College, and became a teacher; his first literary work was for juvenile readers; his later work is principally within the field of critical essays, his themes being literary and biographical. In 1890 he succeeded T. B. Aldrich as editor of the *Atlantic Monthly*. Died 1902.

Senr'ry, in *Texas*, a N.W. central co.; *area*, 900 sq. m.; intersected by Colorado river, and also drained by Neal's and Deep creeks. *Surface*, undulating; *soil*, fertile and well watered. *Cap.* Snyder. *Pop.* (1897) 1,626.

Search'-light, *n.* An electric arc-light of great candle-power, arranged with a parabolic projector to throw its beams so that the rays are almost wholly gathered in one direct line, forming a path of light that may be projected for miles. Search-lights were devised and originally used on war-vessels for detecting the approach of an enemy in the dark, and especially for discovering the night attacks of torpedo boats. Experiments made with them for this purpose indicate that they are only a partial protection against the stealing up of a torpedo boat, which may sometimes approach without discovery. They are used also by large ships as an aid to navigation at night, and by batteries designed for coast defence. By their aid, ships of a squadron can carry on night-signalling with flags, each vessel illuminating its own signals. They also serve for night-signalling at sea, conveying intelligence by flashes on the clouds to vessels below the horizon. Search-lights have also been used on land for exhibition and advertising purposes. One exhibited at Chicago, in 1893, had a 5-foot projector, polished with almost as much care as the object-glass of a telescope. Its beam was visible 85 miles away, and at a distance of 8 miles its light was sufficient for the reading of fine print. The construction of the arc-lamp used in a search-light is similar to the ordinary arc-light, but the mounting is peculiar. A short cylinder or drum is provided as a case, and mounted on trunnions like a cannon, with mechanism for training it toward every point of the compass, also for directing it at an upward or depressed angle. Some search-lights are arranged to be trained by hand, but the best are operated by an electric motor, which is arranged to rotate the whole apparatus at certain regular speeds, so as to sweep the whole horizon.

Searle, ARTHUR, astronomer, was born in London, Eng., Oct. 21, 1837; removed to the U. S. and graduated at Harvard (1856); was assistant professor of Astronomy there for 16 years, and in 1887 became full professor. He has written many papers for scientific journals in the U. S. and in Europe.

Sea'well, MOLLY ELLIOTT, author, was born in Virginia in 1859; has contributed stories and essays to current magazines, and has published several books, the latest being *The Sprightly Romance of Marsac* (1896).

Sec'ond Ad'ventists. (*Eccles. Hist.*) A general name given to six slightly different Protestant sects in America, all characterized by the belief in the visible reappearance of Christ at some time in the future. They differ among themselves as to whether the return will be visible to the entire world, or the entire church, or to certain elect "first fruits" of the church. Originally the Adventists were followers of William Miller (1781–1849), and were called Millerites. Miller predicted the end of the world and the beginning of the millennium in October, 1843, and a great many people had such faith in his prophecy that they neglected to harvest their crops and spent the months preceding the appointed time in religious exercises in preparation for their ascension to heaven. On the failure of the prediction some of the followers of Miller lost their faith in the second advent, while others concluded that an error in calculation had been made. Since that time various other dates have been set, but in spite of mistakes and disappointments, the Adventists have increased from 50,000 in 1843 to over 60,000 in 1890, and over 70,000 in 1897. The denominations into which they are divided are as follows: (1) *The Evangelical Adventists*, a small sect which claims to be the original organization, and dates from 1845; they believe in a form of purgatory and in eternal punishment. (2) *The Seventh-day Adventists*, numbering nearly half of the total number, and also dating from 1845; their peculiarity is that they set no date for the future coming of Christ. (3) *The Church of God*, a small branch which seceded from the Seventh-day Adventists, in 1866. (4) *The Life and Advent Union*, a small organization dating from 1848, but not completed until 1864. It is reported as one of the two societies of Adventists having members in Great Britain. (5) *The Age-to-Come Adventists*, dating from 1851, and having members in Canada. (6) *The Advent Christians*, dating from 1861, and extending widely through this and other countries; numerically it is not quite so strong an organization as that of the Seventh-day Adventists, but it is far stronger than any of the other sects. The Adventists are all congregational in church government and hold evangelical views on general religious questions. They practice immersion and are very strict in their rules of life. Alcohol and tobacco are strongly discountenanced, and many amusements are forbidden.

Sedan', in *Kansas*, a post-village, cap. of Chautauqua co., 30 m. W. by S. of Independence. *Pop.* (1895) 1,085.

Sedg'wick, JOHN, U. S. A., was born in Cornwall, Conn., in 1813; graduated at West Point; served in the Mexican War; in August, 1861, was commissioned brigadier-general of volunteers, and assigned to the Army of the Potomac. After the battle of Antietam, was promoted major-general; fought bravely through the severest contests of the next two years; killed at the battle of Spottsylvania Court House, May 9, 1864. A monument to his memory was erected at West Point in 1868.

Sedgwick, in *Colorado*, extreme N.E. co., adjoining Nebraska; *area*, 650 sq. m.; intersected by South Platte river. *Surface*, hilly along river, level tableland; *soil*, fertile. *Cap.* Julesburg. *Pop.* (1897) 1,650.

Sedgwick, in *Kansas*, a S. co.; *area*, 1,008 sq. m.; intersected by Arkansas and Ninnescah rivers. *Surface*, nearly level prairie; *soil*, fertile. *Cap.* Wichita. *Pop.* (1895) 39,108.

See'ley, SIR JOHN ROBERT, historian, was born in London in 1834; graduated at Christ College, Cambridge; was professor of Latin in University College (1863), and of Modern History at Cambridge (1869); widely known for his work, *Ecce Homo* (1865); also published *Natural Religion* (1882). His writings since then have been mainly historical criticisms. He was knighted in 1894, and died Jan. 13, 1895.

See'lye, JULIUS HAWLEY, educator, was born in Bethel, Conn., Sept. 14, 1824; became professor of Mental and Moral Philosophy at Amherst College (1858), and after 1877 was president of the college for 12 years. From 1874 to 1877 he was a member of Congress. His high personal character served to raise the standard of education, of public opinion, and political action. Died May 12, 1895.

Se'guin, ÉDOUARD, physician, was born at Clamecy, France, Jan. 20, 1812; studied medicine, and made special study of the cause and philosophy of idiocy; founded the first school for idiot children at Paris (1839); emigrated to America after 1848, continued his special work, and became known as a specialist in nervous diseases. Died Oct. 28, 1880.

Seidl (*zīd'l*), ANTON H., musical conductor, was born in Budapesth, Hungary, May 6, 1850; educated at Leipsic, and at Bayreuth under Richter and Wagner; became conductor of the Leipsic Opera House, and also conducted Neumann's Nibelungen opera troupe (1882); removed to New York (1885), and became conductor at the New York German Opera House; in 1891 succeeded Theodore Thomas as conductor of the Philharmonic Society.

Seign'iorage, *n.* [O. Fr. *seignorage*.] Something claimed as a prerogative by a sovereign or superior; specifically, an ancient royalty whereby the crown claimed a percentage on bullion brought to the mint to be coined; the profit derived from issuing coins at a rate above their bullion value; a charge made by the government for coining bullion.—Any royalty, share of profits, or proportion of proceeds of sales.

Seismol'ogy and Seis'mic Instruments. (*Physics.*) The study of earthquakes and their causes is a comparatively new science, and has received much attention in Italy, where the presence of Vesuvius has been a constant stimulus, but the Japanese appear to have taken the lead in the study during recent years. Prof. Sekiyo, of Japan, has succeeded in reconstructing a model of the complex motion of an earth particle during an earthquake. John Milne, of London, who was for a number of years professor of mining and geology under the Japanese government, has been prominent in forwarding the study, having founded the Seismological Society of Japan in 1886, and printed a work on earthquakes, besides constructing an improved seismograph. The society named has issued considerable literature designed to throw new light on the science.

The instruments used for measuring or recording tremblings of the earth are known as seismographs, seismometers, and seismoscopes. Seismographs properly furnish a tracing which is a record of the number, succession, direction, amplitude, and duration of successive shocks. Seismometers measure the force of the shock, and are sometimes provided with devices for giving other details. Seismoscopes are designed simply to detect and note the fact of a tremor of the earth, usually with some indication of the time. Various seismic instruments are made which partake more or less of the characteristics of all three of the divisions above noted. One of the earliest and most simple forms was a bowl of treacle, or other viscous liquid, whose disturbance by an earthquake shock left a mark where the liquid had risen against the side of the bowl. The mark so made served to show the direction of movement, and, to some extent, its force. Mallet and Palmieri made seismoscopes on the same principle, using mercury in glass tubes. An early Chinese form of seismometer consisted of a large vessel having eight dragon-heads about its circumference. Within the mouth of each dragon was a ball, nicely balanced, and designed to fall out into the mouth of a bronze frog waiting below whenever an earthquake shock disturbed the apparatus with a movement in that direction. Another simple form consists of a set of tubes of varying length set upright on bases in a bed of hard sand, so that the severity of a shock is noted by the length of the shortest tube that falls, and the direction by the positions in which the fallen tubes lie in the sand. Galli's seismograph, at the Meteorological Observatory at Velletri, Italy, employs a sensitive pendulum for visual observation, another pendulum for making a tracing on smoked paper, a weight and spring, with recording style, for noting vertical movement, a clock stopped by a falling cone to note the time and direction of the first shock, and a magnetic device for measuring the electrical disturbance, the whole being set on a marble base in a glass case. Gray and Milne, and Ewing have developed the best modern seismometers. All of these instruments use an improved form of pendulum to produce a steady point. If a common pendulum be used to make a tracing of a seismic disturbance, it is evident that its first movement will be correct, because of its inertia; but being once swung, it tends to keep up a regular swinging beat, and the balance of the record is confused with the movements caused by the shock combined with the natural swing. As a result it is impossible to judge accurately from a record so made. The steady-point pendulum overcomes this difficulty by an ingenious mechanism consisting of an inverted unstable pendulum acting with an ordinary stable pendulum to neutralize the natural swing. The most recent seismometers use three of these steady-point pendulums—one arranged to give east and west, another north and south, and a third up and down vibrations. An accurate record is thus obtained of all the movements, and the time and magnetic disturbance are registered by other devices. For recording exceedingly minute tremors, special forms of instruments are used, more delicately constructed, and known as microseismometers or tromometers. The more violent earthquakes cannot be absolutely measured, as the vertical movement is so great as to constitute a distinct wave-motion, which is beyond the measuring ability of any instrument as yet constructed.

Seis'moscope, *n.* [Gr. *seismos*, an earthquake, and *scope*.] A simple form of earthquake-recorder; a device that indicates the occurrence and direction of an earthquake by the fall of a column, the movement of some suspended or balanced body, or the away of liquids.

Selenotrop'ic, *a.* [Gr. *selēnē*, the moon, and *tropikos*, turning.] (*Bot.*) Turning toward the moon; a term applied to plants that appear to be influenced by moonlight.

Sel'igman, EDWIN ROBERT ANDERSON, economist, was born in New York, April 25, 1861; educated at Columbia College, and in European universities; became professor of Political Economy and Finance at Columbia College (1890); has published, *Railway Tariff and the Interstate Commerce Law* (1887); *Taxation of Corporations* (1890); *On the Shifting and Incidence of Taxation* (1892), &c.

Sel'ma, in *California*, a post-town of Fresno co., 15 m. S.E. of Fresno City; in a fertile farming and fruit-growing country, with raisin and canning interests. *Pop.* (1897) 1,450.

Sem'asphore, *n.* [Gr. *sēma*, sign, and *sphere*.] An electric signalling apparatus attached to a balloon.

Semat'ic, *a.* [Gr. *sēma* (gen. *sēmatos*), a sign.] Of the nature of a sign; giving warning; significant; especially, in animal coloration, distinguishing for purposes of warning or recognition.

Sem'brich, MARULLA, operatic vocalist, was born in Lemburg, Austria, Feb. 15, 1858; a popular and successful artist in Europe, who was heard in America during 1883–84, and received with enthusiasm in New York in such rôles as *Martha*, *Lucia*, *Constance*, &c.

Seminar', *n.* [Lat. *seminarium*, seed plot.] An assemblage of students pursuing studies under a special teacher, or taking some specific course in an institution.

Semmes, RAPHAEL, naval officer, was born in Charles co., Md., Sept. 27, 1809; resigned his commission in the U. S. navy (1861) to join the Confederate forces as a privateersman. His first exploits were with the steamer *Sumter*. In 1863 he took command of the *Alabama*, and captured and destroyed 62 American merchantmen. In 1865 he was arrested, by order of the secretary of the navy (Welles), but was released without trial. After the war he practiced law in Mobile, Ala. Died August 30, 1877.

Send'-off, *n.* The causing of a person or thing to go forth or start, especially with expressions of approval, good-will, &c.; as, the bride had a good *send-off*; the exhibition had a favorable *send-off*.

Sen'eca, in *Missouri*, a post-town of Newton co., 16 m. S.W. of Neosho; has lead and zinc mines, &c. *Pop.* (1897) 1,321.

Señorita (*sān-yo-rē'tā*), *n.* [Sp.] A young lady; a term like the English *Miss*.

Sensitom'eter, *n.* An instrument for measuring or determining the sensitiveness of a photographic film. Spurge's is of the pendulum type, the horizontal reciprocating motion given to the recording pencil being waved by appropriate mechanism in accordance with the sensitiveness of the plate tested. Warnerke's depends upon a comparative test, a number of squares of gelatin of varying transparency being exposed before the plate to be tested for a set time.

Sept-, Septi-. An initial compounding element, derived from the Lat. *septem*, seven.

Septo-. An initial compounding element, derived from the Gr. *septos*, putrid.

Septo-. An initial compounding element, derived from the Lat. *septum*, partition.

Ser'iculture, *n.* (*Agric.*) The cultivation of silk-worms lies at the basis of the silk industry; and as the insects are hardy, and proper food (mulberry leaves) for them can be supplied in all the warmer parts of the U. S., large expectations were indulged in the earlier years of the Republic that this would become a profitable household industry here. Experience has not justified these forecasts. Earnest efforts made in New England nearly a century ago were followed by occasional revivals of effort in the South and West, latest and most sincerely in California, to which the Department of Agriculture rendered large assistance; but all have proved unsuccessful. This is due not to any unsuitability in climate or food, but to the fact that the American people are unwilling and unable to devote the necessary time or attention to the care of the silk-worms and the subsequent processes, in competition with the cheap labor and experience of the Chinese and Japanese, who are likely always to retain the foremost place in this industry.

Ser'igraph, *n.* [Lat. *sericum*, silk, and *graph*.] An instrument of American invention for testing the uniformity of raw silk.

Serim'eter, *n.* (*Mech.*) An instrument for testing the tensile strength of silk threads, and noting the elastic stretch and breaking point. It consists of an upright box in which the thread is stretched, the upper end being made fast to a bell-crank that controls a pointer on a quadrant scale. The bell-crank is held back by a spring, which is stronger than the thread to be tested, and the pull is given by clips below, one of the clips indicating on a vertical scale the elastic stretch, while the breaking strain is noted on the quadrant.

Sermonol'ogy, *n.* A methodical account of sermons or of their preparation; sermons taken collectively; as, the *sermonology* of the day.

Ser'romotor, *n.* [Lat. *serra*, a saw, and *motor*.] A small motor for operating the reversing-gear of a large marine engine; also, the motor and reversing-gear taken together.

Sesqui-. An initial compounding element, derived from the Lat. *sesqui*, one and a half. In chemistry it denotes that three atoms of one element have combined with two of another to form the compound; as, *sesqui*-oxide of iron, Fe_2O_3. In many numerical words it denotes ratio in which the remainder is unity, as 5 to 4.

Set'-nut, *n.* A nut placed against another to hold it in place; a safety-nut.

Se'ton, ELIZABETH ANN, founder of the first community of Sisters of Charity in the U. S., was born in New York city, Aug. 28, 1774; was married (1794) to William Seton; after his death she joined the Catholic Church (1805); in 1809 founded the community and school at Emmettsburg, Md. Died Jan. 4, 1821.

Sev'en Won'ders of the World. See WONDERS.

Sev'en-thir'ties, *n. pl.* (U. S.) Government notes issued in 1861, 1864, and 1865, bearing interest at 7·30 per cent., and redeemable in three years.

Sevier', in *Utah*, a central co.; *area*, 1,872 sq. m.; drained by Sevier river; crossed by Wahsatch Mountains in the west; extensive sage plains; *soil*, fertile when irrigated. *Cap.* Richfield. *Pop.* (1895) 7,893.

Sew'all, ARTHUR, ship-builder, was born in Bath, Me., Nov. 25, 1835; succeeded his father in the business of ship-building; was also interested in the Bath Iron Works, and in 1893–94 was president of the Maine Central R. R. Co.; was prominent in Democratic politics, and was candidate for Vice-President on the ticket with William J. Bryan (1896). Died 1900.

Sew'ard, in *Nebraska*, a S.E. co.; *area*, 576 sq. m.; drained by Big Blue river and its branches. *Surface*, undulating, prairie and woodland; *soil*, fertile. *Co. Seward*. *Pop.* (1897) 21,550.

Sew'ard, in *Nebraska*, a post-village, cap. of Seward co., 25 m. N.W. of Lincoln; has flour mills, foundry, machine shops, and elevators. *Pop.* (1897) 3,100.

Sew'ell, William Joyce, soldier and politician, was born in Ireland in 1835; removed to the U. S. in early life; at the outbreak of the Civil War became captain of a company of New Jersey volunteers; served with distinction throughout the war, gaining the brevets of brigadier- and major-general; after the war became connected with the Pennsylvania R. R. Co.; was elected State senator in 1872, 1875, and 1878; was U. S. senator (1881–87), and re-elected (1893) for the full term of 6 years. Died December 27, 1901.

Sew'erage, *n.* (*San. Engin.*) The disposal of the sewage in cities and towns constitutes one of the most important items of municipal management, having a direct bearing upon the health of residents, and being usually more or less under the control of boards of health and sanitary commissions. The systems that have been tried are: (1) removal in pails and tanks, which is generally unsatisfactory, laborious, and expensive; (2) defecating by mixture of dry fecal matter with dry earth and ashes, which lessens the labor of removal, but leaves all liquid sewage to flow on the surface or into cesspools; (3) pumping away through pipes by pneumatic suction, which has the advantage of also drawing away sewer-gas, but has failed of general adoption, owing to expense, &c.; (4) removal in pipes by gravitation and a flow of water. The last system is the one generally approved and adopted, the methods of application and arrangement being varied greatly, according to local conditions. In some cases the underground drains or sewers constructed to carry off the sewage from dwellings, &c., are designed to carry also the rain-water, and in others only a part of the rainfall is introduced into the sewers. At one time considerable prejudice existed against the use of a single set of pipes for carrying off the entire rainfall with the sewage, but later experience has shown that in large cities the rainfall, taking the wash of the streets, is almost as foul as the flow from the soil-pipes of dwellings, and that there was no good reason for separating them. It is now, therefore, the most common practice, in designing a system of sewerage, to calculate on carrying the entire rainfall of the district, as well as the waste-water and soil. The water-supply system of the territory, and the maximum daily use thereof, with its probable increase, must all be taken into consideration. The sewers should be constructed to carry away the maximum amount that is likely to be flooded into them in sudden rain-storms, which are usually the severest tests to which they are subjected. The flow of all sewers varies, however, with the hour of the day and the time of year. Five to seven o'clock in the morning is the time of greatest average flow, and the day flow very largely exceeds that of the night. Midsummer and midwinter are also periods of extreme flow, the former because people use more water for bathing and cooling, and the latter because they allow faucets to run to lessen danger of freezing. The grades of a sewer are of the utmost importance, and to secure the proper inclinations it is necessary to begin with a survey of the territory, ascertaining the correct elevation of all points, and laying out grades for all parts of the system or its probable extensions, so that each may have a sufficient inclination to carry the contents at a rate of flow not less than three miles an hour, and double that if practicable. In cases where it is impossible to secure a proper grade, as in a section of low land, the whole section must be laid out and made subservient to a pumping-plant for removing the sewage, as fast as it flows, to a higher level. The size and form of a sewer-pipe has much to do with the rate of flow. With circular pipes, seldom containing more than a few inches of water, the larger the diameter the slower is the flow. The rate of flow in large pipes can be hastened, however, by narrowing the cross-section at the lower side, so that the pipe is of egg-shaped section, with the smaller part downward. The rate of flow of a few inches of water in such a pipe is nearly double that in a pipe of circular section, hence it tends to flush itself that much better. Where pipes are laid with very little inclination frequent flushing should be provided for by automatic mechanism. It is sometimes very difficult for a sanitary engineer to decide on appropriate grades under the limitations laid upon him. His pipes must properly be laid so as to be below the cellar-floors of all the buildings in the district, and they must always descend in some direction, yet cannot be carried below the final point of discharge. As a consequence, he must commence at the higher points and work downward, always keeping above his final level, or, if that prove impossible, he must lay out a low sub-district for flow by pumping.

Two kinds of sewer-pipe are in general use, vitrified earthenware and cast-iron. These are serviceable for all sizes under 2 feet; above that it often becomes preferable to construct an arched brick sewer, lined with cement. If the sewer is of earthenware, it should be salt-glazed, with bell-joints, carefully fitted; if the pipe is iron, the joints should be calked and leaded; if brickwork is used, a non-absorbent brick should be chosen. Numerous vents are required in a sewer, to allow the escape of noxious gases. In closely populated districts the best place for these has been found to be through the soil-pipes in buildings to the roof. Manholes, lamp-holes, and catch-basins must also be constructed at intervals. Man-holes are essential for getting in to make repairs and remove obstructions. Lamp-holes are useful for locating leaks and obstructions. They are commonly formed by placing a T in the pipe, and extending the shaft upward to the street level, where it is capped over. Catch-basins are placed at street corners and low points where the street water is led into the sewer. They consist of rectangular basins, several feet in diameter, for retaining anything that may be swept from the street by a heavy shower of rain which is too bulky to be admitted to the sewer.

The most convenient method of disposing of the sewage of a city is usually to lead the sewer-pipes to empty into some stream of water. This is done in many cases, but the practice is often damaging to other interests, being objected to by residents farther down the stream, and being deadly to any fishing industry that may exist. As a result, it is frequently necessary to obtain rights over tracts of low land, and convey the sewage there, utilizing it as liquid manure to aid the growth of crops, or as a filtering-plant to purify the sewage, so that the water which eventually finds its way to running streams is wholesome. The purification of sewage has been worked out by chemists to the last degree; so thoroughly, in fact, that a system has been perfected for purifying the sewage water of a city, and returning it to the water-supply for use as drinking-water, in an absolutely pure, distilled condition. The objection to such a system, arising from unpleasant associations and fear of accidental contamination and resultant spread of disease, has prevented its adoption. Where the sewage is disposed of by flowing onto land, irrigating ditches are provided, with stops to direct the water up side ditches and retain it until it soaks into the soil. If the object is simply to use the land as a filter, a sandy soil is desirable, and various chemicals may be employed to assist the purification, as a layer of compound of magnetic oxide of iron with carbon, a yard of which is capable of purifying 500 gallons of sewage per day. Where it is necessary that liquid sewage should stand in open ditches or tanks, chemical precipitation is resorted to for the purpose of assisting the subsidence of the solid particles before decomposition takes place. Milk of lime is the most common agent employed, though almost all the earthy salts have been tried. After precipitation, the comparatively clarified fluid is allowed to run off, and the solid glutinous remainder, technically called sludge, is either buried, burned, or carried out to sea. For a description of the house-connections with sewers, see Plumbing, Sanitary.

Sex-, Sexi-. An initial compounding element, derived from the Lat. *sex*, six.

Sex'ual Selec'tion. (*Biol.*) The phrase devised by Charles Darwin to express one of the means concerned in the development of animal forms, accounting for certain sexual differences in many species. "This form of selection," he stated in his *Origin of Species*, "depends not on a struggle for existence (see Natural Selection) in relation to other organic beings or to external conditions, but on a struggle between the individuals of one sex, generally the males, for the possession of the other sex. The result is not death to the unsuccessful competitor, but few or no offspring. . . . Sexual selection, by always allowing the victor to breed, might surely give indomitable courage, length to the spur and strength to the wing to strike in the spurred leg, in nearly the same manner as does the brutal cock-fighter, by the careful selection of his best cocks." It is thus something outside of, yet not wholly apart from, natural selection, concerning itself with the development of special colors, ornaments—as the extra plumes and special adornments of many male birds—weapons, or means of defence, possessed exclusively by the males, regarded as the result of a selection by the females among their suitors of those handsomest or best armed. This adornment is above and beyond, to some degree, the requirement of the species for successfully maintaining itself in its environment, and results from competition within its own ranks. "When," says Mr. Darwin, returning to the subject at greater length, in Part II. of his *Descent of Man*, "we behold two males fighting for the possession of the female, or several male birds displaying their gorgeous plumage and playing strange antics before an assembled body of females, we cannot doubt that, though led by instinct, they know what they are about." The theory supposes, first, that the winner is always *chosen* as her mate by the waiting female; second, that he is as good as the rest in respect to general fitness, as well as best in his peculiar sexual attractions—gay colors, crest, means of fighting, &c.—and, third, that these external sexual qualifications (which often are assumed only during the breeding season) are transmissible to offspring. So many difficulties have been presented to the acceptance of all these propositions that the theory is not now held to be of so much force as Mr. Darwin thought it, but is relegated to a somewhat lower place, as one of the phases of natural selection.

Sey'mour, in *Iowa*, a post-town of Wayne co., 15 m. W. of Centerville; has coal mines, and ships live stock and grain. *Pop.* (1895) 1,537.

Shad'owgraph, *n.* A skiagraph or radiograph. See illustration at Roentgen Rays.

Shafter, William R., Major-General U. S. Army, born in Michigan; entered civil war as lieutenant of volunteers, left as brevet brigadier-general. Entered regular service as lieutenant-colonel; advanced to brigadier-general; at beginning of war with Spain promoted major-general and put in command of 5th corps. Commanded the army in the successful campaign against Santiago and received the surrender of the Spanish forces.

Sha'ler, Nathaniel Southgate, geologist, was born in Newport, Ky., Feb. 22, 1841; a graduate of Lawrence Scientific School at Harvard; was subsequently instructor there, and connected with the Museum of Comparative Zoölogy; in 1887 was appointed professor of Geology at Harvard; and in 1895 was chosen president of the Geological Society of America. His latest books are: *Nature and Man in North America* (1892); *Sea and Land* (1894); and *American Highways* (1896).

Shap'er, or **Shap'ing-machine',** *n.* (*Mech.*) A small form of planing-machine for working in metal, having the cutting tool customarily mounted in a reciprocating tool-rest driven by a crank with a short stroke and a quick return. It is so named because much used in shaping odd forms and parts of machines of irregular outline. The lathe proper cuts only circles, cones, and spirals; the planer proper cuts only in straight lines; but the shaper can be made to cut U-forms, S-curves, and other irregular figures. It is usually driven by stepped pulleys, and has an adjustable table or tables, to which the work is clamped.

Shar'key, in *Mississippi*, a W. co.; *area*, 425 sq. m.; drained by Big Sunflower river and Deer creek. *Surface*, nearly level; *soil*, fertile. *Cap.* Rolling Fork. *Pop.* (1897) 9,265.

Shaw, Albert, journalist, was born in Ohio, July 23, 1857; in 1891 became editor of the American edition of the *Review of Reviews*.

Shaw, Henry Wheeler, humorist, better known as Josh Billings, was born in Lanesboro, Mass., April 21, 1818; published numerous rambling newspaper articles, in exaggerated phonetic spelling; also published a travesty on the *Old Farmer's Almanac*, which he called *Josh Billings's Farmer's Allmanax*. In 1863 he began to lecture, in his peculiar style, with equal success, his observations being always droll and sometimes witty. Died Oct. 4, 1885.

Shaw, Leslie M., an American banker and statesman, born at Morristown, Vt., November 2, 1848. Studying law in Iowa College, he engaged in legal practice at Denison, Iowa, in 1876. He subsequently became president of the banks of Denison and Manilla, engaged in politics as an orator, and worked ardently for McKinley in 1896. He was twice elected governor of Iowa (1898-1902). In 1902 he was chosen by President Roosevelt to succeed Lyman J. Gage as Secretary of the Treasury.

Shawnee, in *Oklahoma*, a post-village of Pottawatomie co., 33 m. from Noble. *Pop.* (1897) 3,700.

Shays' Rebel'lion. (*Am. Hist.*) The poverty and exhaustion of the country following the Revolutionary War, making the necessary State and Federal taxes a grievous burden, caused great discontent and public threats of secession in various parts of the new Union. A combination of circumstances made this discontent especially great and outspoken in western Massachusetts; and toward the end of 1786 an uprising took place there, under the leadership of Daniel Shays (born 1747), who had been an officer in the Continental army. Worcester was seized, and the higher courts expelled from the city; operations were extended elsewhere, and an attempt made to seize the Federal arsenal, but this was successfully resisted without bloodshed. Meanwhile Governor Bowdoin, of Massachusetts, had summoned a large militia force commanded by General Lincoln, which marched against the insurgents in and west of the Connecticut Valley, speedily dispersing them. Several of the leaders were arrested, tried, and condemned to death, but public opinion sanctioned amnesty, and none were executed. Shays moved to New York State, and died there in 1825.

Sheath'bill, *n.* (*Ornith.*) A remarkable bird (*Chionis minor*) of Kerguelen's and neighboring islands, regarded as most nearly allied to the plovers. It is white, about the size of a pigeon, with black bill and yellow feet. The bird has the behavior and flight of a pigeon, and is remarkably fearless and trustful, coming almost within reach of any whalers or other visitors who land upon its lonely domain. The remarkable feature of the bird is its bill, which bears upon the top and around its base a saddle-shaped excrescence or sheath, continued backward into a sort of carunculated hood covering the face. Its food is green seaweed, small animals found on the beach, and sea-birds' eggs. An allied species inhabits the Crozets.

Fig. 3063.—White Sheathbill.

Shef'field, in *Alabama*, a city of Colbert co., 2 m. from Tuscumbia. *Industries.* Coal and iron mining; iron furnace; brick, lumber, and other manufactures. *Pop.* (1897) 3,150.

Shel'don, in *Iowa*, a post-town of O'Brien co., 58 m. N.N.E. of Sioux City; has flour mills, and is surrounded by a rich agricultural and stock region. *Pop.* (1895) 2,416.

Shenando'ah, in *Iowa*, a post-town of Page co., 18 m. S. by W. of Red Oak; has foundry and machine shop, carriage shops, canning factory, and railroad repair shops. The Shenandoah nurseries are the largest in the West, having over 200 acres in trees and plants. *Pop.* (1895) 3,134.

Shenandoah, in *Pennsylvania*, a post-borough of Schuylkill co., 12 m. N. of Pottsville. Some of the largest collieries of the Schuylkill anthracite region are here, and coal is extensively shipped. *Pop.* (1897) 17,250.

Shep'ard, Elliot Fitch, lawyer and journalist, was born in Jamestown, N. Y., July 25, 1833; in 1861 enlisted the 51st Regiment of N. Y. infantry, known as the "Shepard Rifles;" was attorney for the N. Y. Central R. R. Co., and the first president of the New York State Bar Association. In 1888 he purchased a controlling interest in the New York *Mail and Express*. Died Mar. 24, 1893.

Sher'idan, in *Indiana*, a post-town of Hamilton co., 28 m. N.W. of Indianapolis. *Pop.* (1890) 1,134.

Sheridan, in *Kansas*, a N.W. co.; *area*, 900 sq. m.; drained by the Saline river, and the North and the South Forks of Solomon river. *Surface*, nearly level prairie, suitable for grazing and agriculture. *Cap.* Hoxie. *Pop.* (1895) 2,673.

Sheridan, in *Nebraska*, a N.W. co.; *area*, 2,180 sq. m.; drained by the Niobrara river. *Surface*, diversified; mostly level, or gently rolling; well watered and timbered. *Products*, Wheat, corn, oats, barley, vegetables; live stock. *Cap.* Rushville. *Pop.* (1890) 8,687.

Sheridan, in *Wyoming*, a N. co.; *area*, 2,775 sq. m.; drained by Tongue river, Clear creek, and numerous other creeks. *Surface*, about half mountainous, rest hilly and undulating; *soil*, very fertile. *Min.* Lead, gold, silver, tin, and quicksilver. Pine timber abundant. *Cap.* Sheridan. *Pop.* (1897) 4,000.

Sher'man, Frank Dempster, poet, was born in Peekskill, N. Y., May 6, 1860; educated at Columbia and Harvard; became a fellow in Columbia (1887), and later instructor in the Columbia School of Architecture. He is a frequent contributor to current magazines, and has published several volumes of short poems in delicate lyrical styles of verse.

Sherman, John, statesman, was born May 10, 1823, in Lancaster, O.; studied law and practiced at Mansfield, O.; was a member of Congress from 1855 to 1861, when he was elected to the U. S. Senate; from that date was a senator by re-election, except for the period of 1877–81, when he was secretary of the treasury, and in this office was influential in securing a resumption of specie payments. He was prominently before the people as a candidate for nomination to the Presidency in 1880 and again in 1888. In 1895 he published *Recollections of Forty Years in House, Senate, and Cabinet;* in March, 1897, he was appointed secretary of state by President McKinley; resigned in 1898. Died Oct. 22, 1900.

Sherman, in *Oregon*, a N. co.; *area*, 510 sq. m.; bounded E. by John Day river, N. by Columbia river, and W. by Des Chutes river. *Cap.* Moro. *Pop.* (1897) 3,000.

Shick'shinny, in *Pennsylvania*, a post-borough of Luzerne co., 15 m. W. by S. of Wilkesbarre; a mining town. *Pop.* (1897) 1,664.

Shil'laber, Benjamin Penhallow, humorist, was born in Portsmouth, N. H., July 12, 1814; was editor of various papers from 1847 to 1856; is best known by his pen-name of Mrs. Partington, and the series of character sketches that were written under the title of *Life and Sayings of Mrs. Partington, Ike and His Friends*, &c. Died Nov. 25, 1890.

Shin'shin, *n.* [Jap. "True Doctrine."] The name of a powerful sect of Japanese Buddhists, having their headquarters in the great West Hongwanji temple at Kioto, the center of Japanese Buddhism. The founder of the sect was a man of good family, Shinran Shonin (1173–1262 A. D.), who studied as a lad in one of the seminaries of the magnificent temples of Hiyeisan, in Kioto. The sect finds salvation in the "extinction of passion," a doctrine at once the cause and effect of salvation, which salvation is called Nirvâna. The doctrine of "help from another" is also taught, and Amitâ, or "the boundless" Buddha, is relied on for the completion of merits and a rebirth into Paradise. There is less difference between laymen and priests in this sect than in any other, the latter being allowed to marry and to eat flesh and fish.

Shin'to, *n.* [Also called Kami-no-Michi, meaning "The Way of the Gods."] The indigenous cult of the Japanese, though it can hardly be called a religion. It has no ethical nor doctrinal code, no idol worship, no priests nor priestcraft, no teachings concerning a future state. It consists entirely of a deification of heroes, emperors and great men, the divine ancestors of the Mikado and his people, together with the worship of certain objects and forces in nature. The divine ancestors, the spirits which inhabit heaven or still reside in temples and wayside shrines, controlling the affairs of mortals, are known as "kami." The word is usually translated "deity" or "god," but our language has no proper equivalent. Kami are only superior beings. It is doubtful if immortality is one of their attributes. Some of them, we are told, die or disappear. They are by no means always good or virtuous, but they possess many human characteristics. The principal divinity is the sun-goddess Amaterasu, from whom the Mikado is held to be descended. When Buddhism arrived from the West in the sixth century, it swallowed Shinto entire, adopting wholesale the Shinto pantheon, but substituting for the simple form of worship a gorgeous ritual and magnificent temples. When the Shogunate was put down and the Mikado restored to power in 1868, efforts were made to restore Shinto to its original simplicity, and it became the only state religion. Buddhist temples were stripped, "purified," and handed over to Shinto keeping. The revived religion, however, proved too feeble to supplant Buddhism and quickly lost ground. Shinto temples are quite destitute of ecclesiastical paraphernalia. A metal mirror generally stands on the altar, but even this is a Buddhist innovation. The spirit of the enshrined deity (if so he can be called) is supposed to be in a case, and exposed to view on the day of his annual festival only. The worship consists in washing the face in a font, striking a bell, throwing a few cash into the money-box, and praying silently for a few seconds. Nevertheless, to perform these simple rites long pilgrimages are often taken to famous shrines and the summits of sacred mountains. The fact is that Shintoism is principally an engine of government.

Ship'-mon'ey, *n.* (*Eng. Hist.*) An impost levied in the early part of the 11th century on maritime towns and counties for providing and equipping a fleet for the protection of the coast. An attempt made by Charles I. to revive and enforce this imposition, which had fallen into disuse, was resisted by John Hampden, with others, and Hampden was prosecuted and condemned, though four of the judges dissented. There were rebellious demonstrations among the people, and in 1640 *S.* was declared by Parliament to be illegal, and Hampden's sentence was annulled.

Shi'ras, George, jurist, was born in Pittsburg, Pa., Jan. 26, 1832; educated at Yale and Yale Law School; practiced law in Pittsburg, and was concerned in many important cases; was a Presidential elector in 1888; in 1892 was appointed associate-justice of the U. S. Supreme Court.

Shkagway, or **Skaguay** (*skăg'wā*). A ship-landing and miners' town on Chilkat Inlet, at the head of Lynn Canal, Alaska, at the entrance to White Pass. It came into sudden existence in 1897, when White Pass began to be used by travellers to the Yukon gold fields (see Yukon, Section II.); and takes its name, usually corrupted to Skagway or Skaguay, from the Indian name of the small stream flowing down the cañon and emptying into the sea at this point. See also White Pass.

Shod'dy, *n.* (*Mon.*) The name technically given to the fiber of shredded waste woollen or worsted stuff, rags, &c., suitable for conversion into coarse cloths, blankets, carpetings, &c. Woollen rags, no matter how old and worn, are a valuable commodity to the manufacturer. They are sorted into two special kinds—the rags of worsted goods and the rags of woollen goods, the former being made of *combing*, or long-staple wools, and the latter of *carding*, or short-staple wools. The former are those properly known as *shoddy*-rags, and the latter are called *mungo*. Both are treated in the same way; they are put into a machine called a willow-machine, in which a cylinder, covered with sharp hooks, is revolving, and the rags are so torn by the hooks that in a short time all traces of spinning and weaving are removed, and the material is again reduced to wool capable of being reworked. It was formerly used as a means of adulteration and cheapening woollen cloths; but it is now found of greater advantage in making a class of light cloths adapted for mild climates and other purposes. The name is also applied to the cloth or fabric made from the fiber.

Shoe'bill, *n.* (*Ornith.*) A remarkable, heron-like wading-bird (*Balæniceps rex*) of the Soudan, having an enormous, duck-like bill, ending in a strong hook upon the upper mandible. The general color is dusky gray, with the bill yellow, and the legs and feet blackish. They spend their time in the water of the great marshes about the sources of the Nile, in pairs or small flocks, but if disturbed will rise high in the air and alight upon tall trees. They feed on fish and reptiles, especially water-snakes, and also on floating carrion. They nest in the reeds, close by the water's edge.

Shoemak'ing, *n.* The manufacture of shoes by the factory system, with the aid of machines, has almost entirely superseded the hand-made article. For many years hand-sewed shoes held their own, owing to better sewing, which added to the wearing qualities of the shoes, but since the Goodyear method came in the similarity to hand work has greatly diminished the demand for hand-sewed shoes. The processes incident to the manufacture of a shoe are the sorting of the leather, cutting out of parts with dies, crimping of uppers, stitching together of uppers and linings, insertion of button-holes or eyelets, rolling and channelling of soles, beating out and preparing the welt, lasting, sewing, nailing on of heels, trimming, burnishing, and finishing. The most important of these operations are the lasting (see Lasting-machine, Section II.), and the sewing of the vamp or upper to the sole. The first successful shoe-sewing machine was that invented by Gordon McKay, having a device for operating from the inside of the shoe in concert with the needle from the outside. The McKay Sewing Machine Association obtained a monopoly of this principle for many years, and leased its machines on royalties of from ½ to 3 cents a pair, reaping enormous profits until the expiration of the primary patents in 1881. The Goodyear-McKay machine was an improvement on this, being adapted to the sewing of welted shoes. The Goodyear system involves a double operation—an inseamer sewing the welts, and an outsole-stitcher stitching together the soles and welts. The outsole mechanism includes a curved awl, which feeds the shoe along, a needle that does the sewing, and a looper and "thread-finger" to do the locking, together with a take-up device for insuring the tension of the thread, which must be uniform to insure good results. Sewing so done is similar to hand work, and equally durable. The cutting out of the parts that go to make a shoe is done largely by means of dies, mounted in machines. Special machines are made for forming some of the parts, as the rands and welts. The sole-pieces and lifts are sorted as to quality by hand, but as to thickness by the electrical sole-sorter, which separates them into grades, varying not more than one-thousandth of an inch in thickness. The stitching of uppers and linings is accomplished on sewing-machines very similar to the standard household type, and the button-holes are made with button-holing attachments. Eyelets are clamped in with machines. Soles are wet and partly dried, and then rolled to give them pliability and shape. The channelling-machine cuts a flap around the edge of the sole, and an inside channel to make a space for the threads used in sewing. The uppers are then brought to the lasting-machine, and the insole and outsole tacked on, the stiffening or shank being also inserted, after which the last is removed, and as soon as the flap has been cemented over the channel the shoe goes to the sewer. The heel lifts are then nailed on, and the shoe is put on a last, and the sole and stiffening are hammered to secure proper shape. The heel is shaped on a trimmer, being clamped and subjected to the action of a trimming knife. Burnishing follows, usually with hot polishing instruments, after which the shoe is ready for any finishing operations in the way of decoration, stamping of number or maker, &c. Other methods of fastening the sole, which are not so much employed as formerly, are pegging and wire-screwing. Pegging is done with a machine that takes the pegs from a wooden strip. This strip is of the same width as the required length of the pegs, and is sharpened on one edge, so that the pegs can be formed by splitting them off as the strip is introduced into the machine. The wire-screwing machine connects the soles by means of bits of screw-threaded wire, cut from a coil. Other machines sometimes used in shoe manufacture are crimping appliances for moulding uppers or vamps, vamp-folding machines, seam-rubbers, peg-cutting, and nail-rasping machines, skiving machines, &c. A shoe commonly passes through the hands of six to ten workmen in the process of making. Boots require more hand work, as the machines are not as adaptable to their construction. India-rubber shoes are made from soft vulcanized rubber on a canvas base.

Sho'gun, *n.* [Jap. *sho*, to lead; *gun*, army.] See Japan.

Shoshone', in *Idaho*, a post-village, cap. of Lincoln co., located on the Union Pacific R.R., 145 m. S.E. of Boisé City; has large railroad car shops and other industries. *Pop.* (1897) 1,220.

Shosho'nean Family, Indian. (*Anthrop.*) The most important linguistic family of Indians of the interior basin of the Western United States. Within historic times Shoshonean tribes dwelt somewhat east of the Rocky Mountains in Wyoming and in southern Colorado, and overran the western central part of Texas. Northward and westward this family spread over the whole of the Great Basin, including both Rocky Mountains and Sierra Nevada, north to central Oregon, and still farther along the Rocky Mountains, covering an area as large as that of the Siouan family (*q. v.*), by which it was being steadily crowded westward. The principal tribes, related by language in this group, are the Bannock and Shoshoni in Idaho; Comanche, formerly in Texas and eastern New Mexico, now in the Indian Territory; Pai-Ute, valley of the Rio Colorado; Paviotso, western Nevada and southern Oregon; Tobikhar, southern California (missions); Tusayan, inhabiting the Moki towns; and the Ute, or Ute, which occupied the mountains of Colorado and Utah, and are now gathered on reservations there. About 16,250 members of this family survive.

Shoshong'. See Khama.

Shov'el-board, Shove'-board, or **Shuf'fle-board,** *n.* A game in which counters, disks, or pieces of money are shoved over a smooth surface on which nine squares are marked off, the object being to send the pieces among the partitions, where they count according to the numbers on which they rest.

Shreve, in *Ohio*, a post-village of Wayne co., 9 m. S.S.W. of Wooster. *Pop.* (1897) 1,180.

Shuma'gin Is'lands. (*Geog.*) A small cluster of islands discovered by Lieutenant Waxel (1741) in Lat. 55° N., Lon. 160° W., south of the Alaskan peninsula, with the Unga straits separating them from the mainland. They were named for one of Waxel's sailors, who was buried there. The larger islands of the group are Unga, Nagai, Popoff, Karovin, Big and Little Koniushi, and Simeonoff. The small town of Unga, on the island of Unga, is the only settlement. The total area of the islands is abut 600 square miles; they are mountainous and nearly barren, but they have many good salmon streams; there are cod banks near by, and the indented coasts offer good harbors. Lignite has been discovered on Unga.

Sibe'ria, Rail'way Prog'ress in. The natural features and resources of Siberia are outlined under Russia, in Section I. It remains here to speak of the remarkable development in transportation and commerce there, due to the recent building of the Trans-Siberian Railway. That remote region—misunderstood by most persons, whose idea of it is that it is everywhere a savage wilderness, inhabited only by barbarous nomads, with here and there a colony of wretched convicts and their unhappy guards—has, at the latest estimates, about 5,000,000 inhabitants, mainly distributed along the valleys of the great rivers, where several cities exist that have a more modern character than many of the old towns of Europe. The imports of these cities from Europe amount to not less than 300,000 tons of merchandise annually, a large part of which is distributed through the remoter regions by means of some 125 steamboats navigating the lakes and rivers, and by trains of wagons and sledges drawn by horses and camels, or by caravans of pack animals. A similar quantity of goods, largely derived from China and Thibet, are gathered at the principal centers and shipped to Europe in return.

Railway building in Russian Asia has been advanced with much energy of late, for military as well as commercial reasons. The interests of the empire on the Pacific coast needed strengthening as against the rising power of Japan, and the uncertain outcome of China's development under European and American influences. The competition of Russia with England for predominating influence, if not actual possession, in Central Asia, and the reasonable protection and development of what is already hers there, required railway connection with Europe. One such line across the steppes of Turkestan passes from the Caspian Sea through Merv and Bokhara to Samarcand (890 miles), and will probably be continued to Tashkend. This was built by the government, and is known as the Transcaspian line. The Trans-Siberian line, designed ultimately to extend unbrokenly from Moscow to the Pacific coast of Asia, is now completed so far as to furnish a connected route of steam-travel, partly by rail and partly by river steamboat, from Europe to Vladivostock, excepting a link east of Lake Baikal, and is rapidly proceeding to completion. It has been built and will be completed wholly by the Imperial government as a strategic measure, but is expected, of course, to repay its cost by the development of civilization and commerce along its route. It is of the standard Russian gauge (4 ft. 10½ in.), most solidly built as to road-bed, provided everywhere, as fast as it proceeds, with culverts and short bridges of solid masonry and long bridges of steel; has steel rails and the most modern switches and appliances; and the stations, even at the remotest termini, are usually of stone, and always substantial and comfortable. No temporary makeshifts were employed to facilitate rapid progress, such as wooden trestle-bridges and imperfect road-bed, as in Western American railroads, to be replaced later by more durable structures, but everything was made complete as the road advanced, even to laying out flower-beds around the stations. One means of rapid progress in construction, however, was the laying down of a temporary track in advance on the frozen ground and across the ice of rivers, great and small; this was done sometimes 200 or 300 miles ahead of proper construction, and by this means material was distributed so far ahead that permanent construction was easy during the succeeding summer, besides the facilitating of traffic. A large amount of American machinery, especially locomotives (wood-burning), has been made use of; and American methods were largely copied in erecting the road through conditions essentially similar to those of the Great Plains and Rocky Mountain regions. This road connects with the European system at Chelyabinsk, in the Ural Mountains—a low, wooded range presenting no engineering difficulties. From here an older line extends northward to the mining region about Ekaterinburg, which is connected across the Urals with the head of navigation on the Volga at Perm, in Russia; and also by a line eastward to the capital city Tiumen (*q. v.*), and with Tobolsk, an old and large city on the Irtish. This line has been built for several years. At Chelyabinsk are extensive workshops, railway depots, and offices. Thence the transcontinental line strikes due east, crossing the Ishim at Petropaulovsk, 600 miles to Omsk, on the Irtish. Thence, ascending the valley of the Om river to Kaiosk, and passing over the imperceptible divide separating the Irtish drainage from that of the Obi, the latter river is reached at Kolivah, whence branches are to be built southward to Barnaul, Kuznesk, and Birsk, on the Turkestan frontier, whence a large trade will be derived. Crossing the Obi on a great bridge, which is one of the greatest engineering difficulties of the route, the line turns northward down the valley to Tomsk, about 500 miles east of Omsk. All of this distance is level prairie land, with scattered patches of forest, chiefly birch, and looks almost lifeless, although this region is really the most populous part of Siberia. Tomsk is a large, modern, growing, active, and wealthy city, commanding the commerce of the valley of the Obi, the largest of the great Siberian rivers. Here the line turns due east again, and crosses the steppes nearly 400 miles, through Marinsk, on the Chulyum river, to Krasnoyarsk, a large modern city on the west bank of the Yenisei river. Thence the course of the railroad is east to Udinsk, and thence southeast to Irkutsk, the capital of Siberia, on the Angara river, 670 miles east of Krasnoyarsk. This region consists of a succession of river-valleys draining into the Yenisei, and divided by low ridges. The forests here are extensive and valuable, and it is expected that the opening of the country to settlement and trade will cause it to become one of the most populous and productive parts of all Siberia. The lowlands are very fertile, and well adapted to wheat and all the agriculture that accompanies wheat-growing. Irkutsk (*q. v.*) is the largest city of Siberia, is situated on the Angara river, only a few miles from its outflow from Lake Baikal (*q. v.*), and has a population of about 50,000. It is the official and military headquarters of Asiatic Russia, and the terminus of the western division of the transcontinental line, which was completed thus far early in 1898, and will rest at this southern shore of Lake Baikal for the present. A line of steamers on this great lake carries passengers and freight in summer, while lines of mail-coaches and caravans of freight-sledges in winter perform the same service on the ice and snow of the great highway. This road and the course of the railway, as laid, leaves the lake at its southeast end near the mouth of the Selenga river, ascends that valley to Werkne Udinsk, where it breaks through the Altai range (the continental watershed between the Arctic and Pacific slopes), and thence strikes east over forested highlands to Chita, 600 miles from Lake Baikal, or nearly 700 miles from Irkutsk. Chita is a place of importance, and the capital of the Trans-Baikal provinces, having substantial and handsome official buildings, and a peculiarly cosmopolitan collection of merchants. It is at the head of navigation of the Shilka, a tributary of the Amour. It was originally proposed to carry the road along the Amour to Khabarooka (*q. v.* SECTION II), at the mouth of the Ussuri river, 1000 miles from Chita, from which point a railway has been built along the Ussuri to the seaport terminus at Vladivostok, 500 miles distant. This was one of the earliest parts built, all the material being sent by sea to Vladivostok. But this road runs through an infertile and almost uninhabited country and the projected line along the Amour presented serious engineering difficulties, in consequence of which Russia arranged for a southern route, obtaining from China a right of way through Manchuria. As now built the road runs from Mysovaya, on Lake Baikal, to Chita and Sryechinsk, on the Shilka, thence to Kaidalovo, 20 miles below Chita, and from this place across Manchuria to the Russian Pacific port of Vladivostok, making an all rail connection from St. Petersburg. Concessions were obtained from China to cross Manchuria and to build a railway southward from Harbin Station to Port Arthur, the seaport on the Gulf of Pi Chi Li which Russia had acquired by rental after the Japan-China war. This road was completed, a branch running to the new port of Dalny, near Port Arthur, a city built by Russia prior to its occupation. Its ice-free harbor made it a terminus far superior to Vladivostok. The total cost of this great enterprise was 529,000,000 roubles. In 1905 Russia lost Port Arthur and Dalny through their conquest by Japan, the control of the railway to these ports being transferred to China, and Russia being restricted to the route to, and the naval use of, Vladivostok.

Sib'ley, HENRY HASTINGS, was born in Detroit, Mich., Feb. 20, 1811; studied law, but later became a purchasing agent for John Jacob Astor's fur company, in which he acquired an interest in 1834. From 1849 to 1853 he was delegate in Congress from the Territory of Minnesota; and upon the admission of Minnesota as a State (1858), he was elected the first governor. During the Sioux Indian war (1862) he commanded the expedition against the Indians, being commissioned brigadier-general, and brevetted major-general. For the last 20 years of his life he resided in St. Paul, retired from official pursuits, but actively interested in educational and other local projects. Died Feb. 18, 1891.

Sibley, HENRY HOPKINS, soldier, born in Louisiana, May 25, 1816; graduated at West Point (1838); served in Florida and in Mexico; took part in several expeditions to Utah, and against the Navajos; entered the Confederate army (1861), gaining the rank of brigadier-general. From 1869 to 1873, served as brigadier-general under the Khedive of Egypt. Died Aug. 23, 1886.

Sibley, HIRAM, financier, was born in North Adams, Mass., Feb. 6, 1807. He was influential in organizing the Western Union Telegraph Co., and secured a line to the Pacific coast, by special Act of Congress. He founded the Sibley College of Mechanic Arts of Cornell University, and Sibley Hall of Rochester University. Died July 12, 1888.

Sibley, in *Iowa*, a post-town, cap. of Osceola co., 74 m. N.N.E. of Sioux City. *Pop.* (1895) 1,282.

Sick'les, DANIEL EDGAR, soldier, was born in New York city, Oct. 20, 1823; admitted to the bar (1844); elected to the State legislature (1847); was city attorney of New York (1853); elected to the State senate (1855), and to Congress (1857 and 1859). During the Civil War was commander of the Excelsior Brigade, and was conspicuous for gallantry in the Peninsular campaign and subsequent notable battles of the war. For brilliant service at Fredericksburg he was promoted major-general, and commanded the 3d Army Corps at Gettysburg, where he lost a leg, July 2, 1863; was retired in May, 1869, and appointed U. S. minister to Spain one month later; in 1873 resigned this position and returned to New York, where he held several political offices until 1890; was member of Congress (1893–1897).

Sie'mens, ERNST WERNER, BARON, physicist and inventor, was born in Hanover, Germany, Dec. 13, 1816; educated in the military schools; became lieutenant of artillery (1837); while still holding this appointment, he devoted his attention to the study of practical chemistry and the physical sciences; became the inventor of the process of electro-plating, and of various appliances in telegraphic machines. He originated the use of gutta-percha as an insulator of telegraph wires and cables, and with Prof. Himly succeeded in laying the submarine mines with electric ignition for the protection of the harbor of Kiel from the Danish fleet. He founded the celebrated telegraph works of Siemens & Holske, in Berlin, with branch works in London and St. Petersburg; has made numerous experiments and inventions in electrical and chemical processes. He received his patent of nobility from the Emperor Frederick III., and the degree of Doctor from the University of Heidelberg, besides many other honors and distinctions. He wrote, from time to time, papers that appeared in the *Transactions* of learned societies. Died Dec. 6, 1892.

Sier'ra, in *New Mexico*, a S.W. co.; *area*, 3,116 sq. m.; drained by Rio Grande del Norte. *Surface*, mountainous; *soil*, fertile where cultivated. *Min.* Gold, silver, copper, lead. *Cap.* Hillsboro. *Pop.* (1897) 4,240.

Sig'nal Ser'vice. (*U. S. Govt.*) That department of the army, navy, or any public service which has charge of communication by means of signals. Modern military signalling is based on a system originated by A. J. Myers, and first put in practice by him in 1860, when he was appointed first signal officer of the U. S. army; it was tested and developed during the Civil War, a camp being formed at Georgetown, D. C., in 1861, where instruction was given in signalling, and detachments were prepared to attend each army. The signal service was not given a separate organization, however, until 1863, when a large corps was authorized for the duration of the war.

In 1866 the service was reorganized and much reduced; in 1870 an important addition was made to it in the form of a meteorological division to take observations and receive constant weather reports in order to notify the country by telegraph and signalling of the force and movements of storms. This meteorological work was an important branch of the Signal Service for 21 years, and gained a universal reputation for the reliability of its forecasts; in 1891 it was given a separate organization as the WEATHER SERVICE (*q. v.*), and placed in the Department of Agriculture. The present status of the Signal Service was also settled in 1891 by a law providing that there shall be a chief signal officer, with the rank of brigadier-general, and a commissioned force of 1 major, 4 captains, and 4 first lieutenants, with an enlisted force of 50 sergeants; this force is already considered rather small, and would require additions in case of war.

The school for instruction in military signalling is now at Fort Riley, Kansas, where a course of 6 months is given in the principles of all signal codes, including those of the navy, instruction being also given in cryptography, photography, topography, electricity, and the management of field telegraphs, balloon trains, heliographs, flags, torches, lanterns, rockets, bombs, and search-lights. As the code for visual signalling is founded on the telegraphic system of dots and dashes, there are also thorough instruction and practice in ordinary telegraphy. Members of the signal corps have recently carried on extensive experiments in signalling with kites, with such success that they will probably be added to the means of signalling already in use, as, with favorable atmospheric conditions, they prove effective in lifting signals to a visible height and occasionally replacing balloons in carrying up observers. (See KITE, SECTION II.) The system of signalling by flags consists in waving a flag to the right for a dot, to the left for a dash, and to the front for a space, in the Morse code. Each motion compasses an arc of 90°, returning after each to the vertical.

In the various systems of signalling with light, the dots and dashes are represented by the number of the flashes and their length. Naval signalling is facilitated by use of the Signal Book and the Drill Book, which contain numbered lists of words and sentences, geographical information, and tactics, so that it is only necessary to signal the number, instead of the message. At night, green and red fire-balls, or stars, are used if the distance is short, and electric lights if the distance is long, the search-light signal even reaching ships below the horizon line, by reflection from the clouds.

When signalling is carried on in the presence of the enemy it must be done in cipher, the members of the corps being prepared to encipher and decipher messages by their training in cryptography. The military field telegraph train, consisting in the U. S. of a battery wagon and three sections, each including a lance truck and a wire wagon, and the balloon train, which, at Fort Riley, is made up of three wagons carrying tubes of compressed hydrogen, and one wagon for the balloon and its outfit, are important factors of modern Signal Service equipment. The observer who goes up in a captive balloon to study the movements of the enemy carries with him a telephone kit, by means of which he communicates with the assistant, who is paying out the cable below from the balloon wagon, and directs the height of the ascent. The balloon car is also furnished with all the instruments necessary for taking and recording observations, a camera being included. The constant motion of the balloon renders it comparatively safe from the shots of the enemy.

Sig'natures, Doctrine of. (*Anthrop.*) A belief, still feebly surviving in medicine from medieval days, when it was universally credited, that all objects in nature beneficial to man bore some marks indicative of the remedial service to which each ought to be put. Thus the mandrake (genus *Mandragora*) owed the long list of virtues with which it was endowed by superstition primarily to its divided root, sometimes resembling a human body; and ginseng, still regarded in the Orient as a medicine of high value, and also imbued with magic powers, owes its reputation to a similar shape. On this principle it was asserted that the properties of substances were frequently denoted by their color—white was cooling, red was heating, &c. For disorders of the blood burnt purple, pomegranate seeds, mulberries and other red ingredients were dissolved in the patient's drink; and for liver complaints, as jaundice, yellow substances were recommended. Large books were written in support and elucidation of this doctrine, and no one doubted it (in print, at least) until the close of the 16th century. Every part and organ of the body and each ill found a remedy in one or more particular objects thus fancifully selected; but plants were most in vogue, and their natural effect upon the human system served to sustain the theory. Thus the European eye-bright (*Euphrasia officinalis*) was supposed to be good for the eye, owing to a black

pupil-like spot in the corolla; it is still sold in rural English shops for that purpose. As the generation of ferns was not understood, they were said to be seedless; but as analogy forbade the theory that a plant could be propagated otherwise than by seeds, it was supposed that a fern's seeds were invisible; hence any one possessing them would acquire the power of invisibility, and this idea enters largely into Teutonic legends and poetry, and is expressed by Shakespeare when (I. Henry IV., II. 1) he makes *Gadshill* say: "We have the receipt of fern-seed, we walk invisible."

A large number of examples are given by Thistleton Dyer, in his *Folk-Lore of Plants*, where also the literature of the subject is reviewed. A few of these follow. "The walnut was regarded as clearly good for mental cases from its bearing the signature of the whole head; the outward green cortex answering to the pericranium, the harder shell within representing the skull, and the kernel in its figure resembling the contour of the brain. . . . The pith of the elder, when pressed with the fingers, 'doth pit and receive the impress of them thereon, as the legs and feet of dropsical persons do,' therefore the juice of this tree was reckoned a cure for dropsy. . . Similarly the heart trefoil or clover (*Medicago maculata*) was so called because, says Coles in his *Art of Simpling*, not only is the leaf triangular, like the heart of a man, but also because each leaf contains the perfect image of an heart, and that in its proper color—a flesh-color. It defendeth the heart against the noisome vapor of the spleen." Heart's-ease is a similar instance, and the list might be lengthened to include every plant that had anything striking in its external appearance or habit, such as the use of the trembling aspen leaves as a cure for palsy, ague, &c. The superstition still survives to some extent.

Sigsbee, CHARLES DWIGHT, an admiral in U. S. navy, born at Albany, N. Y., in 1845. He entered the Naval Academy in 1859, and was captain of the Maine, when it was blown up in Havana harbor, in Feb. 1898. Commanded the St. Paul and the Texas in the war with Spain. Was promoted rear-admiral Aug. 12, 1903.

Silliman, BENJAMIN, chemist, geologist, and physicist, was born in Connecticut in 1779; graduated at Yale College (1796), and became professor of Chemistry in 1802, retiring as professor emeritus in 1853. He founded the *American Journal of Sciences and Arts* (known as *Silliman's Journal*), and conducted it for 20 years. He was an able lecturer in his special field, and wrote several valuable text-books. Died in 1864.

Silliman, BENJAMIN, son of the elder Benjamin Silliman, was born in Connecticut in 1816; graduated at Yale (1837), and, after teaching in the Sheffield Scientific School and in Louisville, succeeded his father as professor of Chemistry at Yale; he was made one of the State chemists of Connecticut in 1869; became associate editor of the *American Journal of Sciences and Arts*, and wrote many scientific articles. Died in 1885.

Silver City, in *New Mexico*, a post-village, cap. of Grant co., 10 m. S.W. of Fort Bayard. Gold, silver, copper, and lead are mined here. *Pop.* (1897) 2,750.

Silverbow, in *Montana*, a S.W. co.; *area*, 915 sq. m. *Surface*, largely mountainous, with but little level ground; principally noted for its immense mines of silver and copper ore. *Cap.* Butte City. *Pop.* (1897) 30,500.

Simla. A district and town of the northern part of British India; the town, 170 m. N. of Delhi and 7,000 feet above the sea-level on the southern slope of the Himalayas, is noted as a sanatorium, and as the summer headquarters of the Indian government since 1864. It was first settled in 1819, and first visited officially in 1827; there are now two vice-regal residences, good government buildings, and town hall, and good European schools. The houses are mostly cottages, and stand far enough apart to get the air. The average annual temperature is 57·8°; the regular population about 15,000 (1890), with a great increase in summer. The population of the district in 1897 was nearly 50,000. *Area*, 18 sq. m.

Simpson, MATTHEW, clergyman, was born in Cadiz, O., June 20, 1811; educated at Madison College, and became a circuit preacher in Pennsylvania; was a college professor from 1837 till 1852, when he was elected a bishop of the Methodist Episcopal Church; in 1857 travelled in Europe and the Holy Land. In 1859 he acted as president of Garrett Biblical Institute, Evanston, Ill., but removed to Philadelphia, and during the Civil War was a spirited and effective orator for the Union cause. He officiated at the funeral services of President Lincoln. During his later years he travelled much in Europe and in Mexico, chiefly on missions relating to his office as bishop. He published *One Hundred Years of Methodism* (1867); and *Cyclopedia of Methodism* (1878). Died June 18, 1884.

Sims, GEORGE ROBERT, journalist, was born in London, Sept. 2, 1847; a popular newspaper writer and dramatist, known by his successful plays, *The Lights o' London*, *Romany Rye*, and *In the Ranks*.

Sims, JAMES MARION, surgeon, was born in Lancaster co., S. C., Jan. 25, 1813; took his degree in medicine from Jefferson College (1835), became a specialist in the treatment of diseases of women, and opened a hospital in New York city (1855), securing an appropriation of $50,000 from the New York legislature. He spent seven years in Europe (1861-68), practicing in England and in the Continental cities; also returned to Europe during the Franco-Prussian War to organize the Anglo-American Ambulance Corps; returning to New York, where he remained thereafter, becoming one of the board of surgeons of the Woman's Hospital. He was a frequent contributor to medical journals. Died Nov. 13, 1883.

Sin'gle Tax. (*Pol. Econ.*) A plan of taxation proposed by Henry George (*q. v.*), in a book by him, entitled *Progress and Poverty*. This plan is to abolish all taxation save that on land values. His theory proposes the collection of all public revenues from one single source, what in political economy is termed "rent," the value of land itself, irrespective of the value of any improvement in or on it; or, to adopt another form of statement, his theory proposes the appropriation of the "unearned increment of land values" to public uses, by means of taxation. He urges the adoption of his theory on two grounds—governmental expediency and social justice. He maintains that the common-sense way for the State or any of its subdivisions to obtain revenues is by a single tax on the value of land; that the attempts of governments to raise revenue by other taxes are stupid and barbarous; that taxes on imports, taxes on internal production or exchange, taxes on capital in any of its forms, nearly all license taxes, and all that part of real estate taxes that rests on buildings and improvements do not really fall on those who pay them to the State, but, with added interest and profits, finally fall upon the ultimate user or consumer. His contention is that a tax on the "value of land is not a tax on land, but on an advantage accruing on specially desirable land, which can in no case go to the land user as user; that a tax on the value of land must fall on the owner, whoever he may be, taking from him, not in proportion to anything his labor or capital may have contributed to the general wealth, but only in proportion to the unearned income which the adjustments of the State give him the special privilege of receiving." This unearned income is called by the proposer of the theory the "unearned increment" which grows by all public improvements, material, political, and even moral, and by private improvement, since, he contends, the erection of a beautiful dwelling, the opening of a good hotel or well-appointed store, or of a mine or factory, or even improvement in the personal qualities or conditions which make people more desirable neighbors, localize an advantage that becomes tangible in land values. This unearned increment, it is asserted, is a natural growth, born of civilization and increasing with its advance; belonging to the society itself as distinguished from its individual members by the same right of property which gives to the individual the ownership of his product. "It is the natural provision for the natural need of public revenues; a fund secreted by the social organism to meet the wants, analogous to those of the physical body for sustenance, which come with its definite appearance and grow with its growth."

Siouan (*soo'ăn*) **Fam'ily, In'dian.** (*Ethnol.*) This linguistic family comprises the Indians formerly ranging over the basin of the Missouri and Arkansas rivers. They were the tribesmen of the plains reaching from the Mississippi and Lake Michigan (at Green Bay) westward to the foot of the Rockies, where they were steadily pressing back the Shoshonean tribes (*q. v.*), and northward into the Canadian plains. At the south the Caddoans resisted their advance south of the Arkansas, and eastward the Algonquians and Muskogeans have latterly kept them west of the Mississippi; but in comparatively late prehistoric times probably most of the Siouan tribes dwelt east of the Mississippi river, where remnants, such as the Catawbas, Waterees, and Tutelos, in Virginia, and the Biloxis, of the coast of Mississippi, were discovered by white explorers. The principal tribe was that of the Dakotas, of the Missouri valley, and their name is used by many writers as a synonym of "Sioux," because the latter word is a (Chippewa) term of reproach. Among the Dakotas are a series of powerful local divisions, such as Santee, Sissetou, Wahpeton, Yankton, Yanktonnais, and Teton. In the last is found such famous and closely-allied bands as the Brule, Sans Arc, Blackfeet, Minneconjou, Ogallala, and Uncpapa Sioux. Other tribes, ranking with the Dakota, are the Assiniboin, Omaha, Ponca (or Ponka), Kaw, Osage, Quawpaw, Iowa, Otoe, Missouri (or Missouria), Winnebago, Mandan, Minnetaree (often called Gros Ventre), Crow (or Absaroke), Tutelo, Biloxi, Catawba, and Woccoon. Several of these tribes are extinct, and nearly all are domiciled upon reservations away from their ancestral homes; but some remain in substantially the same place, strength, and habits, as when they were first met by whites, whom they have since fought with a fury and success equal to no other Indian race. Their present total number is about 43,000.

Sioux (*soo*), in *Nebraska*, an extreme N.W. co., adjoining Wyoming and South Dakota; *area*, 2,046 sq. m.; intersected by L'eau-qui-court river. *Surface*, partly hilly, partly undulating; *soil*, a very fertile, sandy loam. Has timber. *Cap.* Harrison. *Pop.* (1897) 2,720.

Sir'ius, *n.* [Alpha Canis Majoris, generally called the "Dog Star."] (*Astron.*) This star, always shining with imperial luster, is the brightest one in the celestial vault, and is the best known to the mass of mankind of any of the bright first-magnitude stars. It was formerly supposed, from its great brilliance, that it was the nearest star to our system. Its small parallax (if any) has proved the fallacy of this belief; many attempts have been made to ascertain its parallax, but they are so discrepant that no confidence whatever can be attached to any results attained, a fact strongly proving that between the two qualities—brightness and distance—there is no necessary relation. For aught we know, however, there may be stars of the sixth magnitude that are nearer than any of the first. Even the amount of their proper motions affords no data on which to base an opinion as to their distance. "The runaway star," as Newcomb calls it (1830 of *Groombridge's Catalogue*), though invisible to the naked eye, has the largest proper motion of any known, amounting to 7″ annually, at the supposed rate of 200 miles a second, requiring 185,000 years to complete the circuit of the sky. If any reliance at all can be placed on the parallax of Sirius, its distance from us must be at least a million times the sun's distance from the earth, or 93,000,000,000,000 miles; therefore, it would take an express train, running 50 miles an hour, nearly 250,000,000 years to reach it. Sirius is a binary star, the components revolving around each other in 49·4 years. Its companion was discovered in 1862, by the late Alvan G. Clark. From inequalities of its proper motions it was long before supposed to have a companion, which was finally discovered, and at the computed place. Sirius at the present time is moving toward our system, or in the line of sight, at the rate of 20 miles a second. When the sun in his eastern annual journey approaches so near Sirius as to render that star invisible, dog-days are said to commence, and when the sun has so far passed it as to render Sirius again visible, dog-days are said to end. In ancient times this period commenced Aug. 5; but owing to precession of the equinoxes it now commences July 3 and ends July 11, lasting 40 days. (See PRECESSION). During the precessional period of 25,700 years, they will commence in all the 12 months of the year. The statement, handed down from book to book, that Sirius is 80 times the size of the sun has nothing to support it; that it is larger, is undoubtedly true. The star is classified as of 1·10 magnitude. The maximum distance between the components is about 11″, and the minimum 2·33″; period, 49·4 years; brightness of companion, eighth magnitude. The position of Sirius for 1900 is R. A. 6h. 40m. 44s., Dec. 16° 33′ 57″.

Sisal (*se'sahl*), *n.* (*Com.*) The henequen fiber, or *S.* hemp, an important export of Yucatan, from the port of Sisal, whence the name. Several cultivated species of the native *Agave* furnish this fiber, which is largely used for cordage, and particularly for ships' cables, as it resists the action of salt-water for a long time. It has been known to the Mayas for hundreds of years, and has been largely grown by them, as the plants flourish in arid ground which would support no other fiber-yielding plant.

Sit'ting Bull, a chief and medicine-man of the Sioux Indians of Dakota, was born about 1837; was from early manhood an implacable foe of the white race, and became a leader of the hostile members of the tribe who engaged in the massacre in Minnesota in 1862. For fourteen years he was constantly on the warpath, and organized the expedition in which General Custer and his entire force perished, while Sitting Bull and his band escaped to Canada. On promise of pardon he surrendered to General Miles in 1880; returned to Dakota and renewed his efforts to stir up trouble; in 1890 his arrest was attempted, and, in the fight of resistance that ensued, he was killed Dec. 15, 1890.

Sixty Mile. (*Geog.*) A gold-bearing stream tributary to the Yukon, entering from the southwest near the mouth of White river. Also a mining village at its mouth. See YUKON DISTRICT.

Skag'it, in *Washington*, a N.W. co.; *area* 1,916 sq. m.; traversed by Skagit river. Good agricultural land. *Cap.* Mt. Vernon. *Pop.* (1897) 10,000.

Skaguay. See SHKAGWAY.

Skates, *n. pl.* The first skates used were bones tied to the shoes. Wooden skates, shod with iron, were introduced in England from the Netherlands, about the middle of the 17th century. These were strapped to the foot. Later, spikes and screws were provided for fixing the skates more solidly to the heel. About 1865 the prevailing style of skate in the United States had a broad iron or steel runner curled up in front of the toe, and fitted with a wooden body-piece in which were slots for the passage of the straps. A very similar skate is still used in England to some extent, but in the United States these have given way to the steel club-skate, which has a runner slightly curved on the skating edge, securely riveted to a sole-plate and heel-plate, in which are slots for adjustable clamps, which are made to grip the sole and heel of a shoe by means of a screw and toggle-lever mechanism. The English and German forms of skates have much lower and flatter runners than those used in the U. S. The Norwegians use the skee more than the skate. (See SNOWSHOES.) Wheeled skates were at first known as parlor-skates, but when they became common they took the name of roller-skates. The ordinary form has four small wooden wheels, with axles pivoted to a wooden base, the whole being fastened to the foot by straps. They were widely used during the skating-rink "craze" of 1883-6. A road-skate, having two wheels, for use on concrete and asphalt roads, is now used in England. The wheels are each about 4 inches in diameter, and have rubber or pneumatic tires. As they elevate the foot to a position which strains the ankle, braces are run from each side of the sole-plate to a knee-piece, preserving the skater from injury by turning of the ankle-joint. Another form of road-skate has two small wheels under the foot on one side, and a large wheel of about a foot in diameter on the other side. The large wheel has a central pinion driven by a curved rack on the sole-piece, so that the skater may add to his speed by rocking his foot—that is, alternately depressing and lowering the toe. This is really a little tricycle carried by the foot that drives it.

Skeat, WALTER WILLIAM, philologist and Anglo-Saxon scholar, was born in London, Nov. 21, 1835; educated at King's College School, and Christ College, Cambridge.

graduating in 1858; became a fellow of his college (1860), and mathematical lecturer there (1864); was elected the first Elrengton and Bosworth professor of Anglo-Saxon at Cambridge (1878), and re-elected to a Christ College fellowship (1883). By his exhaustive labors on Langland and Chancer he has contributed more than any other scholar of his time to a sound knowledge of Middle English. His chief work is an *Etymological English Dictionary* (1882), to which he added *Principles of English Etymology* (1887-91). He has published editions of many early English texts, including very full reprints of *Piers Plowman*, with critical and explanatory notes; the *Canterbury Tales*, and other writings of Chaucer, &c., which have been issued by the Clarendon Press, the Scottish Text Society, and other philological and dialect societies.

Ski'agraph, *n.* A photographic picture obtained by means of the Roentgen rays; a radiograph. Called also skotograph and shadowgraph. See illustration at ROENTGEN RAYS.

Skiag'raphy, *n.* The art of taking pictures by means of the Roentgen rays; the taking of shadow-pictures or skiagraphs. In older senses the word is used to signify the art of correctly shading a picture, also the finding of the time of day by means of shadows.

Ski'ascope, *n.* An apparatus containing a fluorescent screen for changing the Roentgen rays into light, and enabling an observer to see through opaque substances when penetrated by the rays. (See illustration at ROENTGEN RAYS.) It is similar to the fluoroscope of Edison, being a pasteboard box with four sides diverging from a small end, intended to fit the eye, to a large end, which is composed of a rectangular fluorescent screen. The interior of the box is covered with black paper, its whole object being to exclude exterior light so that only the light coming from the screen may be visible. The screen is of cardboard, and bears a coating of crystals of some fluorescent substance, as calcium tungstate, or potassium platino-cyanide. In using the skiascope the observer looks through it at the object placed between him and the Crookes tube. The Crookes tube having been excited by an electric current, the cathode rays from the terminal button are changed into Roentgen rays, which emanate from the tube, pass clear through the opaque object viewed, and on through the fluorescent screen of cardboard, where the rays are changed into light, so that the observer is enabled to see through the object, which may be a human being, and discern the form of the bones, &c., the extent of his vision being limited only by the penetrating power of the Roentgen rays. See ROENTGEN RAYS; FLUORESCENCE.

Sko'beleff, MIKHAIL DMITRISVITCH, soldier, was born in the Riagan district, Russia, about 1843; educated in the military school at St. Petersburg; from 1863 to 1877 was one of the most distinguished officers of the Russian army, attaining the rank of major-general. Died July 7, 1882.

Sla'ter, in *Missouri*, a post-village of Saline co., 12 m. N.E. of Marshall. *Pop.* (1897) 2,475.

Slaugh'ter-houses, or **Ab'attoirs.** One of the features of Rome, at the time of its glory, was the great meat-market, where was concentrated all the butchering and selling of meat, under control of a guild. Similar arrangements existed elsewhere in the ancient empire, but fell into disuse during the confusion of the Middle Ages. As early as the 16th century, Paris endeavored to regulate the slaughtering of animals by law; but these measures were either of no avail or were not enforced, while the city continued to grow, until at the beginning of the present century the numerous slaughter-houses, and loose, cruel arrangements for importing and killing food-animals had become a nuisance and a menace to health. Under the command of Napoleon I., the city authorities, by a commission, set apart ground in the outskirts of the city, and erected the five great abattoirs still in existence at the several points. These cover in the aggregate 38 acres, and contain over 250 slaughter-houses, besides a great number of yards where the animals wait to cool off, and buildings in which the meats and various by-products are prepared, offices, &c. They are regulated under a carefully made code of laws, and constantly inspected by expert agents of the city. This example has been followed by most continental towns, but Great Britain was slow to realize its value. It was not until 1852 that the abominations of Smithfield market, where "no fewer than 243,537 cattle and 1,455,249 sheep were sold" in that year, "to be afterwards slaughtered in the crowded courts and thoroughfares of the metropolis," impressed themselves upon Parliament sufficiently to secure any remedy. This came, to some extent, however, when in 1854 the cattle market was removed to the vast, new, and improved suburban market in Islington; but even here no public, police-regulated slaughter-houses were provided, and to this day isolated private establishments do all the slaughtering for London. Scotland, however, is much in advance of this and other English cities. Edinburgh erected, in 1851, a public abattoir embodying all known improvements, which still supplies the needs of the city, and where all animals are killed, and the meat prepared under strict supervision, no private slaughtering in the city or its suburbs being permitted. This institution pays a profit to the city treasury. Glasgow long ago adopted the same system, great municipal slaughter-houses superseding all private establishments. In that city, further, "all the wholesale marts for produce, meat, animals, and fish are in the city's own hands, and are so managed as to yield net revenue, while facilitating the work of the public food-inspectors, and contributing to the healthfulness of the city." The slaughtering of animals in the city of New York is confined by law to establishments permitted by the Board of Health. The permits granted at the close of 1892 were: 42 for the slaughter of cattle, 27 for sheep, 9 for hogs, and 3 for poultry; total, 81. The buildings used are large, modern abattoirs on the water-side, built by individuals or corporations; and by law, in 1896, they were confined to certain small specified localities. The new charter of the Greater New York, dating from Jan. 1, 1898, removes this restriction, simply requiring that slaughter-houses shall be on or near the water-side, and leaving all responsibility, as to location, to the Board of Health. The law requires as to these slaughter-houses: (1) No blood or offal shall be allowed to pass into the sewers. (2) The house must be cleaned up as soon as the day's work is completed; and all material offensive, or liable to become so, must be removed immediately. (3) Floors and pavements of cattle-yards, hog-yards, and stock-yards must be water-tight. (4) Floors and walls must be in good repair, and killing-beds and pens water-tight. (5) Rooms where offensive odors are produced shall be constructed so that these are carried off by fans or blowers, and either discharged under water or through, and not over, the glowing coals of the furnace. (6) All pipes for odors, scrubbers, and disinfecting and deodorizing apparatus, must be carefully examined daily. The Board of Health inspections of slaughter-houses in 1896 were 9,956. The number of cattle, sheep, &c., slaughtered in New York in 1896 was as follows: Cattle, 436,580; weight, 310,408,380 pounds; sheep and lambs, 1,476,534; weight, 75,303,230 pounds; hogs, 998,896; weight, 160,822,256 pounds; besides 26,595,000 pounds of poultry. There were also brought into the city, in 1896, 330,000,000 pounds of dressed meats, including 139,000,000 pounds beef; 11,840,000 pounds calves; 36,036,000 pounds sheep; 15,750,000 pounds hogs, and 104,688,000 pounds poultry.

Slavs, *n. pl.* [Ger. *Sklave.*] (*Ethnol.*) A group of the Aryan stock in the races of mankind, vaguely spoken of by the ancients as Scythians and Sarmatines, now constituting some three-tenths of the inhabitants of Europe, and embracing the Bulgarians, Croatians, Czechs, Montenegrins, Poles, Russians, Servians, and Wends.

Sleep'y Eye, in *Minnesota*, a post-village of Brown co., 14 m. W. of New Ulm. A center of local trade. *Pop.* (1895) 1,958.

Sleep'y Hol'low. Pocantico creek flows into the Hudson river about half a mile north of the village of Tarrytown, N.Y., and its narrow valley is called Sleepy Hollow. It is the scene of one of Washington Irving's best-known sketches, *The Legend of Sleepy Hollow*, to be found in *The Sketch Book*. The old mill and the old Dutch church of which he wrote are still standing, and the quiet, peaceful character of the country is little changed. In the newer portion of the cemetery around the old church is the grave of Washington Irving. See IRVING.

Slidell', JOHN, lawyer, was born in New York city, in 1793; graduated at Columbia College, studied law, removed to New Orleans; was elected to Congress (1842) as a States-right Democrat; was a U. S. senator from 1853 to 1861; left the Senate when his State seceded; in Sept., 1861, was appointed Confederate minister to France, and set out with James M. Mason for Southampton; were seized on the high seas by Captain Wilkes, of the U. S. N., and brought as prisoners to Boston, where they were confined in Fort Warren until Jan. 1, 1862, when they were released on the demand of the English government. They proceeded to Paris, but failed to secure recognition for the Confederate States from the French government. Napoleon III., however, gave his personal sympathy and aid in negotiating a loan of $15,000,000 for the Confederate States, and securing a ship, the *Stonewall*, for its navy. After the war *S.* resided in England, and died there July 29, 1871.

Slide'-rule, *n.* (*Mech.*) A rule for making mechanical calculations, being constructed of two or more sliding (or sometimes rotating) pieces, bearing graduations, so arranged that some function of a number on one piece may be formed opposite to it on another piece. The scales on opposing pieces are graduated to the logarithms of the numbers on them, so that products difficult of calculation by other means may be obtained and read by a mere shifting of the slides.

Sloane, WILLIAM MILLIGAN, educator and writer, was born in Richmond, O., Nov 12, 1850, son of the Rev. James R. W. Sloane; graduated at Columbia College (1868); went to Berlin to study philology (1872); was secretary to Hon. George Bancroft, then American minister to Germany; returned to America, and became a professor at Princeton. During 1895 he published a critical *Life of Napoleon Bonaparte*, in the *Century Magazine*, the material for which he had collected from the government archives of France, Great Britain, and Italy. He wrote also *The Life and Works of J. R. W. Sloane* (1888); *The French War and the Revolution* (1893); and edited the *Life of James McCosh* (1896). He was the editor of the *New Princeton Review* (1885-88), and one of the editors of the *American Historical Review*. In 1896 he was appointed Seth Low professor of History in Columbia University.

Sloid, or **Sloyd,** *n.* [Sw. *slöjd*, skill, dexterity.] A system of elementary manual training originating in Finland, but adopted in Sweden about 1876, and since introduced into this and other countries. It uses wood only as the material to be manipulated, and consists of a series of exercises carefully graduated from the simplest use of tools—as whittling out a flower-stick—to compisex work in joinery. Its aim is not to teach a trade, but to educate the pupil, to insure a healthy and harmonious physical and intellectual development, and the acquirement of a dexterity that will be useful in every vocation of life.

Slot'-machines', *n. pl.* (*Mech.*) The success of the nickel-in-the-slot weighing machines, between 1880 and 1890, resulted in the development of a long line of slot-machines for vending various small articles. Prominent among these were the chewing-gum machines, gambling machines, phonographic machines, &c. The number and variety of the machines introduced led many to regard them as a new thing, whereas, in reality, the invention is a very old one, and it is even claimed that the ancient Egyptians used some form of slot-machine for dispensing holy water in their temples. The modern introduction of so many machines of this class is due to the fact that the weighing machines proved profitable, and led many to believe that here was an unworked field for further profitable investment. A long line of patents have been issued for various mechanisms for operating slot-machines, the interior mechanism being all that has been patentable. A common form of device has been a balance, which was tipped by the weight of the coin placed in the slot, and thus made to release a drawer, slide, or door, affording access to one of the articles offered for sale. A still better arrangement, which is used in some form or other in most of the machines of recent date, consists in making use of the coin as a part of an unlocking mechanism. For instance, if there is a slide on the machine for pushing out one article at a time, it is so made that ordinary pushing fails to accomplish any result; but if the proper coin be dropped in, it slips into a notch in the slide, and when the slide is again pushed it carries the coin with it, and the upper projecting edge of the coin serves to catch and release an inner gate, dropping out one of the articles vended. The coin then rolls into a cash-drawer, and a spring resets the slide, leaving the machine ready for another purchase.

Many machines have been made with sharp, sliding jaws, designed to detect lead coins, and convey them away without delivering the product; but the device is not wholly satisfactory, and the machines are, as a rule, at the mercy of all dishonest persons provided with circular metal blanks the size of the required coins. The lack of earning ability in many of the machines which have been placed on the market seems to be wholly attributable to the lack of probity on the part of the public. Many people, otherwise honest, have deemed it smart to beat a slot-machine, and boys and mischievous persons seem to take an especial delight in subjecting the machines to abuse. Probably the weighing machines have paid better than any other class of vending machines, and they have been introduced in railway stations, ferry-houses, hotels, and other public places all over the civilized world. The reduction of price, from five cents to one cent, has probably added to their earning capacity, as there is no direct expense with this machine for the thing sold, the cost being the same per day, without reference to the number of people who stand on the scales to be weighed. The chewing-gum machines, and the phonographic and kinetoscopic machines appear to have yielded a profit, and various gambling machines have earned money for a time, a permanent income from them being impossible, however, as they are not patentable, and the introduction of every gambling machine that paid has always been followed by a host of imitations, so that the profits were cut up, usually ending by police interference.

One gambling machine, which is known as the "Jack-pot," is said to have paid enormously for a short time, so seductive were its methods. This machine had a glass front, and when a nickel was dropped in it descended along a slide in full view, its course being checked and turned by projecting pins, so that it was liable to fall into any one of about 20 positions. About one-fourth of the nickels fell into a cash drawer for the benefit of the owner of the machine. The rest of them fell into a glass-covered case, and were released when one of the nickels happened to fall into one of the twenty positions, when a heap of nickels rolled out and became the property of the person who had gambled the last nickel. The machine was started in the morning with a dollar's worth of nickels, and the sight of the cash, perhaps to be obtained for five cents, proved a great temptation to gamblers. Having dropped in a few nickels without result, a gambler always felt obliged, if he had the money, to keep on until he secured at least one lot of nickels, and in this way nearly every patron of the machine averaged to drop in a dollar each time he tried it, and to get back 75 cents, while there were enough to win a few dollars with a few nickels to keep up the patronage. This machine was introduced into the saloons in nearly all the large cities of the U. S. about 1894, but was speedily stopped by local authorities.

Other gambling machines have been operated by throwing dice and shifting playing cards mounted so as to show a hand of five cards at every change. Postage-stamp machines, newspaper-vending machines, cigar machines, and a variety of others have been introduced, and withdrawn as unprofitable. The stamp machines, which sold two 2-cent stamps for a nickel, failed because the stock of stamps could not be exposed to view without inciting burglary, and if hidden the public were often afraid to buy, as the stock was not certainly in the machine. The cigar machines contravened revenue laws, and the newspaper machines were the especial butt of the newsboys, who crippled them

as fast as they came out. The experience of the promoters of the various machines which have been marketed seems to indicate that only those machines which sell an article having little or no intrinsic cost can be made profitable. It is also necessary to place the machines in the care of some person, in some interior place. If allowed to remain out in the streets over night, the known presence of a cash-drawer somewhere in the interior always incites burglary of the machine.

Smal'ley, GEORGE WASHBURN, journalist, was born in Franklin, Mass., June 2, 1833; graduated at Yale (1853); studied law at Harvard Law School, and practiced in Boston until 1861; from 1861 to 1863, was war correspondent of the New York *Tribune*, accompanying the Federal army, and writing descriptions of battles with picturesque effect. In 1863 he took a position in the editorial department of the *Tribune*, and afterward went to London to establish a London bureau. He returned to the U. S. in 1895 and became American correspondent for the London *Times*.

Smear'case, *n.* [Ger. *schmierkäse.*] An article of food made by mixing dry curds with milk or cream; cottage cheese.

Smiles, SAMUEL, writer, was born at Haddington, Scotland, in 1812; published *Self Help* in 1859; *Character* (1871); *Thrift* (1875); *Duty* (1880), and *Life and Labor* (1887), all of which are inspiring and stimulating to wholesome effort. He has also written many biographies of self-made men, particularly of the industrial classes, the first of which series was a *Life of George Stephenson* (1857), and the latest, *Jasmin*, the barber-poet and philanthropist (1891), and *A Publisher and His Friends* (1891), incidents in the life of John Murray. In addition to these works, S. has published two volumes of an historical character, *The Huguenots in England* (1867), and *The Huguenots in France after the Revocation of the Edict of Nantes* (1873). In 1878 he received the degree of LL. D. from the University of Edinburgh.

Smith, ANDREW JACKSON, U. S. A., was born in Bucks co., Pa., April 28, 1815; graduated at West Point; served on the frontier; held the rank of major in 1861; became colonel and then chief of cavalry in the Department of the Missouri, and later in the Department of the Mississippi; saw active service, and rose in rank to be major-general of volunteers (1864), being recognized as one of the best generals in the field; was mustered out of the volunteer service at the close of the war; and resigned his commission in the regular army in 1869; but by Act of Congress in 1889 was reappointed colonel of cavalry, and placed on the retired list.

Smith, CHARLES EMORY, journalist, was born in Mansfield, Conn.; engaged in editorial work in Albany, N. Y.; in 1880, became editor of the Philadelphia *Press*; was U. S. minister to St. Petersburg (1890-92); postmaster-general (1898-1902).

Smith, FRANK HOPKINSON, artist, author, and engineer, was born in Maryland, Oct. 23, 1838. As an engineer he has built many public works, some of which were under government contract; he has done some superior work in water-colors; and has published several books: *Well-worn Roads* (1886); *Old Lines in New Black and White* (1886); *A Book of the Tile Club* (1887); *Colonel Carter of Cartersville* (1891); and *Tom Grogan* (1895).

Smith, GOLDWIN, author and educator, was born at Reading, England, Aug. 13, 1823; educated at Eton and Oxford; made a brilliant university record; became regius professor of Modern History at Oxford, remaining there until 1866. During the Civil War in America he visited the United States; was a prominent champion of the Federal cause. In November, 1868, he accepted the chair of English and Constitutional History at Cornell University, and filled this post until 1871, when he removed to Toronto, Canada, where he has since resided, engaged more or less in editorial work in Canada, and writing also for the English reviews. Though affiliating with the Liberal party in Canadian politics, Prof. S. has taken radical ground in opposition to the Home Rule policy of Mr. Gladstone. His published works embrace lectures on history, literary and political criticisms, translations from the Greek poets, essays and reviews on ethical and religious subjects, and other magazine articles. His latest books are: *Guesses at the Riddle of Existence* (1896) and *Political History of England* (1897).

Smith, HOKE, lawyer, was born in Newton, N. C., Sept. 2, 1855; admitted to the bar (1873); in 1887 became president of the Atlanta *Evening Journal* Co., which supported tariff reform. In 1893 President Cleveland appointed S. secretary of the interior; but not sympathizing with the administration on the financial question, he resigned in August, 1896.

Smith, ROSWELL, publisher, was born in Lebanon, Conn., March 30, 1829; graduated at Brown University; studied law and settled in Lafayette, Ind. In 1870, with Dr. J. G. Holland, founded *Scribner's Monthly;* in 1881, having gained a controlling interest in the magazine, he changed its name to the *Century Magazine*, and became founder and president of the Century Publishing Co. *St. Nicholas* was founded by him in 1873. He also organized the *Century Dictionary* enterprise. Died April 18, 1892.

Smith, SAMUEL FRANCIS, clergyman and hymn-writer, was born in Boston, Mass., Oct. 21, 1808; graduated from Harvard; one of the class commemorated in Dr. Holmes' poem, *The Boys;* studied theology at Andover, and entered the Baptist ministry; in 1875–76, and again in 1880–82, he visited the chief missionary stations in Europe and Asia. He wrote many hymns; those best known are: *My Country, 'tis of Thee*, and *The Morning Light is Breaking.* Died Nov. 16, 1895.

Smith, in *Kansas*, a N. co.; *area*, 900 sq. m.; intersected by the North Fork of Solomon river, and also drained by Beaver, Cedar, and Oak creeks. *Surface*, chiefly rolling prairie; *soil*, fertile. *Cap.* Smith Center. *Pop.* (1895) 14,019.

Smith College. (*Educ.*) A non-sectarian institution for the higher education of women, at Northampton, Mass. It was founded in 1875 by Miss Sophia Smith, of Hatfield, Mass., who died June 12, 1870. She was the niece of Oliver Smith (1766–1845), who founded the "Smith Charities," in the same city, which expends the interest of over $1,000,000 in marriage portions to poor young couples, &c. Besides giving $387,468 to Smith College, Miss Smith endowed a preparatory school at Hatfield, Mass., with $75,000. There are at the college three courses—classical, literary, and scientific, each occupying four years. There are also schools of music and of art, the former requiring three years and the latter four. Students and teachers meet daily for worship, and the study of the Bible is part of the course. Eighteen buildings adorn the extensive grounds, besides an observatory and a botanical garden. In 1895 there were 60 instructors and 850 students, with a library of 6,000 volumes, and the revenue of the college, in that year, was $124,600.

Smith'son, JAMES, philanthropist, was born in England about 1754, a natural son of Hugh Smithson, third duke of Northumberland; graduated at Oxford (1786) with high rank as a chemist; travelled on the Continent, making scientific observations, and collected many gems and minerals; was elected a member of the Royal Society of England and of the French Institute. He bequeathed his property, about £120,000, to a nephew, on the condition that should the latter die without heirs, the property should be "left to the U. S. for the purpose of founding an institution at Washington, to be called the Smithsonian Institution, for the increase and diffusion of knowledge among men." The nephew died in 1835, without heirs, and the property came into the possession of the U. S. Government, amounting to $508,318·46. *S.* died June 27, 1829.

Smoke'-consump'tion, *n.* Manufacturers of furnaces have given great attention to arrangements and devices looking to the consumption of the solid particles that so easily escape up a chimney with the gases caused by combustion. These particles are principally finely divided carbon, or pellicles of carbon containing inflammable gas. If these can be retained in the furnace, the distribution of sooty smoke and cinders over the neighborhood is avoided, and their consumption is also an economy of fuel. The primary principle involved in accomplishing such perfect combustion involves the use of the proper amount of air in the furnace to secure complete burning of the fuel. If the amount of air reaching bituminous fuel is insufficient, the effect is that only partial distillation results, and a thick black smoke and tar-like soot are carried up. If insufficient air be given to anthracite or other carbonaceous fuel, the gases are only partially oxidized, and the same is true of wood fuel, with the added drawback that tar-like and acid products are carried off. On the other hand, if too much air be introduced in a furnace, the tendency is to reduce the heat of the furnace, and a great body of air is uselessly heated and passed up the chimney, while the lack of heat in the furnace is liable to cause incomplete combustion of the fuel. It is best that the air should be heated before reaching the fuel, as it otherwise chills the combustible gases and they are not perfectly burned. The plan of having the fresh fuel thrown on top of that which is red hot is a bad one, as the smoke should pass over a mass of live, burning fuel before ascending. This is recognized in the base-burning stoves, mechanical stokers, and many forms of furnaces. The several methods utilized to secure perfect combustion are: (1) Introduction of the fuel in a manner that insures the passage of the gases of combustion through a mass of red-hot fuel. (2) The admission of a second draft to inflame such unconsumed portions of combustible matter as are carried from the fire. (3) The projection of fine jets of steam into the upper part of a furnace, to carry down again unconsumed particles. (4) The use of a rotating grate on which the fuel is always fed from the front, so that the smoke coming from the fresh fuel is obliged to pass over that which is more thoroughly heated. (5) The employment of a dead plate, on which the fresh fuel is placed, and allowed to heat until it becomes coked, when it is pushed on to the grate, the smoke that arises during the coking being forced to pass over the red-hot coals beyond.

Smut, *n.* (*Agric.*) A fungous affection of wheat, barley, oats, and other cereals, deriving its name from the black sooty mass into which the diseased parts of the host-plant are converted. Smut is produced by a fungus of the gen. *Ustilago*, allied to the gen. *Uredo*, and characterized by its simple spores springing at first from delicate threads or produced in the form of closely-packed cells, which ultimately break up into a powdery mass, and destroy the inflorescence, where it fructifies. It commences its growth long before the sheath opens to give liberty to the inflorescence. The spores are dispersed over the whole country, but the disease is not communicated from one plant or field to another of standing grain, attacking, instead, the sprouting seed. Washing smutty seed in a solution of blue vitriol, one pound or more to a gallon of water, and then sowing in clean soil, prevents the disease. As soon as the seeds are sown, ordinarily the spores are ready in the soil to contaminate the young plant. We have in vain attempted to impregnate grain with smut, though rubbing healthy seeds with the spores of "hunt," the English name for the "stinking-smut," seldom or never fails. The probability is that the smut-spores require a long season of rest before their germination takes place, whereas bunt-spores develop their peculiar spawn a few hours after being sown. Smut occurs in all parts of the world where cereals are cultivated, and causes much loss. It is subject to slight variations according to the different plants upon which it is developed, but not such as to justify the separation of several species. On Indian corn it attains an enormous size, measuring frequently some inches in diameter.

Smyth, CHARLES PIAZZI, astronomer, was born in Naples, in 1819; educated in England, and adopted astronomy as a life-study; in 1845 was appointed first astronomer royal for Scotland in the Royal Observatory, Edinburgh, which position he filled until 1888, when he was retired by his own request, and granted a pension.

Snoho'mish, in *Washington*, a city, cap. of Snohomish co., 48 m. by water N. of Seattle; has extensive lumbering interests. *Pop.* (1897) 2,550.

Snow'den, JAMES ROSS, numismatist, was born in Chester, Pa., in 1810; graduated from Dickinson College; studied law; was a member of the Pennsylvania legislature (1842-44); State treasurer (1845-47); treasurer of the U. S. Mint at Philadelphia (1847-50), and director of the Mint (1853-61). He gave his whole attention to the study of old coins and the history of coinage in all times and countries, and wrote several works relative to this subject. Died March 21, 1878.

Snow'-plow, *n.* The introduction of railways in northern climates has necessitated the manufacture of snow-plows, which have been highly developed on American railways. For comparatively light snowfalls, cars equipped with rotating sweepers are satisfactory, and are much used by street railway companies. For deeper snows a car with a very stout, wedge-shaped front is used to force the snow to either side, by the push of a locomotive. Where great drifts are encountered this form is inefficient, and the rotary or centrifugal snow-plow is employed. This consists of a stoutly-built car, containing an engine and boiler arranged to drive a forwardly projecting shaft. On this

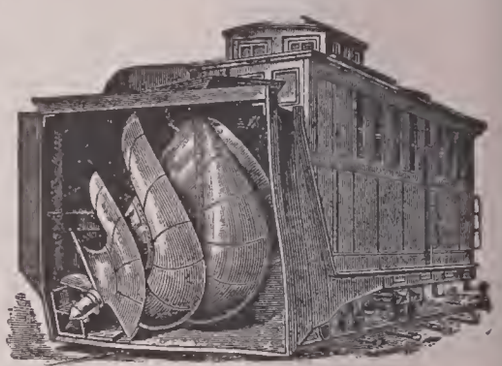

Fig. 3064.—CENTRIFUGAL SNOW-PLOW.

shaft is mounted a mechanism resembling an enormous auger, having flanges of increasing diameter, and very broad for its length; this auger projects from the front of the car, the point being a little more than a foot above the rails. When this plow is pushed before a locomotive into a snow-drift, and the auger rapidly rotated by its own engine, it bores right into the drift, throwing the snow out centrifugally, and avoiding that packing of the snow which results from using a wedge-like plow. These centrifugal plows are often built of fifty tons weight, and since their introduction the interference with railway travel by snow-drifts has been much lessened.

Sod'dy, in *Tennessee*, a post-village of Hamilton co.; has several mills. Coal and iron ore abound here. *Pop.* (1897) 1,255.

Soko'to, a large province in the western Soudan, embracing the lower valley of the Niger, and its largest eastern tributary, the Benue. Its coast extends from the Bight of Benin east to Old Calabar, and Bonny is the best-known port. Its inhabitants number about 10,000,000, consisting of Fulehs (the ruling class), semi-civilized Mohammedan Hausas, and pagan negroes. The sultan resides chiefly at Sokoto, on the northern frontier.

Sol'enoid, *n.* (*Physics.*) A simple form of electro-magnet, made use of in electrical experiments. It is ordinarily constructed of a helix of stout copper-wire, having the ends of the wire turned in so as to pass along the axis of the helix to the middle, where they are brought out between two of the turns, and can be attached to the terminals of a battery in any required way. The different parts of the helix are insulated from each other either by using covered wire, or by using stiff wire and bending it so that the parts may not be in contact.

Solu'tion, *n.* (*Physics.*) The change of solid or gaseous matter into liquid form by combination with a liquid. The action is due to cohesion, sugar dissolving in water because its molecules have less adhesion among themselves than they have for the molecules of the water. A combination of this sort, being unaccompanied by any discovered chemical change, is called a *physical solution.* It is contended by some, however, that all solu-

SOUTH DAKOTA

SCALE OF MILES

0 10 20 30 40 50 60

State Capital ⊛ County Seats ⊙

Places of 4000 and over ——— YANKTON

2000 to 4000 ——— Deadwood

1000 to 2000 ——— Rapid City

500 to 1000 ——— Custer

Military Reservation boundary ——— Indian Reservation boundary

Forest Reserve boundary ———

Hammond's 8 x 11 Map of South Dakota

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Longitude West from Greenwich

SO. DAKOTA.

Land surface, Sq. m. 76,850
Water surface, Sq. m. 800
Pop 1900....401,570
White 380,714
African.....465
Indian.....20,225
Chinese.....165
Japanese..... 1
Native-born, 313,062
Foreign-born, 88,508
Males.....216,164
Females..185,406

COUNTIES.

Armstrong....C 3
Aurora..... F 4
Beadle.....F 3
Bon Homme..G 4
Boreman .....D 2
Brookings.... H 3
Brown ..... F 2
Brule.....E 4
Buffalo.....E 3
Butte .....A 2
Campbell.....D 2
Charles Mix...F 4
Clark.....G 3
Clay... .....H 5
Codington .... G 3
Custer ... ...A 4
Davison .....F 4
Day.... .....G 2
Deuel .....H 3
Dewey ..... D 2
Douglas. .....F 4
Edmunds.....E 2
Fall River.....A 4
Faulk.....E 2
Grant.....H 2
Gregory.....E 4
Hamlin .....G 3
Hand .....E 3
Hanson.....G 4
Hughes.....D 3
Hutchinson...G 4
Hyde .....E 3
Jackson.....C 4
Jerauld .....F 3
Kingsbury....G 3
Lake .....G 3
Lawrence.....A 3
Lincoln..... H 4
Lugenbeel ....C 4
Lyman ..... D 4
McCook..... G 4
McPherson ...E 2
Marshall..... G 2
Meade .....B 3
Meyer.....D 4
Miner..... G 4
Minnehaha ...H 4
Moody.....H 3
Pennington... A 3
Potter..... E 2
Presho..... D 4
Roberts..... H 2
Sanborn .....F 4
Schnasse..... C 2
Shannon.....B 4
Spink.....F 3
Stanley... ....C 3
Sterling..... C 3
Sully..... D 3
Tripp.....D 4
Turner..... G 4
Union .....H 5
Walworth ....D 2
Washabaugh..C 4
Washington...B 4
Yankton..... G 4

CITIES-TOWNS

Pop.	Thousands.
10	Sioux Falls H 4
4	Yankton... .G 5
4	Aberdeen....F 2
4	Mitchell..... F 4
3	Deadwood...A 3
3	Watertown..G 3
2	Huron.... ..F 3
2	Madison.....G 4
2	Brookings...H 3
2	Pierre.....D 3
2	Vermilion.. H 5
1	Canton .....H 4
1	Webster.....G 2
1	Milbank ....H 2
1	Rapid City..A 3
1	Hot Springs A 4
1	Dell Rapids H 4
1	Flandreau.. H 3
1	Tyndall .... G 4
1	Spearfish....A 3
1	Sturgis.....A 3
1	Elkpoint .. .H 5
1	Beresford...H 4
1	Redfield.....F 3

Pop.	Hundreds.
9	Scotland.... G 4
9	Eureka..... E 2
9	Sisseton..... G 2
9	Armour.....F 4
8	Parker .....G 4
8	ChamberlainE 4
8	Centerville..H 4
7	Desmet.....G 3
7	Salem..... G 4
7	Lake PrestonG 3
7	Groton... .. F 2
6	BridgewaterG 4
6	Clark..... ..G 3
6	Alexandria..G 4
6	Woonsocket F 3
6	Bowdle.....E 2
5	Custer.....A 4
5	Parkston ... G 4
5	Lennox..... H 4
5	Bigstone....H 2
5	Howard.....G 4
5	Elkton.....H 3
5	Menno .....G 4
5	Miller ... ... E 3
5	Faulkton....E 2
5	Freeman.....G 4
5	Springfield..G 4
5	Brittou ..... G 2
5	Egan .... H 4
5	Garretson...H 4
4	Clearlake....H 3
4	Edgemout...A 4
4	Arlington... G 3
4	Plankinton..F 4
4	White..... H 3
4	Kimball .... F 4
4	Bellefourche A 3
4	Hurley..... G 4
4	Toronto.....H 3
4	Lesterville..G 4
4	Castlewood..G 3
4	Waubay.....G 2
4	Hartford....H 4
4	Bryant..... G 3
4	Hudson.....H 4
3	Ipswich..... E 2
3	Fort Pierre..D 3
3	Bangor .....D 2
3	Valley Sprs.H 4
3	Volga.....H 3
3	Alcester .... H 4
3	Highmore...E 3
3	Montrose ... G 4
3	Tripp ..... G 4
3	Jefferson....H 5
3	Estelline ....H 3
3	Mellette..... F 2
3	Wilmot.....H 2
3	Gary.....H 3
3	Artesian.... G 3
3	Marion .....G 4
3	Spencer.....G 4
3	Gettysburg..E 2
3	Wessington..F 3
3	Whitewood..A 3
2	Bristol..... G 2
2	Iroquois.....G 3
2	Ashton..... F 3
2	Carthage ..G 3
2	White Lake F 4
2	Frederick... F 2
2	Emery.....G 4
2	Brunt ..... E 3
2	Northville .. F 2
2	Langford....G 2
2	Summit.....G 2
2	Doland.....F 3
2	E. Sioux Falls H 4
2	Andover.... G 2
2	Oldham..... G 3
2	Viborg .....G 4
2	Wakonda... G 4
2	Worthing .. H 4
2	Colman..... H 4
2	Willow LakeG 3
1	Frankfort.. F 3
1	Conde..... F 2
1	Henry... ...G 3
1	Ramona.....G 3
1	Whiterock..H 2
1	Canova..... .G 4
1	Leola.....F 2
1	Olivet.. .....G 4
1	Onida.....D 3
1	Alpena.....F 3
1	Davis .....H 4
1	Columbia....F 2
1	Erwin..... G 3
1	Letcher.....F 4
1	Wolsey.....F 3
1	Claremont..F 2
1	St. LawrenceF 3
1	S. Sioux Falls H 4
1	Cavour..... F 3
1	Roscoe..... E 2
1	Hermosa.... A 4
1	Hartland....F 3
1	Harrold..... E 3
1	Roswell .....G 3
1	Effington...H 1

tions are *chemical solutions*, involving some chemical change, and that when salt, sugar, &c., are dissolved in water a hydrate or a mixture of hydrates is formed, and that the molecules of the dissolved substance are not free, as they are in a physical solution properly so-called. Solutions of metals are common, being used in electro-plating. A change of temperature frequently follows the combining of matter by solution.

Soma'liland. (*Geog.*) The "land of the Somal," that extreme triangular eastern part of Africa, between Abyssinia and British East Africa, terminating in Cape Guardafui. Its eastern coast and southern interior are under an Italian protectorate, and the British "protect" a large northern part, fronting on the Gulf of Aden, with Berbera as its principal port. The interior is a dry, nearly treeless series of plateaus, through which the Jub, Web, and several other large rivers course in deep cañons from the mountains of Abyssinia and Gallaland, whence the sources of the Blue Nile flow northward. The Somali are a tall, well-formed, light-colored Hamitic race, speaking a distinctly Hamitic language, not yet reduced to writing, and living a nomadic, pastoral life, with vast herds of camels, sheep, goats, and horses. They are bold hunters (the region abounds in big game) and fierce warriors, whose policy has been to keep out all foreigners. They believe and practice a loose form of Mohammedanism, and have been mixed largely in the southern part with Gallas and other negroes, and northward with Abyssinians. Sportsmen have been the principal explorers thus far; and large parts of the interior remain unvisited by Europeans. In winter some 30,000 people assemble at Berbera, and lesser transitory hordes at other ports, and engage in trade, buying European goods with myrrh, frankincense, hides, ostrich-feathers, and similar natural products, and exchanging camels and other live stock.

Som'ervell, in *Texas*, a N.E. central co.; *area*, 200 sq. m.; intersected by Brazos river. *Surface*, rolling; *soil*, fertile. Celebrated for its flowing wells, over 200 in number, yielding from 40 to 500 gallons per minute of water strongly impregnated with sulphur, iron, and chalybeates. *Cap.* Glen Rose. *Pop.* (1897) 3,980.

Soph'ocles, Evangelinus Apostolides, Greek scholar, was born in Tsangaranda, Thessaly, March 8, 1807; having emigrated to America, he entered Amherst College in 1829; became tutor at Harvard (1842); full professor of Ancient, Byzantine, and Modern Greek (1849), filling this chair to the end of his life. He published several text-books of the Greek language. Died Dec. 17, 1883.

Sore'head, *n.* (*Pol. Slang.*) One who is aggrieved by some action of his party, or one who is disappointed in seeking office, and consequently finds fault with or deserts the organization.

Soth'ern, Edward Askew, actor, was born in Liverpool, England, April, 1830. He achieved a great success as *Lord Dundreary*, in *Our American Cousin*, in 1858; later, he was equally successful in other rôles, notably *David Garrick*, *The Crushed Tragedian*, and *Brother Sam*. Died Jan. 20, 1881.

Sothern, Edward Hugh, actor, second son of E. A. Sothern, was born at New Orleans, La., Dec. 6, 1859; made his début (1876) with his father at Abbey's Theater, New York. His earlier successes were in the plays *One of Our Girls*, *The Love Chase*, and *A Scrap of Paper*; his latest are *Lord Chumley*, *Captain Letterblair*, *The Prisoner of Zenda*, and *An Enemy to the King*. In these last two plays he has had as leading lady Miss Virginia Harned, to whom he was married Dec. 3, 1896.

So'thic, *n.* (*Astron.*) A period of 1,460 years, during which, after the Egyptian calendar of 365 days to the year, the seasons will pass through all the twelve months of the year. As the solar year, however, is 365d. 5h. 46m. 47s., this system entailed an annual error of 5h. 48m. 47s., which in 1,460 years amounted to an entire year, as above stated. It would have been fortunate had the year been exactly equal to a certain number of days without a remainder. As, however, it is not, it is necessary to adopt an artificial value for it so near the truth as not to admit of the accumulation of an error amounting to a day in a long period of time. This is accomplished by the beautiful working of the Gregorian calendar, viz.: that every common year that is divisible by 4 without a remainder, and every centurial year divisible by 400 without a remainder, shall be leap years, consisting of 366 days, all the others to have but 365 days. This is far more exact than the Julian calendar of 365¼ days to the year, which, however, was accurate enough for a short period of time, as its annual error amounted to but 11m. 13·95s. The Gregorian year is 365d. 5h. 49m. 12s., which exceeds the solar by 25·95s., an error which amounts to only a day in 3,325 years. The Gregorian is not the most exact method of intercalation that could be devised, but is the most simple and convenient. Between 1796 and 1804 there were no leap years, nor will there be between 1896 and 1904. The next time there will be an interval of 8 years between two consecutive leap years will be A. D. 2100.

Souf'fle, *n.* [Fr. *souffler*, to puff.] A low whispering sound or murmur heard on auscultation of some organ or part of the body, due to the movement of air or fluids within.

Soufflé (*sūf-flā'*), *a.* [Fr.] (*Ceram.*) A term applied to pottery-decoration, meaning spotted or mottled by having liquid color blown on it, as through lace or net-work.

(*Cookery.*) Made light and frothy, and set thus by heat; as, omelette *soufflé*.

—*n.* A light, puffy pudding made with whites of eggs and other ingredients.

Soul'ful, *a.* Filled with or manifesting life, energy, spirit, power, or feeling; emotional; spiritual.

Sound'-lens, *n.* A lens-like apparatus which may be made to focus the waves of sound as a glass lens focuses rays of light. A bladder filled with carbon dioxide is supported in a ring frame, so as to give it the form of a double-convex lens. If then a watch, or something making a slight sound, be held at a distance of some feet, and the ear of the listener on the opposite side of the lens at an equal distance, the sound focus is readily found, at which point the ticking or other noise is distinctly heard, though otherwise beyond earshot.

South, University of the. (*Educ.*) This institution, located at Sewanee, Tenn., was founded by Leonidas Polk, bishop of Louisiana, and chartered in 1858. It was not opened, however, as its buildings and endowments were lost during the Civil War. Yet it still possessed 10,000 acres of land, and in 1868 a small school was started by Bishop Quintard, of Tennessee, to which have been added, in 1870, a college department; in 1873, a theological department; in 1892, a medical school, and, in 1893, a law school. Although the university has been hampered by lacking funds, it has steadily developed. As students are expected to come principally from the Southern States, and as the situation of the university is high and healthy, studies are pursued all summer, and the long vacation is in the winter time.

South African Republic. (*Geog.*) A country in Southeast Africa, formerly and still commonly known as the Transvaal—or "across the Vaal River," its southern boundary. This river separates the Transvaal from Zululand, Natal, and the Orange Free State. The Limpopo River forms its northern boundary, separating it from the British territory usually called Rhodesia. On the west it is bordered by Bechuanaland, and on the east by Portuguese East Africa and Tongaland. It is between 22° 15′ and 28° 30′ S. lat. and 25° and 32° 10′ E. long., its length being about 425 miles and its greatest breadth east and west 375 miles. Its total area being 119,139 sq. m. Swaziland, which adjoined Tongaland on the southeast, was annexed in 1893. The Transvaal is wholly inland country, its nearest approach to the sea at Delagoa Bay being about 100 miles. The total population, as estimated in 1900, is about 1,000,000, of whom probably not more than one-third are whites, the remainder being composed of Kaffir tribes. The capital is Pretoria (q. v.), the largest city is Johannesburg (q. v.), the centre of the gold-mining country. The country is a high, healthy, and undulating plateau, its mean elevation being over 3000 feet. On the eastern side there rises abruptly a range of mountains about 7000 feet high, from which several ranges run westward, the chief being the Magaliesburg, its average height 5000 feet, with some peaks 9000 feet high.

This country formerly formed the grazing ground of many varieties of antelopes, roaming in herds of tens of thousands, while in the lower country the lion, leopard, elephant, buffalo, giraffe, zebra, etc., abounded, and in the rivers hippopotami and crocodiles. Those animals have largely vanished, and been replaced by domestic cattle, the elevated grassy plains being admirably adapted for grazing purposes. Stock-raising is the great industry of this country. Yet much of the land is well suited to agriculture, especially the well-watered plains of the south. The wheat raised here is of the finest quality. Oats and maize are also largely grown, the latter as food for the native servants. Under irrigation, fruit trees, sugar cane, coffee, rice, and tobacco thrive. The mineral wealth of the country is very great, especially its gold product, which has so enormously developed within recent years that this region has become one of the great gold-producers of the world. In the five years preceding 1891 the gold district yielded 2,500,000 ounces of gold; in 1895 its annual yield had risen to an equal amount, and at the opening of the twentieth century about 3,500,000 ounces, worth $73,000,000, were annually produced. There are many other minerals, including silver, iron, lead, copper, coal, cobalt, sulphur, saltpetre, and diamonds. Coal, copper, and iron are plentiful. Iron ores are widely distributed, the "Iron Mountain" being an enormous mass of rich ore, which the natives have worked for centuries. Coal abounds in the southeast. In some places seams 7 or 8 feet thick lie so near the surface that the natives dig the coal and carry it away in carts.

History. The earliest settlers in this country were the Boers, descendants of the Dutch and the French Huguenots of Cape Colony, who, dissatisfied with the rule of the British, emigrated north between 1833 and 1837, and founded a republic in Natal in 1840. When the British claimed that country, the Boers moved west into the highland region, where they established the Transvaal and Orange River republics. Great Britain acknowledged their independence in 1852, but in 1877, in consequence of aid given the Boers in their war with the natives, the British government laid claim to their country. Against this the Transvaal people protested, and finally took up arms, defeated the British, and regained their independence in 1881. They recognized, however, the suzerainty of Great Britain. This settlement proving unsatisfactory, a treaty was made in 1884 in which the claim of British suzerainty was omitted. Soon after, the discovery of gold led to the influx of a large mining population, from various countries, but mainly British. These foreigners, called by the Boers Uitlanders, or outlanders, built the city of Johannesburg, and increased until they were estimated to number 150,000. They demanded the right of citizenship; but this President Kruger and the Transvaal assembly did not think it wise to grant them, lest the political ascendency of the Boers should be swamped by the foreign vote. In 1895 a party of British from Rhodesia, led by Leander S. Jameson, a supposed agent of Cecil Rhodes (q. v.), invaded the Transvaal in the interest of the outlanders. The attempt proved a complete failure, and Jameson was tried by the British government and sentenced to prison for his unauthorized raid. In 1899, however, the British government took up the cause of the outlanders, made stringent demands, and set in train such threatening military movements that the Boers declared war, and invaded Natal on October 12, 1899. Ladysmith, in Natal, and Kimberley, in the diamond district, were invested and besieged, and the Boers held their own with the greatest valor and ability for months, until England sent out an overwhelming force, under Lord Roberts, her ablest leader. In February, 1900, Ladysmith and Kimberley were relieved. The Orange Free State was invaded in March, Pretoria was occupied in May, and the Boers were everywhere driven back. Lord Roberts in May proclaimed the annexation of the Orange Free State, and on September 1 of the South African Republic, to the British Empire. But the Boers were far from being subdued. They resumed the conflict with small but highly mobile forces, and displayed such activity and energy as to defy the efforts of a British army 250,000 strong. The war became a guerilla contest, in which the Boers, by their frequent raids on the railway, obliged Lord Kitchener, who had succeeded Lord Roberts in command, to use a great part of his large army in guarding the extended line, while their broad, open country enabled the mounted Boers to make sudden attacks and rapid retreats. The women and children were gathered in "concentration camps" to prevent them giving aid. Later an attempt was made to surround the Boers with a line of block-houses and barbed-wire fences. Though they continued to make successful raids, the Boers in time became so reduced in numbers that much longer resistance was impossible, and, on May 30, 1902, they surrendered. They were granted very favorable terms, but their existence as a separate nation ended, the South African Republic being merged in the British colonial possessions.

South Beth'lehem, in *Pennsylvania*, a post-borough of Northampton co., on S. side Lehigh river, opposite Bethlehem; has extensive manufactures of iron and steel, including armor plate, and zinc works, brass foundry, shovel factory, silk and knitting mills, &c. Seat of Lehigh University. *Pop.* (1897) 14,950.

South Dako'ta, a State of the American Union, bounded N. by North Dakota, E. by Minnesota and Iowa, S. by Nebraska, and W. by Montana and Wyoming, lying between Lat. 42° 28′ and 45° 57′ N. (the general S. boundary being the parallel of 43° N.); and between Lon. 96° 26′ W. and 104° 3′ W. The extreme breadth N. to S. is 240 miles, extreme length E. to W. 386 miles, land area 76,700 sq. m.—*Phys. Conditions.* The State is crossed by the Missouri river, which divides it into two nearly equal portions. The Big Sioux river flows through the E. portion, forming the E. boundary for 75 m. It has a rapid current, and descends 110 feet in the rapids known as Sioux Falls. The Dakota (or James) river is a sluggish stream, flowing midway through the eastern section. The principal western streams are the Cheyenne, Grand, White, Bad, and Moreau. The surface of the State generally slopes downward toward the southeast, in which direction all the streams flow. The section east of the Missouri is generally level or gently rolling, with a small hilly area in the northeast, and another in the central region near the Missouri. West of this stream the upward slope of the land becomes more decided, the elevation culminating in the Black Hills, a mountainous region in the southwest, of about 100 by 60 miles in extent, its highest point being Harney's Peak (9,700 feet). The western section in general is more rolling and broken than the eastern, but has much level area. Southeast of the Black Hills, and near the headwaters of White River, is a striking geographical feature known as the Bad Lands (*Mauvaises Terres*, Fr.), which extend for a considerable distance into Nebraska. This is an elevated region of alluvial origin, whose indurated earth has been worn into innumerable cuts, cañons, and depressions by water action, its rocks presenting at a distance a remarkable appearance of walls, castles, and other architectural features. It abounds with interesting fossils. The soil of the river bottome is highly fertile, while the gently sloping land of the eastern section, and the valleys and intervale of the Black Hills region are rich in the elements of fertility.—*Min.* The State is rich in minerals, the Black Hills containing gold, silver, tin, and other valuable substances. The gold yield has been large, and was materially increased in 1895 through the yield of rich mines opened near Hill City. The gold yield up to the present time has been over $60,000,000, and that of silver slightly over $1,000,000. Tin exists abundantly in the Harney's Peak and Nigger Hill localities, and a mill for its production was opened in 1890, but the ore is difficult to reduce, and its working has not prospered. There are at various points valuable quarries of red quartzite, and extensive deposits of clay and chalkstone, from which a superior quality of Portland cement is made. Manganese exists, but has not been much worked.—*Agric.* The chief industries of South Dakota are stock-raising and agriculture, the live stock of the State being valued at over $26,000,000, while the culture of the soil is diligently prosecuted, the State in 1890 having 50,158 farms, co-

taining 6,959,293 acres of improved land, which, with improvements, were valued at $107,466,335. The principal cereal crops for the year 1895 were: Indian corn, 12,423,442 bushels; wheat, 29,261,088 bushels; oats, 18,154,774 bushels. The deficiency of the rainfall is made up for in a considerable section of the State by an abundance of artesian water, there being an extensively distributed water-bearing stratum, from which the water rises with such force as to furnish power to small manufactories. It is also used to furnish a water supply for towns, and, as above said, for irrigation.—*Manuf.* The manufacturing interests are but little developed, the capital employed in production in 1890 being $3,207,796. The cheapness of power, however, in the artesian well districts is stimulating productive industries of a kind capable of being worked by the power derived from these wells. Four trunk lines of railroad enter the State, with a dozen or more minor ones, furnishing abundant means of transportation, the total length of road being over 3,000 miles.—*Political Divisions.* South Dakota is divided into 78 counties, as follows:

Armstrong,	Delano,	Lake,	Roberts,
Aurora,	Deuel,	Lawrence,	Sanborn,
Beadle,	Dewey,	Lincoln,	Schnasse,
Bon Homme,	Douglas,	Lugenbeel,	Scobey,
Boreman,	Edmunds,	Lyman,	Shannon,
Brookings,	Ewing,	McCook,	Spink,
Brown,	Fall River,	McPherson,	Stanley,
Brulé,	Faulk,	Marshall,	Sterling,
Buffalo,	Grant,	Martin,	Sully,
Butte,	Gregory,	Meade,	Todd,
Campbell,	Hamlin,	Meyer,	Tripp,
Charles Mix,	Hand,	Miner,	Turner,
Choteau,	Hanson,	Minnehaha,	Union,
Clark,	Harding,	Moody,	Wagner,
Clay,	Hughes,	Nowlin,	Walworth,
Codington,	Hutchinson,	Pennington,	Washabaugh,
Custer,	Hyde,	Potter,	Washington,
Davison,	Jackson,	Pratt,	Yankton,
Day,	Jerauld,	Presho,	Ziebach.
	Kingsbury,	Rinehart,	

Principal Cities and Towns.—Sioux Falls, Yankton, Pierre (the capital), Aberdeen, Huron, Watertown, Lead City, Deadwood, Mitchell, and Rapid City.—*Gov.* The legislative authority resides in a Senate and House of Representatives, which meets biennially, the sessions being limited to 60 days. The executive authority resides in a governor elected for 2 years, and a lieutenant-governor chosen for the same term. The governor has power to veto separate items in a bill; bills not returned by him within three days of their reception become laws. The executive officials include also a secretary of state, auditor, treasurer, superintendent of instruction, attorney-general, and commissioners of school and public lands, all elected for terms of 2 years. The judicial authority resides in a Supreme Court, Circuit and County Courts, justices of the peace, and courts required for cities and incorporated towns. Privilege of suffrage is enjoyed by all male citizens of the U. S., and aliens who have declared their intention of becoming citizens, and who have resided in the State, county and precinct for defined periods of time. Women are privileged to vote at any election held for school purposes. A State prohibition law was passed in 1891, and was declared constitutional by the Supreme Court in 1892.—*Educ.* Congress, on creating the State of *S.D.*, required that tracts of land aggregating 2,823,320 acres should be set aside for the support of public schools, fixing its minimum price at $10 an acre. There are 90,000 pupils enrolled in the public schools. Advanced education is provided for by a number of institutions, including the University of South Dakota, at Vermilion; Dakota University, at Mitchell; Pierre University, at E. Pierre; Sioux Falls University, at Sioux Falls, a number of other colleges and academies, and a State Agricultural College and State School of Mines. Other institutions include a Deaf and Dumb Asylum at Sioux Falls, hospitals for the insane at Yankton and Redfield, a Soldiers' Home at Hot Springs, a Reform School at Plankington, a State Penitentiary at Sioux Falls, and an asylum for the blind at Gary.—*Hist.* The country afterward known as Dakota was crossed by the expedition of Lewis and Clarke (1804–06), who spent a winter in camp with the Mandan Indians near the site of the present town of Mandan. The upper Missouri was first ascended by a steamboat, the *Yellowstone*, in 1832. Fremont crossed the country in 1839, and it was explored in 1855 by Lieut. Warner for the U. S. government. The region had been acquired as part of the Louisiana Purchase, and in 1849, on the creation of the Territory of Minnesota, the eastern part of the Dakotas was included in the assigned area. The Territory of Dakota was created in 1861, and in 1868 Wyoming Territory was formed from part of its area. A scientific expedition, escorted by troops under General Custer, entered the Black Hills in 1874, and gave the first authentic information about the mineral wealth of that region. Population now grew rapidly, and in 1883 a convention to frame a State Constitution for Dakota met at Sioux Falls. Dissensions between the people of the two sections of the Territory followed, and in 1888 it was decided to divide the territorial area into two States, under the names of North and South Dakota. The bill for their admission passed Congress, and was signed by the President, Feb. 22, 1889. In 1890–1891 the Indian Messiah excitement led to troubles with the Sioux Indians, and in 1892 the Yankton Sioux ceded to the government a large part of their reservation between the Missouri and Chotean rivers. *Pop.* (1880) 98,268; (1890) 328,808. (1900) 401,570.

South Fork, in *Pennsylvania*, a post-borough of Cambria co., 26 m. S. of Ebensburg. *Pop.* (1900) 2,635.

South Glens Falls, in *New York*, a post-village of Saratoga co. *Pop.* (1897) 1,710.

South Hol'land, in *Illinois*, a post-village of Cook co. *Pop.* (1897) 1,220.

South O'maha, in *Nebraska*, a city of Douglas co., 4 m. from Omaha; has extensive stockyards and meat-packing establishments, and large rendering houses. The number of hogs slaughtered is only exceeded in two cities of the country. *Pop.* (1897) 12,500.

South Pitts'burg, in *Tennessee*, a post-village of Marion co., 27 m. W. of Chattanooga; has blast furnaces, machine-shops, flour-mills, &c. *Pop.* (1897) 1,750.

South St. Paul, in *Minnesota*, a city of Dakota co., on Mississippi river, 3 m. from St. Paul; has manufacturing interests. *Pop.* (1895) 2,135.

South Still'water, in *Minnesota*, a post-village of Washington co. *Pop.* (1895) 1,453.

South Wil'liamsport, in *Pennsylvania*, a post-borough of Lycoming co., ½ m. from Williamsport. *Pop.* (1897) 3,100.

Southamp'ton, in *New York*, a post-town of Suffolk co., on Atlantic coast of Long Island, 10 m. S.W. of Sag Harbor. A summer resort. *Pop.* (1897) 1,520.

South'port, in *North Carolina*, a city, cap. of Brunswick co. *Pop.* (1897) 1,310.

South'worth, Emma Dorothy Eliza Nevitt, was born at Washington, D. C., Dec. 26, 1819; has written about 60 novels, the first being entitled, *The Irish Refugee* (1849). Among her later books are: *The Lost Heir of Linlithgow* (1872); *Red Hill Tragedy* (1877), and *The Phantom Wedding* (1878). Died in 1897.

Spaghet'ti, *n. pl.* [Ital.] An article of food, made of paste; similar to macaroni, but smaller and cord-like.

Spal'peen, *n.* [Ir. *spailpín.*] A good-for-nothing fellow, a rogue; a term of severe reproach.

Spec'ular, *a.* [From Lat. *speculum*, a mirror.] Having the qualities of a speculum or mirror; having a smooth reflecting surface.—Affording view. (R.)—Aiding the sight, as a magnifying glass.

Specula'ria, *n.* (*Bot.*) A genus of plants, order *Campanulaceæ*. The most conspicuous species, *S. speculum*, the Venus' Looking-glass, is a pretty border flower named from the form of the blue corolla, which resembles a little round, concave mirror (speculum).

Spec'ulate, *v. n.* [Fr. *spéculer.*] To contemplate; to consider a subject by turning it in the mind, and viewing it in its different aspects and relations.

(*Com.*) To purchase land, goods, stock, or other things, with the view or expectation of selling the articles at a profit.

Specula'tion, *n.* [Fr.; Lat. *speculatio.*] Mental view of anything in its various aspects and relations; contemplation; intellectual examination.—Train of thoughts formed by meditation; mental scheme; theory; views of a subject not verified by fact or practice.

(*Com.*) Act or practice of buying stocks or goods, &c., in expectation of a rise of price and of selling them at an advance.

Spec'ulatist, *n.* A speculator; a theorizer.

Spec'ulative, *a.* [Fr. *speculatif.*] Given to speculation; contemplative; formed by speculation; theoretical; ideal; not verified by fact, experiment, or practice.—Pertaining to view. (R.)

(*Com.*) Pertaining to speculation in stocks, goods, &c.

Spec'ulatively, *adv.* In contemplation; with meditation; ideally; theoretically; in theory only, not in practice.—In the way of speculation in goods, &c.

Spec'ulativeness, *n.* The state of being speculative.

Spec'ulator, *n.* [Lat.] One who speculates or forms theories.

(*Com.*) One who buys goods or other things with the expectation of a rise of price, and of deriving profit from such advance.

Spec'ulatory, *a.* [Lat. *speculatorius.*] Exercising speculation.—Adapted for viewing.

Spec'ulist, *n.* One who considers or observes. (R.)

Spec'ulum, *n.*; *pl.* Specula. [Lat., from *specere*, to behold.] (*Opt.*) The reflector formed of polished metal, in distinction to one made of glass, to which the term *mirror* is generally applied. Tin and copper, the materials employed by Newton in the first reflecting telescope, are preferable to any other metal for the production of large specula, the best proportion being 4 atoms of copper to 1 of tin; in fact, 126·4 parts of copper to 57·89 of tin. Copper in excess imparts a reddish tinge, while zinc in excess renders the fracture granulated and less white. When speculum metal is perfect, it should be white, glassy, and flaky.

(*Surg.*) An instrument which has the property of dilating the part to which it is applied, and, by means of a reflecting glass, expressing the nature of the disease which lies beyond the reach of the naked eye. The *S.* is chiefly used in cases of disease of the neck, of the uterus, and the vagina itself.

(*Zoöl.*) The bright spot on the wings of ducks, &c.

Speech, *n.* [A. S. *spæc, spræc*; Du. *spraak*; Ger. *sprache.*] The faculty of uttering articulate sounds or words, as in human beings; the faculty of expressing thoughts by words or articulate sounds.—Language; words as expressing ideas.—A particular language, as distinct from others.—Talk; mention; common saying.—Formal discourse in public; oration; address; harangue.—Any declaration of thoughts.

Speech, Vis'ible. (*Educ.*) The reading of spoken utterances by watching the motions of the lips, larynx, &c., has been scientifically studied for a number of years. The ability to comprehend with the eye instead of the ear is invaluable to deaf persons, and to bring about proper instruction for the deaf involves a deeper study and a wider knowledge of the principles of visible speech than are now prevalent. There are deaf persons who have become so clever in speech-reading as to be able to carry on a conversation as readily as people with perfect hearing, but they are largely aided in their understanding by the gestures and facial manuers of a speaker. It is the consonants that give form and character to the lips in sounding, and as, unfortunately, at least nine of the labial consonants are distinguishable only by sound, tho deaf person is at a serious disadvantage in lip-reading. These nine are b, d, f, l, m, n, p, t, and v, and are serious stumbling-blocks, while the gutturals, as k, c, g, h, ng, and ch, are quite as bad, being rarely distinguishable from each other, and very difficult to discover at all. The deaf lip-reader is under the continual difficulty of being obliged to judge from the context or association between pan and mad, money and putty, man and mat, Flushing and Fletcher, &c. These complications exist in every sentence, and are as confusing as are pain and pane, or rein and rain, to a student of English. For the better study of the mechanical movements requisite to speech, four instruments have been designed—the phonoscope, labiograph, laryngograph, and kymographion. The phonoscope provides instantaneous and continuous photographs of the mouth and lips during the utterance of words, and is described at Phonoscope. The labiograph and laryngograph employ mechanical devices for holding pads against the lips and larynx respectively, so that their movements may be communicated through a small pneumatic tube to the kymographion, which is a recording instrument, having a cylinder on which is placed a smoked paper to receive the tracing of a small bamboo splint that is influenced by the pressure in the pneumatic tube. In this manner tracings are secured of the movements accompanying different sounds, and the minutest differences may be noted and studied, with the object of bringing them to the attention of the deaf, and assisting them to an exact comprehension of what is spoken. One of the great difficulties in the way of correct and easy lip-reading is the prevailing tendency to only half enunciate the words of a sentence. Those who are studying a new language, and trying to speak it, are made familiar with this difficulty, which passes unnoticed by many persons. Melville Bell and his son, Alexander Graham Bell, have done much in the way of developing a proper understanding of visible speech. The elder Bell made a thorough study of elementary sounds, and published valuable tables, as did also Henry Sweet, A. J. Ellis, Storm, Sievers, and others. Melville Bell also published a book on *Visible Speech*, in 1867, and W. D. Whitney a commentary on the same, in 1876. Alexander Graham Bell, who took a special interest in the subject and became an expert instructor of deaf mutes, introduced his father's system into the U. S., and deserves much credit for its propagation here, his work in this direction having been largely overlooked because of his fame in connection with the invention of the speaking-telephone. Edward M. Gallaudet, also, of the Columbia Institution for the Deaf and Dumb, at Washington, D. C., has done much to propagate the system.

Speech'ful, *a.* Voluble; loquacious; full of words or speech. (R.)

Speechifica'tion, *n.* The act of making a speech; used humorously.

Speech'ify, *v. n.* To make a speech—(in contempt, or vulgar).

Speech'less, *a.* Destitute or deprived of the faculty of speech.—Dumb; mute; silent; not speaking for a time.

Speech'lessness, *n.* State of being speechless; muteness.

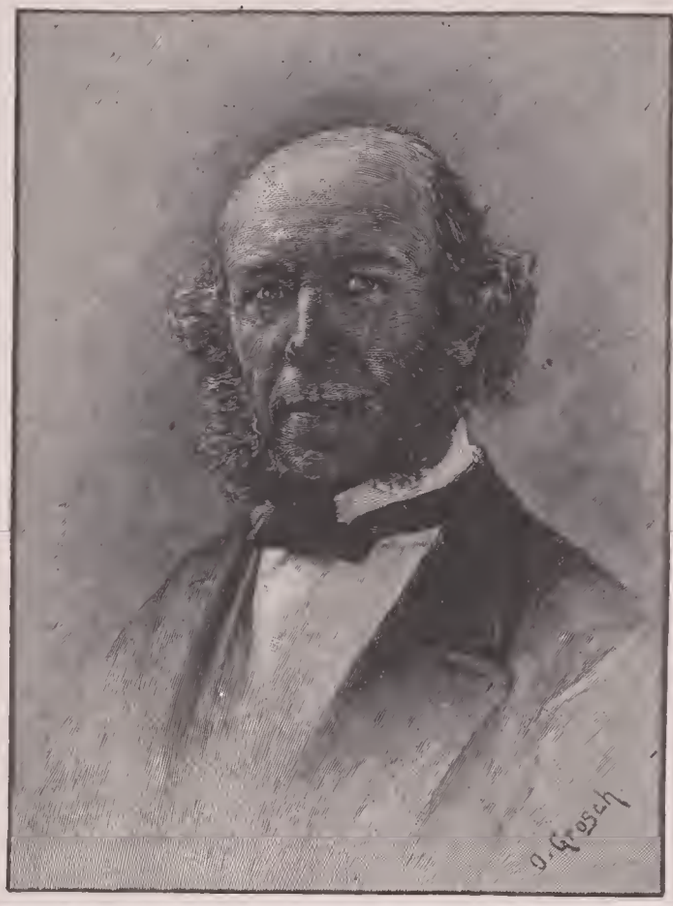
Speech'maker, *n.* One who makes speeches.

Speed, James, jurist, was born in Jefferson, Ky., March 11, 1812; graduated at Catholic College, Bardstown (1828); admitted to the bar, and practiced in Louisville, and taught in the law department of the University of Louisville; was kept out of politics by his anti-slavery sentiments. He opposed secession, and was influential in preserving Kentucky from seceding; aided in recruiting troops for the Union army; was State senator (1861–63); attorney-general for the U. S. (1864–66); resigned because of his disapprobation of President Johnson's course. Died June 25, 1887.

Speed'way, *n.* A roadway, in or near a large town or city, specially prepared and reserved for fast driving.

Spell'binder, *n.* (*Humorous.*) An effusive political orator or stump-speaker, so called from his supposed power to hold an audience *spellbound*. (A term first applied in the U. S. in the political canvass of 1888.)

Spen'cer, Herbert, philosopher, founder of the system of synthetic philosophy, was born in Derby, April 27, 1820. His father was a teacher of mathematics, and fond of the natural sciences, especially giving attention to entomology; he educated his son at home, and trained him in habits of observation. The boy was an only surviving child, and of fragile health, but fond of making experiments and collections of specimens in natural history. His uncle, Thomas Spencer, rector of the parish of Hinton, was also for a time his tutor. His distaste for classical studies, as well as his poor health, deterred him from taking a university course; instead, he entered the office of a railway engineer, where he remained 8 years, in the meantime following out his own philosophical speculations, and writing a series of letters to the *Nonconformist* on *The Proper Sphere of Government*. The ideas thus early set forth were further elaborated in his book, *Social Statics* (revised edition, 1892). In 1859 *S.* prepared a prospectus of his system of synthetic philosophy, and the next year announced it to the world. He was 33 years at work upon it, and it had then far



Herbert Spencer

1820-1903

exceeded the compass of his original design. The work falls into 5 divisions: 1. The Proper Scope and Limitations of Philosophy; 2. Biology; 3. Psychology; 4. Sociology; 5. Morals and the Laws of Social Development. As the work went on, controversy kept pace; the reflective criticism of the day centered upon *S.*; even those who rejected his doctrines recognized him as one of the most commanding intellects of the world. To the accomplishment of his task he devoted all his strength, resources, and time; he refused all distractions from his work, declined academic honors and memberships in learned societies, and prolonged his life by careful regard for his delicate health. His books have been translated into French, many of them into most of the European languages, and some into Japanese and Chinese. Besides the volumes specifically embodying his system of philosophy, he wrote many works on live topics—essays on style, manners, progress, science, &c.; his treatise on *Education* (1861) has gone through more editions than any other of his works, and has exerted much influence in educational circles. D. Dec. 8, 1903.

Spencer, John Canfield, lawyer, was born in Hudson, N. Y., Jan. 8, 1788; admitted to the bar (1809); held many legal-political offices in New York State until 1840; was U. S. secretary of war (1841–43); secretary of state (1843–44). He resigned the latter portfolio because of his objection to the annexation of Texas. Died May 18, 1855.

Spencerville, in *Ohio*, a post-village of Allen co., 12 m. S. of Delphos. *Pop.* (1897) 1,500.

Spink, in *South Dakota*, a N. E. co.; *area*, 1,505 sq. m.; drained by James (or Dakota) river. *Surface*, undulating; *soil*, fertile. *Cap.* Redfield. *Pop.* (1895) 8,964.

Spin'ner, Francis Elias, financier, was born in Mohawk, N. Y., Jan. 21, 1802; was auditor of the port of New York (1845); member of Congress (1855–61); treasurer of the U. S. (1861–75); resigned this office June 30, 1875. Died Dec. 31, 1890.

Spir'it Lake, in *Iowa*, a post-village, cap. of Dickinson co., 56 m. N.W. of Algona. A summer resort. Here is the State fish hatchery. *Pop.* (1895) 1,056.

Spirom'eter, *n.* An instrument or mechanism for measuring the capacity of the lungs. It is ordinarily constructed on the principle of a gas-holder, having a lower chamber of water, in which is placed a cylinder closed at the top, open at the bottom, and arranged to rise and fall as a pressure of air is blown in from a tube. A gauge is provided for showing the number of cubic inches of air driven in at one expiration from the lungs.

Spitzber'gen. (*Geog.*) An archipelago consisting of West Spitzbergen, Northeast Land, Stans Foreland, Wiche Island, Bareuts' Land, Prince Charles Foreland, and a great number of smaller islands, lying half way between Greenland and Nova Zembla, 400 m. N.N.W. of the North Cape of Norway, between 76° 30′ and 80° 30′ N. Lat., and 10° and 30° E. Lon. It was discovered in 1596 by William Barents, but was long considered a part of Greenland. The Russians had known it much earlier under the name of Grumant, and hunted there. For four centuries it was only of interest to whalers and seal-fishers, but within the present century it has attracted much attention as a field of scientific research, and in connection with polar expeditions, which have wintered there or used it as a point of departure for sledges. There have been various summer settlements of fishermen along its shores, and colonies of Russians at one time passed a good many consecutive winters there; but only a few exploring parties have ever succeeded in wintering without great loss. Some recent reports upon the interior of the islands claim them to be far more habitable than has been thought, however, and all records show that the climate is warmer than that of the corresponding latitudes in Greenland and Smith Sound. The sea is comparatively shallow around the archipelago, on account of a submarine platform of rock from which the islands rise, and consequently the ice piles up along the coast, except for a few months in summer, when the Gulf Stream, which flows along the west of the islands, opens a passage by which ships can approach. During the 17th and 18th centuries the whale and hair-seal fisheries were of much importance, but both whales and seals have been almost exterminated. Vegetation is scanty, but animal life abounds, although the number of species is few, including reindeer, ice fox, and, among birds, geese, loons, petrels, and gulls, in vast flocks. Ice fields cover a great part of the land, and sharp peaks rise out of them—the "needle-like mountains" which gave the place its name.

Spof'ford, Ainsworth Rann, librarian, was born in Gilmanton, N. H., in Sept., 1825. He was a bookseller and publisher in Cincinnati; edited there the *Daily Commercial* (1859); was appointed assistant librarian in 1861, and librarian in 1865. To *S.* is due the legal reform of 1870 through which copyrights are issued from the national capital, instead of from the offices of district clerks. The Congressional Library in 1865 contained 70,000 volumes; in 1895 the number was over 700,000, besides about 250,000 pamphlets. *S.* resigned in 1897, and was succeeded by John Russell Young, remaining as assistant librarian. He published *Library of Choice Literature* (1881); *Practical Manual of Parliamentary Law* (1884); and *Library of Historic Characters and Famous Events* (1894).

Spofford, Harriet E. (Prescott), author, was born in Calais, Me., April 3, 1835. *S.* has been a constant contributor to current magazines and newspapers, her work including poems, and a variety of prose essays and sketches. Her latest book is *A Scarlet Poppy* (1894).

Spokane' Falls, in *Washington*, a city, cap. of Spokane co.; has very great water-power, and large manufactures of flour, oatmeal, lumber, lime, cement, and bricks; has also foundries and machine shops, potteries, soap and cracker factories, &c. Trade center for eastern Washington, Oregon, and northern Idaho. *Pop.* (1897) 30,000.

Sponta'neous Combus'tion. (*Physics.*) The ignition and burning of substances by internal heat without artificial aid. It is due to rapid oxidation, a heat being thus engendered sufficient to ignite oiled rags, pyritous ores, phosphorus, charcoal, and various mineral, and in rare instances even animal substances. In the case of oily rags, wool, &c., it is due to the rapid oxidation of the oil, which is exposed to the air much more fully than when enclosed in a can or other common vessel. Those pyrites in which the protosulphide is associated with bisulphide of iron, as found in the Yorkshire and Nova Scotia coals, are most subject to spontaneous combustion, especially when the coal is subjected to moisture. Freshly burned charcoal, owing to the condensation of oxygen in its pores, is also liable to heating above the critical point. Phosphuretted hydrogen and some other gases, as the vapor of petroleum before refining, are liable to ignition spontaneously. Dry phosphorus will melt and take fire on the slightest friction, as by being moved or touched. Woody fibers, cotton, jute, hay, leaves, &c., when massed in a moist condition, incline to develop heat owing to what is known as ersmacausis, or vegetable decomposition, and the heat sometimes rises to a dangerous point. Cargoes of jute have always been considered dangerous by vessel-owners. The great fire at London Bridge in 1861 is attributed to the spontaneous ignition of a mass of jute. There are numerous substances which, when very finely powdered and heated, take fire on any subsequent exposure to the air. (See Pyrophorus.) It is familiarly known that strong nitric acid applied to hay, straw, &c., renders them spontaneously combustible. Some liquids, as cacodyl, readily take fire in the air. It is readiness to combine with oxygen that gives the tendency to heating and ignition, and any circumstance that increase the extent of exposure to oxygen aid the probability of combustion.

Sprague, in *Washington*, a post-town, cap. of Lincoln co., 41 m. S.W. of Spokane Falls; ships horses, cattle, and produce. *Pop.* (1897) 1,880.

Spring City, in *Pennsylvania*, a post-borough of Chester co., 31 m. N.W. of Philadelphia; has manufactures of stoves, paper, glass, terra cotta, foundry facings, &c. *Pop.* (1897) 2,150.

Spring City, in *Utah*, a city of Sanpete co. *Pop.* (1895) 1,226.

Spring Val'ley, in *New York*, a post-village of Rockland co., 31 m. N. of New York. *Pop.* (1897) 1,210.

Spring'dale, in *Arkansas*, a post-village of Washington co. *Pop.* (1897) 1,000.

Spring'field, in *Minnesota*, a post-village of Brown co. *Pop.* (1895) 1,116.

Spring'valley, in *Illinois*, a city of Bureau co., 104 m. S.W. of Chicago. In a coal-producing region. *Pop.* (1897) 4,100.

Spur'geon, Charles Haddon, preacher, was born at Kelvedon, Essex, England, June 19, 1834; son of a Congregational minister. At the age of 16, *S.* adopted Baptist views, and became very active in religious work, preaching and exhorting; and not long after was pastor of the chapel at Waterbeach. In 1853 he was called to the pastorate of the New Park Street Chapel, Southwark, London. The chapel was soon found to be too small; it was twice enlarged, but the number of attendants constantly increasing, it became necessary to build the Metropolitan Tabernacle, which was opened in 1861—a structure with double galleries, and a seating capacity of 6,000. *S.* founded a "pastor's college" for training evangelists, an orphanage, a colportage society, and almshouses in connection with his church, and supervised them all himself. He also established a book fund, which was superintended by his wife, and which, in ten years, supplied indigent ministers with over 80,000 volumes. From 1885 to 1891, *S.*'s sermons were in process of publication, reaching at the latter date 37 volumes, containing in all 2,188 sermons, while enough sermons remained to carry on the series to 49 volumes. Besides his sermons, he published *The Treasury of David*, a commentary on the Psalms; and an exposition of St. Matthew's Gospel; and the popular evangelical books: *John Ploughman's Talk*, *John Ploughman's Pictures*, *The Cheque-Book of the Bank of Faith*, and *Salt-Cellars*. He also wrote interesting narratives of his work in the New Park Street and the Tabernacle congregations. Died at Mentone, in the Riviera, Jan. 31, 1892.

Squeteague'. The weakfish. See Sclenidæ.

Sta'dia Survey'ing. (*Civ. Eng.*) A method of surveying in which stadia-rods and wires are employed; used largely in the United States and in Switzerland. The transit, theodolite or other telescopic instrument used is provided with special horizontal stadia-wires, so called, which are in reality usually supplanted by a glass plate bearing accurately ruled lines. The stadia-rod is a sighting-rod bearing graduations which bear a definite relation to the lines on the glass in the telescope, the most common ratio being one that at a distance of 100 feet brings one foot on the rod to correspond with the distance between two lines. By sighting through the telescope to the rod, therefore, and observing the number of feet or fractional parts of a foot seen between the stadia-wires, the distance is easily read, a foot and a quarter on the rod indicating 125 feet, and so on. The principle will be recognized as based on the geometrical rule that the lengths of the parallel lines subtending an angle are always proportioned to their distances from the apex of the angle. The number of wires or lines used is usually two, but sometimes more are employed, and the method of reading varied accordingly.

Staf'ford, in *Kansas*, a S. central co.; *area*, 792 sq. m.; drained by small tributaries of Arkansas river. *Surface*, chiefly undulating prairie; timber along streams; *soil*, fertile. *Cap.* St. John. *Pop.* (1895) 8,339.

Stafford Springs, in *Connecticut*, a post-borough of Tolland co., 25 m. N.E. of Hartford; has woollen and other manufactures. Here are mineral springs of medicinal value, much resorted to. *Pop.* (1897) 2,420.

Stage'-fright, *n.* Fear or trepidation in coming before an audience, frequently felt even by experienced actors and orators.

Stage'-struck, *a.* Smitten with a passion for theatrical life; possessed by a desire to become an actor.

Stain'er, Sir John, musician, was born in London, Eng., July 6, 1840; became organist of St. Michael's College, in 1856; of Magdalen College, Oxford, in 1859; of University Church, Oxford, from 1850 to 1872, and of St. Paul's Cathedral, London, from 1872 to 1888. He composed a large number of hymns and services, and has published a *Dictionary of Musical Terms* and a work on the *Music of the Bible*. Among his cantatas are *The Daughter of Jairus* and *St. Mary Magdalene*. He was knighted in 1888, and appointed professor of Music at Oxford.

Stamp'-mill, *n.* See Ore-crushing and Dressing Machinery.

Stamps, Post'age. (*Hist.*) The first regular use of postage stamps began in Great Britain on May 6, 1840, as a result of the earnest efforts of Sir Rowland Hill for postal reform. Adhesive stamps for such purposes as paying a tax on checks, receipts, legal documents, &c., had long been in use in Great Britain, and the effort to force the colonies to pay a similar tax without giving them representation in Parliament was one of the main causes which led to the American Union. But the advisability of collecting letter postage in this way was long in making itself felt, it being customary to prepay the postage in cash at the office, the postmaster then stamping the letter as prepaid. In the U. S. the post-office authorities in large cities kept regular book accounts with the leading merchants, bills being rendered at the end of each month for postags on the mail matter sent during the month. A method for collecting postage by means of a ticket or band attached to the letter was attempted in France as early as 1653, but failed to commend itself to the public, and was soon abandoned. In 1818–19 something resembling a postage stamp was used in Sardinia, but this was not used to send letters by government mail, but to indicate the amount of tax paid for the privilege of sending them through some other channel. The first suggestion of a postage stamp in Great Britain was made by James Chalmers, of Dundee, some time before their actual introduction. But the adhesive label offered by him was not accepted, and the first stamps actually employed were those introduced by Sir Rowland Hill in 1840.

The first method employed was the use of prepaid envelopes, engraved by W. A. Mulready, and known as the Mulready envelope. The design represented Britannia as sending letters to all parts of the world. Ridicule soon drove these envelopes out of existence, and adhesive stamps took their place. The useful example set by Great Britain found its first imitators in the U. S.—not by the government, but by the proprietors of local delivery companies, who began to offer postage stamps for sale in 1842, the first of these being the City Dispatch Post, of New York city, which in August of that year sold its outfit to the U. S. government, which employed the same stamp, a three-quarter face portrait of Washington, the inscription being changed to read "United States City Dispatch Post." It was not, however, until 1847 that the U. S. government adopted the stamp system for its general postal service, though the postmasters of various towns had previously, on their individual responsibility, printed and sold postage stamps. Brazil was the first government (1843) to follow Great Britain in issuing stamps for general use in the postal service. France first issued them on Jan. 1, 1849, and Belgium and Bavaria in November of the same year. Prussia and Hanover adopted the new system in 1850, and Switzerland in the same year, though some of the Swiss cantons had introduced them previously. The other nations now rapidly fell into line—France in 1850; Italy and Denmark, 1851; Portugal, 1853; Norway, 1854; Russia, 1857; Sweden, 1858; Greece, 1861; Turkey, 1863. The first Canadian stamps were issued in 1851. Mexico followed in 1856, and the several South American republics at successive periods, beginning with Chile in 1852, and ending with Paraguay in 1870. The use of the stamps was, in the meantime, taken up by the other countries of the world, including the English colonies in Australia and Africa, India, Egypt, &c., until no nation remains with the least pretence to civilization which has not its postal service and its characteristic stamps.

The U. S. has the distinction of having at one time a greater variety of stamps than any other country in the world, the issues for general use (1873 to 1884) consisting of 13 different stamps, 13 envelopes, and 2 wrappers, while each department of the government had its own series, amounting to 106 in all, besides which there were 7 postage-due and 24 newspaper and periodical stamps. The collection of stamps began as soon as it was perceived that a variety of stamps were coming through the mails from different countries, and the great numbers that have since been issued has made this an

lnteresting and absorbing occupation, the slightest variation in printing, stamping, &c., being now observed, nntil some collectors have made as many as 50 variations of a single stamp. The custom of issuing memorial stamps, as on the occasion of the 50th anniversary of Qneen Victoria's accession to the throne, has added new iuterest to the habit of collectiug. As examples of the beauty and variety of postage stamps now issued, attention may be called to the accompanyiug colored plates.

Stan'berry, In *Missouri*, a post-town of Gentry co., 13 m. W. of Albany; has railroad machine shops. *Pop.* (1897) 2,185.

Stand'-pipe, *n.* A vertical pipe, into which water is pumped, of sufficient height to give it a head, either to supply elevated points at a distance, or to supply a boiler against the pressure of the steam.—A pipe serving as an air-chamber or air-cushion on the eduction side of a steam pump.—A pipe leading from a gas-retort to the hydraulic main.

Stan'ford, LELAND, capitalist and philanthropist, was born iu Watervliet, N. Y., March 9, 1824; admitted to the bar (1849); went to California overland and engaged in gold-mining (1852); iu 1856 settled in business in San Francisco. He was one of the organizers of the Central Pacific R. R. Co., was made its president, and superintended the construction of the line. He was elected governor of California, on the Republican ticket, in 1861, and from 1884 until his death was a U. S. senator. He amassed a fortune of more than $50,000,000, and gave property to the value of $20,000,000 to found, at Palo Alto, a nniversity In memory of his son, to be called the Leland Stanford Junior University (*q. v.*). Died June 21, 1893.

Stan'ley, DAVID SLOANE, U. S. A., was born In Cedar Valley, Ohio, June 1, 1828; graduated at West Point (1852), and served on the frontier. In 1861 he was in the Missouri Department of the Federal army, and for merit was appointed brigadier-general. In 1863 he was placed In command of the Army of the Cumberland, and was promoted major-general. After the war he remained in the regular army, with rank of colonel; served again on the frontier, and was promoted brigadier-general, and given command of the Department of Texas and New Mexico. Retired June 1, 1892.

Stanley, HENRY MORTON (originally named JOHN ROLLANDS), African explorer, was born In Denbigh, Wales, in 1841; at 15 years of age he arrived In New Orleans as a cabin boy, and entered the employ of Mr. Stanley, a wealthy merchant, whose name he afterward assumed. Before 1861 his roving disposition had carried him to California, and he had had adventures among Indians on the plains. He enlisted In the Confederate army; was captured, and then entered the Federal navy, reaching the rank of ensign by the time the war closed. In 1866 he secured an engagement with the New York *Herald*, which paper sent him to report upon the Cretan revolution. In 1867 he joined General Napier's Abyssinian expedition, and in 1868 became distinguished as a news-correspondent by getting his report of the battle of Magdala printed In London ahead of the official dispatches. He then was engaged in reporting the revolution In Spain against Queen Isabella; and while there (1869) he received from James Gordon Bennett the terse order to "find Livingstone." His prompt obedience to the order and the success of his expedition are matters of familiar history. His second African exploring expedition resulted in the founding of the Congo Free State. *S.*'s most famous expedition is that which he last made, and which was known as that for the relief of Emin Pasha. It is believed that a deep political scheme for the strengthening of British hold upon South Africa lay under the surface of this avowedly humane enterprise, and that Emin Pasha did not desire to be relieved, but was virtually taken a most unwilling captive. In 1890 a large territory, within the southern end of which Emin had exercised a personal jurisdiction, was added to British territory, and is now known as British East Africa, having a conjectural area of over 500,000 sq. m. In May, 1890, *S.* was In London, and that summer was made D.C.L. by Oxford. Soon after he married Dorothy Tennant, a gentlewoman of artistic fame. During the following year he lectured in the U. S.; he then returned to England, and was naturalized, and became a candidate for Parliament for North Lambeth; was defeated (1892), but was returned for that district In 1895. He has published *In Darkest Africa* (1890), and several other works: *How I Found Livingstone* (1872); *Through the Dark Continent* (1878); *Congo, and the Founding of Its Free State* (1885); *Slavery and the Slave Trade in Africa* (1893); *My Dark Companions and Their Strange Stories* (1893). Died May 10, 1904.

Stanley, In *South Dakota*, a W. central co.; *area*, 1,155 sq. m.; bounded N. and E. by Missouri river. *Surface*, undulating; *soil*, generally fertile. *Products*, wheat, rye, barley, hay, live stock, &c. *Cap.* Fort Pierre. *Pop.* (1895) 511.

Stan'nard, HENRIETTA ELIZA VAUGHAN (pseudonym, JOHN STRANGE WINTER), novelist, was born In York, Eng., Jan. 13, 1856; daughter of Rev. Henry Vaughan Palmer. Her father was at one time an artillery officer, and she had an opportunity to observe military life, which enabled her to portray camp-life in a realistic way. Her literary work began with a series of sketches, afterward published in a volume under the title *Cavalry Life* (1881). The story that made her reputation is *Bootle's Baby*, which appeared in 1886. Other stories are: *Mignon's Secret* (1886); *A Siege Baby* (1887); *Beautiful Jim* (1888), and *Bootle's Children* (1888). In 1891 she founded *Winter's Weekly Magazine*. She was married (1884) to Arthur Stannard, a civil engineer.

Stan'ton, ELIZABETH CADY, reform advocate, was born in Johnstown, N. Y., Nov. 12, 1815; daughter of Daniel Cady; was married (1840) to Henry Brewster Stanton, the noted Abolitionist. With Lucretia Mott, she held the first woman's suffrage convention at her home in Seneca Falls, N. Y., in 1848; from that time she was unceasingly active iu the cause of woman's rights; she addressed conventions and influenced legislation. She was president of the National Woman's Suffrage Association, and of the International Council of Women, in 1888. With Susan B. Anthony and Matilda J. Gage, she published *The History of Woman's Suffrage* (1886). Died October 26, 1902.

Stanton, In *Kansas*, a S. W. co.; *area*, 672 sq. m.; drained by the North Fork of Cimarron river and tributary streams. *Surface*, generally level; *soil*, very fertile. *Cap.* Johnson. *Pop.* (1895) 613.

Star, *n.* [A. S. *steorra*; Ger. *stern*; Lat. *stella*; Gr. *aster*.] (*Astron.*) A general term applied to any celestial body, including the planets. In astronomy, however, the word is used to designate only those self-shining bodies which are situated beyond the limit of solar attraction, and which are also called *fixed stars*, to distinguish them from the planets and their satellites, though it is recognized that the fixation is apparent only, not real. The stars differ greatly in distance and brilliancy, the latter being partly due to difference in size and largely to difference in distance. For convenience in study they are divided into classes called *magnitude*, the most brilliant being called stars of the *first magnitude*, the next in brilliance of the *second magnitude*, and so on downward, those lower than the *sixth* and *seventh* being invisible to the naked eye. The stars are very irregularly distributed through the heavens, being in some parts thinly scattered, while in other regions they are abundant, and in the Milky Way they are densely crowded. Two very important considerations concerning the stars are those relating to their numbers and distances.—*Distance.* Some few of the stars have an apparent motion, due to the actual motion of the earth in its orbit, they changing place slightly as the earth shifts from side to side of its orbit. The minute angle thus made permits their distance to be approximately measured. By careful measurement of the *parallax*, or seeming motion so caused, the star Alpha Centauri has been found to be 24,000,000,000,000 miles from the solar system. This stupendous distance is that of the *nearest* star. The distances of about a dozen more remote ones have been doubtfully made out, but nearly all the stars are so very distant as to have no recognizable parallax. There is no other means of judging of their distance, since difference of *magnitude* may be due to actual difference in size. Yet it is probably largely due to difference in distance, and many of the visible stars are believed to be inconceivably remote, extending through possibly endless depths of space.—*Number.* Only about 6,000 stars can be distinguished with the naked eye—though the Milky Way seems made up of vast multitudes merged together. Large telescopes reveal probably about 100,000,000. This number has been again increased from 5 to 10 times by the aid of photography. One method of computation, founded on the assumption that there are about 3 times as many stars of each magnitude as of the next larger, yields the following result: If we reckon 20 stars as of the first magnitude, the sum total to the 18th magnitude would be over 10,600,000,000. Such a mode of computation is not very trustworthy, yet the actual number of stars is doubtless something enormous, myriads of the more remote ones probably lying far beyond human ken.—*Constitution.* Yet almost infinitely distant as are many of the stars, man has been enabled, by aid of the spectroscope, to learn something regarding their constitution from the character of their light. Each star is in some degree a counterpart of our sun, shining by its own light, though there seem to be many variations in light-giving power. And spectroscopic study, which has taught us much regarding the elements present in the sun, has enabled us to extend this investigation to the stars and nebulæ. It will suffice to say here that hydrogen is a common and abundant element, and that the presence of various other elements has been discovered. (See SPECTRUM ANALYSIS.) For the resolution of some of the seeming nebulæ into clusters of stars, and the proof by the spectroscope that others are actual nebulæ, see ASTRONOMY, and NEBULÆ.—*Motion.* The term *fixed stars* has been proved not to indicate a fact, but only an appearance. In addition to the seeming motion due to parallax, many of the stars have been found to possess a real motion, and there is much reason to believe that they all are moving rapidly through space. The sun and its attendant planets are positively known to be moving at an exceedingly high rate of speed toward a certain quarter of the heavens, and probably each star with its planetary system, if any, has a similar motion, these motions differing in speed. The most rapid motion yet detected is that of No. 1830 of *Groombridge's Catalogue*, a star of the 6·5 magnitude, which shifts its place 7″ per annum. Its actual speed is doubtless very great. —*Double and Multiple Stars.* Many of the stars which appear single to the naked eye appear double when seen through the telescope, while in other cases they are triple, quadruple, and in still higher numbers. This was at first thought to be due to their lying in the same line of sight, but it is now known that many of the double and multiple stars have an actual physical connection, being associated in pairs or groups, revolving round each other, or round their common center of gravity. They are stellar systems, presenting an analogy to our solar system. The fact of such a mutual revolution of double stars was first announced by Sir William Herschel in 1803, and startled the scientific world. It has since then been abundantly proved, and many double and multiple groups have been discovered. It is an interesting fact that Alpha Centauri, the nearest of the stars, is a double, one of the two stars of which it is composed revolving around the other in about 80 years. The period of revolution of some doubles is far less than this, and in some of the cases one of the stars is invisible, being a dark star whose presence is only known by its effect on the appearance of its bright companion. An example of this will be given below. —*Temporary and Variable Stars.* Stars occasionally appear, remain for a short time, and then disappear. A late example of these was Nova Andromeda, which suddenly appeared in the center of the great Andromeda nebula, being first seen on Aug. 31, 1885. In 1892 Nova Auriga similarly appeared, grew fainter, then brightened, and in August changed into a nebula. The brightest of the temporary stars was the Pilgrim star of 1572, which was as brilliant as Venus, and became visible by daylight. It is not improbable that the appearance of these temporary stars is due to sudden outbursts of incandescent hydrogen in formerly very faint stars, their subsequent disappearance being due to the consumption of the hydrogen, or loss of its incandescence. Variable stars appear due to a different cause. These do not suddenly appear and afterward disappear forever, like the temporary stars, but simply vary their light, in some cases fitfully, in others periodically. Algol is a notable example. For 200 years its variability has been recognized, and takes place with great rapidity. It remains of the second magnitude for 2d. 20h. 49m., then in about 4 hours it decreases to the fourth magnitude, then in a little over 4 hours it regains its former brightness. The cause of its variability has been revealed by the spectroscope, which proves that it has a dark or very faint companion, by which it is periodically occulted. The fact of its revolution is shown by the shifting of its spectral lines toward the violet or red ends of the spectrum as it advances or recedes during its revolution. Another remarkable variable is Omicron Ceti (Mira), which has a somewhat irregular period of about 11 months. It is, at its brightest, of the second magnitude, grows fainter for 3 months until invisible to the naked eye, remains thus for 5 months, then during 3 months regains its former brightness.

Star Show'ers. (*Astron.*) Shooting stars have been seen in all ages of the world, but until recent times the cause of their appearance, especially in showers, was involved in profound mystery. The limited scope of this article will not admit of an extended description of all the facts connected with this extraordinary phenomenon; for many omitted details associated with the subject, see METEORS. No shooting star can be seen except while undergoing combustion by friction with the earth's atmosphere; before entering it they are small, dark bodies, very properly named (by Prof. H. A. Newton) *meteoroids*. How small they are we do not know, but the smallest are probably not larger than grains of wheat. As not one has ever reached the earth, being entirely consumed by the time they reach within 40 miles of it, we are ignorant of their nature and composition. Modern science has taught us much regarding the source whence they come directly to us; but of their primary origin nothing whatever is known. We only know that every one is a naturalized foreigner, once forming part of a comet's tail. No comet can gather its tail to itself again, and as it is formed of an infinite number of meteoroids, they are left behind, the planetary spaces, and probably the stellar, having been filled with them by the countless millions of comets which during past ages have visited our system. Each tiny particle revolves around the sun in as regular an orbit as do the planets, but with the difference that, like their parent, some revolve direct and others retrograde.

Shooting stars are seen every night with greater or less frequency; but the problem that concerns us here is, why they periodically appear in showers, astonishing half the world with the appalling numbers seen in every part of the sky. As the November 15th star shower is the grandest of all, for there are many, a description of it will serve, with some modification, for all the others. Suppose that ages ago a comet visited our system, moving in an elliptic orbit, and that it threw off a tail, perhaps 50 or 100 million miles in length (which of course was left behind), and suppose also that after appearing several times these abandoned tails formed a continuous ring of immense extent around the sun. It would be possible for the ring to have such an inclination and perihelion distance that the earth in its annual journey would pass through it, producing an annual shower of somewhat uniform brilliancy (regardless of the length of their periods), of which the August 10th is an example. Now, if this comet should burst, as did Biela's comet, and form a dense swarm of meteoroids of several million miles in width and many million miles in length, the earth's passage through it would account for the great showers that history records, as on Nov. 12, 1799; Nov. 13, 1833; Nov. 14, 1866, and which will be repeated in 1899, in all probability on the *morning* of Nov. 15. History mentions this shower as far back as A. D. 902. Owing to the motion of the node, the greater shower, which in modern times takes place in November, occurred then in October. The period of the meteors is about 33¼ years, causing the earth to pass through the ring every year in a new place, and every 33 years through the

HONGKONG
TWO CENTS
POSTAGE
MAURITIUS
TWO PENCE
POSTAGE & REVENUE
1 CENT
ПОРТО СКРИСОЛ
81
Hawaiian Postage
13
Cents
BRITISH HONDURAS
2
CENTS
IMPERIAL JAPANES
FRANCO
PARAGUAY
CORREOS
MEXICANA
CINCO CENTAVOS
5 POSTES 5
5
TANGER-FEZ
ST HELENA
HALF PENNY
CORREIOS
REIS 2½ REIS
SACHSEN
3
FRANCO
CYPRUS
30 PAR
SVERIGE
FRIMARKE
POSTE PERSANE
10
ETAT INDEPENDANT
CINQ CENTIMES
LOCAL POST
POSTAGE DUE
SHANGHAI MUNICIPAL
TE BETALEN
2½
LEEWARD ISLA
POSTAGE
ONE SHILLING
COREAN POST
NEDERLAND
HALF PENNY
ANGOLA
5 REIS
ONE PENNY
BAHAMAS
ONE P
JEDAH
5. Cent.
STAMPEL
БЪЛГАРСКА ПОЩА
1
СТОТИНКА
BRITISH
BECHUANALAND

POSTAGE STAMPS OF FOREIGN NATIONS.

PLATE I.

1 HONG-KONG (1880), 2 Cents.
2 MAURITIUS (1847), 2 Pence.
Rare. Stamp-dealers' price for original, $2,000.00.
3 BRITISH GUIANA (1889), 1 Cent.
4 MOLDAVIA (1858), 81 Parale.
Rare. Stamp-dealers' price for original, $1,500.00.
5 NEW SOUTH WALES (1888), 1 Penny.
6 INDIA (1892), 1 Rupee.
7 HUNGARY (1874), 2 Kreutzer.
8 ICELAND (1882), 3 Aur.
9 BRITISH HONDURAS (1888), 2 Cents.
10 HAWAII (1851), 13 Cents.
Rare. Stamp-dealers' price for original, $500.00.
11 SALVADOR (1896), 5 Centavos.
12 SWITZERLAND (1862), 2 Centimes.
13 JAPAN (1879), 2 Sen.
14 ST. HELENA (1894), Half-penny.
15 ARGENTINA (1888), Half-centavo.
16 PARAGUAY (1892), 2 Centavos.
17 AFGHANISTAN (1881), 1 Abassy.
18 AZORES (1895), 2½ Reis.
19 MEXICO (1895), 5 Cents.
20 MOROCCO (1892), 5 Centimos.
21 CYPRUS (1896), 30 Paras.
22 SAXONY (1850), 3 Pfennige.
23 NIGER COAST (1894), 1 Penny.
24 PERSIA (1882), 10 Franes.
25 COSTA RICA (1889), 20 Centavos.
26 BOLIVIA (1894), 2 Centavos.
27 SWEDEN (1891), 1 Ore.
28 PORTUGAL (1893), 5 Reis.
29 SHANGHAI (1893), Half-cent.
30 DUTCH INDIES (1882), 2½ Cents.
31 FRENCH COLONIES (1892), 1 Centime.
32 LEEWARD ISLANDS (1890), 1 Shilling.
33 BORNEO (1894), 3 Cents.
34 COREA (1885), 100 Mons.
35 BRITISH SOUTH AFRICA (1896), Half-penny.
36 CONGO (1895), 5 Centimes.
37 HOLLAND (1875), 10 Cents.
38 NEW ZEALAND (1895), Half-penny.
39 GAUTEMALA (1886), 1 Centavo.
40 MONTENEGRO (1894), 1 Novitch.
41 ROMAN STATES (1868), 5 Centesimi.
42 QUEENSLAND (1895), 1 Penny.
43 ANGOLA (1870), 5 Reis.
44 CUBA (1892), Half-millisemo.
45 NEWFOUNDLAND (1894), Half-cent.
46 BAHAMAS (1884), 1 Penny.
47 ECUADOR (1887), 2 Centavos.
48 AUSTRIA (1851), 10 Kreutzer.
49 FRENCH COLONIES (1859), 10 Centimes.
50 GERMANY (1865), 3 Silbergroschen.
51 BULGARIA (1889), 1 Stotinki.
52 BRITISH BECHUANALAND (1887), Half-penny.

POSTAGE STAMPS OF FOREIGN NATIONS.

PLATE II.

53 GIBRALTAR (1889), 10 Centimos.
54 BRITISH EAST AFRICA (1890), 1 Anna.
55 CAPE OF GOOD HOPE (1894), 1 Penny.
56 BELGIUM (1893), 2 Centimes.
(With or without Sunday delivery.)
57 LAGOS (1887), 2½ Penny.
58 LUBECK (1859), 4 Shillings.
59 SOUTH AUSTRALIA (1893), 2½ Penny.
60 SIAM (1895), 1 Att.
61 BARBADOES (1896), 1 Farthing.
62 HAYTI (1894), 1 Cent.
63 SALVADOR (1892), 2 Pesos.
64 HANKOW (1893), 2 Cents.
65 GRENADA (1896), 3 Pence.
66 SARAWAK (1889), 2 Cents.
67 MONACO (1890), 15 Centimes.
68 BRAZIL (1894), 10 Reis.
69 KEWKIANG (1894), Half-cent.
70 CHILE (1883), 5 Centavos.
71 JAMAICA (1886), Half-penny.
72 NATAL (1895), Half-Penny.
73 ABYSSINIA (1894), ½ Guerche.
74 TURKEY (1876), 10 Paras.
75 SAMOA (1877), 2 Shillings.
76 LIBERIA (1892), 16 Cents.
77 CURACAO (1889), 1 Cent.
78 LUXEMBOURG (1895), 2 Centimes.
79 U. S. OF COLOMBIA (1890), Half-centavo.
80 MOZAMBIQUE (1894), 5 Reis.
81 HONDURAS (1891), 2 Pesos.
82 FUNCHAL (1892), 5 Reis.
83 MEXICO (1864), 4 Reals.
84 CEYLON (1892), 2 Cents.
85 ROUMANIA (1879), Half-bani.
86 ITALY (1890), 2 Centesimi.
87 HAMBURG (1866), 4 Shillings.
88 PHILLIPINE ISLANDS (1893), 1 Millisemo.
89 GREECE (1896), 1 Lepta.
90 RUSSIA (1889), 4 Kopees.
91 ITALY (1856), 40 Centesimi.
92 HAWAII (1894), 2 Cents.
93 SAN MARINO (1894), 25 Centesimi.
94 DOMINICAN REPUBLIC (1895), 1 Centavo.
95 GAMBIA (1889), 1 Penny.
96 DENMARK (1874), 5 Ore.
97 ALSACE (1871), 5 Centimes.
98 NICARAGUA (1869), 10 Centavos.
99 PRINCE EDWARD ISLAND (1872), 1 Cent.
100 SOUTH AFRICAN REPUBLIC (1894), 1 Penny.
101 BADEN (1862), 3 Kreutzer.
102 CHINA (1885), 1 Candareen.
103 HELIGOLAND (1876), 1 Pfennige.
104 ORANGE FREE STATE (1894), 1 Penny.
105 EGYPT (1894), 3 Milliemes.
106 PERU (1894), 1 Centavo.
107 NEW BRUNSWICK (1860), 1 Cent.
108 LABUAN (1894), 2 Cents.
109 NORWAY (1888), 2 Ore.

GIBRALTAR
10 CENTS
POSTAGE REVENUE
IMPERIAL BRITISH EAST AFRICA COMPANY
GRENADA
POSTAGE
REVENUE
POSTAGE SARAWAK
2c
3d
CORREIO
UNIDOS BRAZIL
DEZ 10
PRINCIPAUTE DE MONACO
POSTES
15
GRAND DUCHE DE LUXEMBOURG
2
CENTS
CORREO URBANO DE GOTA
MEDIO CENTAVO
FILIPAS-IMPRESOS
MILADE
HANKOW L.P.O.
2 TWO CENTS
NE PENNY
2c
NE PAS LIVRER LE DIMANCHE
NIET BESTELLEN OP ZONDAG
SALVADOR
FUNDACION DE ISABELA
REPUBLIQUE D'HAITI
1 CENT
BARBADOS
ONE FARTHING
SOUTH AUSTRALIA
JAMAICA POSTAGE
HALF PEN
COLON
NATAL POSTAGE
HALF
SAMOA
EXPRESS
POSTAGE TWO SHILLINGS
EMPIRE OTTOMAN
10 PARA
REPUBLICA DE HONDURA
2 DOS PESOS 2
5 REIS
FUNCHAL
CORREOS MEJICO
CEYLON
2 Cents
HAMBURG
4
Vier Schilling
POSTMARKE
ROMANIA
B. POSTA
POST
FRIMARKE
ORE
FRANCO
HAWAII
POSTAGE
TWO CENTS
C-25-BOLLO POSTALE 25 C
REPUBLICA DOMINICANA
GAMBIA
PENNY
POSTES
5
CENTIMES
CHINA
CANDARIN
LAND-POST
3
PORTO-MARKE
POSTZEGEL
PENNY
PRINCE EDWARD ISLAND
NICARAGUA
CORREOS
DIEZ CENTAVOS
HELIGOLAND
FARTHING
Oranje
Een penny
Staat
POSTES EGYPTIENNES
CENT
ONE CENT
2 CENTS
2 Ore.

center of the swarm. The earth will probably pass through one end and produce a fine shower on either Nov. 14 or 15, in 1898, through its center in 1899, producing the great shower, and through the other end in 1900, producing another fine display. The earth passes diagonally through the ring, at an augle of 17° 44′, and the shower, which will commence about midnight, will last as long as the earth is passing through it, some five or six hours, and no longer.

As the motion of the meteoroids is retrograde, and the earth direct, it is the front side of the earth that plunges into them, causing the display to be in the morning hours. On the other hand, those producing the Nov. 27, or "Biela's comet," meteors, move direct, and consequently overtake the earth, approach from the rear, as it were, causing the shower to occur in the evening hours. The velocity with which the meteoroids of the Aug. 10 and Nov. 27 showers enter into our atmosphere is, omitting the effect of the earth's attraction, equal to the difference between the orbital motions of the earth and the meteors; whereas in the case of the Nov. 15 shower, they meet with a relative velocity equal to the sum of both. In the latter case, the two must meet with a rate of speed of some 50 miles a second, and this is undoubtedly increased by the earth's attraction at least 100 miles a second and perhaps much more. The earth's atmosphere serves as a shield to prevent our being bombarded by the rain of these missiles.

It is not known which continent will be favorably situated to witness the display in 1899. In 1833 the American was the favored one, and in 1866 it fell to the European. The New World, however, enjoyed a fine show the next year (Nov. 14), during which the writer counted 1,400. The radiant of this show is at the sickle of Leo. There are two showers from Biela's disrupted comet, one on Nov. 25, with a radiant in Cassiopeia, the other on Nov. 27, with radiant in Perseus. These meteoridal orbits are of immense extent; that of Nov. 14 reaches to beyond Uranus, and the August orbit to beyond Neptune. If a meteor is seen in any part of the sky, whether its visible path be long or short, it, if traced backward, will meet those of the others, like the radii of a circle, at the radiant. No recorded shower has ever equalled that of 1833. The remembrance of that awful night still clings to the writer's memory. It was estimated that at any one point throughout the continent at least 300,000 shooting stars were visible. It will certainly recur on the mornings of either the 13th, 14th, or 15th (opinions favor the latter date), but never in the evening, but from midnight to dawn. The statement that every shooting star was once part of a comet sounds more like romance than science. The elements of Swift's comet of 1862 agree in every particular with those of Aug. 10 showers, while those of Tempel's comet of 1866 agree with the Nov. 15 meteor orbit, not to cite other coincidences.

Stark, in *North Dakota*, a S.W. co.; *area*, 1,310 sq. m.; intersected by Heart river. Hording and dairying are the leading industries. *Cap.* Dickinson. *Pop.* (1897) 3,500.

Starr, in *Texas*, an extreme S. co., adjoining Mexico; *area*, 2,570 sq. m.; bounded S. by Rio Grande del Norte. *Surface*, nearly level; *soil*, fertile in the valley of the Rio Grande, rest of country suited for stock-raising, which is the chief occupation. *Cap.* Rio Grande. *Pop.* (1897) 11,100.

Stead, William Thomas, writer and publisher, was born in Embleton, England, July 5, 1849. In 1871 he became the editor of the *Northern Echo*; assistant editor of the *Pall Mall Gazette* in 1880, and editor-in-chief in 1883, holding that position until 1889, when he resigned in order to found the *Review of Reviews* (London) in 1890. He also founded (1893) *Borderland*, a monthly devoted to the study of psychical phenomena. He published several works in the interest of social reforms; in 1893 published *If Christ Came to Chicago*, a book that created a profound sensation at that time.

Steam'ships, *n. pl.* It is believed that the first vessel ever propelled over the water by steam was built in 1785–6 by James Rumsey, of Charleston, in what is now West Virginia. The boat and her machinery were constructed in Frederick co., Md., and launched on the Potomac river, a public trial being given March 14, 1786. Both Gen. George Washington and Gov. Thomas Johnson, of Maryland, were interested in the success of the enterprise, and records of the undertaking appear in many State papers. John Fitch propelled a boat on the Delaware by steam-paddles in 1786, and later used side-wheels and propellers. Robert Fulton has been generally recognized by historians as the builder of the first steamboat; but Fulton's steamboat, the *Clermont*, was not launched on the Hudson until 1807, and in those very waters he was preceded two years by Col. A. S. Stevens, who built and ran a steam-launch, a portion of whose mechanism is still preserved in the Stevens Institute, in Hoboken. It is noteworthy that these first American steamboats represented the three most interesting types of marine steam propulsion. Fitch tried both side-paddles and propellers. Rumsey's boat made use of jet-propulsion (*q. v.*), employing a steam-engine and pump for drawing in water at the bows, and forcing it out at the stern. This is at once the simplest and the most wasteful method of propelling a steamboat, but it has been recently perfected, and is in use in the lifeboat service of Great Britain and Holland. Stevens' boat was a twin screw-propeller, representing the type that within recent years has broken all ocean speed-records. Fulton's *Clermont* was a side-wheeler, and being a larger and better boat than either of its predecessors, and having a more powerful engine, made a better record, and was voted a success. Her length was 133 feet, beam 18 feet, capacity 160 tons, and speed about 5 miles an hour. The boiler and engine were exposed on the deck, without shelter, while the paddle-wheels were not covered by boxes. Col. John Stevens, of Brooklyn, built a steamboat, the *Phœnix*, which was launched only a few days later than the *Clermont*, and which made the first ocean voyage, steaming from Brooklyn to Philadelphia.

The first steam-propelled vessel built in the Old World was a twin pleasure-boat, with a paddle and engines, the machinery being constructed by William Symington, in 1788. She was run on Dalswinton Loch, Dumfriesshire, by Patrick Miller. Miller and Symington, in 1789, built a larger boat, which had 12-horse power, and made a speed of 7 miles per hour. Symington also built an engine and a screw-propeller for a canal-boat, the *Charlotte Dundas*, which was tried in Scotland, in 1801, and shortly abandoned, because it washed the banks, causing damage which was too serious to allow of further experimenting. In 1811–12 Henry Bell, of Helensburgh, Scotland, built the *Comet*. She was 40 feet long, about 25 tons burden, and was driven by an engine of 3-horse power. The very slow rate of progress made by the early steamers seems to have been largely owing to an entire lack of appreciation of the amount of power required to drive a vessel at a fair speed. This vessel of Bell's was quite successful, and was used for many years.

By 1808 there were three steamboats on the Hudson river, plying between New York and Albany, and in 1811 a steamer was launched on the Mississippi. By 1815 steamboat lines were established on the Great Lakes and the St. Lawrence river. In 1819 an American-built sailing-vessel, the *Savannah*, was fitted with steam-power, and crossed the Atlantic from Savannah to Liverpool, in 28 days, using the steam-power but a part of the time. From this date the construction of steamships became general. In 1825 the steamer *Enterprise* went from England to Calcutta. In 1831 the *Royal William* went across, from Quebec to England, in twenty-five days, relying more upon steam than sail, and in 1838 the *Sirius* crossed to New York in seventeen days. She was passed on the voyage by the *Great Western*, which sailed from Bristol, England, the port in which she was built, three days afterward, April 7, 1838, and arrived on the 23d, fifteen days out. In 1838 the British government contracted with Cunard, Burns & Co. to supply three steamers for the performance of two voyages monthly, but it was not until 1840 that the celebrated Cunard Line was established. The first vessel built for the newly-formed company was the *Britannia*. Ten years after came serious opposition in the establishment of the American Collins Line, with the *Arctic*, *Baltic*, *Atlantic*, and *Pacific*, 3,000 tons each. This line was unfortunate in every other way except speed, the *Arctic*, with Mr. Collins and many hundreds of passengers, being lost in collision with the *Vesta*; and in 1856 the *Pacific* set out, and never was heard of again. By 1858 the company was ruined, and the line was given up. The Inman Line was next established, in 1850, the first vessel of which was the *City of Glasgow*, which was the first screw steamer to cross the Atlantic in winter. In 1856 were formed the Allan and the Anchor Lines; the Union Line was established in 1863, and seven years afterward the White Star floated its pioneer ship *Oceanic*. Since that date numerous other lines have been established, notably the American Line, which has a fleet of the finest steamships sailing under the Stars and Stripes.

The paddles or side-wheels were the favored means of propulsion on early steamboats, and were generally adopted in spite of the demonstration in 1838, by John Ericsson, that the screw-propeller was the better mechanism. The great objection to the paddle-wheel is that its floats or blades, in entering the water, are so inclined that force is wasted in pushing down the water, while in coming out of the water they lift a considerable portion and throw it high in the air. All this is a loss, and it is not wholly overcome by the feathering paddle-wheels, which were introduced to correct the mechanical deficiencies noted. The feathering-wheel was made to present its blades perpendicularly to the water, but was not wholly correct in theory, besides being complex and liable to get out of order. The screw-propeller applies the power on a correct principle, and is much more simple in practice, being less bulky, and less liable to injury. (See Propeller). Two other forms of propelling mechanism that have been tried with good results are a rear paddle-wheel, which is useful in navigating very shoal waters, and the steam-turbine, which has recently been applied with success to torpedo-boats (*q. v.*).

Steam-vessels may be divided into *steam-launches*, used as pleasure-boats and for harbor-navigation, &c.; *steam-yachts*; *torpedo-boats*; *tugs*, having very powerful engines, for manœuvering large craft about harbors; *tow-boats*, with stout frames, for drawing tows in rivers; *ferry-boats*, double-ended, having saloons on both sides, and a driveway through the center; *river-steamers*, mostly freight-boats, with some passenger accommodations; *inland-water passenger-boats*, often having several decks, and sumptuous appointments, as those on Long Island Sound; *warships* (see Battleships; Cruisers; Navy, &c.), and *ocean steamers*, the latter being more properly called *steamships*, though the uses of the words steamer, steamboat, and steamship are much confused.

One of the best and latest types of ocean steamship is exhibited in the *St. Paul* and *St. Louis*, twin vessels, the first of their kind built in the U. S. The *St. Paul* made a new record on her own route between Southampton and New York—6 days, 0 hours, and 31 minutes, the average speed being over 21 knots (24¼ miles). They are the fastest boats of their size and engine-power in the world, though the *Lucania* and *Campania*, English-built vessels of the Cunard Line, with 50 per cent. more horse-power, exceed them in speed, and the *Kaiser Wilhelm der Gross*, of the North German Lloyd Co., on her maiden trip (Sept. 21–26, 1897), beat the *St. Paul's* record from Southampton to New York, by covering the distance in 5 days, 22 hours, and 15 minutes. All of these steamships, however, are of much greater tonnage than the *St. Paul*.

A description of the *St. Paul* will serve to give a general idea of all the well-appointed ocean steamships. Her length is 554 ft.; beam, 63 ft.; depth, 42 ft.; tonnage, 11,629; engines, 20,000-horse power. Twin screw-propellers with 3 blades are used, each driven by a separate engine. Numerous other smaller engines are used about the vessel, for operating pumps, driving dynamos, &c. The 10 boilers have a heating-surface of 30,000 ft., and supply the twin-engines with steam at a pressure of 200 pounds. The steam is used by quadruple expansion, 6 cylinders being employed in each engine, as the high-pressure and low-pressure cylinders are paired in tandem, with a single piston-rod, so that 4 cranks serve for each set of 6 cylinders. The consumption of coal is 310 tons per day. There are 4 ventilating plants, carrying currents of fresh air to every compartment. 32 lifeboats, a cutter, and a gig are provided for emergency. The decorations of the saloons, dining-halls, and staterooms are superb. There are 5 decks in all, with accommodations for 1,370 passengers and a crew of 400. The framing is of steel, there being a double bottom, and 17 water-tight compartments that preclude sinking unless about half the ship's bottom was stoven in. These compartments are arranged so as to separate the engines and each of the boilers, to prevent disabling of the ship by flooding of the engine-rooms. The arrangement is such that there are 2 complete driving mechanisms, wholly separated, so that if one breaks down from any cause the other is available. The electrical equipment includes 5 dynamos, numerous small motors, 1,780 electric lights, a profusion of electric bells, and about 20 miles of wiring. The masthead, port and starboard lights, &c., are all controlled from switch-boards, and the whistles are sounded by push-buttons. In the chief-engineer's room are indicators, electrically connected, to show the rate of the shaft-revolutions and the position of the rudder. Rudder-indicators are also placed in other parts of the vessel. The steering-wheel is operated without effort. It controls a small pump that drives a column of glycerin through pipes to a cylinder, where the pressure affects a steam-valve, and the steam is directed so as to do the actual work of moving the rudder.

The development of steamships as measured by construction may be summarized as follows: Up to 1845, wooden construction; then iron began to come into use; about 1855 the screw began to replace the paddle-wheel; between 1865 and 1870 compound engines were introduced; about 1875 steel commenced to replace iron for the structural work; about 1880 triple-expansion engines furthered the development; in 1885 twin-screws came into use, and since then forced drafts and quadruple expansion have been developed. The largest steamship ever built was the *Great Eastern*, launched in 1858, her length being exactly one-eighth of a mile, and breadth over paddle-boxes 118 feet; displacement, 32,160 tons; cost, $3,650,000; speed, 11·13 knots. She was too big to pay dividends, but owing to her size proved convenient for laying submarine cables, and was fitted with tanks and engaged in that work for many years. In 1884 she was used as a collier, and later was broken up. Modern construction, developed on practical lines, has surpassed this leviathan of the deep in length, though not equalling her in breadth and tonnage. There are now afloat several vessels of 700 feet and over in length. These include the *Cedric*, 700, the *Oceanic*, 705, and the *Baltic*, 726 feet, of the White Star Line, and the Kaiser Wilhelm II., 706 feet, of the North German Lloyd. The last named is 72 feet in width, and 52 ft. 6 in. in depth, is of 20,000 gross tonnage, and 40,000 indicated horse power. The *Kronprinz Wilhelm*, of the same line, is 663 feet long, and the *Deutschland*, of the Hamburg-American line, 6×6½ feet. These monsters of the deep are remarkable for speed as well as size. Development may be seen in the record speeds achieved in crossing the Atlantic, and these have been widely published for many years, the regular reductions in time exciting much public interest. Each of the prominent transatlantic steamship lines has endeavored at one time or another to maintain the fastest steamships, thus securing the cream of the passenger traffic. About 1850 the contest was inaugurated between the Cunard and the Collins Lines, and in May, 1851, the *Pacific*, of the Collins Line, made the first transatlantic trip in less than 10 days, crossing from New York to Liverpool in 9d. 20h. 16m. The *Arctic*, of the same line, took the record the following year within 9d. 17h. 12m. In 1855 the *Vanderbilt* cut the record to 9d. 8h. The *Scotia*, of the Cunard Line, was the first to cross in less than 9 days, slicing the record in 1863 to 8d. 3h. The Inman (now the American) Line brought the figures below 8 days in 1869 with the *City of Brussels*, the time being 7d. 22h. 3m. The 7-day record was not broken until 1882, when 3 flyers were competing for honors—the *Alaska*, of the Guion Line; *City of Rome*, of the Inman; and *Servia*, of the Cunard. The *Alaska* carried off the honors in 6d. 18h. 37m. In October, 1883, she made the best day's run up to that time, 430 knots. The record since then

for daily runs by knots is: *Aurania*, 440; *America*, 447; *Etruria*, 503; *Paris*, 515; *St. Louis*, 522; *Lucania*, 560; and *Kaiser Wilhelm der Gross*, 564 knots. The list of record-breakers on the New York and Queenstown route, measuring from Sandy Hook to Roche's Point, about 2,800 miles, follows:

Date.	*Steamer.*	*Days.*	*Hours.*	*Min.*
1866	Scotia	8	2	48
1869	City of Brussels	7	22	3
1873	Baltic	7	20	9
1875	City of Berlin	7	15	48
1876	Germanic	7	11	37
1877	Britannic	7	10	53
1880	Arizona	7	7	23
1882	Alaska	6	18	37
1884	Oregon	6	11	9
1884	America	6	10	0
1885	Etruria	6	5	31
1887	Umbria	6	4	42
1888	Etruria	6	1	55
1889	City of Paris	5	19	18
1891	Majestic	5	18	8
1891	Teutonic	5	16	31
1892	City of Paris	5	15	58
1892	City of Paris	5	14	24
1893	Campania	5	12	7
1894	Lucania	5	8	38
1895	Lucania	5	7	23

The fastest passage on the Havre-New York route of 3,170 miles, is credited to *La Touraine*, in 6d. 14h. 26m. With one exception, every transatlantic line now has vessels which make the trip ordinarily in less than 7 days.

Steam-tur'bine, *n.* (*Mech.*) The DeLaval steam-turbine attracted considerable attention at the Chicago Exposition in 1893. It was constructed on the principle of a turbine water-wheel, but very much smaller, consisting of wheels having deflecting plates, so that they might be driven by the impact of the steam admitted near the center and discharged at the periphery. The steam was thus made to drive the wheels by its escaping force, rather than by its pressure, as in a steam-engine. In order to insure good results it was necessary to rotate the wheels at a tremendous speed, and to reduce this by gearing or belting to a speed moderate enough for practical uses. A wheel of four inches diameter developed five horse-power when driven at a speed of 50 rotations a second. In 1897 the Thornycraft torpedo boat *Turbinia* was fitted with the Parsons steam-turbine, and was so successful as to break all records for nautical speed. This turbine, usually built with double wheels, between which the steam enters, exerting an equal pressure in either direction along the shaft, and thus avoiding side friction against the bearings. In applying the turbine to torpedo boats, however, the steam was all introduced from the front side of the turbines, to balance the thrust of the screw-propellers, and a balance thus effected which entirely overcame the thrust, so that no thrust-blocks were used, and a great amount of friction saved. It was found necessary to reduce the speed of the steam-turbines to 2,100 revolutions per minute to accommodate them to the slower motion necessary for the screws. Steam can be worked expansively with steam-turbines by simply leading it in a large pipe from one set of turbines to another, until the development of its force is exhausted.

Sted'man, Edmund Clarence, poet and literary critic, was born in Hartford, Conn., Oct. 8, 1833; studied at Yale, but did not graduate; the degree of A.M. was conferred on him in 1891. In 1852 he entered upon journalism, as editor of the Norwich *Tribune*, and later of the Winsted *Herald*. Afterward he was one of the New York *Tribune* staff of writers. During the Civil War he was field correspondent of the New York *World*. In 1864 he engaged in banking in New York city. He has published many volumes, both of original work and of critical editions and compilations of English and American literature. His largest work is *A Library of American Literature*, in 11 volumes (1888–90), edited with Ellen M. Hutchinson. His *Poets of America* appeared in 1885, and in 1887 he published the 13th edition of his *Victorian Poets*, since revised and extended by a supplementary chapter (1891). In 1896 he published also *Victorian Anthology*.

Steele, in *North Dakota*, an E. co.; *area*, 720 sq. m.; drained by Maple river and the Middle and South Forks of Goose river. *Surface*, rolling prairie; some timber; *soil*, very fertile. *Cap.* Sherbrooke. *Pop.* (1897) 4,140.

Steel'ton, in *Pennsylvania*, a post-borough of Dauphin co., 3 m. E. of Harrisburg; has important manufactures of steel rails, forgings, architectural steel, &c. *Pop.* (1897) 11,500.

Stein'itz, William, chess-player, was born in Prague, Bohemia, May 14, 1836. He became so proficient that he was called the chess champion of the world, having won either first or second place in every tournament from 1862 to 1894, when he was defeated by Emanuel Lasker. He settled in the United States in 1883, and founded there the *International Chess Magazine*. He also published, in 1889, *Modern Chess Instructor*.

Ste'phens, in *Texas*, a N. central co.; *area*, 900 sq. m.; intersected by the Clear Fork of Brazos river. *Surface*, hilly; *soil*, in the bottoms fertile. *Cap.* Breckinridge. *Pop.* (1897) 5,120.

Step'niak, Sergius Michael Dragomanoff, said to be the *nom de guerre* of Sergius Kartscheffsky, a Russian revolutionist and exile, was born in the Ukraine in 1841, of a Cossack family belonging to the lesser nobility. He was a student at Kiev, and in 1865 became an instructor in History there, but was removed from his chair in 1873, on account of his advocacy of greater liberty. In 1876 he gave offence to the minister of justice, and was obliged to flee from the country; he first went to Geneva, but in 1885 took refuge in London. He published several books—*The Turks, Within and Without*; *Underground Russia* (1883), a study of Nihilism; *Russia Under the Czars* (1885); *The Career of a Nihilist* (1889), a novel, &c. Died Dec. 23, 1895.

Ster'ling, in *Kansas*, a post-village of Rice co., 18 m. N.W. of Hutchinson. *Pop.* (1895) 1,815.

Sterling, in *South Dakota*, a. W. central co.; *area*, 1,185 sq. m.; intersected by Big Cheyenne river. Grazing is the leading industry. *Pop.* (1895) 149.

Ste'vens, in *Kansas*, a S.W. co.; *area*, 728 sq. m.; drained by Cimarron river. *Surface*, level; *soil*, fertile. Abundance of gypsum, soapstone, and brick clay. *Cap.* Hugoton. *Pop.* (1895) 684.

Stevens, in *Minnesota*, a W. co.; *area*, 576 sq. m.; intersected by Pomme de Terre river. *Surface*, rolling prairie; numerous lakes. *Cap.* Morris. *Pop.* (1895) 6,543.

Ste'venson, Adlai Ewing, lawyer, was born in Christian co., Ky., Oct. 23, 1835; admitted to the bar (1858); held various local and State offices; elected to Congress (1878) as a Democrat; first assistant postmaster-general (1885–89); Vice-President of the United States (1893–97); member of the Bimetallic Commission (1897).

Stevenson, Robert Louis Balfour, novelist, was born in Edinburgh, Scotland, Nov. 30, 1850. His father was Thomas Stevenson, one of the family of famous lighthouse engineers, who designed that his son should follow the same profession, but the boy's ill health compelled a change of plans. Robert took the university course in Edinburgh; in 1871 began to study law, but gave up that study and went to Mentone in the Riviera. From that time he spent his life in search of health, visiting noted resorts all over the world, and incidentally gathering material for the literary productions he afterward gave to the world. His most imaginative book is *Treasure Island*; the most unique book of the century is his psychological study of *Dr. Jekyll and Mr. Hyde*. He also wrote *Kidnapped*, *David Balfour* (*Catronia*), and *The Master of Ballantrae*, connected stories dealing with Jacobite Scotland and Scotch character. He was a constant contributor to current magazines, and issued many volumes of stories, sketches, and poems. In 1879 he went to California, where he married a widow; her son, Lloyd Osbourne, became S.'s collaborateur, companion, and literary executor. In 1887 he removed to Samoa, and bought an estate overlooking Upolu, in the island of Apia. He named his place Vailima, and upon the mountain side there he died (Dec. 3, 1894) and was buried.

Stew'art, Balfour, physicist, born in Edinburgh, Scotland, November 1, 1828. He was appointed director of Kew Observatory in 1859, and became professor of natural philosophy in Owens College in 1870. His researches into radiant heat were of much value, and he was one of the founders of the system of spectrum analysis. He wrote text-books on *Heat; Physics;* and *Energy*. Also, with Tait, *The Unseen Universe*. D. 1887.

Stewart River. An important tributary of the Yukon (*q. v.*), entering it from the N.E. about 100 miles below the junction of the Lewes and Pelly. Its sources are in the main range of the Rocky Mountains, and its length is about 200 miles through rough, forested hills. Traces of gold have been found in its higher gravels, and small placers have been worked near its mouth. See Yukon District and River.

Still'man, William James, journalist and art critic, was born in Schenectady, N. Y., June 1, 1828; graduated at Union College (1848); devoted himself to painting, and studied in Europe in 1849. From 1852 to 1855 he was in Paris studying; in 1861–65 he was U. S. consul in Rome; consul in Crete (1865–69), and after that time correspondent of the London *Times* in Greece and Rome, and art critic of the New York *Evening Post*. He has been a constant contributor to leading magazines, and has published several volumes.

Still'water, in *Oklahoma*, a post-village, cap. of Payne co., 35 m. from Guthrie; has flour and saw mills. *Pop.* (1897) 1,200.

Stim'son, Frederic Jessup (psendonym, J. S. of Dale), lawyer and writer, was born in Dedham, Mass., July 20, 1855, graduated at Harvard (1876); was admitted to the bar (1878); from 1884 to 1885 was assistant attorney-general of Massachusetts. He has published several novels, the latest being *King Noanett* (1896), and several works on legal subjects.

Stock'holm Exposi'tion. The handsome capital of Sweden was rendered specially attractive during much of the year 1897 by an exposition of arts and industries, located near the heart of the city on one of the seven islands on which Stockholm is built, and attracting large numbers of spectators by the completeness and beauty of its display. The main building, known as Industrial Hall, stood in the center of the grounds, its roof adorned with odd-shaped cupolas, which were visible from every part of the city. From this edifice a high white viaduct led to the building devoted to the exhibit of machinery, and near by were erected the handsome Art Gallery, Fishery Hall (in which was exhibited in compact form one of the most important industries of the seagirt land), the building devoted to naval and military affairs, the tourist pavilion, forestry building, and edifices for the display of the products of mining, horticulture, electrical engineering, &c. The keynote of this World's Fair was picturesqueness. The characteristics of the Chicago Fair evidently gave suggestions to its architects and designers, and while its buildings were on a smaller scale than those of that stupendous display, they were all removed from the commonplace. They were quaint rather than large in effect, delicate rather than gorgeous in decoration, antique and picturesque rather than massive. Machinery Hall, the building around which most of the other structures were grouped, and the Art Gallery most nearly approached the magnificence of scale of the structures of the Columbian Exposition. Among the several features of the Fair, one of the most attractive was that known as Gama Stockholm, or Old Stockholm, a representation of the Stockholm of 1593 which was singularly exact in its details, even to the drawbridge chains and the filigree-work of the ancient shop signs. The material for this interesting restoration of the city of over three centuries ago was obtained from old prints, historical descriptions, and the architecture of ancient buildings which still exist in the older part of the present city. Another feature which recalled the most attractive element of the Chicago Fair—the Midway Plaisance—was that known as Skansen, really a park, but incorporated into the exposition grounds in much the same manner. This was given the character of a great open-air museum, with birds and animals from all quarters of the globe, and buildings of ancient days brought from out-of-the-way places in the Northland, some of them near the arctic circle. Notable among these was the old Bell-tower built in Ostergothland 150 years ago, and transported in sections to the exposition. In addition, there were collections of rare and curious relics of the days of the Vikings, while the scene was given vitality and brilliancy by the presence of hundreds of peasants in quaint and gorgeously-colored costumes. Of the special celebrations of the exposition, the most interesting was that of Midsummer Eve and Midsummer Day, the special fête period of the year to the Northland people. The festivities of the peasants on this occasion were kept up almost unceasingly for 36 hours, beginning with the midsummer pole-dances, and concluding with the observance of St. John's Day, the 24th of June. The merry-making, including dances (introducing the peculiar steps and attitudes of the peasantry from all parts of Sweden, Norway, and Lapland), processions, feasts, songs, and recitations of heroic sagas, amid the picturesque surroundings of little lakes and streams, wooded groves, the flowing river, and the magnificent hills that overflow the city, made up a scene of indescribable charm. The architecture of the smaller buildings was exceedingly odd and effective, they comprising queer-shaped water-kiosks, tiny buildings with Russian ornamentation, while the buildings erected for the police and the exposition employés were built after the quaintest fashion, with steep, peaked roofs painted bright green, and sides of red or brown. Little attempt was made at electrical display, for the reason that at 10 or 11 at night the light of a Stockholm midsummer-day is still sufficient to fade out the brightest electric light, while even at midnight a newspaper can be read with ease in the open air. We have spoken mainly of the external effect, in which alone any special originality is now possible in a National or World's Fair, the display of the objects of art and industry bearing a strong similarity wherever shown. It will suffice to say that the exposition included displays in engineering, machinery, building trades, implements, transportation, navigation, fisheries, sport, travel, fine arts, education, hygiene, scientific appliances, &c. The main hall, in which the bulk of the industrial exhibits were shown, was claimed to be one of the largest wooden structures ever built, and had a dome 300 feet high. The Machinery Hall, of glass and iron, had a floor area of about 100,000 sq. ft. There were large halls for each of the three Scandinavian countries, Norway, Sweden, and Denmark, and smaller ones for other countries. Fisheries formed one of the most comprehensive exhibits, on account of the importance of this industry in Sweden, and the displays of forestry and agricultural products were large and attractive. The exposition closed in October, after a very successful season, during which it was visited by a large number of appreciative sight-seers, estimated at about 600,000.

Stock'ton, Francis Richard, novelist, was born in Philadelphia, Pa., April 5, 1834. He entered upon a literary career about 1866, and was on the staff of the Philadelphia *Post*, New York *Hearth and Home*, *Scribner's Monthly*, and *St. Nicholas*. He wrote his stories for children for the *Riverside Magazine*, and afterward published them in a volume under the title of *The Ting-a-Ling Stories* (1870). In 1879 he published the *Rudder Grange* stories; then followed many others bearing the same stamp of quaint humor and originality of conceit. The most striking of his stories is *The Lady or the Tiger?* (1884). Died April 22, 1902.

Stockton Springs, in *Maine*, a post-town of Waldo co. *Pop.* (1897) 1,190.

Stod'dard, Richard Henry, poet, was born in Hingham, Mass., July 2, 1825. In 1849 and in 1852 he published volumes of verse; afterward published *Songs in Summer* (1857); *The King's Bell* (1862); *The Book of the East* (1867), and *Lion's Cub* (1891). He also edited Griswold's *Poets and Poetry of America* (1872), &c. From 1860 to 1870 he was on the literary staff of the New

York *World*, and in 1880 was appointed literary editor of the New York *Mail and Express*. Died May 12, 1903.

Stone, Lucy, reform advocate, was born in West Brookfield, Mass., Aug. 13, 1818; graduated at Oberlin College (1847), and began her life-work of advocating woman's suffrage; was also an earnest anti-slavery lecturer. In 1855 she was married to Henry B. Blackwell, but by previous arrangement retained her maiden name. With few intermissions, she was constantly engaged in the lecture field and organizing local woman's suffrage societies. Died Oct. 18, 1893.

Stone, in *Arkansas*, a N. co.; *area*, 619 sq. m.; bounded N.E. by White river. *Surface*, hilly; *soil*, fertile. *Cap.* Mountain View. *Pop.* (1897) 7,415.

Stone Age. (*Anthrop.*) Public attention became attracted to the subject of prehistoric man by the discovery of the relics of the Swiss lake-dwellers (see Lake-dwellers) in 1853, although long previously implements made of stone, evidently of human workmanship, had been exhumed from the peat-bogs and shell-heaps of Denmark. In 1859 M. Boucher de Perthes found arrow-heads, knives, scrapers, ax-heads, &c., in the valley of the Somme, in France, and set scientific men searching the fields, gravel-beds, and caves of all parts of the world for similar relics of prehistoric peoples, while geologists were importuned to state the geological horizon or relative age of the places of the different finds. Up to the time of these disclosures, which now show that in every habitable part of the world thus far explored there lived a long-forgotten human race or

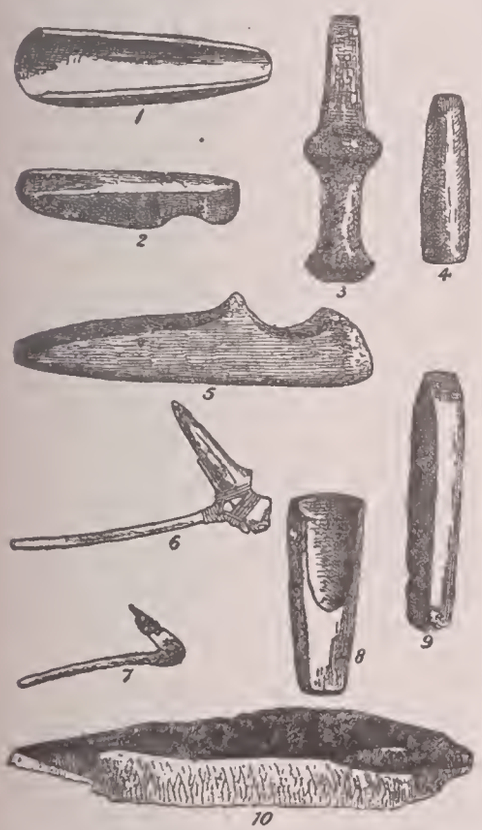


Fig. 3065.—NEOLITHIC PERIOD.
1 to 9, polished stone chisels and gouges from the Atlantic States, adzes from the Northwest; 10, flint graver from Dordogne, France.

races, which made weapons, hunting, fishing, agricultural, and household implements out of stone, and apparently used no metals, save occasionally copper, archæologists had classified the past inhabitants of the earth as living in the Iron Age, immediately preceding the present or Steel Age; or in the Bronze Age which preceded that, and was characterized by the use of weapons and tools made of a bronze-like composition, the use of iron not yet having been discovered. In conformity with this, the name *Stone Age* was given to the preceding prehistoric epoch, when men used only stones, shells, bones, wood, pottery, and the like, in lieu of articles made of metals. It was soon perceived, however, that subdivisions must be made, since the relics differed greatly. The Stone Age is therefore now divided into three periods: (1) Eolithic; (2) Palæolithic; (3) Neolithic.

The first is the oldest and least known. The implements assigned to it are of the rudest type, and occur in gravels and other formations which seem to carry the history of man back into the pre-glacial Tertiary times; but all the conclusions of those who advocate this division and its antiquity are open to doubt.

The second, *Palæolithic*, is simply characterized by the fact that all its implements were made by chipping until (if wanted) a cutting edge or point was procured. Not one of the Palæolithic men seems to have known enough to sharpen his tools by grinding or rubbing them; it must be noted, however, that his methods survived, for certain things, as flint arrow-heads, into the next epoch, and, for that matter, still survive, but the examples are of poorer quality. The men of this period were of small size, with rather short limbs, and great strength, to judge by the skull of Neandertbal (*q. v.*) and a few other fossil bones. He was spread over all Europe, at least during the quaternary (pleistocene) geologic epoch, which immediately preceded our own, and was separated from it by a period of cold. It was in this latter and colder part of the period that men seem to have resorted for shelter to the caves, in whose accumulated floors so many evidences of their residence, occupation, and abilities have been preserved. Coëval with them were an elephant, now extinct (the mammoth, *q. v.*), a rhinoceros, the great cave-bear, a large beaver, and many other extinct species of quadrupeds; and in the latter part of the period the reindeer was common all over southern and western Europe, and several other kinds of animals which, if yet extant, are now confined to the arctic region or to the summits of lofty mountain-ranges.

A remarkable feature of this Palæolithic man was his artistic sense and ability, as manifested in southern France, where this art "consisted sometimes of sculpture done in the round; sometimes of engravings and etchings on stone, bone, or horn, . . . and also in the making of the bone and horn implements, such as points, harpoons, daggers, needles, &c. The decoration was sometimes of geometric designs made by curved or straight lines; by festoons, zigzag, or herring-bone; or by the same figures made by dots or points. The principal and wonderful manufacture of art in this epoch was the representation of living things. Sometimes the animals represented are at rest, but many times they are in action. Hunting scenes are depicted. . . . A mammoth is found engraved on a piece of ivory (part of his own tusk); a cave-bear was engraved on a flat plate of schist; a poignard was made of reindeer horn, the handle of which is in the form of a reindeer himself. . . . The implements and utensils of everyday use were objects of an art by no means contemptible, even as compared with those of our times." Considering this skill and ability, it is extraordinary that he seems otherwise to have remained such an ignorant savage, leaving no monuments to show that he ever built houses for the living or made tombs for the dead; and it is very doubtful whether he knew how to make pottery.

Neolithic man introduced a new order of things. What became of Palæolithic man few relics are left to indicate. It is the opinion of some students that in Europe, at least, he had completely disappeared; others think that he was overwhelmed and submerged in the inroad of a new and more highly developed race, or that he migrated to the arctic north and became the ancestral source of the Eskimo race. The Neolithic man of Europe, at any rate, was a different and superior being, who not only chipped his arrow-heads, but made other more diverse and effective implements of stone by grinding and polishing them. This is the "polished stone" age. That he came from the East into Europe seems undoubted. There he increased until he overspread the whole country, and developed far toward civilization. "The population," says Boyd Dawkins, "was probably large, divided into tribal communities, possessed of fixed habitations, and living principally on their flocks and herds, acquainted with agriculture, and subsisting in a less degree on hunting and fishing. The arts of spinning, weaving, mining, and pottery-making were known, and that of boat-building had advanced far enough to allow of voyages being made from France to Britain and from Britain to Ireland. Traffic was carried on by barter, and stone axes were distributed over areas far away from those in which the stone was found. Tombs were also built, some of imposing grandeur (see Megalithic Monuments), for the habitation of the dead in the after-world, in which the spirits were supposed to lead a life not very different from that of the living, and at which they were worshiped. . . . The Neolithic implements imply that the Neolithic civilization was long established, and it yielded place to a higher culture in Greece and Italy long before it passed away from central and northern Europe. . . . The arts which they introduced have never been forgotten, and all subsequent progress has been built upon their foundation."

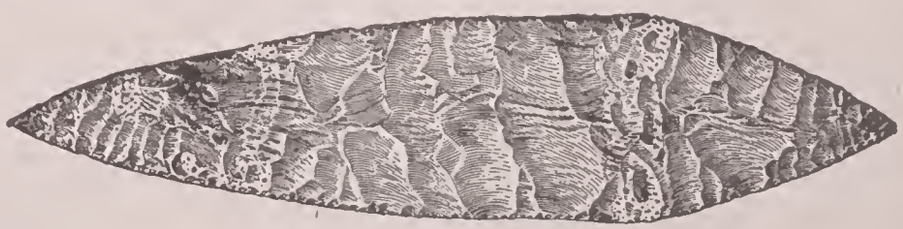


Fig. 3066.—LAUREL-LEAF SOLUTRIAN POINT.
From Rigny-sur-Anoux (Saone-et-Loire, France)—Palæolithic Period.

Stone Cir'cles. See Megalithic Monuments.

Stone'boro, in *Pennsylvania*, a post-borough of Mercer co. Has extensive coal mines. *Pop.*, (1897) 1,559.

Stone'henge, *n.* See Celtic Architecture, and Megalithic Monuments.

Stone'wall, in *Texas*, a N. co.; *area*, 900 sq. m.; intersected by Brazos river and its Salt Fork; *soil*, fertile. Mesquit timber. *Cap.* Rayner. *Pop.* (1897) 1,180.

Sto'ry, William Wetmore, lawyer, sculptor, and poet, was born in Salem, Mass., Feb. 12, 1819, son of Joseph Story, the jurist; graduated at Harvard, and practiced law until 1845; studied in Rome, mastered the details of sculpture, and devoted his life to art; he also published several books; a volume of *Poems* (1856); and a second volume of *Poems* (1885); *Conversations in a Studio* (1890); and *A Poet's Portfolio, Later Reading* (1894). Died Oct. 7, 1895.

Straits Set'tlements. A British colony on the Malay Peninsula, particularly along the Straits of Malacca. It comprises Singapore, Malacca, Penang, Keeling Islands, and Christmas Island, besides exercising a protectorate over several native states. In 1897 the population was about 554,446, of which nearly a third are Chinese, and a large number are natives of India. The total area is 1,542 sq. m., and the productions are tin, spices, sugar, rice, and tapioca. The exports amount to nearly $40,000,000 yearly, but the imports to about three times as much. Tea, coffee, and cinchona are produced in some of the dependent native states.

Strange'ria, *n.* (*Bot.*) A very remarkable genus of *Cycadaceæ*, *S. paradoxia* being the only known species, and one quite distinct from any other of the order in

Fig. 3067.—STRANGERIA PARADOXIA.

its fern-like foliage. It is a Natal plant, with a thick napiform trunk and a few coarse pinnate leaves, the fructification being in cones.

Straus, Oscar Solomon, was born at Otterberg, Bavaria, Dec. 23, 1850; came to America, graduated at Columbia College, and practiced law till 1881, then in mercantile life. He was U. S. minister to Turkey 1887–89 and 1898–1901; president of N. Y. Board of Trade and of American Social Science Association, in 1902 succeeded ex-President Harrison on the Board of Arbitration at the Hague, and in 1906 was appointed Secretary of Commerce and Labor in the Roosevelt cabinet. He is the author of various works of historical character.

Streat'or, in *Illinois*, a city of La Salle co., 96 m. S.W. of Chicago; has active manufactures and also large shipments of coal. *Pop.* (1900) 14,079.

Stry'ker, in *Ohio*, a post-village of Williams co., 47 m. W. by S. of Toledo; has mineral springs of medicinal value. *Pop.* (1897) 1,190.

Stu'art, Ruth McEnery, writer, was born in Avoyelles parish, La., May 21, 1849; married Alfred O. Stuart (1879), a planter of Arkansas. She is a frequent contributor to magazines, and has published collections of her stories under the titles: *A Golden Wedding, &c.* (1893); *Carlotta's Intended* (1893); *The Story of Babette* (1894); *Sonny* (1896), and *Gabolinks*, in collaboration with Albert Bigelow Paine (1896).

Stuart, in *Iowa*, a post-village of Guthrie co., 40 m. W. by S. of Des Moines; has railroad repair shops. *Pop.* (1895) 2,118.

Stuts'man, in *North Dakota*, a S.E. central co.; *area*, 2,304 sq. m.; drained by James river. *Surface*, undulating prairie; *soil*, fertile. Stock raising is a leading occupation. *Cap.* Jamestown. *Pop.* (1897) 5,750.

Stutt'gart, in *Arkansas*, a post-village of Arkansas co., 60 m. S.E. of Little Rock. *Pop.* (1897) 1,224.

Submarine' Boat. (*Naut.*) A vessel which can be navigated under water, with the object of safely carrying a crew to a desired point, free from observation. Boats of this kind have been constructed from time to time for more than a hundred years, and the later types of them appear to be navigable with some degree of safety. David Bushnell, of Saybrook, Conn., is supposed to have been the first to construct a practical boat of this sort, during the Revolutionary War. His patriotic

object was to carry cans of gunpowder under British craft, and blow them out of the water. His vessel was named the *Turtle*, being shaped like that reptile. The shell contained enough air to supply an occupant for about an hour. At the bottom, opposite the entrance, was placed a quantity of lead for ballast. The operator sat upright and moved his boat forward and backward by means of a screw-propeller moved by hand. There was a like screw on the top by which he could govern his ascent to the surface. An aperture at the bottom with its valve admitted water for the purpose of descending, and two force-pumps served to eject the water within when necessary for ascending. The vessel was made air-tight, furnished with glass windows for the admission of light, with ventilators and air-pipes, and was so ballasted with lead fixed at the bottom as to render it solid and obviate all danger of overturning. Above the rudder was a place for carrying a powder magazine. Within the magazine was an apparatus constructed to run any proposed period under twelve hours; when it had run out its term it opened a strong lock resembling a gun-lock, which gave fire to the powder. With this craft the operator could sail within a short distance of a vessel without danger of being detected, and could sink quickly, and stay for a considerable time under water. This vessel was used several times in the endeavor to attach explosives to the bottoms of British vessels about New York, but the difficulty of introducing the powder within the copper sheathing rendered the attempts abortive, though it was demonstrated that the *Turtle* could be steered and directed under water with a fair degree of accuracy.

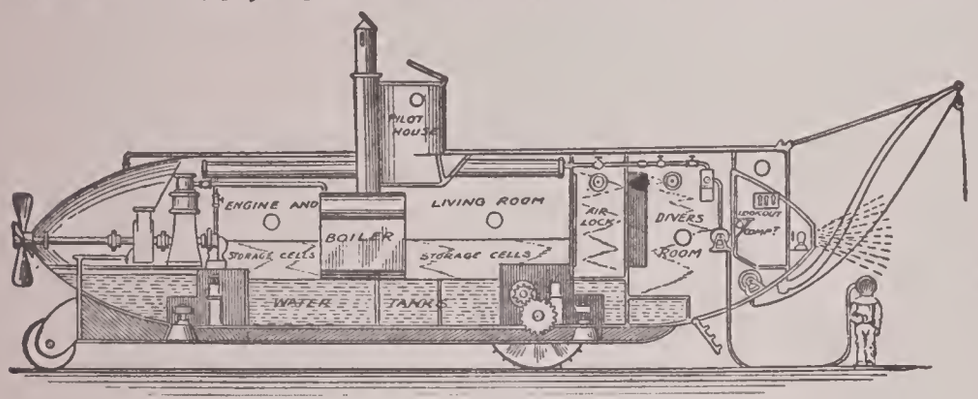


Fig. 3068.—LAKE'S SUBMARINE BOAT "ARGONAUT."

Most of the submarine boats which have been built are designed for torpedo warfare, and are described at TORPEDO BOAT (*q. v.*). The general principles upon which the modern submarine boats are constructed may be summarized as follows: (1.) Means for remaining under water, the vessel being made air-tight, and sealed; this is usually accomplished by providing a vent for foul air, and drawing a supply of pure air from compressed tanks. (2.) Motive power; the electric storage battery supplying a motor is commonly used. (3.) Safe means for raising and depressing the craft at will; this is accomplished partially by the propelling screws, which are usually arranged to give upward and downward motion as well as fore and aft, and also by the use of water-tanks, into or out of which water may be pumped. Other methods are the carrying of a heavy keel or weight, which may be dropped in case of emergency, and the increasing of the air-space in the boat by means of expansible cylinders thrust into the water. (4.) Balance, or the maintaining of an even keel, and permanent depth. Lieutenant Peral, of the Spanish navy, designed an ingenious mechanism for this purpose. He employed an aneroid barometer, whose sensitiveness to increase of pressure as the vessel descended might be made to change the direction of the immersion-screws. The water-pressure was communicated to the barometer by means of a curved tube, extending through the shell of the boat, this tube being very sensitive to change of pressure, which deformed it, the deformation being arranged to change an electric switch, and alter the direction of the screws. To maintain the relative positions of the bow and stern, a contact-pendulum was employed, which swung against a forward contact if the bow descended, making an electrical connection that switched the propeller-blades so as to correct the deflection, and operated in a reverse manner against a rear contact.

A modern submarine boat, built for experimental purposes, and which attracted much attention at the time, was Geo. C. Baker's electrical boat, launched on Lake Michigan in 1892. The propeller screws of this craft are placed at the side, near the center of gravity, and the direction of their thrust can be changed so as to push the boat under water or elevate it, as well as to go forward or backward. The power is taken from storage battery cells, which are charged by means of a steam-engine when the vessel is above the surface. Some details of construction can be gathered from the illustration. The displacement of the boat is 75 tons. The shell is of wood, six inches thick, with a sheathing of metal. The bracing is of stout oak beams. The conning-tower, or turret, through which the steersman's head protrudes when sailing awash, is furnished with five glass plates, affording a view in all directions. It also serves as a man-hole by which the crew enter and depart. The elevation and depression of the boat is not wholly dependent upon the propellers, water-tanks being provided, into or out of which the water may be pumped as it is needed for ballast. The electric motor operates at 200 volts, and at a speed of 900 revolutions. It is made reversible, so that it may be used as a dynamo when it is desired to charge the batteries. This vessel has made numerous successful trips, and remained under water, with two occupants, for three hours at a time. A submarine wrecking boat, designed to roll along the bottom of the sea like a locomotive, was launched at Baltimore, Md., in Aug., 1897, by Simon Lake. She was christened the *Argonaut*. This craft is 36 feet long, and 9 wide, with a displacement of 54 tons. She is designed to explore the ocean bottom for sunken treasures. The accompanying cut explains the details of the machine. She is to carry six men. The hull is built of steel, and strongly ribbed to withstand a pressure of 130 pounds to the square inch, which is the pressure at a depth of 300 feet. The wrecker is divided into four compartments—the engine and living room, the divers' room, with an air-lock adjoining, and the lookout and operating chamber in the bow. In the engine-room will be placed the steam-engine which is to operate the vessel when she is running on the surface. When under water an electric motor, supplied by storage batteries, will be used. Under the forward part of the craft are driving-wheels, like those of a traction locomotive. The aft wheels run loose and support the weight. The saving in energy by using the wheels, instead of the propeller, when submerged, is calculated at 50 per cent. In the engine-room are to be placed the storage tanks, in which the atmosphere will be compressed to a density 70 times greater than the normal. Foul air, as it settles to the bottom of the hull, will be pumped out. In the engine-room are also steam and electrical pumps for handling the water ballast. Forward of the living room, and reached through air-tight doors, is the divers' compartment. In the floor of this is a door which drops downward to permit anyone to leave the room and go out on the bottom of the sea. This bottom door can never be opened until there is a pressure of air in the apartment equal to the pressure of water on the outside of the craft, and it is arranged with an air-lock for further safety. In the divers' room will be placed a telephone, a hose reel, a diver's hoisting engine, and all wrecking tools necessary. Forward of the divers' room is to be the lookout apartment, in which the atmosphere will be normal. This is the pilot house when travelling on the bottom. In it the operator in charge of the vessel will control the hoisting derrick rigged on the bow, control the divers, and direct the craft. On the nose of the vessel will be placed a 2,000-candle power search-light, and lesser beams are to be put on the starboard and port bows. Incandescent lamps are placed throughout the vessel to furnish light. Two heavy circular anchors are to be placed in the bottom of the hull to assist in depression.

To sink the wrecker, five tanks in the vessel are nearly filled with water and the weights are lowered to the bottom of the sea. Then the cables are wound into the boat and she is drawn down. This is the method of going down to a sunken ship whose location is known. The wrecker retains a reserve buoyancy, and in case of accident the anchor chains may be cut loose, and the craft rises to the surface. When out on searching expeditions the tanks will be filled with sufficient water to keep the locomotive on the bottom, and the traction wheels will drive her forward. The search-light will show the path across the hard, sandy beaches which girt the coasts, and also bring out the lines of sunken hulls. The derrick on the bow is to be operated by a man in the forward compartment. The latter has glass windows. The diver has only to place the hooks on the objects, and the man in the boat hoists the load and swings it over the freight cars and deposits it. These cars are shaped like giant revolver cartridges, with a door in the center of their backs. When loaded the cars are coupled together and attached to the locomotive. The train then climbs up the beach to the dry land, or the whole train can be pumped out, when it will rise to the surface and proceed to harbor, like a tugboat and a tow of barges.

The Migliardi brothers, of Foce, Italy, launched a submarine boat in 1892 for fishing and exploring. She was driven by an electric motor and screw-propeller, and was designed to carry five passengers to a depth of 300 feet; but there is no record of her actual performance. The structure was of steel, with several air-tight compartments, and an air-tank containing a supply sufficient for six hours. Her length was 27 feet, height 11½ feet, and beam 7 feet. Numerous other submarine boats are being constructed, several governments fostering their development.

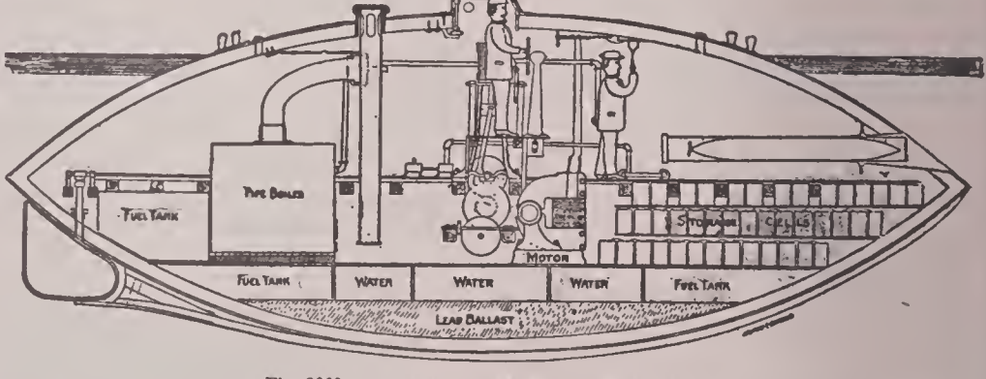


Fig. 3069.—THE BAKER SUBMARINE ELECTRIC BOAT.

Su'gar Notch, in *Pennsylvania*, a post-borough of Luzerne co. *Pop.* (1897) 2,885.

Sul'livan, SIR ARTHUR SEYMOUR, musical composer, was born in London, May 13, 1842; received his first systematic instruction in music at the Chapel Royal, St. James', and was still a chorister when, at the age of 14, he gained the Mendelssohn scholarship; studied two years with Bennett and Goss; then studied at Leipsic for three years; returned to England (1861), and devoted himself to composition. His first works were ambitious, and included the cantatas *Kenilworth* and *Marmion*. His world-wide reputation was made by his light operas, of which *H. M. S. Pinafore* was the leading success, and most of which were composed to libretios written by W. S. Gilbert. He also wrote several songs and hymn-tunes of world-wide popularity, and was an extensive composer of oratorios and sacred dramas. He was knighted at Windsor (1883), and awarded the Legion of Honor in France 1878). From 1876 till 1881, he was principal of the National Training School (now Royal College) of Music. Died Nov 23 1900.

Sul'ly, in *South Dakota*, a central co.; *area*, 1,050 sq. m.; bounded N. by Missouri river, and also drained by Okobojo and Medicine creeks. *Surface*, undulating; *soil*, fertile. *Cap.* Onida. *Pop.* (1895) 1,641.

Sum'mers, in *West Virginia*, a S. co.; *area*, 400 sq. m.; intersected by Greenbrier and New (or Kanawha) rivers. *Surface*, mountainous; *soil*, fertile in places; some coal and good building-stone. *Cap.* Hinton. *Pop.* (1897) 14,150.

Sum'merville, in *South Carolina*, a post-town of Berkeley co., 22 m. N.W. of Charleston. A winter resort for invalids, because of the balmy air and picturesque surroundings. *Pop.* (1897) 2,525.

Sum'mit, in *Mississippi*, a post-town of Pike co., 75 m. S. by W. of Jackson; ships lumber, fruit, and cotton. *Pop.* (1897) 1,710.

Sum'ner, WILLIAM GRAHAM, political economist, was born in Paterson, N. J., Oct. 30, 1840; graduated at Yale (1863); studied at Göttingen and at Oxford; was ordained a minister of the Protestant Episcopal Church, and until 1872 was assistant rector of Calvary Church, New York city; was called to the chair of Political Economy and Social Science in Yale. He has been a frequent contributor to standard periodicals, and has published several works bearing upon political economy.

Sumner, in *Kansas*, a S. co.; *area*, 1,188 sq. m.; intersected by Arkansas river, and drained by Chikaskia and Ninnescah rivers. *Surface*, chiefly prairie; *soil*, fertile. *Cap.* Wellington. *Pop.* (1895) 24,138.

Sun'-wor'ship, *n.* (*Anthrop.*) That a rude and ignorant people should worship the sun is not surpris-

ing, since it is the source of light and warmth, the two things which make the earth inhabitable. Accordingly it was an object of worship from the earliest times. The old Aryan tribes, the ancient Persians, the Brahmans of India, the Pueblo Indians of North America, and especially those of Mexico, all believed that the sun and its companion, the moon, were the great rulers of the world. In Egypt sun-worship was carried to a great extent. The Peruvians of old, who worshipped every aspect of nature, paid their chief honors to the sun. The worship of the sun lingered long even under the shadow of Christianity, which was skilful to turn its rites to profit.

Supe'rior, in *Nebraska*, a city of Nuckolls co., 28 m. S. of Edgar; has flour mills and other industries. *Pop.* (1897) 1,815.

Survey'ing, Photograph'ic. The application of photography to surveying is useful in that it dispenses with angular measurements on the ground by a surveying corps and transfers them to the office, where they can be worked out under more favorable surroundings. An accurate rectilinear lens affords a true perspective, and the focal length being fixed, the point of sight noted, and vertical and horizon lines located on the plate, the azimuth of the principal point may be known. From this the azimuth of any other point on the photograph can be calculated, as well as the angular distance from the horizon. The equipment of a photographic surveyor consists, in addition to the regular outfit, of two cameras, one for himself and the other for his assistant. The primary triangulations having been obtained in the usual manner, he locates camera stations and makes second triangles where desirable, and measures the azimuth of at least one well-defined point in each photograph, so that from this azimuth the direction of the principal point may be deduced. The camera is specially prepared for the work, having the plates so fixed by screws that the focal length is invariable and plates notched for the location of the horizon and perpendicular. Each plate is numbered for convenient reference. Half-plate negatives so obtained are enlarged in printing to about double size, and the paper is carefully dried to prevent distortion. Having taken at least two photographs of the same ground, the surveyor selects a number of points that can be identified in both views, and numbers them alike. These points are then noted on the plot, which is laid out on the plane-table principle. Photographic surveying was principally confined to the Rocky Mountain region and the line of the Canadian Pacific Railway previous to 1892, but has since come into much more extended use, and was adopted for a large part of the work of the International Boundary Commission between British and United States territory on the Alaskan frontier in 1894.

Su'tro, Adolph Heinrich Joseph, mining engineer, was born in Aix-la-Chapelle, April 29, 1830. He removed to New York (1850), and at once started for the gold-fields of California. In 1860 he visited the Comstock mine, and devised a tunnel that would ventilate and drain all the mines of that region. After 9 years of preliminary effort, the work was begun in Oct., 1869, and the tunnel was finished in 1871. *S.* made a fortune from the enterprise, and settled in San Francisco, where he spent millions in benefactions. In 1893 he was elected mayor of the city, and did much to institute municipal reforms.

Sut'ton, in *Nebraska*, a city of Clay co., 68 m. W. by S. of Lincoln; has some manufactures. *Pop.* (1897) 1,720.

Sutton, in *Texas*, a W. co.; *area*, 1,620 sq. m.; drained by Llano and Devil's rivers; has a large area of level, rich, tillable soil; plenty of timber. *Cap.* Sonora. *Pop.* (1897) 1,000.

Swain, in *North Carolina*, a S. W. co.; *area*, 425 sq. m.; drained by Little Tennessee and Tuckaseigee rivers. *Surface*, mountainous; Great Smoky Mountain on the northwest. *Cap.* Bryson City. *Pop.* (1897) 6,880.

Swatow', a seaport of China, which was opened to foreign trade by the treaty made at Tien-tsin in 1858, although the actual opening did not begin until 1869. It stands on the north bank of the river Han about five miles from its mouth. It is in the province of Kwang-tung, the most southerly province of China, in which is also Canton. The dialect of Swatow, however, is unintelligible to natives of Canton. The people of Swatow are a disagreeable race, quarrelsome and hostile to foreigners. Great quantities of sugar are grown in the neighborhood of the town, which has immense sugar-refineries. On an average, sugar to the value of $5,500,000 is exported. It is the chief item of export. Besides it, tobacco, nankeens, joss paper, grass-cloth made from a kind of hemp fiber, and tea are sent abroad. Its imports are bean-cake and beans, opium, rice, metals, cotton, hemp, silks, woollens, and wheat amounting in 1890 to $21,000,000. In 1893, 93,095 native passengers left the port, more than half of whom went to the Straits Settlements. The population of the city (1897) is about 36,000.

Sweet Pota'to. (*Bot.*) The sweet potato (*Ipomœa batatas*, formerly *Batata edulis*) is not allied to the Irish potato, but belongs in the morning-glory family. It is probably of American origin, but having been long in cultivation in all the tropical and sub-tropical countries, its native place is uncertain. It was introduced into Spain in 1519, and the roots, either steeped in wine or candied, were considered to have tonic qualities. It is not the *Batata Virginiana* which the English herbalist Gerard described in 1597, as his accompanying figure shows that to have been an Irish potato, but it was known in England previous to the Irish potato, and the accounts of the two plants are very much confused, the sweet potato (*Batatas*) giving its name to both. It requires a warmer climate than the Irish potato, and so has never come into general cultivation in Europe, but is chiefly grown in the Middle and Southern United States, Mexico, in Central and South America, India, China, Japan, and the Malayan Archipelago. In the United States its cultivation has greatly increased during the last twenty years, in 1895 the area of fields being 524,588 acres, which yielded 43,950,261 bushels of potatoes. Many tropical and sub-tropical varieties of sweet potatoes are known as yams.

Sweet Springs, in *Missouri*, a city of Saline co., 23 m. N. W. of Sedalia. *Pop.* (1897) 1,265.

Sweet'water, in *Wyoming*, a S. co.; *area*, 10,230 sq. m.; drained by Green river. *Surface*, partly mountainous, crossed by the Rocky Mountains; has the largest and most valuable coal mines west of the Mississippi. *Cap.* Green River. *Pop.* (1897) 5,500.

Swift, Lewis, astronomer (and editor of the leading astronomical articles in this work), was born Feb. 29, 1820, in Clarkson, Monroe co., N. Y. William Swift, an ancestor, emigrated to America from Bocking, England, about 1630, and settled in Sandwich, Mass., where he died in 1644. The ancient motto of the Swift family was "Festina Lente" (hasten slowly). The grandfather of the subject of this sketch, Rowland Swift, was born Dec. 10, 1753, and died Jan. 20, 1849. He was a soldier of the War of Independence, serving at Bunker

Fig. 3070.—LEWIS SWIFT, PH.D., F.R.A.S.

Hill, and in other battles of the war. His brother Zephaniah, an eminent lawyer and jurist of Connecticut, was speaker of the legislature of that State in 1792, and U. S. minister to France in 1799. Gen. Heman Swift was a member of Gen. Washington's staff. Gen. Lafayette presented him his scarf and epaulettes, which are now in possession of some of his descendants.

Gen. Lewis Swift, eldest son of Rowland, was born in 1784 in Lebanon, Conn., and moved to Clarkson in 1809, a locality which was then a wilderness, and where the family suffered severely from the hardships and privations of frontier life. His son Lewis, at the age of 12, had the misfortune to dislocate his hip by a fall. It was never set, and he was lamed for life. His education, except for three years at the Clarkson Academy, was gained at a primitive country school.

After the death of his father, in 1846, he became a travelling lecturer on the subjects of electricity, electro-magnetism, and the magnetic telegraph, themes at that time comparatively new. He married in 1850, and some years afterward became so interested in astronomy, through a perusal of the works of Dr. Thomas Dick, that he resolved to make this science his life-study. His observations began with a 3-inch refractor of his own construction, which three years afterward was replaced by a 4½-inch refractor, with which all of his comets but two were discovered. In 1862, after years of search, he discovered a periodic comet of about 120-year period, which had a tail 25° in length, ranking as one of the noted comets of this century. When the elements of the August 10th star shower were computed, they were found to be identical with those of this comet. He soon discovered another, which afterward was found to have been previously discovered in Europe. Removing to Rochester in 1872, he next discovered a bright comet, which later was found to have been detected a few days previously by Coggia, in Europe. For five years his observing place was on the roof of an immense cider mill, where he discovered six comets, a success which won him the appellation "the comet-finder." For three of these comets he was awarded by the Imperial Academy of Science of Vienna three gold medals. In 1881 the Lalande prize, consisting of a silver medal and 500 francs, was bestowed on him by the Institute of France. Soon after, for the discovery of a comet of the short period of only 5½ years, Mr. H. H. Warner, who afterward built the Warner Observatory, gave him his check for $500, the largest prize ever received for the discovery of a comet. For subsequent discoveries he received from him $400, and was sent by him to observe an eclipse in northern California. Since then he has received three bronze medals from the Astronomical Society of the Pacific, and more recently (April, 1897) a large bronze medal and a draft for $121·62 from the Royal Astronomical Society of England, called the Mrs. Jackson Guilt Prize. In 1879 the degree of Ph.D. was conferred on him by the Rochester University. In 1882 he assumed the directorship of the Warner Observatory at Rochester, wherein was mounted his 16-inch refractor, costing $11,000, the gift of citizens of Rochester, including also a sidereal clock costing $500, and a spectroscope of the value of $1,000. After these instruments were mounted, comet-seeking with the 4½-inch was in a measure abandoned, and the discovery of new nebulæ substituted. His list of nearly 1,000 of these attests his industry and keenness of vision. Prof. Swift has observed three total eclipses of the sun, viz., in 1869 at Mattoon, Ill.; in 1878 at Denver, and in 1889 in northern California. His seeming discovery of two intra-Mercurial planets at the Denver eclipse attracted widespread attention. In 1894, after the financial failure of Mr. Warner, he moved with his family and instruments to the Lowe Observatory, Echo Mountain, Cal., where he still resides as its director.

Swift, in *Minnesota*, a W. co.; *area*, 653 sq. m.; intersected by Chippewa and Pomme de Terre rivers. The central and S. parts are level or slightly undulating prairie; E. and N. parts high, rolling prairie, adapted to wheat-raising; very little timber; *soil*, a rich black loam, clay or gravel subsoil. *Cap.* Benson. *Pop.* (1895) 11,846.

Swin'burne, Algernon Charles, poet, was born in London, England, April 5, 1837; educated at Eton, and Baliol College, Oxford. He left Oxford before taking his degree, and went to France and Italy, where he was associated for some time with the poet Landor. On his return to England he devoted himself to writing, and was much in the society of Dante Gabriel Rossetti and William Morris. His first book, *The Queen Mother and Rosamond* (1861), had attracted little notice, but in 1864 he issued *Atalanta in Calydon*, which at once gave him reputation as a poet of unusual gift of melody and lyrical invention. Since then he has published a volume every year, and often more than one, his works comprising nearly all phases of poetical composition, from the didactic to the dramatic. His earlier poems were subjected to sharp criticism and popular disapproval for the extremely sensuous tone that pervaded them; his latter work has given less cause for this reprehension, but the unfavorable impression produced by his first poems, and by the uncourtly and revolutionary nature of many of his opinions, prevented him from being made poet laureate after the death of Tennyson, an honor that his poetic genius in many respects merited. In addition to his poetical writings, Mr. *S.* has published literary criticisms, and a volume of *Prose Miscellanies* (1866).

Swing, David, clergyman, was born in Cincinnati, O., Aug. 23, 1830; graduated at Miami University (1852); was professor of Languages there (1853–56); pastor of the Fourth Presbyterian Church in Chicago (1866–74). In the latter year a charge of heresy was preferred against him, and he was tried by the Presbytery, and acquitted of the charge; but he soon resigned, and from 1878 held independent services in Central Music Hall. Died Oct. 3, 1894.

Swish'er, in *Texas*, a N. W. co.; *area*, 900 sq. m. *Cap.* Tulia. *Pop.* (1890) 100.

Syn'ergism, *n.* See Monergism.

Syr'acuse Univer'sity. (*Educ.*) A Methodist Episcopal co-educational institution, founded in 1848, at Lima, N. Y., under the name of Genesee College. It was removed to Syracuse, N. Y., and its name changed, by reason of considerable subscriptions by citizens of Syracuse, the city giving it $100,000. It has a medical department and a college of law, opened in 1895. It had in 1896, 121 instructors, 1,174 students, and 46,540 volumes in its library. Its income in that year was $126,550.

Szegedin (*zeg'den*), one of the most important towns of Hungary, opposite to the confluences of the rivers Theiss and Maros, 118 miles from Pesth by railway. *Manuf.* Soda, tobacco, coarse cloth, &c. It carries on an extensive river trade, but in 1879 was nearly destroyed by an inundation of the Theiss. It was the seat of the Hungarian revolutionary government in 1849, and was held by the Turks in the 16th and 17th centuries. *Pop.* (1890) 87,219.

The twentieth, and a mute letter, and sixteenth consonant in the English language, is formed by a quick and strong expulsion of the breath through the mouth upon a sudden drawing back of the tongue from the fore part of the palate, with the lips at the same time open. The strength with which the breath is emitted in pronouncing *t* is all that distinguishes its sound from that of *d*. As *t* and *d* are so nearly related, it is natural that they should take each other's places, as is the case also with *t* and *s*, on account of the similarity of their pronunciation. *T* is also interchangeable with *th* and *st*, with *c*, *p*, *l*, and *nd*. It is frequently dropped at the end of words, and also in the middle of words when flanked with vowels. *Ti* before a vowel has the sound of *si*, or rather *shi*, and is often changed to *s*, *sh*, *ch*, &c. When, however, *ti* is preceded by *s*, as in *question*, it retains its proper sound. *T*, as a numeral, stands for 160, and with a dash over it, for 160,000.

T bandage. (*Surg.*) A bandage shaped like the letter T, and used chiefly for application to the groin.—*To suit* or *fit to a T*, to answer the purpose perfectly.

Taasinge, (*tas'ing,*) an island of Denmark, to the S. of Funen; *area*, 27 sq. m. *Pop.* 5,000.

Tab, *n.* A tag; the end of a lace; the latchet of a shoe; — also, a border to a lady's bonnet.

Tab, a river of Persia, separating the provs. of Fars and Khuzistan, and, after a course of 150 m., entering the Persian Gulf, 20 m. from Hindian.

Tabanus, *n.* (*Zoöl.*) A genus of the family *Œstridiæ*, *q. v.*

Tab'ard, *n.* [W. *tabar;* It. *tabarro*, a mantle.] A sort of tunic or mantle formerly worn, covering the body before and behind, and reaching below the loins, but open at the sides from the shoulders downward; also, a herald's coat, as represented in Fig. 1277.

Tab'aret, *n.* A thick, satin-striped silk, used for hangings.

Tabas'co, in *Mexico*, a S.E. state, bordering on the Gulf of Mexico, between Lat. 17° and 18° 40′ N.. Lon. 91° 20′ and 94° 40′ W., having E. Yucatan, S. Chiapa, and W. Tehuantepec; *area*, 15,609 sq. m. *Rivers.* Tabasco, Usumasinta, Chiltepec, Das Bocas, Tupilco, Saata Anna, Tonala, Uspahan, and Guachapa or Paso. *Surface*, low and flat, with abundance of oak, cedar, mahogany, and ironwood trees; *soil*, very fertile. *Climate*, excessively hot. *Prod.* Maize, sugar-cane, cocoa, dyewoods, coffee, and cotton. *Principal towns.* San Juan Battista, and Frontera de Tabasco.

Tabas'co, a river which rises in Guatemala, and flows into the Gulf of Mexico, after a N. course of 250 m.; Lat. 18° 35′ N., Lon. 92° 37′ W.

Tab'asheer, *n.* [Pers.] A siliceous deposit in the joints of the bamboo.—(See BAMBUSA.) It is remarkable for its low refractive power. Thus, Sir D. Brewster has shown that in a sphere of *T.*, one inch in diameter, the focal distance for parallel rays of light is four feet, while in a similar sphere of glass, it is but half an inch from the surface of the sphere.

Tabatin'ga, a town of Brazil, on the Amazons; Lat. 4° 35′ S., Lon. 70° 20′ W.

Tab'by, *a.* Having a wavy, watery, or more variegated appearance. — Diversified in color; brindled; as, a *tabby* cat.

—*n.* (*Manuf.*) A term formerly applied to certain figured silks and other goods upon which an irregular pattern had been stamped, either by the pressure of engraved rollers, or by folding the stuffs in such a way as to produce, by the mutual pressure of their fibres, an inequality of surface, which, by reflected light, gave rise to the appearance called *watering.*

(*Masonry.*) A compost consisting of lime, shells, gravel, and stones, in equal proportions, mixed with a sufficiency of water; and which, when duly powdered and mixed, and after being laid on and dried, becomes as hard as stone itself.

—A cat of a tabby color.—Colloquially, an old maid; a gossip; a woman given to tattling.

—*v. a.* (*imp.* and *pp.* TABBIED,) (*tăb'bid.*) To water, or to give a watery appearance to, by the process of calendering; as, to *tabby* poplin.

Tabefaction, (*-făk'shun,*) *n.* [From Lat. *tabeo.*] A losing of flesh, or wasting away, as by disease; a form of atrophy.

Tabel'lian, (*-bĕl'yan,*) *n.* [Lat. *tabellio*, from *tabella*, dim. of *tabula*, a board.] An officer of the old Roman empire who had charge of public documents; — answering to our notary public.

Ta'berg, in *New York*, a post-village of Oneida co., 25 m. W.N.W. of Utica.

Taberna, (*ta-bair'na,*) a town of Spain, in Valencia, 4 m. from Valencia; *pop.* 4,500.

Tab'ernacle, *n.* [Lat. *tabernaculum*, a tent.] In its original signification, a tent; and hence the patriarchs are said to have dwelt in *T.*, or tents. In a stricter sense, there were in the camp of Israel under Moses two *T.*: the tent of the congregation, in which the people assembled for the dispatch of their ordinary secular affairs, and the *T.* of the Lord, or the tent of testimony, or simply the *T.* This last was an oblong, square structure, ten cubits in breadth, ten in height, and thirty in length, set up by the express command of God, for the performance of religious worship, sacrifices, &c., by the Israelites during their wanderings in the wilderness, and was used by them for the same purpose in the land of Canaan till the building of the Temple. The sides and west end were composed of boards or planks of shittim-wood, overlaid with plates of gold, having bases of brass; while the east end, at which was the entrance, was covered by a curtain of fine linen richly ornamented with needlework, and above it was also covered with curtains. The whole was so constructed that it could be readily taken down and carried away. It was divided into two parts: the first, called the Holy Place, twenty cubits long and ten wide, in which were the table of shewbread, the golden candlestick, and the golden altar of incense; the other, the Saactuary, or Holy of Holies, in which was the ark of the covenant. Around the *T.* was a large oblong court, one hundred cubits in length, and fifty in breadth (Fig. 1446), encompassed by pillars overlaid with plates of silver, on which hung curtains of fine linen. This was the "court of the *T.*" The "Feast of *T.*," or of tents, was designed to commemorate the dwelling in tents in the wilderness, and it was also a feast of thanksgiving for the harvest. It was the last of the three great annual feasts which required the presence of all the people at Jerusalem, and it lasted for eight days, from the 15th to the 22d of the seventh month (Tisri, corresponding to our October). During its celebration, the people dwelt in tents or arbors made of the leafy branches of certain trees. It was observed with great demonstrations of joy, and numerous sacrifices were offered up during its continuance.

(*Eccl.*) In the Roman Catholic Church, a small structure of marble, metal, or wood, placed at the posterior part of the altar, and of costly material and workmanship. Even when the exterior structure is of marble or metal, there is commonly an inner receptacle of wood (properly cedar) lined with silk. The *T.* is appropriated exclusively to the reservation of the Eucharist, and it is prohibited to keep within it any other object, however sacred, as the chrism, relics of saints, the altar-vessels, &c. A lamp is constantly kept burning before the *T.*, which is ordered to be kept at all times carefully locked, the key being retained by the clergy, to whom it is forbidden to entrust it to any lay person, even the sacristan or other official of the church.

Tab'ernacle, *v. n.* To dwell; to reside for a time; to be housed.

Tab'ernacle, in *New Jersey*, a village of Burlington co., 12 m. S.E. of Mount Holly.

Tabernac'ular, *a.* Pertaining, or relating, to a tabernacle, more especially the Jewish Tabernacle. — Latticed; presenting the appearance of lattice-work

Tabes, (*tā'bez,*) *n.* (*Med.*) Same as ATROPHY, *q. v.*

Tab'id, Tabet'ic, *a.* [Fr. *tabide;* Lat. *tabidus.*] Belonging or having reference to, or wasted by, tabes.

Tab'lature, *n.* [Fr., from Lat. *tabula.*] (*Anat.*) A division or parting of the skull into two tables.

(*Paint.*) A painting in a single piece, comprehended in one view, and formed according to one design.

(*Mus.*) A mode of writing music for a particular instrument by means of certain letters placed on parallel lines, each of the lines representing a string of the instrument. It is not now a usual mode of writing.

Table, (*tā'bl,*) *n.* [Fr.; Lat. *tabula;* W. *tab*, a surface.] A flat surface of some extent, or a thing that has a flat surface, like the side of a board; a slab. — An article of household furniture used for a great variety of purposes, as for holding dishes of meat, for writing on, &c.—Hence, fare; an entertainment of provisions placed on a table to be partaken of; as, he keeps a good *table.* — The company of persons sitting at table, or partaking of entertainment; as, "to set the *table* on a roar." (*Shaks.*) — A tablet; a surface on which anything is written or traced; —hence, sometimes, a memorandum-book; as, he entered the items in his *tables.* — Hence, a picture or something that exhibits a view of anything on a flat surface. — Hence, in a great variety of applications, a condensed statement which may be comprehended by the eye in a single view; a systematic scheme or schedule; a synopsis; the presentation of many items or particulars in one connected group; as, (1.) (*Chem.*) A catalogue of substances and their properties. (2.) (*Bibliol.*) A syllabus; an index. (3.) (*Astron., Phys., &c.*) In the first place, denoting merely a collection of numbers, exhibiting the measures or values of some property common to a number of different bodies in reference to some common standard. Thus, we have *tables* of specific gravity, of refractive powers, of the expansion of substances by heat, &c. — In another signification, expressing a series of numbers which proceed according to some given law expressed by a mathematical formula. Of this kind are the logarithmic *tables*, *tables* of the powers or roots of the different numbers; of the sines, cosines, and other angular functions; of astronomical refractions; of the equations of the planetary orbits, &c. (4.) (*Math.*) Any collection and arrangement in a condensed form of many particulars or values, for ready reference, as of weights, measures, currency, &c.; also, a series of numbers following some law, and expressing particular values corresponding to certain other numbers on which they depend, and by means of which they are taken out for use in computations, as annuity *tables*, interest *tables*, and the like. — (*Arch.*) A smooth, simple member or ornament of various forms, but most usually in that of a long square. (*Weale.*)—(*Anat.*) One of the two bony laminæ, or layers, of the skull. —(*Glass manufacture.*) A flat, circular sheet of crown glass. — Among lapidaries, the upper flat surface of a diamond or other precious stone, the sides of which are cut in angles. (*Fine Arts.*) Same as *perspective plane.* See PERSPECTIVE. — (*Games.*) The board on which draughts or backgammon is played. — One of the sides or divisions of a folding board; as, to play into the left-hand *table;* — also, the game itself; as, "Monsieur....plays at *tables.*" *Shaks.*

Tables of a girder or *chord.* (*Civ. Engin.*) The upper and lower horizontal members.—*The Lord's Table*, the sacrament or communion of the Lord's supper. See EUCHARIST. — *To lay on the table*, in parliamentary or legislative parlance, to lay as a report, petition, motion, and the like, on the table of the Speaker, or presiding officer — in other words, to postpone, by a vote, the consideration of. — *To turn the tables*, to change the condition or fortune of persons in contest or contention; — used as a metaphor, from the vicissitudes attendant on gaming.

Ta'ble, *v. a.* To lay or place on a table. — To form into a table or catalogue; to tabulate.—To enter upon the record; — used in congressional parlance: as, to *table* a motion.

(*Carp.*) To scarf. See SCARF.

(*Eccl.*) In the Presbyterian Church, to enter upon the docket; as, to *table* charges against a minister.

—*v. n.* To board; to supply with food or entertainment. —*a.* Relating to a table; plane; level.

Tableau, (*tab-lo',*) *n.; pl.* TABLEAUX, (*tab-loz'.*) [Fr., from Lat. *tabula*, a painting.] A picture; a vivid or life-like representation. Particularly, the representation of some scene by means of persons grouped in appropriate poses, and keeping perfectly silent and motionless;—often called *tableau vivant.*

Table Bay, *n.* An inlet of the Atlantic Ocean, in S. W. Africa. Cape Colony occupies its shores, with Cape Town, at the back of which is Table Mountain, Lat. 33° 53′ 2″ S., Lon. 18° 24′ 5″ E.

Ta'ble-bed, *n.* A bed made in the form of a table.

Ta'ble-beer, *n.* Small beer; beer for the table, or for common use.

Ta'ble-bell, *n.* A small hand-bell used at table.

Table Bluff, in *California*, a post-township of Humboldt co., abt. 12 m. S.S.W. of Eureka.

Table-book, *n.* Tablets; a book for jottlag down notes by means of a pencil.

Table-cloth, *n.* A cloth for covering a table, particularly at meals.

Table-cover, (*-kuv'er,*) *n.* A cloth laid on a table between meal-times.

Table-d'hote, (*tab'bl-dot,*) *n.* [Fr., literally, the host's table.] An ordinary; a common table for guests at an hotel.

Ta'ble-diamond, *n.* A diamond cut with a flat surface.

Table-land, *n.* Same as PLATEAU, *q. v.*

Table-linen, *n.* Linen table-cloths, napkins, and the like.

Table-money, *n.* In the military and naval service, an allowance of money, sometimes paid to officers in addition to their pay, for mess charges, table expenses, &c

Table Mound, in *Iowa*, a township of Dubuque county.

Table Mountain, in *California*, an elevation in Marin co., sometimes called Tamel (or Tamal) Pais, 2,600 ft. high. — An eminence in Tuolumne co., 30 m. long, 500 ft. high and about 1,200 ft. wide, contains gold mines.

Table Mountain, in *S. Carolina*, Pickens dist., attains an elevation of 4,000 ft. above the sea. On one side is a precipice of abt. 1,100 ft. perpendicular.

Table Rock, in *Nebraska*, a post-village of Pawnee co., abt. 32 m. S.W. of Brownville.

Ta'ble-shore, *n.* (*Naut.*) A low, level shore.

Ta'ble-spar, *n.* (*Min.*) Same as TABULAR SPAR, *q. v.*

Ta'ble-spoon, *n.* A large spoon used at table.

Ta'ble-spoonful, *n.; pl.* TABLE-SPOONFULS. Enough to fill a table-spoon.

Tab'let, *n.* [Fr. *tablette*, dim. of *table.*] A small table or flat surface. — Something flat on which to write, paint, draw, or engrave.

—*pl.* A small pocket note-book.

(*Med.*) Something made up in a square, solid form; a lozenge; a troche.

Ta'ble-talk, (*-tawk,*) *n.* Conversation at meals; chat at dinner.

Ta'ble-talker, *n.* One who chats or converses at table.

Ta'ble-turning, *n.* See SPIRITUALISM.

Ta'bling, *n.* A forming into tables; a setting down in order.

(*Shipbuilding.*) Letting one piece of timber into another, in the same manner as the beams are put together; scarfing.

(*Naut.*) A broad hem made on the skirts of sails by turning over the edge of the canvass, and sewing it down.

Ta'bo, in *Missouri*, a post-village of La Fayette co., 36 m. S.E. of Independence.

Tabo'ga, an island of the Republic of Colombia, in the Bay of Panama, 10 m. S. of Panama.

Taboguilla, (*ta-bo-gheel'ya.*) an island in the Bay of Panama, abt. 1½ m. N.E. of Taboga.

Tabon', an island of Chili, N. E. of the island of Chiloe; Lat. 42° S., Lon. 73° 10′ W.

Taboo'. *n.* Among the South-Sea islanders, a term denoting something consecrated, sacred, not to be touched. — Hence, something prohibited or interdicted.

—*v. a.* To interdict approach or use; as, a match-making mother *taboos* an ineligible suitor for her daughter's hand.

Ta'bor, *v. a.* To make, as a sound with a tabor.

Tabor, (*tā'bor,*) *n.* (*Mus.*) A small drum, usually forming an accompaniment to the *pipe.* — They are both played by the same performer, the tone of the pipe being regulated by the fingers of the left hand, while the *T.* is played with the other. They were at one time very popular amongst the lower classes in most European countries.

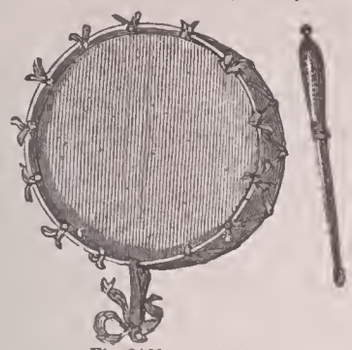


Fig. 2460. — TABOR.

Tabor, (Mount,) a mountain of Syria, in Palestine, between the towns of Nazareth and Tiberias, stands nearly alone, in the N.E. part of the plain of Esdraëlon, and overtops all the adjacent mountains, commanding the most magnificent prospect in the Holy Land. It is about 1,000 feet high. From an early period it was regarded as the Mount of Transfiguration, but this opinion is now generally abandoned, as there is strong evi-

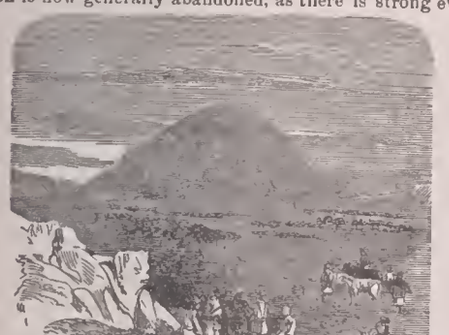


Fig. 2461. — MOUNT TABOR,
(From the plain of Esdraëlon.)

dence of its summit having been then occupied by a city; and travellers are disposed to look for the scene of this supernatural incident further north, in the neighborhood of Hermon. In the times of the Crusaders, *T.* was studded with churches and monasteries, relics of which, as well as of Roman and Saracenic structures, still remain. At the foot of Mount *T.* Napoleon I. gained a victory over the Turks.

Tabor, in *Iowa,* a post-town of Fremont co., about 12 m. N. of Sidney.

Ta'borites, *n. pl.* (*Eccl. Hist.*) The denomination of the most violent party among the Hussites, who had for leader John Ziska. They were so called from Tabor, a hill of Bohemia, upon which they encamped during the struggle which they maintained against the civil and ecclesiastical power.

Tab'ouret, *n.* [Fr.] A stool; a convex seat without arms or back, resembling a tabor. — An embroidery frame.

Right of the tabouret, under the old French régime, the privilege of sitting on a tabouret in presence of the sovereign, — a distinction accorded to certain distinguished personages only.

Tabriz, or **Tebriz,** (*ta-breez',*) a city of N. Persia, and the cap. of the prov. Azerbijan; Lat. 38° 2′ N., Lon. 46° 12′ E. It stands in a plain among forests, and is about 3½ miles in circumference. It has fine gardens, a citadel, the remains of a mosque, numerous bazaars, and caravanserais. *T.* is an extensive entrepôt of trade between Persia, India, Russia, and Constantinople. *Pop.* 70,000.

Tab'ular, *a.* [Lat. *tabularis,* from *tabula,* table.] In the form of a table; having a flat surface; as, a *tabular* rock. — Having the form of laminæ or plates; as, *tabular* nodules. — Set in squares. — Tabulated; set down or arranged in a table or schedule; as, *tabular* figures. — Computed by the use of tables; as, *tabular* right ascension.

Tabularization, (*-za'shun,*) *n.* Act of tabularizing; also, state of being tabularized.

Tab'ular Spar, *n.* (*Min.*) Same as WOLLASTONITE.

Tab'ularize, *v. a.* To reduce to a tabular form; to tabulate.

Tab'ulate, *v. a.* [L. Lat. *tabulare,* from *tabula.*] To reduce to tables or synopses. — To shape with a flat surface.

Tabulation, (*-la'shun,*) *n.* Art or act of forming tables; act of throwing data into a tabular form; as, the *tabulation* of statistics.

Tacamahac, Tacamahaca, (*tăk-a-ma'hăk,*) *n.* (*Bot.*) A balsamic bitter resin, different varieties of which are attributed to *Icica Tacamahaca,* to *Elaphrium tomentosum,* and to *Calophyllum Inophyllum.* East Indian tacamahac is the resin of *Calophyllum Calaba.* The name is also given to the resin obtained from the buds of the Tacamahao poplar, *Populus balsamifera.* See POPULUS.

Tacazze, (*ta-kat'sai,*) a great river of Abyssinia, rising near Lat. 12° N., Lon. 39° 30′ E., and afterwards joining the Nile near Gooz, in Lat. 17° 45′ N.

Tacca'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Narcissales.* DIAG. Tabular, half-tripetaloidous flowers and fleshy albumen. They consist of perennial, herbaceous plants separated into 2 genera and 8 species, natives of damp places in the hot parts of India, Africa, and the South-Sea Islands. The most interesting plant of the order is *Tacca oceanica,* the roots of which yield the starch known as Tacca starch, Tahiti arrowroot, or Otaheite salep. Cakes made of this product are much eaten by the natives of the Society Islands. See ARROW-ROOT.

Tace. [Lat.] Be silent! silence!

Tacet, (*ta'set,*) *v. impers.* [Lat., it is silent.] (*Mus.*) A term denoting that through the movement to which it is affixed in any part, that part is to lie still, or be silent during its performance.

Tachometer, (*-kom'e-tur,*) *n.* [Fr. *tachometre,* from Gr. *tachos,* speed, and *metron,* measure.] A contrivance for the purpose of measuring the velocity of a moving body.

Tachydidaxy, (*tak'y-di-dax-y,*) *n.* [Gr. *tachys,* quick, and *didaxis,* teaching.] A short method of imparting instruction. (R.)

Tach'ydrite, *n.* [Gr. *tachys,* and *ydor,* water.] (*Min.*) A very deliquescent salt, resembling Carnallite, which occurs in roundish masses of a yellow color in the compact Anhydrite of Stassfurt. It has a hydrated chloride of calcium and magnesium.

Tachyg'raphy, *n.* Same as STENOGRAPHY, *q. v.*

Tach'yllte, *n.* [Gr. *tachys,* quick, and *tithos,* stone.] (*Min.*) A kind of Isopyre of a velvet-brown or black color, found on the Sasebuhl, near Dransfeld, forming small masses in Basalt and Wacke. It is a silicate of alumina and protoxide of iron. The name has reference to its rapid fusibility.

Tacit, (*tas'it,*) *a.* [Fr. *tacite;* Lat. *tacitus,* from *tacco,* to be silent.] Silent; implied, but not expressed.

Tacitly, *adv.* In a tacit manner; silently; without words; by implication; as, he *tacitly* acquiesced.

Taciturn, *a.* [Fr. *taciturne.*] Habitually silent or reticent; not free or inclined to converse; not apt to talk or speak; as, a *taciturn* person.

Taciturn'ity, *n.* [Fr. *taciturnite.*] Habitual silence or reserve in speaking; reticence; — the opposite of *loquacity.*

Tac'iturnly, *adv.* In a taciturn or reticent manner.

Tacitus, CAIUS CORNELIUS (*tas'i-tus,*) a celebrated Roman historian, born A.D. 56, and, being descended of a good family, passed early through the usual military grades to the dignity of prætor, and in 97 was elected consul. How or when he died is uncertain. His great works were, *A Life of Agricola; Manners and Customs of the Germans; Dialogues and Oratory; A History of Rome from Galba to the Death of Domitian;* and *Annals of the History of Rome from the Death of Augustus to Nero. T.*'s writings are a rich storehouse of political and philosophical wisdom. He displayed a profound acquaintance with human nature, and the subtlest influences that affect the human character and conduct. His style is remarkable for conciseness, vigor, apparent abruptness, and occasional obscurity; and his writings, like all the productions of great minds, charm most those who study them best. They have been translated into almost every European language.

Fig. 2462. J. C. TACITUS.

Tacitus, MARCUS CLAUDIUS, a Roman emperor, elected on the death of Aurelian, A. D. 275, when in his 75th year. He was descended from the great historian, and had been twice consul; but he reigned only 6 months, in which short space he displayed singular wisdom, vigor, and moderation. He was assassinated at Tyana, in Cappadocia, 276.

Tack, *v. a.* [Fr. *attacher* = Sp. *atacar,* and It. *attaccare.*] To fasten or attach to anything; as, to *tack* a condition to an agreement. — To fasten slightly, as by nails or tacks; as, to *tack* one piece of cloth to another. —*n.* [It. *taca;* Armor *tach.*] A small sharp-pointed nail, having a broad, circular head; as, tin *tacks.*

(*Naut.*) A rope used to confine the foremost lower corners of the courses and stay-sails, or the outer lower corners of studding-sails; also, that part of the sail to which the tack is usually fastened. — The course of a ship, as indicated by the position of her sails; thus, a ship is said to be on the *starboard tack* when she is close-hauled, having the wind on the starboard side; and on the *port tack* when the wind is on the port side. —*v. n.* (*Naut.*) To change a vessel's course by bringing her head to the wind, and shifting the tacks of the sails from one side to the other; as, to *tack* to port. —*v. a.* (*Naut.*) To change the course of, as a ship, by shifting tacks and position of the sails and rudder.

Tack'er, *n.* One who tacks; one who attaches or makes an addition.

Tack'ing, *n.* (*Naut.*) The changing of a ship's course.

Tack'ing, *n.* (*Eng. Law.*) A right which mortgagee possess in some cases of consolidating their securities.

Tackle, (*tăk't;* pron. by sailors, *tā'kl,*) *n.* [D. and Ger. *takel.*] (*Naut.*) An apparatus consisting of one or more pulleys rove with a single rope, which latter is termed a *fall.* The pulleys are called *blocks;* the shell, frame, containe the *sheaves* of the pulley which turn on a pin. When a tackle is in use, one end of the fall is made fast, and called the *standing-end;* the other is hauled upon, and is called the *running-end.*

Overhauling a tackle is separating the blocks; while, *fluting blocks* is bringing them close together by hauling on the fall. (See BLOCK.)—The chief simple tackles used are a *whip; whip upon whip; gun-tackle; luff-tackle,* but many other combinations of pulleys are also used. —Ropes and other instruments used in action or for equipment; as, he resolved to take up his *tackle* and go.

(*Naut.*) The rigging and working apparatus of a ship. *Ground-tackle.* (*Naut.*) See GROUND-TACKLE. — *Gun-tackle.* See GUN-TACKLE. —*Jack-tackle,* a small tackle employed in hauling down the tacks of the principal sails. —*v. a.* To harness, as a horse into a wagon. (Colloq.)—To lay hold of; to seize; to encounter; as, *tackle* to one's work.

Tack'ling, *n.* Instruments of action; as, fishing-*tackling.* — Harness; the accoutrements of an animal fastened to a carriage, wagon, &c.

(*Naut.*) Furniture of the maste and yards of a ship, as cordage, sails, &c.

Tac'na, a town of Peru, dept. of Arequipa, on the Tacna River, 40 m. N. of Arica; Lat. 18° S., Lon. 72° 10′ W.; *pop.* 12,000.

Ta'co, in Alaska, a town on the coast, opposite Admiralty Island; Lat. 57° 54′ N., Lon. 133° 37′ W.

Tac'ony, in *Pennsylvania,* a suburb of Philadelphia, on the Delaware, 10 m. N. of the City-Hall.

Tacony (or Frankford) Creek, in *Pennsylvania,* rises in Montgomery co., and flowing S., enters the Delaware at Bridesburg.

Tac'ora, a mountain of Bolivia, dept. of La Paz, abt. Lat. 17° 10′ S., Lon. 70° W., 18,890 ft. high.

Tacso'nia, *n.* [From *Tacso,* the Peruvian name.] A genus of ornamental shrubby climbing plants, order *Passifloraceæ,* having the general appearance of *Passiflora,* and the same structure of stamens, pistil, and fruit, but differing in the great length of the cylindrical tube of the calyx, which is furnished with two crowns, one at the throat and the other near its base. In *T. manicata,* a very handsome species, the tube scarcely exceeds in length that of a passion-flower. The species are natives of Central America and the W. Indies. The fruit of *T. mollissima, tripartita,* and *speciosa,* are eaten.

Tact, *n.* [Fr.; Lat. *tactus,* the sense of feeling.] Touch; feeling. (R.) — Hence, sometimes, the stroke in beating musical time. — Skill or address in adapting to circumstances words and actions; peculiar skill or faculty; nice perception, intuition, or discernment; adroit management; dexterity; knack.

Tact'able, *a.* That may be touched or felt. (R.)

Tac'tic, Tac'tical, *a.* [Gr. *taktikos.*] Pertaining or having reference to tactics; relating or belonging to the art of military or naval dispositions for battle, evolutions, &c.

Tac'tically, *adv.* In a tactical manner; according to tactics.

Tactitian, (*tăk-tish'an,*) *n.* [Fr. *tacticien.*] One versed in tactics; hence, by implication, an adroit manœuvrer; a skilful manager.

Tac'tics, *n. sing.* [Fr. *tactique;* Gr. *taktikos.*] (*Mil.* and *Navy.*] The science of moving bodies of troops, or vessels, in the actual presence of, and contact with, an enemy.

Tac'tile, *a.* [Fr.; Lat. *tactilis.*] That may be touched; also, pertaining or having reference to the organs, or the sense, of touch; as, *tactile* qualities.

Tactil'ity, *n.* [Fr. *tactilité.*] State or quality of being tactile; perceptibility by touch; tangiblensss.

Taction, (*tăk'shun,*) *n.* [Fr.; Lat. *tactio,* from *tango, tactus,* to touch.] The act of touching; touch; contact.

Tact'less, *a.* Wanting or without tact.

Tactual, (*tăkt'yu-al,*) *a.* [From Lat. *taclus.*] Belonging to the sense, or the organs, of touch; consisting in, or derived from, touch.

Tacu'ba, or TACUBAYA, a town of Mexico, 7 m. N.E. of the city of Mexico; *pop.* abt. 3,000.

Tacun'ga, or LACTACUNGA, a town of Ecuador, 55 m. S. of Quito; *pop.* abt. 10,000, chiefly Spanish and Mestizoes.

Tacu'sah, in *Illinois,* a village of Christian co.

Tadmor or **Thadmor.** See PALMYRA.

Tad'pole, *n.* [A. S. *tade,* a toad, and *pola,* Lat. *pullus,* a young animal.] A frog in its first state from the spawn; a polliwag or polliwig. See BATRACHIA.

Tael, (*tāl,*) *n.* In China, a piece of money equivalent to about $4.50; also, a weight of 1½ oz. avoirdupois.

Ta'en, (*tān,*) *a.* A contraction of *taken,* used chiefly in poetry.

Tæ'nia, *n.* (*Zoöl.*) See TAPE-WORM.

Tænioid, (*tē'ne-oid,*) *a.* [Lat. *tænia,* ribbon, and Gr. *eidos,* form.] Formed like, or resembling, a ribbon. — Pertaining or relating to the tænia or tape-worm.

Taffelneh, a fortified maritime town of N. Africa, Morocco, 30 m. from Mogadore; *pop.* 3,500. — The cape of the same name is 5 m. to the N.W.

Taf'feta, Taf'fety, *n.* [Fr. *taffetas.*] A thin, glossy, silken fabric, extensively used in France for window-curtains.

Taffrail, (*tăf'rel,*) *n.* [D. *tafereel,* panel.] (*Naut.*) The uppermost rail of a ship's stern.

Taf'fy, *n.* Same as TOFFY.

Taf'ia, Taffia, *n.* [Fr.] A variety of rum prepared in the W. Indies by the fermentation of the molasses of cane-sugar.

Tafilet, Tafilelt, one of the four great divisions of MOROCCO, *q. v.*

Taf'ton, in *Pennsylvania,* a post-village of Pike co., 175 m. N.E. of Harrisburg.

Taf'ton, in *Wisconsin*, a village of Grant co., about 18 m. N.N.W. of Potosi.

Tafts'ville, in *Vermont*, a post-village of Windsor co., 54 m. S. of Montpelier.

Tag, *n.* [Swed., Goth. *tagg.*] A metallic point put to the end of a string; as, the *tag* of a stay-lace. — A label or direction card. — The cue; the end or catchword of an actor's speech. (*Simmonds.*) — Hence, something mean and paltry; the rabble. (See TAG-RAG.)—In some parts of England, a young sheep of the first year. — A child's play.

—*v. a.* To fit with an end or metallic point, as a lace. — To append to; to adapt, as one thing to another; as, to *tag* an oration to a sentence. — To join or fasten.

—*v. n.* To follow closely, as something belonging; — often before *after*.

Tag'-belt, Tag'-sore, *n.* A disease under the tail of a sheep.

Taganrog', a town of European Russia, in the govt. of Ekaterinoslav, near the N.W. extremity of the Sea of Azov. It has a harbor and fortress, maritime and commercial courts, a naval hospital, and a lazaretto. Its port was formed by Peter the Great, and the Emperor Alexander I. died here in 1825.

Tages, (*tā'jeez.*) (*Myth.*) A grandson of Jupiter, and the first who taught the twelve nations of the Etruscans the arts of augury and divination. He was said to have arisen from a clod of earth turned up by the plough of an Etruscan laborer, and to have assumed human shape in order to instruct the Etruscans in that knowledge of omens and of incantations for which they afterwards became so celebrated.

Tage'tes, *n.* (*Bot.*) The French Marigold, a genus of showy annual plants, order *Asteraceæ*, the species of which are natives of Mexico, Peru, and Chili, but are also grown in China and India. The scent of the common species is strong and offensive, but *T. signata sumila* (Fig. 2463), and the continuous flowering *T. tenuifolia*, with very finely cut leaves, has a more agreeable balsamic smell.

Fig. 2463. — TAGETES SIGNATA SUMILA.

Tag'ger, *n.* One who, or that which, joins one thing to another. — Anything pointed like a tag. — A thin kind of tin plate.

Taghanic (or **Taghkannuc) Mountains,** in *New York*, a range extending from the Green Mountains, along the E. border of New York, to the Highlands.

Taghkanic (*tag-kan'ic*), in *New York*, a post-town of Columbia co., 10 m. S.E. of Hudson. *Pop.* (1890) 1,062.

Taglia, (*tāl'ya.*) *n.* (*Mech.*) A system of fixed pulleys collected in one common block, and also of a system of movable pulleys in a separate block, to which the weight is attached, with one string going round all the pulleys, and having one of its ends fixed to a point in the system, and the other end going from one of the fixed pulleys drawn by the power.

Tagliaco'tian Opera'tion, *n.* (*Surg.*) Same as RHINOPLASTY, *q. v.*

Tagliacozzo, (*tal-ya-kot'so,*) a town of S. Italy, on the Ismele, 20 m. from Aquila. *Pop.* 4,724. In 1269, Charles d'Anjou here defeated Conradin, and ended the rule of the Hohenstauffen dynasty in Italy.

Tagliamento, (*tal'ya-men'to,*) a river of N. Italy, rises in the Alps, and, after a course of 100 m., enters the Adriatic Sea near its N. extremity. On its banks, the French, under Napoleon Bonaparte, defeated the Austrians, under the Archduke Charles, March 16, 1797. Massena gained another battle here in 1805.

Taglioni, MARIA, (*tāl-yō'ne,*) a dancer, of Italian descent, b. in Stockholm, 1804. She made her *début* in 1827, at the French Opera, where she achieved a great success, and increased her fame by visits to most of the capitals of Europe, appearing in London in 1838. In the exquisite, airy style of her performance, dancing might truly be said to be the "poetry of motion." She married Count Gilbert de Voisins, and in 1847 retired from the stage, and has since resided in Italy. D. 1884.

Tag'-lock, *n.* An entangled lock.

Tag'-rag, *n.* The rabble; the dregs of the people.

Tag'-tail, *n.* A worm with a tail of a different color. — A sycophant; a toady; a parasite.

Tagus, (*tā'gus.*) [Sp. *Tajo.*] The largest river in the Spanish peninsula, which, rising between the Sierra de Albarracin and the Sierra Molina, on the frontier of Aragon and New Castile, flows S.; then, holding a W. course through the rest of Spain, enters Portugal, when, pursuing a more S. direction, it passes Lisbon, forming the magnificent harbor of that city, and, spreading into a splendid æstuary, finally mingles its waters with the Atlantic, after a course of 400 m. Above the capital of Portugal it has a width of 5 m.; at the city a breadth of 2 m.; but, in consequence of its deep banks and impetuous current, the *T.* is but little adapted to mercantile purposes, and is at present only navigable to Abrantes.

Tahi'ti, or OTAHEITE, the chief of the Society Islands, is 32 m. long, about 120 m. in circumference, and consists of two peninsulas, connected by an isthmus about 3 m. broad, but which is submerged at high water. *Pop.* 14,500, of whom more than 13,000 are natives. The chief town is *Papiete*, with a safe harbor. The French estab. themselves here, 1846, and *T.* is now under a French protectorate. For hist., &c., of *T.*, see SOCIETY ISLANDS.

Tai, (*tai* or *ti,*) the name of several cities of China, principally in the N. provinces.

Tail, *n.* [A. S. *tagel, tægl.*] The part of an animal which terminates its body behind, hanging loose from the extremity of the vertebræ, and generally covered with hair. — The lower part of anything, noting inferiority; as, "The Lord shall make thee the head, and not the *tail*." (*Deut.* xxviii. 13.)—The reverse side of a coin; — seldom used, except in the expression "heads or tails" in tossing a piece of money to decide some point by its fall. — Anything hanging long, as a catkin. — Retinue; the train of followers belonging to a Highland chief.

(*Anat.*) That tendon of a muscle which is attached to the movable part.

(*Arch.*) The bottom of any member, or of a slab or tile.

—*pl.* See TAILING.

(*Bot.*) A downy or feathery appendage to certain seeds, formed of the permanent elongated style. — Any elongated, flexible, terminal part, as a petiole or peduncle.

(*Surg.*) A partial incision; — called also *tailing*.

(*Mus.*) The part of a note which runs perpendicularly upward and downward from the head; the stem.

(*Naut.*) A strap connected with a block, by which it may be secured to a rope, spar, &c.

Tail of a gale or *storm.* (*Naut.*) The abatement or closing part of a gale, &c. — *Tail of a lock*, on a canal, the entrance into the lower pond.—*To turn tail*, to flee; to run away; to be guilty of cowardice.

(*Law.*) [Fr. *taillo.*] Abridgment; limitation. — *Estate in tail*, a limited fee; or, an estate limited to certain heirs, and from which the other heirs are cut off or precluded.

—*v. a.* To pull, haul, or draw by the tail.

To tail in, or *on.* (*Arch.*) To attach or secure by one of the ends into a wall or some other support; as, to *tail in* a beam.

Tail'-board, *n.* The movable board at the hinder part of a cart or wagon.

Tailed, (*tāld,*) *a.* Possessing a tail.

Tail'ing, *n.* (*Arch.*) The part of a projecting stone or brick inserted in a wall.

—*pl.* In winnowing grain, the lighter parts blown to one end of the heap.

Taille, *n.* [Fr., from *tailler*, to cut.] (*Law.*) A portion taken out of an estate, as, in England, an estate tail. — In the old French jurisprudence, any imposition levied by the king or any other lord on his tenants. The exceedingly unfair and oppressive nature of the *T.* was one of the causes which led to the French revolution.

Tail'less, *a.* Without a tail.

Tail'or, *n.* [Fr. *tailleur*, from *tailler*, to cut; L. Lat. *tallator.*] One who cuts out and sews cloth; one whose occupation is to cut out and make men's garments.

—*v. n.* To follow the business of a tailor; to practise making men's clothes; as, he is in the *tailoring* line.

Tail'or-bird, *n.* (*Zoöl.*) A name applied to some species of soft-billed Indian birds belonging to the genus *Sylvia*, family *Sylvicolidæ*, and celebrated for the ingenious way in which they prepare their nests. See BIRD, and Fig. 360.

Tail'oress, *n.* A female tailor.

Tail'oring, *n.* The work or the business of a tailor or tailoress.

Tail'-piece, *n.* A piece at the end, as of a series of engravings; an appendage. — A piece of ebony or other material appended to the end of a violin or other similar instrument, to which the strings are fastened.

—*pl.* (*Print.*) Ornaments, in wood or metal, placed in short pages, partly to fill up the vacancy.

Tail'-race, *n.* The channel through which water runs from a mill after passing the wheel.

Tail'-stock, *n.* The sliding-block or support, in a lathe which carries the tail-screw and adjustable centre, the *head-stock* being that part by which the mandrel is supported.

Tail'-vice, *n.* A small hand-vice, with a tail or handle.

Tail'-water, *n.* The waste water discharged from the buckets of a water-wheel in motion.

Taint, *v. a.* [Fr. *teindre*; Lat. *tingo, tinctis.*] To stain, dye, sully, or tarnish; as, a man of *tainted* honor. — To imbue or impregnate, as with some extraneous matter which serves to transmogrify the native qualities of the substance. — To corrupt; to infect; to vitiate; to poison; as, putrid garbage *taints* the atmosphere.

—*v. n.* To be tainted, infected, or corrupted; to be brought into contact with something which serves to corrupt. — To be affected with incipient rottenness; as, *tainted* meat.

—*n.* A stain; a tincture. — Infection; corruption; depravation; as, a scrofulous *taint* in the blood. — A slur, stain, or blemish upon character or reputation; as, the *taint* of treason.

Taint, *n.* A lance-thrust which fails to hit the object intended. — The bungling or dishonorable breaking of a lance in the jousts.

Taint'less, *a.* Pure; free from taint or infection.

Taint'lessly, *adv.* In a taintless manner.

Tai-wan-foo, the capital of the island of Formosa, on a large alluvial plain on the S.W. coast, in Lat. about 23° N. It is a large straggling town, surrounded by a high battlemented wall, 6 m. in extent. The commerce of the town was once considerable, but owing to the silting up of the harbor, trade has entirely departed, and no European vessel of the smallest burden can enter the so-called port. *Pop.* large but decreasing.

Tajaç'u, Tajas'su, *n.* (*Zoöl.*) Same as PECCARY, *q. v.*

Tajamul'co, or TAXAMULCO, in Central America, a town of Guatemala, at the base of the volcano of Tajamulco; *pop.* abt. 2,500.

Take, *v. a.* (*imp.* TOOK; *pp.* TAKEN.) [A. S. *tacan*: allied to Lat. *tango*, to touch.] Used in a sense of more or less activity; — to lay hold of; to get hold or gain possession of in almost any manner; to seize; to grasp; to assist one's self to with the hands or otherwise; hence, specifically, to get into one's power for keeping by force or artifice; to procure the custody or control of; to make captive or prisoner; — also, to befall or come upon; as, to *take* an infection, to *take* that which does not belong to one, &c.; — also, to attack; to seize; to fasten on forcibly; as, to *take* a city, to *take* a ship. he was *taken* with sickness, &c. — To captivate with pleasure; to engage or entrap the affections, interest, or sympathies of; to charm; to cast a glamour over; as, he was very much *taken* with the lady's appearance. — To choose; to elect; to make choice or selection of; — also, to have recourse to; to turn to; to betake or apply one's self to; — in this latter sense frequently used intransitively; as, the badger *takes* a hole, a person *takes* shelter, one is obliged to *take* such and such a course, &c. — To employ; to occupy; to use; hence, to require; to demand; to exact; as, it will *take* me some time to finish the work, it *takes* so much money to get to Europe. — To copy; to draw; to imitate pictorially; to delineate; to sketch; as, to *take* a person's portrait. — To draw; to derive; to deduce; as, an inference *taken* from premises. — To adopt; to assume; to receive, as any temper or disposition of mind; to enjoy or experience, as any sensation or emotion; to yield to, or permit one's self to accept; to receive, as an impression; — used in general definitions, confined by the following complement, in many phrases of a somewhat idiomatic character; as, I *take* the liberty of calling your attention to it, to *take* an objection or resolution.

"Shall I not *take* mine ease in mine inn?" — *Shaks.*

—Employed in a more or less passive sense: — To receive or accept, as what is offered; to admit; not to refuse, decline, or reject; as, his word may be *taken* with confidence, to *take* paper currency in place of coin, &c. — To swallow, as meat, or drink, or medicine; to partake of; as, to *take* one's dinner, to *take* a pill, allow me to *take* wine with you, and the like. — To leap, surmount, or pass over; not to balk at or refuse; to undertake and accomplish with readiness; as, the horse *took* all before him going across country. — To tolerate; to endure; to bear without repugnance or resentment; to submit to without objection or repudiation; as, to give a joke and *take* a joke, he is not the man to *take* an insult tamely. — To receive, as an impression, into the mind; to admit, as meaning; to understand in a particular sense; to interpret; to regard or look upon; to embrace, as an idea; to allow; to entertain an opinion; to suppose; not to dispute; as, I *take* him to be a good sort of man, tinsel is sometimes *taken* for gold.

—To admit; to agree with; to submit; to receive; — employed in several senses: as, to *take* a certain shape, to *take* one at one's word, &c. — To conduct; to transfer; to convey, move, or remove; to assume; to recover, &c; — used along with prepositions. — *To take advantage of*, to avail one's self of a favorable state of things to the prejudice of; as, to *take advantage of* a woman's confidence. — *To take aim*, to aim; to direct the eye or weapon; as, to *take aim* at a mark. — *To take air*, to be made public or be disclosed, as something intended to be a secret. — *To take along*, to carry, conduct, lead, or convey; as, he *took* his wife *along* with him. — *To take arms*, or *take up arms*, to begin war; to commence hostile operations; as, "To *take arms* against a sea of troubles." (*Shaks.*) — *To take away*, to remove; to shift off; to cause deprivation or withdrawal of; as, to *take away* a vintner's license, to *take* a person's life *away*. — *To take breath*, to cease, as from toil, in order to be recruited or refreshed. — *To take care*, to be careful or solicitous; — preceding *of*, or *for*. — *To take care of*, to care for; to have the charge, superintendence, or supervision of; as, he *takes care of* his money. — *To take down.* (1.) To reduce in height or elevation; to bring down, as from a high or higher place; as, to *take down* a picture; — hence, to depress; to bring lower in place; as, to *take down* an arrogant individual. (2.) To imbibe; to swallow; as, to *take down* a jorum of punch. (3.) To pull to pieces; to demolish or dismantle; as, *take down* a scaffold, to *take down* a ship's rigging. (4.) To record; to note or write down; as, to *take down* a speech delivered in Congress. (5.) To assail; to make an attack or onslaught upon. — *To take effect*, to be efficacious; to have the result or effect intended; as, the medicine *took* the desired *effect*. — *To take fire*, to become kindled, ignited, or inflamed. — *To take from.* (1.) To detract; to derogate; as, a concession *takes from* the integrity of a demand. (2.) To deduct; to subtract; as, *take* 2 from 8, and 6 remains. (3.) *To take ground to the right*, or *left.* (*Mil.*) To move, as troops, to the right or left. — *To take heart*, to gain confidence or courage; as, notwithstanding many reverses, he *took heart* again. — *To take heed*, to be cautious, careful, or wary; as, "*Take heed* of a mischievous man." (*Eccl.* xi. 33.) — *To take hold of*, to grasp; to seize; to fix or lay a grip on; as, to *take hold*

of an offender. — *To take horse*, to mount in the saddle; to ride or proceed on horseback. — *To take in.* (1.) To enclose; to fence; to put a barrier round; as, to *take in* a patch of land. (2.) To comprise or comprehend; to encompass, encircle, or embrace; as, to *take in* the details of a scheme. (3.) To contract; to circumscribe; to bring into a smaller compass; to brail or furl; as, to *take in* a tucker, to *take in* sail. (4.) To cheat; to swindle; to gull; to dupe; to circumvent; to deceive; as, to be *taken in* by an impostor. (Colloq.) (5.) To admit; to receive; as, a leaky ship *takes in* water. (6.) To absorb or receive into the mind or understanding; as, let him *take in* the instructions you give him. — To receive at regular or stated times; as, to *take in* a book published in numbers. — *To take in hand*, to put into application or operation; to undertake; to attempt to perform or execute; as, he *took in hand* more than he had power to accomplish. — *To take in vain*, to use, employ, or utter, as in an oath or imprecation; as, to *take* God's name *in vain*. — *To take leave*, to make one's adieu; to bid farewell; as, he went away without *taking leave*. — *To take notice.* (1.) To observe or remark with particular attention. (2.) To denote by some act that observation is made; as, much *notice* was *taken* of his impropriety. — *To take oath*, to swear in a solemn or judicial manner; to make legal affirmation; as, to *take oath* on the Scriptures. — *To take off.* (1.) To remove, as from the outside, or from the top of anything; as, to *take off* one's hat. (2.) To amputate; to cut or lop off; as, to *take off* a limb, to *take off* a decayed branch. (3.) To destroy; as, how many lives have been *taken off* in fevers. (4.) To invalidate; to remove; as, to *take off* the gist of a proposition. (5.) To withdraw; to call or allure away; as, one's thoughts cannot, sometimes, be *taken off* from a sad theme. (6.) To imbibe; to swallow; to perform the act of deglutition; as, to *take off* a glass of curaçoa. (7.) To purchase; to receive, as a commodity; to take in trade; as, I *took* a parcel of tea *off* his hands. (8.) To copy; to delineate; to reproduce; as, "They *take off* all their models in wood." (*Addison.*) (9.) To impersonate; to imitate; to mimic; also, to burlesque; as, to *take off* another's eccentricities of manner. (10.) To dispose of; to find place or position for; as, "More are bred scholars than preferments can *take off*." (*Bacon.*) — *To take on*, to take upon one's self; to assume; as, he *takes on* himself the entire responsibility. — *To take one's own course*, to have one's own way; to pursue such measures as are dictated by one's own mind; as, a wilful man will persist in *taking his own course*. — *To take out.* (1.) To remove from within any place; to withdraw; to separate; as, to *take out* the intestines in dissecting a dead body. (2.) To remove; to clear or cleanse from; as, to *take out* ink-stains from linen. — *To take a paper*, or *serial publication*, &c., to receive regularly, on paying the amount of subscription; as, to *take* the "New York Herald." — *To take part*, to participate in; to share; as, he *takes part* in the national prejudice against foreignors. — *To take part with*, to unite, join, or identify one's self with; as, he *took part* with the Confederates during the war. — *To take place.* (1.) To happen; to occur; to come to pass: as, when will the extinction of the Woman's Rights Movement *take place?* (2.) To prevail; to have result or effect; as, the altercation wound up with a general fracas *taking place*. — *To take root.* (1.) To vegetate; to live and grow; as, a plant *takes root.* (2.) To be founded, established, or consolidated; as, Republican principles have *taken* strong *root* in this country. — *To take sides*, to become an adherent or partisan of one of two parties in mutual antagonism; as, to *take sides* with the weak against the strong. — *To take stock.* See STOCK. — *To take advantage of*, to employ to advantageous effect; to avail of an advantage presented by; as, he *takes advantage of* the fall in gold. — *To take the air*, to walk or ride in the open air; to take out-door exercise; as, an invalid *takes the air* on a sunny day. — *To take the field.* (*Mil.*) To enter upon the operations of a campaign; as, the French *took the field* against Germany. — *To take to heart*, to be sensibly affected by; to feel acutely or poignantly; as, she *took* her husband's death *to heart*. — *To take up.* (1.) To lift; to raise; to upheave; to elevate; as, to *take up* a heavy weight. (2.) To buy or borrow; to purchase, as for speculation; as, to *take up* redeemable securities. (3.) To begin; as, to *take up* a sudden friendship. (4.) (*Surg.*) To bind or fasten with a ligature. (5.) To engross; to engage; to employ, as the attention with; as, novel-reading *takes up* the best of her time. (6.) To take or adopt for a permanent settlement; as, to *take up* one's rest in the Christian religion. (7.) To seize; to capture; to arrest; to catch and take into custody; as, to *take up* a fellon. (8.) To admit; to believe; to entertain; as, "the ancients *took up* experimcuts on credit." (*Bacon.*) (9.) To reprimand; to censure; to answer by reproof; as, he *took* him *up* roundly for his impertinence. (10.) To begin where another left off; as, "I *take* it *up* where the history has laid it down." — *Dryden.* (11.) To fill; to occupy; as, bulky articles *take up* much room. (12.) To manage or carry on in the place of another; to assume; as, I *took up* my friend's quarrel. (13.) To comprise; to include; to comprehend; as, the history *takes up* the first half of the century. (14.) To adopt; to assume; as, he *took up* his old trade again. (15.) To collect; to exact or claim payment of, as a tax; as, to *take up* the yearly tribute. — *Knolles.* (16.) To favor; to espouse the cause of; to receive, admit, or adopt for the purpose of rendering assistance; as, he has *taken up* with the government after all that has passed. (17.) To pay and receive; as, to *take up* a promissory note. — *To take up arms*, to enter upon open or overt resistance; to begin hostile operations; as, the people rose and *took up arms*. — *To take up one's connection*, to end one's association or relations. — *To take upon one's self.* (1.) To undertake; to assume; to claim authority; as, he *took upon himself* to interfere unnecessarily. (2.) To make self-appropriation of; to permit the imputation to one's self of; as, he *took upon himself* the payment of his son's debts. — *To take up the gauntlet*, see GAUNTLET.

—*v. a.* To move or direct the course; to go; to proceed; to betake one's self; to resort to; as, being hotly pursued, the thief *took* to his heels. — To please; to be acceptable; to gain reception; as, a really good novel seldom fails to *take* with the public. — To have the intended or natural effect; as, "Putrid earth will best in vineyards *take*." (*Dryden.*) — To catch; to seize; to fix, or become infixed; as, the bait laid out for him did not *take*. — *To take after.* (1.) To copy; to imitate; to follow as a model; as, a true Englishman *takes after* the John Bull patteru. (2.) To be like; to resemble; as, the son *takes after* his father. — *To take in with*, to resort to. — *To take on.* (1.) To be violently or uncontrollably affected; as, she *took on* terribly in a fit of jealousy. (2.) To act or assume a part or impersonation; to assume or perform a character; as, "I *take* not *on* one here as a physician." (*Shaks.*) — *To take to.* (1.) To be fond of; to apply to; to become attached to, or enamored of; as, children *take to* those who *take to* them, he *took to* drinking and dissipation. (2.) To betake to; to have recourse to; as, after trying his hand at trade, he *took to* the study of law. — *To take up*, to adopt; to follow up; as, on the father's death, his son *took up* the business. — *To take up with.* (1.) To be contented to accept or receive; to receive and make the best of; as, in important matters we should not *put up with* mere probabilities. (2.) To dwell; to reside with; as, he is not the most agreeable person to *take up with*.

Take, *n.* In fishermen's parlance, the quantity of fish taken at one haul or catch; as, a good *take* of cod.

(*Print.*) The quantity of copy taken in hand by a compositor at one time.

Take'-in, *n.; pl.* TAKE-INS. An imposition; a swindle; a fraud; that by which one is taken in, duped, or defrauded.

Take'-off, *n.; pl.* TAKE-OFFS. An imitation after the manner of a caricature.

Tak'er, *n.* One who takes or receives; as, a money-*taker*. — One who catches or apprehends; as, a thief-*taker*. — One who subdues or causes to surrender; as, the *taker* of a fortress.

Tak'ing, *a.* Alluring; attracting; enticing; as, a *taking* manner.

—*n.* Act of gaining possession; a seizing: apprehension; seizure. — Agitation; excitement; perturbation of mind; as, when the news was imparted to her, she fell into a *taking*.

Tak'ingly, *adv.* In a taking or attractive manner.

Tak'ingness, *n.* The quality of pleasing.

Tala'ria, *n. pl.* [Lat. *talaris* — *talus*, ankle.] (*Myth.*) Winged sandals represented as attached to the feet; — mainly considered as an attribute of the god Mercury.

Talavera de la Reyna, (*ta-la-vai'ra dai la rai-e-na,*) a town of Spain, in New Castile, on the Tagus, 58 m. S.W. from Madrid; *pop.* 8,700. It is noted for the victory gained over the French by the Anglo-Spanish under the Duke of Wellington, July, 1809.

Tal'bot, JOHN, LOAD, a celebrated English military commander, B. at Bletchmore, 1373. In 1414 he was appointed lord-lieuteuant of Ireland, where he suppressed a rebellion, and brought the chief, Donald Macmorrough, to England. In 1420 he attended Henry V. to France, and was present with him at his two sieges and triumphant entry into Paris. In the next reign he laid siege to Orleans, where his name struck terror into the French soldiers; but the appearance of Joan of Arc turned the scale, and the English army retreated. The battle of Patai completed the disaster, and *T.* was made prisoner. At the end of three years and a half he was exchanged, and again led the English to victory. He took many strong places, and carried his arms to the walls of Paris, for which he was created Earl of Shrewsbury. He was again sent to Ireland, and, on his return to France, he was marching to the relief of Chatillon, when his usual good fortune forsook him, and he and his son fell on the field of battle, 1453. The English on this occasion were wholly routed, and their expulsion from France soon followed.

Tal'bot, in *Florida*, an island off the N.E. coast, opposite the mouth of St. John's River, 9 m. long and 2 broad.

Talbot, in *Georgia*, a W. co.; *area*, 360 sq. m. *Rivers.* Fliut river, and Parchelaga, Beaverdam, and Upatol creeks. *Surface*, diversified; *soil*, generally fertile. *Cap.* Talbotton. *Pop.* (1897) 14,440.

Talbot, in *Maryland*, an E. co., bordering on the Chesapeake Bay; *area*, 285 sq. m. The Choptank river borders on the E. *Surface*, level; *soil*, fertile. *Cap.* Easton. *Pop.* (1897) 21,290.

Tal'botton, in *Georgia*, a post-village, cap. of Talbot co., 32 m. N.E. of Columbus.

Tal'botype, *n.* A photographic process, so called in honor of its inventor, Mr. Fox Talbot; — also called *calotype*. See PHOTOGRAPHY.

Talc, *n.* [Ger. *talk.*] (*Min.*) A magnesian mineral occurring in crumbling, laminated, and foliated masses of a greenish or yellowish white. It resembles mica, but is much softer, and although flexible, is not elastic. It is used in the manufacture of crayons, for crucibles, as a grease absorbent, and in making porcelain. Much of the so-called commercial *T.* is mica. *T.* also enters into the composition of many rocks, such as *T.*-schist, chlorite-schist, steatite, serpentine, &c. Chemically considered, it consists principally of silicate of magnesia.

Tal'ca, a town of Chili, on the Maule, 40 m. N.E. of Chillan; *pop.* 17,900.

Talcan', in S. America, an island off the W. coast of Chili, between the island of Chiloe and the mainland; Lat. 42° 47′ S., Lon. 72° 58′ W.

Tal'cite, *n.* (*Min.*) The same as NACRITE, *q. v.*

Talcky, Talcose, Talcous, (*tăk'y,*) *a.* Like talc; consisting of, or containing, talc; as, a *talcky* substance.

Talc'-slate, *n.* Indurated talc. See TALC.

Tale, *n.* [From *tilt*; A. S. *teltan.*] Something told, related, or narrated; an oral recital; as, "Ev'ry tongue brings in a sev'ral *tale*." (*Shaks.*) — A story; an anecdote; a narrative; the rehearsal of a series of events or adventures, commonly some trifling incident, or a fictitious narrative; a fable; an incident; as, the *Tale* of a Tub. — Reckoning; account set down; number computed; as, "The ignorant measure by *tale*, and not by weight." (*Hooker.*) — Information; a telling; disclosure of anything secret; as, to tell *tales* out of school.

Tale'-bearer, *n.* A person who officially tells tales or repeats what he has heard to the disadvantage or annoyance of another person; one who impertinently communicates intelligence or anecdotes, and makes mischief among people by his officious meddling.

—*a.* Officiously imparting information.

—*n.* The act of communicating information officiously; betrayal of secrets in an underhand manner.

Ta'led, *n.* (*Jewish Antiq.*) A kind of tablt worn by the Jews, especially when repeating prayers in the synagogues.

Talegal'la, *n.* (*Zoöl.*) A large gregarious Rasorial bird, which may be considered as the representative of the Turkey in Australia. It is also known under the name of Brush Turkey, Wattler Turkey, and New Holland Vulture.

Tal'ent, *n.* [Fr.; Lat. *talentum*; Gr. *talanton*, a thing weighed, a balance.] (*Antiq.*) Among the ancient Greeks, a weight which was much used in the computation of money. It contained 60 minæ; but its value varied in different states. The *Attic talent* was equivalent to about $990; the *Æginetan* to $1,555. — Among the Hebrews, a weight and denomination of money equivalent to 3,000 shekels, or about $1,980.

—Faculty; natural gift or endowment; eminent ability; superior skill, or power of accomplishment or execution; — a metaphorical word, used generally in the plural, and said to be borrowed from the scriptural Parable of the *Talents*.

Tal'ented, *a.* Possessing skill or talent; accomplished; as, a *talented* writer.

Tales, (*tā'tēz,*) *n. pl.* (*Law.*) If, by reason of challenges or other causes a sufficient number of jurors do not appear at a trial, either party may pray a *tales*: i. e., may pray the judge at the trial to allow a sufficient number of qualified men who happen to be present (*tales circumstantibus*) to be joined with the other jurors to make up the twelve. In practice this seldom arises, except in the case of special jury trials, when the talesmen are taken from the common jury panel in the same court.

Tales'man, *n.; pl.* TALESMEN. (*Law.*) A person called upon to supply a deficiency when a tales is awarded.

Tale'-teller, *n.* A tale-bearer; a tell-tale; also, a narrator of tales or fictitious stories.

Tale'-wise, *adv.* In the manner of a tale or story.

Taliaferro, (pronounced (*tol'e-ver,*) in *Georgia*, a N.E. central co.; *area*, 185 sq. m. *Rivers.* Little, and Ogeechee. *Surface*, undulating; *soil*, generally fertile. *Min.* Sulphuret of iron, magnetic ore, and gold. *Cap.* Crawfordsville.

Tal'ion, *n.* [Fr., from Lat. *talis*, such.] Retaliation. *Lex talionis.* See LEX.

Talipot, Talipot palm, *n.* (*Bot.*) See CORYPHA.

Talisman, (*tăl'iz-,*) *n.; pl.* TALISMANS. [Fr.; Gr. *telesma*, an incantation, from *teleō*, to complete, to finish.] Among the Orientals, a figure cut in metal, stone, &c., supposed to have been made with particular ceremonies, and under particular astrological circumstances, and to possess various virtues, but chiefly that of averting disease or violent death from the wearer. — Hence, in a more general sense, any portable object endowed with imaginary influence in exercising evil, &c.; hence, anything which acts as a charm or propitious token; an amulet.

Talisman'ic, Talisman'ical, *a.* Magical; pertaining or relating to a talisman or amulet; possessing the peculiar virtues of a talisman, or preservative against evils by occult influence.

Talk, (*tawk,*) *v. a.*, (*imp.* and *pp.* TALKED,) (*tawkd.*) [Dan. *tolke*; Icel. *tutka*; Dan. *tolk*, an interpreter; Gr. *dialegō*, to converse with.] To speak, as in familiar discourse, when two or more persons interchange thoughts or ideas; to converse freely or without ceremoniousness; to indulge in colloquy; to chat; as, "They always *talk* who never think." (*Prior.*) — To confer; to reason; as, he *talked* with him to no purpose. — To speak idly or impertinently; to prate; to chatter; as, "Hypocrites austerely *talk* of purity." (*Milton.*) — *To talk of*, to tell; to recount; to describe; to give account; as, travellers in strange lands *talk of* the wonders they have seen. — *To talk to*, to advise, exhort, or reprove gently; as, it is useless *to talk to* a headstrong youth. (Colloq.)

—*v. a.* To speak with ease and fluency; to use or employ for conversation or communication; as, to *talk* Spanish. — To speak; to utter; to mention in speech; as, to *talk* bosh or arrant nonsense. — To spend, waste, or consume in talking; — frequently before *away*; as, to *talk away* an evening. — *To talk over*, to discuss; to talk about in a deliberative manner; to confer upon; as, to *talk over* future plans or arrangements.

—*n.* Act of talking; familiar conversation or colloquy; mutual speech or discourse; that which is spoken by one person in fluent or unconstrained converse, or the mutual converse of two or more; chat; as, much *talk*

and little sense —Report; rumor; hearsay; as, people have raised a *talk* about it.—Subject of discourse or public conversation: as, his doings are the *talk* of the city. —Among the North American Indians, a public conference; a pow-wow; as, to hold a *talk*.

Talkative, (*tawk'a-tiv,*) *a.* Giving to much talking; loquacious; full of prate or chatter; garrulous; prattling; as, a *talkative* woman.

Talkativeness, (*tawk'-,*) *n.* The habit of talking or speaking much in conversation; loquacity; garrulity.

Talker, (*tawk'er,*) *n.* One who talks; notably, one who is eminent for his, or her, conversational powers; as, a ready writer is seldom an eloquent *talker*. — A loquacious or garrulous person, whether male or female; a prattler; a prater; a chatter-box; also, a boaster; a braggart; a teller of improbable stories; — used in a sense of contempt or derision; as, the loudest *talkers* are usually the least doers.

Talking, (*tawk'-,*) *n.* Loquacious; garrulous; given to talking; as, "*Talking* age." — *Goldsmith*.

—*n.* Act of conversing familiarly or without constraint; as, she is fond of *talking*.

Tall, *n.* [W. *tal;* Ar. *tala*, long.] High in stature: lofty; high and slender; — usually applied to that which grows — as, a *tall* man, a *tall* tree.

Tallade'ga, in *Alabama*, a N.E. central co.; *area*, 784 sq. m. *Rivers.* Coosa river, and the Chocolocco and other creeks. *Surface*, diversified; *soil*, fertile.—A city, cap. of the above co., 95 m. N.E. of Montgomery. *Pop.* (1897) 2,440.

Tallade'ga, in *Arkansas*, a township of Jefferson co.

Tallahas'see, in *Florida*, a city, cap. of the State and of Leon co., 190 m. E. of Mobile; Lat. 30° 28′ N., Lon. 84° 36′ W. *Pop.* (1897) 4,340.

Tallahatch'ee, a river of *Mississippi*, rises in Tippah co., and unites with the Yallabusha to form the Yazoo at Leflore, in the W. of Carroll co., after a S.W. course of 250 m.—A N.W. co.; *area*, 635 sq. m. It is traversed by the Tallahatchee river. *Surface*, level; *soil*, fertile. *Cap.* Charleston. *Pop.* (1897) 15,350.

Tallaho'ma, in *Iowa*, a village of Lucas co., about 8 m. W. of Chariton.

Tallaho'ma, a river of *Mississippi*, rises in Jasper co., and flowing S., enters Leaf River near Augusta in Perry co.

Tallapoo'sa, a river of *Georgia* and *Alabama*, rises in Paulding co., Georgia, and falls into the Coosa, abt. 10 m. N. of Montgomery, after a S.W. course of 250 m.

Tallapoosa, in *Alabama*, an E. co.; *area*, 700 sq. m. *Rivers.* Tallapoosa, and Hileebee, and Sawkehatchee creeks. *Surface*, undulating; *soil*, generally fertile. *Cap.* Dadeville.

Tallapoosa, in *Georgia*, a city of Haralson co., 160 m. N.W. of Milledgeville. *Pop.* (1897) 1,860.

Talleyrand-Perigord, CHARLES MAURICE, PRINCE DE, (*tăl'le-rănd,*) an illustrious French statesman, B. in Paris, 1754; an accident in early life compelled him to dedicate his talents to the church, but, being elected in 1788 to the bishopric of Autun, he was called upon, in virtue of his office, to take his seat in the Etats Généroux, from which event is to be dated the rise of that political distinction which made his name illustrious through the whole of Europe for 35 years. In 1835 he retired from political life, and D. 1838.

Tallien, JEAN LAMBERT, a prominent character in the French Revolution, B. in Paris, 1769. He was one of the promoters of the September massacres, and for his services was returned to the convention. He voted for the death of Louis XVI., defended Marat, and, being sent on a mission to Bordeaux, he threw the city into hopeless misery by the most atrocious proscription and massacres. At length, however, he formed an attachment for Madame de Fontenai, a lady of great personal charms, whose family name was Cabarrus; and his heart of stone was somewhat softened by her pleadings. He was recalled on account of his milder proceedings, and Madame de Fontenai was thrown into a dungeon by Robespierre. The tyrant offered her life and liberty if she would betray Tallien. But she rejected the proposal; and sent privately this note to *T.*: "The minister of police has announced to me that to-morrow I am to appear at the tribunal, that is to say, that I am to ascend the scaffold. I dreamt last night that Robespierre was no more, and that my prison-doors were opened. A brave man might have realized this dream; but, thanks to your cowardice, no one remains capable of its accomplishment." *T.* answered, "Be as prudent as I shall prove brave; and, above all, be tranquil." The next day he hurried to the tribune, and, after an animated picture of the atrocities of Robespierre, he suddenly turned to the bust of Brutus, and, invoking the genius of the Roman patriot, he drew a dagger from his bosom, and swore that he would bury it in the tyrant's heart, if the representatives of the people had not courage to order his immediate arrest. The moment was critical; the fate of *T.* hung on a thread; but the assembly joined him, and Robespierre perished on the scaffold. *T.*, who now married Madame de Fontenai, continued to be an active member of the legislature till 1798, when he accompanied Bonaparte to Egypt, but he was afterwards little noticed by the Emperor, and D. in great poverty, 1820.

Tal'lier, *n.* One who keeps tally.

Tall'madge, in *Michigan*, a post-township of Ottawa county.

Tallmadge, in *Ohio*, a post-village and township of Summit co., 5 m. E.N.E. of Akron.

Tall'ness, *n.* State or quality of being tall; height of stature; loftiness.

Tallow, (*tal'lō,*) *n.* [Dan. *tælg.*] The melted and purified suet of the ox or sheep, used in the manufacture of common candles. It consists of various portions of stearine, palmitin, and olein, according to its origin. Mutton *T.* is of a much firmer consistence than that of the ox, from containing less olein and more stearin.

Mineral or *mountain tallow.* (*Min.*) Same as HALCHETTITE. — *Piney tallow*, a vegetable adipose substance extracted from the fruit of the piney-tree. — *Vegetable tallow*, a kind of fatty matter, resembling tallow, obtained from various plants.

—*v. a.* (*imp.* and *pp.* TALLOWED (*tăl'lōd.*) To grease or smear with tallow.

—Among graziers, butchers, &c., to fatten; to cause to have a large quantity of tallow; as, to *tallow* cattle or sheep.

Tal'low-catch, (*-kăch,*) *n.* A low, mean fellow; — also, a mass of fat rolled up into a lump.

Tal'low-chandlery, *n.* The trade or occupation of a maker of tallow candles, also, the place where such business is carried on.

Tal'lower, *n.* An animal disposed to form tallow internally.

Tal'low-face, *n.* A person who has a pale, sickly complexion.

Tal'lowing, *n.* Among farmers or graziers, the act, art, or practice of feeding animals with a view to the accretion of tallow; or, the property in animals of producing tallow.

Tal'lowish, *a.* Pertaining to, or resembling tallow.

Tal'low-tree, *n.* (*Bot.*) See STILLINGIA.

Tal'lowy, *a.* Greasy; having the properties of tallow.

Tallulah, in *Mississippi*, a post-village, former cap. of Issaquena co., 70 m. N.W. of Jackson.

Tal'ly, *n.* [From Fr. *tailler*, to cut.] A piece of wood on which notches or scores are cut, as the marks of a number, such pieces or sticks being formerly used in keeping accounts, the buyer or debtor having one stick, marked with notches or scores, indicating the quantity of goods or the price, and the seller or creditor having another, exactly corresponding. — Hence, one thing made to suit another; a match; a mate.

—*v. a.* To score with correspondent notches; — hence, to fit; to suit; to make to correspond; as, we found the two accounts to *tally* one with the other.

(*Naut.*) To haul aft, as the sheets of the main- and fore-sail.

—*v. n.* To correspond; to suit; to be fitted; as, your idea exactly *tallies* with mine.

Tal'ly-trade, *n.* A system of dealing carried on in large towns, by which shopkeepers furnish certain articles or commodities on credit to their customers, who agree to pay the stipulated price by certain weekly or monthly instalments.

Tal'ma, FRANÇOIS JOSEPH, a celebrated French tragedian, B. in Paris, 1763. His naturally ardent temperament and artistic power found ample scope for development during the tremendous drama of the French Revolution, and he rose to higher fame than any of his predecessors on the stage. Napoleon loaded him with proofs of his favor, and he was no less honored and esteemed by Louis XVIII. D. 1826.

Tal'ma, *n.; pl.* TALMAS. A kind of large cape or roquelaure, worn both by males and females.

Tal'mud, *n.* [Heb., doctrine.] A work which contains those rules and institutions by which, in addition to the Old Testament, the conduct of the Jews is regulated. It is in fact the interpretation which the ancient rabbins have affixed to the law of Moses. It is called the traditional or unwritten law, as distinguished from the written law given to Moses. They are, however, both regarded as of like antiquity, both having been given to Moses on Mount Sinai. After the second destruction of Jerusalem, under Adrian, and the consequent dispersion of the Jews, fears were entertained lest the oral traditions should be lost; and hence arose the necessity of committing them to writing, in order to their preservation. It is generally agreed that Rabbi Jordah, surnamed "the Holy," made the first permanent record of them about A. D. 190, and 120 years after the destruction of Jerusalem. This was the *Mishna*, or text, and to this a twofold commentary, or series of commentaries, were subsequently added; the one called the Babylonian Gemara, the other the Jerusalem Gemara. The former was begun by Rabbi Asche, who D. 427, and completed by Rabbi Jose some fifty years later. The Gemara of Jerusalem embodied the notes of the Palestinian Jews, and proceeded from the Academy at Tiberias. It is believed to have been written about the close of the 4th century. Thus we have the Babylonian and Jerusalem *T.*, having the same text, but different notes.

Talmud'ic, Talmud'ical, Talmudis'tic, *a.* [Fr. *talmudique.*] Pertaining, or having reference to, the Talmud.

Tal'mudist, *n.* One versed in the Talmud.

Tal'on, *n.* [Fr. and Sp., the heel, from Lat. *talus*, the ankle.] The claw of a bird or fowl.

(*Arch.*) An ogee.

Tal'pidæ, *n.* (*Zoöl.*) See MOLE.

(*Surg.*) A tumor under the skin or cuticle, commonly called a *mole*.

Ta'lus, *n.* [Lat., the ankle.] (*Geol.*) The sloping heap of debris or fragments accumulated at the foot of a steep rock.

(*Anat.*) Same as ASTRAGALUS, *q. v.*

(*Arch.* and *Fortif.*) The inclination or slope of a work, as the outside of a wall, where its thickness is diminished by degrees as it rises in height.

(*Surg.*) A variety of club-foot, in which the heel rests on the ground, and the toes are drawn toward the leg.

Tama, (*tăh'ma,*) in *Iowa*, an E. central co.; *area*, 720 sq. m. *Rivers.* Iowa River, and Deep, Salt, and Wolf creeks. *Surface*, undulating; *soil*, generally fertile. *Cap.* Toledo. *Pop.* (1895) 22,966.

Tamabil'ity, *n.* Quality of being tamable; tameableness.

Tam'able, *n.* That may be tamed or subdued.

Tam'ableness, *n.* State or quality of being tamable.

Ta'man, an island in the S. of European Russia, govt of Taurida. It is formed by the straits of Taman, the sea of Azov, and the Black Sea. It has numerous mud volcanoes. The *Gulf of T.* is to the E. of the Strait of Yenikale.

Taman'dua, a town of Brazil, prov. of Minas-Geraes, 100 m. W. of Ouro Preto; *pop.* abt. 10,000.

Tamaqua, (*tam-aw'qua,*) in *Pennsylvania*, a post-borough of Schuylkill co., 15 m. E.N.E. of Pottsville; *pop.* abt. 6,000.

Tam'arack, *n.* (*Bot.*) A name of *Larix tenuifolia*. See LARCH.

Tamarica'ceæ, *n. pl.* (*Bot.*) The Tamarisk family, an ord. of plants, alliance *Violales*. DIAG. Polypetalous flowers, a many-leaved calyx, hypogynous petals, distinct styles, consolidated fruit, and 00 basal seeds, without albumen. The plants of this ord. usually grow by the sea-side, and are most abundant in the basin of the Mediterranean. There are 3 genera, and 43 species. *Tamarix mannifera*, probably a variety of *Tamarix Gallica* (Fig. 2464), produces a saccharine substance, which is known under the name of *Mount Sinai Manna*. This is supposed to be an exudation produced by an insect which inhabits the plant.

Fig. 2464. — COMMON TAMARIX. (*Tamarix Gallica.*)

Tam'arind, *n.* [Fr. *tamarin.*] (*Bot.*) See TAMARINDUS.

Tamarin'dus, *n.* (*Bot.*) A genus of plants, order *Fubaceæ*. The well-known tamarind is the fruit of the species *T. indica* (Fig. 2465). It contains an agreeable, acidulous, sweet, and reddish-brown pulp, which is employed medicinally in the preparation of a cooling, laxative drink. When the pulp is mixed with sugar, it forms a delicious preserve.

Fig. 2465. — TAMARINDUS INDICA. (Fruit.)

Tam'arin, *n.* (*Zoöl.*) See JACCHUS, and MARMOUSET.

Tam'arisk, *n.* (*Bot.*) See TAMARICACEÆ.

Tamaulipas, (*ta-mow-lee'pas.*) in *Mexico*, a N.E. state, bordering on Texas, having N.W. Cohahuila, E. the Gulf of Mexico, S. San Luis Potosi and Vera Cruz, and W. Nuevo Leon and San Luis Potosi; *area*, 30,334 sq. m. *Rivers.* Rio Grande, Fernando or Tigre, Borbon, Santander, and the Tampico. *Surface*, level in the N., elsewhere diversified; *soil*, generally fertile. *Climate.* Unhealthy along the coast, but temperate and healthy in the interior. Vast numbers of cattle, horses, sheep, &c. are reared. *Min.* Iron, silver, and salt. *Cap.* Ciudad Victoria. *Pop.* (1897) 201,250.

Tambour, (*tam'bōōr,*) *n.* [Sp. and Port. *tambor;* Pers. *tambûr;* Ar. *tambûr*, lyre.] (*Mus.*) A small drum used by the Biscayans as an accompaniment to the flageolet. —A kind of small, circular frame, somewhat in the shape of a drum for working embroidery upon; — also, a species of embroidery in which threads of gold and silver are worked in leaves, flowers, &c.; — otherwise called *tambour-work*.

(*Fortif.*) A work in the shape of a redan, generally made of wood, and arranged like a stockade.

(*Arch.*) The wall of a circular temple surrounded with columns. — The vase or naked ground on which the leaves of the Corinthian and Composite capitals are placed, and which bears some resemblance to a drum.— The circular vertical part above or below a cupola. (*Gwilt.*) — A lobby or vestibule, inclosed with folding-doors, to break the current of wind from without, as at the entrance of a church, banking-house, and the like.

—*v. a.* To embroider on a tambour-frame.

Tambourine, (*tam-boo-rēēn',*) *n.* [Fr. *tambourin.*] (*Mus.*) A musical instrument of the drum species (Fig. 755). It is composed of a piece of parchment, stretched on the top of a hoop furnished with little bells, and is sounded by the hand, fingers, or elbow.

Tamboff, (*tam-bo,*) a city of European Russia, cap. of a govt. of the same name, on the Tzna, 270 m. from Moscow. *Manuf.* Woollens, canvas, linen, and alum. *Pop.* 23,000.

Tame, *a.* (*comp.* TAMER, *superl.* TAMEST.) [A. S., Du., Dan., and Swed. *tam.*] That has lost its native wildness and shyness; accustomed to the presence of man; domesticated; as, a *tame* rabbit, a *tame* bird. — Depressed; spiritless; quiet; subdued; as, "labor *tame* and dull." (*Shaks.*) — Destitute of vim, nerve, spirit, or animation; dull; flat; insipid; vapid; as, a *tame* discourse, a *tame* poem.

—*v. a.* [A. S. *tamian;* Du. *temmen.*] To domesticate; to reclaim; to familiarize; to civilize; to reduce from a wild to a domestic state; as, to *tame* an elephant, to *tame* a refractory subject. — To subdue; to conquer; to depress; to repress; as, a wife *tames* a husband who submits to be henpecked.

Tame, *v. a.* To broach, tap, taste, or try, as liquor.—To deal out; to apportion; to distribute; to divide; as, to *tame* stacks of corn.

Tame'less, *a.* That cannot be tamed; wild; untamable.

Tame'ly, *adv.* In a tame or docile manner. — Meanly; servilely.

Tame'ness, *n.* Quality of being tame, docile, or gentle; meek or unresisting submission; lack of manly pluck or spirit; — also, a state of domestication; as, the *tameness* of a beast or bird, the *tameness* of a miserable coward.

Tam'er, *n.* One who tames, subdues, or makes docile.

Tam'erlane. See TIMUR.

Tamiagua, (*ta-me-a'gwa,*) in Mexico, state of Tampico, a lake, 60 m. long and 25 m. broad, separated N. by a narrow isthmus from the Lake of Tampico. — A seaport-town, 70 m. S.E. of Tampico; Lat. 21° 16′ N., Lon. 97° 17′ E.

Tam'ine, Tam'iny, *n.* A kind of highly glazed woollen cloth. —Also, a strainer or holter made of such material.

Tam'kin, *n.* Same as TAMPION, *q. v.*

Tamp, *v. a.* [Fr. *tamponner.*] To plug, stop, or fill up, as a hole bored in a rock for blasting. — Hence, to drive in or down by a succession of gentle strokes; as, to *tamp* stones so as to macadamize a road.

Tam'pa, in *Florida,* an important city, cap. of Hillsborough co., at the head of Tampa Bay, on the direct rail and sea route to Cuba. *Pop.* (1897) 22,650.

Tampa, (Bay of,) in *Florida,* the largest inlet of the Gulf of Mexico, about Lat. 27° 45′ N. It is 40 m. long, and, towards the interior, is divided into two branches, called Little Tampa Bay and Hillsborough Bay.

Tamp'er, *n.* (*Mining*) One who tamps.

—*v. n.* To meddle or intermeddle; to be busy; to have to do without fitness or necessity.

"'Tis dangerous *tampering* with a muse." — *Earl of Roscommon.*

—To deal; to practise privily or secretly; — hence, to use bribery; as, a voter who has been *tampered* with.

Tamp'ering, *n.* Act of meddling or practising secretly or clandestinely; as, a *tampering* with a woman's affections.

Tampico, (*tam-pe'ko,*) a river of Mexico, running, after an E. course of 200 m., into the Gulf of Mexico; Lat. 22° 15′ N., Lon. 97° 46′ W. — Also a LAKE, or shallow lagoon, communicating on the E. with the Lake of Tamiagua.

Tampi'co, or SANTA AÑA DE TAMAULIPAS, a seaport-town of Mexico, state of Vera Cruz, on the N. shore of the lake of the same name, 250 m. from Vera Cruz. It carries on an important trade with the U. States. *Pop.* 7,850.

Tampico, in *Indiana,* a village of Howard co., 4 or 5 m. S.S.E. of Rokomo. — A post-village of Jackson co., abt. 34 m. N.W. of Madison.

Tampico, in *Ohio,* a post-village of Darke co., abt. 9 m. S.W. of Greenville.

Tamp'ing, *n.* (*Mining.*) The act of filling up a hole in a rock preparatory to the blasting operation. — Also, the material, usually soft stone, placed upon the charge of gunpowder to confine its force, which would otherwise pass up the hole.

Tamp'ing-iron, *n.* (*Mining.*) A tool used for beating down the earthy substance in the charge used for blasting.

Tam'pion, *n.* [Fr. *tampon.*] (*Mil.*) The stopper of a cannon or other piece of ordnance.

(*Mus.*) A plug used as a stopper for the upper end of an organ-pipe.

Tam'pon, *n.* (*Surg.*) A plug or stopper introduced into a natural or artificial cavity of the body in order to stop hemorrhage.

Tam'-tam, *n.* [Hind. *tom-tom.*] An Indian drum or gong, made of an alloy of copper and tin.

Tamus, (*tā'mus,*) *n.* (*Bot.*) A genus of plants, order *Dioscoreaceæ. T. communis* is the common black bryony, a beautiful twining hedge-plant. It has a large fleshy root, which is sometimes used as a topical application to bruised parts to remove the marks. Taken internally, it acts as a diuretic, and also, it is said, as an emetic and cathartic.

Tam'worth, a market-town of England, in Staffordshire, at the junction of the Tame and Auker, 7 m. from Lichfield. *Manuf.* Cotton-spinning, calico-printing, lace, and wool-stapling. *Pop.* 5,000.

Tam'worth, in *New Hampshire,* a post-township of Carroll co., 52 m. N.N.E. of Concord.

Tan, *v. a.* (*imp.* and *pp.* TANNED,) (*tănd.*) [Fr. *tanner.*] To soak, impregnate, or imbue with a decoction of oak bark; to make of the color of a decoction of oak bark, as leather. — To make brown; to imbrown by exposure to the rays of the sun; as, a *tanned* complexion.

—*v. n.* To become tanned; as, these hides *tan* quickly.

—*n.* [Fr. *tan.*] The bark of the oak, &c., bruised and broken by a mill for tanning hides; — so called both before and after use. — A yellowish-brown color, resembling that of tan. — A yellowish tingeing of the skin by exposure to the sun; as, hands tinctured with *tan.*

Tanace'tum, *n.* (*Bot.*) The Tansey, a genus of plants, order *Asteraceæ.* The common Tansey, *T. vulgare* (Fig. 2466), native of Europe, is naturalized in old fields and roadsides. Its stem is clustered, 2–3 feet high, and branched above into a handsome corymb of yellow flowers, (in Aug.) The whole plant has a strong and aromatic smell and a very bitter taste. The seeds are anthelmintic. A variety called *double tansey* occurs, furnished with dense and crisped leaves.

Fig. 2466.
TANSEY, (*Tanacetum vulgare.*)

Tana-elf, *n.* The most N. river of Europe, entering the Arctic Ocean in Lat. 70° 30′ N., Lon. 28° E., after a course of 180 m.

Tana'ga, in the N. Pacific Ocean, one of the Aleutian Islands, Andreanov group, W. of Kanaga; Lat. 51° 59′ N., Lon. 178° 10′ W.

Tan'ager, *n.* (*Zoöl.*) The common name of the *Tanagra,* a group of insessorial birds, of which there are several genera, and numerous species, all peculiar to America, and which are conspicuous for their brilliant colors. They have a conical beak and short wings; representing the Finches, &c., of Europe and Asia in their conformation and habits, and in the nature of their food.

Tana'ro, a river of N. Italy, in Piedmont, rising near the Col de Tenda, in the S. Alps, and, after a course of 140 m., falling into the Po, 10 m. from Alexandria.

Tan'cock, (GREAT and LITTLE,) in *Nova Scotia,* two islands in Mahone Bay, 30 m. S.W. of Halifax.

Tancred, (*tan'krĕd,*) a chief of the Crusades, who headed a vast army collected from Apulia and Calabria, and founded the principality of Galilee on Lake Tiberias. He is one of the heroes of Tasso, and his exploits date from 1096 to 1112.

Tan'dem, (*Horseman's Latin*). Horses are harnessed *tandem* when they are placed single, one before another. But *tandem* properly refers to *time,* and not to *length of line.*

Tä'ney, in *Missouri,* a S.S.W. co., bordering on Arkansas; *area,* 660 sq. m. *Surface,* diversified and well watered. *Soil,* fertile. *Cap.* Forsyth. *Pop.* (1897) 8,550.

Tang, *n.* [Icel. *tangi.*] A strong, rancid, or offensive taste or smack; — particularly, a flavor of something extraneous to the thing in question; as, whisky matured in a sherry-butt acquires a *tang* of the cask. — Relish; taste; gout; smack; flavor; as, there was not the least *tang* of religious bigotry in anything he said or did. — That which leaves a sting or acute feeling of pain behind; as, women often have a tongue with a *tang.* — The handle or haft of anything; — particularly, the tongue of a buckle. — A sharp sound; a twang. — The sting of a wasp or bee.

—*v. n.* To cause to ring or sound loudly.

To tang bees, to induce a swarm of bees to settle by making a loud, clanging noise.

—*v. n.* To ring; to make a ringing sound.

Tangency, (*tăn'jen-se,*) *n.* State or quality of being tangent; — also, a contact or touching.

Tan'gent, *n.* (*Geom.*) A right line passing through two consecutive points of a curve. If we conceive a right line to rotate around one of its intersection points with the curve until another intersection point comes to coincide with the first, it will in the last position become a tangent.

Tangent-scale. (*Geom.*) An instrument or sight used in pointing cannon.

—*a.* Touching; coming into contact with.

(*Geom.*) Touching at a single point; as, a *tangent* line.

Tangent plane. (*Geom.*) A plane which touches a surface in a straight line or single point without cutting it. — *Tangent screw.* (*Mech.*) An endless screw, applied as a tangent at the edge of a toothed wheel, with which the screw gears, and by each revolution of the screw the wheel is turned on its axis the distance of one tooth of the wheel from the next one. Screws of this kind are useful for minute adjustments, as a considerable amount of rotation in the screw gives but a small amount of rotation to the wheel.

Tangential, (*tan-jĕn'shal,*) *a.* Pertaining, or relating, to a tangent; in the direction of a tangent.

Tangential force. (*Mech.*) A force which, in its action, gives a tendency to a revolving body to fly off in a tangent to its orbit.

Tangen'tially, *adv.* In the direction of a tangent.

Artificial or *logarithmic tangent.* (*Math.*) The logarithm of the natural tangent of an arc. — *Natural tangent,* a decimal designating the length of the tangent of an arc, the radius being considered unity.

Tanghin'ia, *n.* (*Bot.*) A genus of plants, order *Apocynaceæ,* containing only one species, the Tanghin, *T. venenifera,* a native of Madagascar. The fruit is a drupe, of which the kernel is so deadly a poison, that although not larger than an almond, one kernel is sufficient to destroy twenty people.

Tangibility, (*-jĭ-bĭl'-,*) **Tan'gibleness,** *n.* State or quality of being tangible.

Tan'gible, *a.* [Fr., from Lat. *tango,* to touch.] That may be touched; perceptible to the touch; palpable; tactile; as, a *tangible* body. — That may be possessed or realized; susceptible of apprehension by the mind; as, a *tangible* reason, excuse, benefit, &c.

Tan'gibly, *adv.* So as to be touched.

Tan'gier, (*-jeer,*) (anc. *Tinja,*) a fortified seaport of Morocco, situate on the Straits of Gibraltar, a few miles from the E. of Cape Spartel; Lat. 35° 42′ N., Lon. 5° 50′ W. *Pop.* abt. 8,000. The Bay of Tangier is encumbered by the ruins of the mole and fortifications, and is not very safe during winter, in westerly winds.

Tan'gier's Islands, in *Virginia,* nearly opposite the mouth of the Potomac River, in the Chesapeake Bay.

Tangipaha', a river of *Louisiana,* flows S., and enters Lake Pontchartrain on the border of Livingston and Tammany parishes.

Tangipao', a parish of *Louisiana.*

Tangle, (*tang'gl,*) *v. a.* [Swed. and Goth. *tagel.*] To unite or knit together confusedly, as hair, wool, or grass; to interweave or interlock, as threads, so as to make it difficult to unravel the knot; to entangle. — To implicate; to ensnare; to entrap; as, "*Tangled* in amorous nets." (*Milton.*) — To embarrass; to bring into an imbroglio; as, "*Tangled* in forbidden ways." (*Crashaw.*)

—*v. n.* To be entangled or united confusedly.

—*n.* A knot of hairs, threads, or other things united confusedly, or so interwoven as not to be easily disengaged or extricated; as, yarn in *tangles.*

(*Bot.*) See SAMINARIA.

Tan'gly, *a.* Knotted; intertwined; intricate. — Besprent with tangle or sea-weed.

Tanis, (*tā'nis,*) a ruined city of Egypt, on an arm of the Nile, at its delta, 12 m. from Menzaleh. The Plain of San, or "Field of Zoan," where Moses performed his miracles, is now a desert waste.

Tan'ist, *n.* [Gael *tamiste.*] Formerly, in Ireland, the proprietor, governor, or captain of a tract of land.

Tan'ists, *n. pl.* A religious sect in China, founded by Lan-Tsze, a celebrated philosopher, whose doctrines hold a place second only to those of Confucius. Lan-Tsze, according to the most trustworthy accounts, was an historian and archivist of a king of the Chow dynasty, and went, about 600 B. C., to the W. parts of China, where he appears to have become acquainted with the worship of Fo, or Buddha, and, at Han-Rwan, wrote the *Taouth-King,* or "Book of Reason and Virtue." He is supposed to have died 523 B. C. The doctrines of Lan-Tsze differ from those of Confucius, indeed possess a higher scope, the object of the latter being the practical government of man through a code of ethics, that of Lan-Tsze the rendering of man immortal through the contemplation of God, the repression of the passions, and the perfect tranquillity of the soul. The moral code of the *Tan* (*i. e.,* the Eternal Reason or Supreme Principle) sect is excellent, inculcating all the great principles found in other religions — charity, benevolence, virtue, and the free-will, moral agency, and responsibility of man. Since the 2d cent., A. D., the sect has continued to spread in China and among the Indo-Chinese nations; and many monasteries and nunneries have been brought into existence.

Tanjore, (*tan-jor',*) a town and fortress of British India, cap. of a dist. of same name, 170 m. from Madras; Lat. 10° 42′ N., Lon. 79° 11′ E.

Tank, (*tangk,*) *n.* [Fr. *étang,* a pond; Sansk. *taṅga,* a fish-pond.] A reservoir of standing water; a large basin or cistern.

(*Naut.*) A case of sheet-iron for the stowage of water on shipboard.

(*Mach.*) That part of the tender of a locomotive-engine which contains the water. Tanks vary in size, according to the power of the engine to which they are attached, and are from about 500 to 1,600 gallons in capacity.

Tankard, (*tang'kărd,*) *n.* [Fr. *tancard.*] A large vessel for the reception of liquors; also, a drinking-mug with a cover; as, a *tankard* of London porter.

Tank'ard-tur'nip, *n.* A kind of turnip that stands at some elevation above the ground.

Tank'-engine, (*-ĕn'jin,*) *n.* A locomotive-engine which carries its own water and fuel, thus dispensing with the use of a tender. [rowed by women.

Tankia, *n.,* or TANKA, a Chinese boat abt. 25 ft. long,

Tank'-iron, (*-ī'ŭrn,*) *n.* Plate-iron, thinner than boiler-plate, and thicker than sheet-iron or stove-pipe iron.

Tan'na, an island of the S. Pacific Ocean, belonging to the group of the New Hebrides; Lat. 19° 32′ S., Lon. 169° 44′ E. It is abt. 22 m. in length and 10 in breadth, and was discovered by Capt. Cook in 1774.

Tan'nate, *n.* [Fr.] (*Chem.*) A compound of tannic acid with a base.

Tan'ner, *n.* [Fr. *tanneur.*] One who tans hides.

Tan'nersville, in *New York,* a post-village of Greene co., 45 m. S.S.W. of Albany.

Tannersville, in *Pennsylvania,* a post-village of Monroe co., 118 m. N.E. of Harrisburg.

Tan'nery, *n.* [Fr. *tannerie.*] The house or place appropriated to tanning; also, the apparatus used therein.

Tan'nic Acid, *n.* (*Chem.*) See TANNIN.

Tan'nin, *n.* (*Chem.*) This term was formerly applied to the various forms of the astringent principle con-

tained in the materials used for tanning leather. The most important of them have been examined and found to possess an acid reaction, and to differ considerably in their properties, according to their sources. The best known of them is *gallo-tannic acid*, which is generally known by the name of *T.* or *tannic acid*, as its name signifies. It is obtained from the nut-gall of the oak, which contains two-thirds of its weight of this acid. The nut-galls are reduced to powder, and digested with an equal weight of washed ether. The decanted liquid separates on standing into two portions, the denser of which is of a yellow color, and consists of ether holding gallo-tannic acid and various coloring matters in solution. On evaporation it yields a pale buff residue of amorphous gallo-tannic acid. It is freely soluble in water. It reddens litmus-paper, and dissolves the carbonates with effervescence. With the bases it forms salts known as the gallo-tannates, none of which are crystalline. The basis of ordinary writing-ink is gallo-tannate of iron. Its most remarkable compound is that which it forms with *gelatin*, which constitutes the basis of leather. Gallo-tannic acid is used as a mordant in dyeing and in photography. The other varieties of tannic acid are *moritannic acid*, found in fustic (*Morus tinctoria*), *quercitannic acid*, existing in oak-bark, *quinotannic acid*, contained in cinchona-bark, *caffeotannic acid*, found in coffee, and a few others of little importance.

Tan'ning. See LEATHER (MANUFACTURE OF).

Tans'borough, in *New Jersey*, a village of Gloucester co., 35 m. S.W. of Trenton.

Tan'sy, *n.* (*Bot.*) See TANACETUM.

Tan'talic Acid, *n.* (*Chem.*) See TANTALUM.

Tantalidæ, *n. pl.* (*Zoöl.*) A family of Grallatorial birds, the chief of which inhabit tropical latitudes, living almost entirely on the swampy banks of rivers and lakes. The genus *Tantalus* is characterized by having the head, in the adult, entirely destitute of feathers. It includes the Wood Ibis (*T. loculator*) of the Southern States, is 45 inches long, the wing 18 inches; the color white, quill and tail a metallic blackish-green. They live in flocks, in the swampy districts, feeding upon fish and aquatic reptiles. The genus *Ibis* has the bill very long, moderately thickened at the base, and curves downward towards the tip. Among the American species are the Red or Scarlet Ibis (*I. rubra*) (Fig. 2467) of S. America and the W. Indies, accidentally in the U. States; and the White Ibis, or White Curlew (*I. alba*) of the S. Atlantic and Gulf States, rarely northward, which is 25 inches long, the wing 11, and the bill 7 inches; color white. This species feeds largely upon crawfish. The Sacred Ibis, or Egyptian Ibis (*I. religiosa*), is an African bird, 30 inches in length, and covered with white and black plumage. It was one of the birds worshipped by the ancient Egyptians, and called by them *Hac*, or *Hib*, and by the modern Egyptians *Abou-Hannes* (i. e., Father John). It was supposed, from the color of its feathers, to symbolize the light and shade of the moon, and its body to represent the heart; its legs described a triangle, and with its beak it performed a medical operation; from all which esoterical ideas it was the avator of the god Thoth and Hermes, who escaped in that shape the pursuit of Typhon, as the hawk was that of Ra, or Horus, the sun. Its feathers were supposed to scare, and even kill, the crocodile. It appeared in Egypt at the rise, and disappeared at the inundation of the Nile, and was thought, at that time, to deliver Egypt from the winged and other serpents which came from Arabia in certain narrow passes. As it did not make its nest in Egypt, it was thought to be self-engendering and to lay eggs for a lunar month. According to some, the basilisk was engendered by it. It was celebrated for its purity, and only drank from the purest water, and the most strict of the priesthood only drank of the pools where it had been seen; besides which, it was fabled to entertain the most invincible love of Egypt, and to die of self-starvation if transported elsewhere. Its flesh was thought to be incorruptible after death, and to kill it was punishable with death.

Fig. 2467. — SCARLET IBIS, (*Ibis rubra.*)

Tan'talite, *n.* [Fr.] (*Min.*) Same as COLUMBITE.

Tantalization, (*-zā'shun,*) **Tan'talism,** (*-izm,*) *n.* Act of tantalizing.

Tan'talize, *v. a.* [From Lat. TANTALUS, *q. v.*] To torment by presenting some good to the view of and exciting desire therefor, but continually frustrating the expectations by keeping that good out of reach; to tease; to vex; to irritate; as, a *tantalizing* woman.

Tan'talizer, *n.* One who tantalizes, teases, or torments.

Tan'talizingly, *adv.* In a tantalizing manner.

Tan'talum, *n.* (*Chem.*) A very rare metal, also known as *columbium*, found in certain minerals, the *tantalites* and *yttrotantalites*. Being so rare, and occurring in such small quantities, its characteristics as a metal have not been much studied. It is obtained by decomposing the chloride at a red heat with ammonia. It is a black infusible powder, which assumes a metallic luster when burnished. Heated in air it burns, becoming converted into tantalic acid. *T.* forms two oxides, the principal one being tantalic acid, Ta_2O_5. Tantalic acid is a white infusible substance, uniting with the bases to form salts, known as tantalites. A sesquichloride and a sesquisulphide of *T.* have been obtained. *Symbol* Ta.

Tan'talus. (*Myth.*) A king of Lydia, son of Jupiter. He was father of Niobe and Pelops, by Dione, one of the Atlantides, and is represented by the poets as punished in Hades with an insatiable thirst, and placed up to the chin in the midst of a pool of water, which flowed away as soon as he attempted to taste it. There hung also above his head a bough, richly loaded with delicious fruit, which, as soon as he attempted to seize it, was carried away from his reach by a sudden blast of wind. He was thus punished either for theft, cruelty, and impiety, or lasciviousness; for the causes are variously stated.

(*Zoöl.*) See TANTALIDÆ.

Tantalus's cup. A philosophical toy consisting of a cup, in the bottom of which is adapted a siphon concealed by the hollow figure of a man representing Tantalus, and by means of which the water poured into the cup is drawn off, so that if the water supplied to the cup is not faster than is drawn off by the siphon, the cup will never be filled up.

Tan'tamount, *a.* [Lat. *tantus*, so great, and Eng. *amount.*] Equal; equivalent in value or signification; as, a demur is often *tantamount* to a refusal.

Tantiv'y, *adv.* [Lat. *santa vi;* said to be from the note of a hunting-horn.] A full swing, stretch, or speed; rapidly; swiftly; as, "Hark forward; *tantivy!*" — a term used among English fox-hunters. — *To ride tantivy*, to ride at full speed.

—*n.* A rapid, rattling, tear-away gallop.

Tan'trum, *n.* [Generally in the plural.] A burst of ill-humor; a mock-heroic air; a fit of spleen. (Colloq.)

Taormina, (*ta'or-me'na,*) (anc. *Tauromínium,*) a seaport of the island of Sicily, in the Val di Demone, on the E. coast, 26 m. from Catania. It has many remains of antiquity, among which may be noticed a theatre, capable of containing 40,000 spectators, and an aqueduct and reservoir, which supplied the ancient city with water. *Pop.* 4,436.

Ta'os, in New Mexico, a N.E. co., bordering on Colorado. *Rivers.* Rio Grande and Canadian. *Surface*, mountainous in the W., elsewhere undulating; *soil.* Generally fertile. *Cap.* Taos. *Pop.* (1897) 10,260.

Ta'os, in *Missouri*, a post-village of Cole co., abt. 9 m. S.E. of Jefferson City.

Ta'onza, one of the Society Islands.

Tap, *v. a.*, (*imp.* and *pp.* TAPPED,) (*tăpt.*) [A.S. *tæppan.*] To draw out, as liquor, from a cask; to pierce or broach, as a cask, and insert a tap; to open, as a cask, and draw liquor therefrom; to pierce for letting out a fluid; to box or bore into; as, to *tap* a barrel of ale. — Hence, figuratively, to draw or extract from in any analogous way; as, to *tap* a person to elicit information.

—*n.* [Swed.; Goth. *tapp*, a siphon.] A pipe for drawing liquor from casks; also, a plug or spile for stopping a hole pierced in a cask. — Liquor which is measured out, as through a tap; as, he has got a *tap* of capital beer at his house. — A place attached to an inn or brewery where malt liquor is retailed; a tap-room; a bar; as, he goes to smoke his pipe in the *tap*.

(*Mech.*) A hardened steel screw with a square head, so that it may be turned by a wrench; it is grooved from end to end, and is also slightly tapered; — used for cutting an internal screw, as that of a nut, &c.

On tap, ready to be drawn; as, porter *on tap*. — Furnished with a tap; as, a barrel of ale *on tap*.

Tap, *v. a.* [Fr. *taper.*] To touch lightly; to strike gently; to hit with something small, or with a very gentle blow; as, to *tap* one on the shoulder with a cane. — To renew the sole or heel of; as, to *tap* a boot.

—*v. n.* To strike or deliver a gentle blow or knock; as, servants should *tap* at a door before entering a room.

—*n.* A gentle hit or knock; a slight blow with something small; as, a *tap* with the finger on a window-pane. — The piece of leather fastened upon the sole or heel of a boot or shoe, when undergoing repairs.

Tap'-bolt, *n.* A bolt headed at one end and threaded on the other, to be screwed into some fixed part, instead of passing through the part and receiving a nut.

Tapajos, or **Tapayos,** (*ta-pa'yose,*) a river of Brazil, in the prov. of Para, deriving its copious sources from numerous branches rising in the interior mountains of Brazil. It is one of those great rivers which come from the south to feed the Amazon. Its course is N. for more than 600 m., between the Chingu and the Madeira, and it falls into the Amazon in Lat. 2° 24′ 50″ S., Lon. 55° W.

Tape, *n.* [A.S. *tæppe.*] A narrow fillet or band; a narrow piece of woven textile fabric, used for strings, &c.; as, a packet of papers fastened with *tape*.

Tape'-line, *n.* A painted or varnished tape, marked out with inches, &c., and inclosed in a metallic case; — used by measurers.

Ta'per, *a.* Conical; pyramidal; regularly narrowed toward the point; becoming small toward one end; as, *taper* fingers.

Ta'per, *n.* [A.S.; It. *doppiere*, a torch.] A small wax candle, or a small light. — Also, a tapering form of structure; as, the *taper* of a pyramid.

—*v. n.* To diminish or become gradually smaller toward one end; as, a spire *tapers* to a point.

—*v. a.* To make gradually smaller in diameter.

Ta'pering, *a.* Becoming gradually smaller in diameter toward one end; diminishing by degrees toward a point.

Ta'perness, *n.* State of being taper.

Tap'estry, *n.* [Fr. *tapisserie*, from *tapis*, a carpet; Lat. *tapete*; Gr. *tapes*, *tapetos*, also *dapis*, *dapidos*, a carpet.] A kind of rich hangings, commonly composed of wool and silk, having pictorial representations wrought in them. This species of curtain covering for walls was known among the inhabitants of eastern countries at an extremely remote era. The most grotesque compositions and fantastic combinations were commonly selected for the display of the talents of workmen in this department of oriental art, which was afterwards imported into Greece. At length, the refined taste of Athens became visible in the structure of tapestries. The old grotesque combinations no longer, as formerly, covered their surfaces, but were confined to the borders only; and the centre received more regular and systematic representations. In modern times, this description of embroidery has been executed with very great success, and has often employed the talents of the greatest masters in the art of painting. In Flanders, particularly at Arras (whence the term *arras*, signifying *tapestry*), during the 15th and 16th centuries, the art was practised with uncommon skill, and tapestries were executed there after the design of Raffaelle in his cartoons. The first manufacture of *T.* in Paris was established under Henry IV., in 1606 or 1607, by several artists whom that Monarch invited from Flanders. Under Louis XIV., the manufacture of the Gobelins was instituted. Tapestry-work is distinguished by the workmen into two kinds, — that of high and that of low warp; the looms, and consequently the warps, being differently situated in the one case from what they are in the other; those of the *low warp* being placed flat and horizontal to the horizon, and those of the *high warp* erected perpendicularly. See BAYEUX TAPESTRY, GOBELINS, &c.

—*v. a.* To furnish or adorn with tapestry; as, a *tapestried* room.

—*a.* Made of, or resembling tapestry; as, a *tapestry* carpet.

Tapestry-carpet, an elegant and cheap kind of two-ply or ingrain carpet, in which the warp or weft is printed before weaving, so as to produce the figure in the cloth.

Tape'-worm, *n.* (*Zoöl.*) The common name of the articulated animals composing the family *Cestoidæ*, ord. of *Trematods*. This family embraces the tape-like worms, narrow toward the head and widening behind, which in their mature state live only in the intestines of vertebrate animals. They occur in all the classes of vertebrates; and generally different species are inhabited by different species of cestoids; and sometimes two or three species of cestoids inhabit the same species of vertebrate at the same time, and in some cases the same intestine. Some are scarcely visible; others, the largest, attain in some cases the length of one hundred feet. The width is nearly an inch in some of the widest. The eggs of a cestoid never hatch in the same intestine in which the cestoid lives, but only after they have been taken into the stomach of another and suitable animal. Thence the embryos pierce their way into the blood-vessels, and are carried by circulation of the blood into various parts of the body, where they develop into larvæ called hydatids. The so-called *measly pork* is pork containing these hydatids, — that is, measly hogs are such as have their muscles more or less filled with the larvæ of cestoids or tape-worms; and if the flesh of such hogs be eaten before cooking, which kills the hydatids, the man or animal eating it takes these hydatids into his intestines, where they are sure to develop into *T.* And so in regard to all animals which have *T.*; they get them by eating other animals in whose tissues there exist hydatids; and the way those animals afflicted with the hydatids get the latter is, as stated above, by swallowing with their food or drink some of the infinitesimal small eggs of the *T.* Two hundred species of cestoids have already been described. The most frequent of those which inhabit man is the Common *T.* (*Tænia solium* of Linnæus), which derives its Linnæan title from the erroneous idea that it is always a solitary worm. The full-grown *T.* has been known from the earliest times, and is described by Hippocrates, Aristotle, and Pliny; but its organization and mode of development have only been properly understood during the last years. The segments of which it is composed vary in size, and number from 800 to 1,000, the earlier immature ones being extremely narrow, and the sexually mature joints (or those capable of realizing an independent existence) commencing at abt. the 450th segment. From 10 to 35 feet may be regarded as representing its ordinary length; its breadth at about the widest part being one-third of an inch. The head is very small and globular. On examining it with a low magnifying-power, it displays four circular-looking discs, in front of which is a conical proboscis, armed with a double crown of hooks. The head is succeeded by a very narrow neck, which is continued into the anterior or sexually immature part of the body, in which traces of segments first appear in the form of fine transverse lines, which are gradually replaced by visible joints

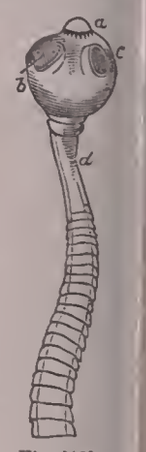


Fig. 2468.

Head, neck, and upper joints of *Tænia solium*, magnified; *a*, the circle of hooks; *b* and *c*, two of the sucking discs; *d*, the neck.

These joints or segments represent the body, and each mature segment contains both male and female organs of generation. A mature *T.* in the intestinal canal may give rise to a series of anomalous symptoms, including vertigo, noises in the ears, impairment of sight, itching of the nose and anus, salivation, dyspepsia, and loss of appetite, colic, pains over the epigastrium and in different parts of the abdomen, palpitation, syncope, the sensation of weight in the abdomen, pains and lassitude in the limbs, and emaciation. Many cases are on record in which hysterical fits, chorea, epilepsy, convulsions of various kinds, and even mania, have been induced by the irrigation excited by this parasite, and have ceased at once on its removal. But distressing as these symptomatic phenomena may be, their injurious effects are trifling as compared with the troubles which follow the deposition and growth of the larval form within the body, especially when the cysticercl find a home in the more important vital organs. There are at least a hundred cases on record in which the cysticercus (the embryo of the worm) has caused death by its development within the human brain. In the present state of our knowledge, it is impossible to diagnose these cases; and even if a correct diagnosis were possible, nothing could be done in the way of treatment.

Tap'-house, *n.* A tavern where liquor is served from the tap.

Tapio'ca, *n.* See MANIHOT.

Ta'pir, *n.* (*Zoöl.*) The name of a genus of Pachydermatous quadrupeds, family *Rhinocerida*. In its general form and contour, the *T.* reminds us of the Hog; but it is sufficiently distinguished from that animal by its snout, which is lengthened into a flexible proboscis, that looks like the rudiment of the trunk of the elephant, and partly serves the same purpose. The anterior feet have four toes, but the posterior only three; and these have only their tips cased in small hoofs. The eyes are small and lateral, and the ears long and pointed. The American tapir (*Tapirus Americanus*) is the largest animal of S. America, and is found in all parts of that continent, though most abundant in the forests of Guiana, Brazil, and Paraguay. It is of a deep brown color throughout, approaching to black; between three and four feet in height, and from five to six in length. The hair of the body is scanty, very short, and closely depressed to the surface. The inmost recesses of deep forests are the chosen haunts of this species, which is not gregarious, and shuns the society of man. It is for the most part nocturnal in its habits, sleeping or remaining quiet during the day, and at night seeking its food, which, in its natural state, consists of shoots of trees, buds, wild fruits, &c. Its enormous muscular power, and the tough thick hide which defend its body, enable it to tear its way through the underwood in whatever direction it pleases. It is very fond of the water, and frequently resorts to it. Its disposition is peaceful and quiet; and though it will defend itself vigorously, and in so doing inflict severe wounds with its teeth, it never attempts to attack either man or beast, unless hard pressed. The flesh is dry, and has a disagreeable flavor. The Indian *T.* (*Tapirus indicus*) of Sumatra and adjacent regions, is larger than the American species.

Fig. 2469. — AMERICAN TAPIR, (*Tapirus Americanus.*)

Tapis, (*tā'pe,*) *n.* [Fr.] A carpet; also, formerly, the cover of a council-table.

To be on, or upon, the tapis, to be the subject of discussion or debate; on the table, or under consideration.

—*v. a.* [Fr. *tapisser.*] To cover with figures, as in tapestry.

Tap'-lash, *n.* The dregs of sediment of liquor.

Tap lings, *n. pl.* (*Agric.*) The strong double leathers that secure the ends of each piece of a flail.

Tap'net, *n.* A kind of basket made of rushes, in which figs are imported.

Tappahan'nock, in *Virginia*, a port of entry, cap. of Essex co., 50 m. N.E. of Richmond; *pop.* abt. 500.

Tap'pan Bay, in *New York*, an expansion of the Hudson River, between Rockland and Westchester cos., 12 m. long, and 4 m. wide.

Tap'pantown, in *New York*, a post-village of Rockland co., 130 m. S. of Albany. It was the scene of the execution of Major Andre in 1780.

Tap'pet, *n.* (*Mach.*) A small lever or projection intended to tap or touch lightly something else, with a view to change or regulate motion.

Tap'ping, *n.* The act of one who taps; as, the tapping of a cask of beer.

(*Surg.*) The popular name for the operation known to surgeons as *paracentesis.* It is only performed when it is necessary to relieve some internal organ by drawing off the fluid or water that surrounds and oppresses it, as in dropsies of the chest and belly, and sometimes in cases of water on the brain. In the first two instances an external incision is made through the cuticle, either in the central line of the abdomen, or along the upper margin of one of the ribs, when an instrument like a small bayonet, covered with a silver tube, called a trochar and cannula, is thrust into the cavity; the trochar is then withdrawn, leaving the tube or cannula in the wound, through which the fluid flows into a vessel held to receive it.

Tap'-room, *n.* A room in a tavern, in which beer is served from the tap.

Tap'-root, *n.* (*Bot.*) The main root of a plant, which strikes perpendicularly into the soil.

Tap'-rooted, *a.* (*Bot.*) Having a large, simple, conical root, which forms a centre round which the divisions are arranged.

Tap'ster, *n.* [A. S. *täppare,* a butler.] A drawer of ale or other liquor; one who serves liquor in a tap or tap-room.

Taptee, (*tap-te',*) a river of India, rising near Baitool, in the centre of the peninsula, and entering the Gulf of Cambay near Surat.

Ta'qua-nut, *n.* (*Bot.*) The fruit of the *Phytelephos macrocarpa.*

Taquari, or TACOARY, (*ta-kwa-ree',*) in Brazil, a river of Matto Grosso, joins the Paraguay River, in Lat. 20° 20′ S., Lon. 58° W., after a W. course of 400 m.

Tar, *n.* [A. S. *tyrwa;* L. Ger. *tar;* Dn. *teer;* Heb. *tsari,* balsam of Gilead.] A dark-brown or black viscid liquid obtained in the destructive distillation of organic matters. There are three principal kinds of tar; *wood tar,* obtained in the manufacture of wood vinegar and wood spirit by the destructive distillation of wood; *Stockholm tar,* largely used in the arts, as in ship-building, &c., which is obtained by a rude distillatio per descensum of the roots and other useless parts of the resinous pine; and *coal tar,* obtained during the destructive distillation of coal in the manufacture of coal-gas. The tars are extremely complex mixtures. Wood tar yields, on repeated fractional distillations, paraffin, eupion, picamar, kapnomor, cedriret, and creosote. The residue left in the retort constitutes pitch, and from it the two hydrocarbons chryson and pyren have been obtained. Coal tar by distillation furnishes carbolic acid or phenol; cresylic alcohol; xylylic alcohol; the liquid hydrocarbons benzol, tolnol, xylol, cumol, and cymol; the solid hydrocarbons naphthalin, paranaphthalin, and paraffin; rosolic and brunolic acids; and the basic compounds aniline, cespitine, pyridine, picoline, lutidine, collidine, parvoline, coridine, rubidine, viridine, leucoline, cryptidine and pyrrol.

—A sailor, so called from his tarred clothes. (Colloq.)

—*v. a.* (*imp.* and *pp.* TARRED.) (*tärd.*) To smear with tar.

Tara, (*tā'ra.*) a parish of Ireland, in the co. of Meath, Leinster, 2 miles from Skreen. *Pop.* 422. The hill of this name was, in remote antiquity, a principal seat of the Irish kings.

Tara, a town of Siberia, govt. of Tobolsk, on the Irtish, 135 m. from Omsk; *pop.* 5,000.

Tarancon, (*ta-ran'kone,*) a town of Spain, prov. of Toledo, 42 m. from Madrid; *pop.* 5,500.

Tarantella, *n.* [It.] A swift, delirious sort of Italian dance in whirling six-eight measure.

Tar'antism, Tarantis'mus, *n.* (*Med.*) A feigned or imaginary disease in Apulia, characterized by excessive avidity for dancing at the sound of instruments, which was ascribed by the vulgar to the bite of the tarantula. The gesticulations, contortions, and cries, which were the accompaniment of the dance, somewhat resembled those observed in St. Vitus' Dance, and other epidemic nervous diseases of the Middle Ages, with which *T.* was contemporaneous.

Taran'to, (anc. *Tarentum,*) a town of S. Italy, prov. of Terra d'Otranto, situated on a rocky islet, formerly an isthmus between the *Mare Piccolo* (Little Sea), an extensive harbor on the E. or landward side of the town, and the *Mare Grande* (Great Sea), or *Gulf of Taranto,* on the W. The natural channel between the two seas has been spanned by a long bridge of seven arches, rendering the Maro Piccolo quite useless as a harbor, and forcing ships to anchor in the outer roads, which are much exposed to the S. and S.W. winds. *T.* has manufactures of velvets, linens, and cottons, but little commerce. The Mare Piccolo, however, is still famous (as of yore) for its immense abundance of shell-fish, and a large portion of the pop. derives its subsistence from the oyster and mussel fisheries. *Tarentum* was founded abt. 700 B. C., by colonists from Sparta. It was long a wealthy seat of commerce; but being reduced by the Romans in 209 B. C., it never recovered its importance. *Pop.* 27,546.

Taran'tula, *n.* [It. *tarantola;* Fr. *tarentule.*] (*Zoöl.*) A species of spider (*Lycosa tarentula*), fam. *Arancidæ.* The *T.* is a native of the south of Europe. Its bite is extremely venomous, and is equal, in the severity of the pain it inflicts, to the sting of a wasp. It lives on the ground, generally under stones or in holes in the earth, and does not construct regular webs to catch its prey, but lies in wait for it, or issues forth on predatory excursions, rushing back to its hole when it has secured it.

Tarare, (*tā-rär',*) a manufacturing town of France, dept. Rhone, at the foot of Mont Tarare, one of the highest summits of the Beaujolais range, 21 m. N.W. of Lyon. The muslins of *T.* are famous for their fineness. *Pop.* 9,712.

Tarascon, (*tā-rās'kōn.*) a town of France, dept. Bouches-du-Rhoue, on the Rhone, 13 m. S.W. of Avignou: *pop.* 12,424.

Tarax'acum, *n.* [Gr. *tarasso,* I change, from its supposed effects on the blood.] (*Bot.*) A genus of plants, order *Asteraceæ. T. officinale* is the common Dandelion. The root of this plant is very extensively employed as a medicinal agent, and is believed to possess aperient, diuretic, and alterative properties. It contains a bitter crystalline principle, to which it seems to owe its medicinal power. The bright yellow flowers of this plant open in the morning between five and six o'clock, and close in the evening between eight and nine — hence, this was one of the plants selected by Linnæus to form his floral clock.

Tar'borough, in *North Carolina,* a post-village, cap. of Edgecomb co., 76 m. E. of Raleigh.

Tarazona, (*ta-ra-thō'na,*) two towns in Spain. 1. On the Queiles, 50 m. from Saragossa. *Manuf.* Leather and coarse woollen caps. *Pop.* 6,000. — 2. In the prov. of Albacete. *Manuf.* Printed cottons and handkerchiefs. *Pop.* 6,500.

Tarbes, (*tarb,*) a town of France, cap. of the dept. of the Hautes Pyrénées, on the Adour, 25 m. from Pau. It is the seat of an active general trade.

Tar'digrades, Tar'digrada, *n. pl.* [Lat. *tardus,* slow, *gradior,* I march.] A family of edentate Mammals, comprising those which are remarkable for the slowness of their motions when upon the ground, as the sloths.

Tar'dily, *adv.* Slowly; with slow pace or motion.

Tar'diness, *n.* The state or quality of being tardy.

Tar'do, *n.* [It., slow.] (*Mus.*) A term denoting that the movement to which it is affixed is to be performed slowly. It is nearly the same in signification as *largo.*

Tar'dy, *a.* (*comp.* TARDIER; *superl.* TARDIEST.) [Fr. *tardif.*] Slow; moving with slow or hesitating pace or motion. — Lato; dilatory; behindhand; as, a person *tardy* in his payments.

Tar'dy-gaited, *a.* Slow-paced.

Tare, *n.* [From A. S. *tirian, tyrigan,* to vex, to consume.] (*Bot.*) The common name of *Ervum hirsutum,* and other species of the genus ERVUM, *q. v.*

—[Fr.; It. and Sp. *tara.*] (*Com.*) A deduction made from the weight of goods by taking into account the weight of the packing. It is said to be *real,* when the true weight of each a packing is estimated; *average,* when a few similar cases are taken, and the average estimated as equal on all the cases; *customary,* when a uniform weight is taken as the rule of the place. The allowance of *tret* is a fixed one, being 4 lbs. for every 104 lbs., in goods which are liable to lose from dust, refuse, &c.

Tar'get, *n.* [A. S. *targ.*] A large, round shield; a mark to shoot at.

Tar'geted, *a.* Furnished or armed with a target.

Tar'gum, *n.* [Chal.] The name given to the Chaldee, or more properly Aramaic, version of the Old Testament.

Tar'gumist, *n.* The writer or expounder of a targum.

Tarifa, (*ta-re'fa,*) a town of Spain, on the N. side of the Straits of Gibraltar, and 15 m. from Gibraltar. It is defended by an old castle, built by the Moors. *Pop.* 8,643.

Tar'iff, *n.* [It. *tariffa;* Fr. *tarif;* Sp. *tarifa.*] (*Com.*) A table giving the various duties, drawbacks, bounties, &c., charged or allowed on the importation or exportation of various articles.

—*v. a.* To form a list of duties upon. (R.)

Tar'iffville, in *Connecticut,* a post-village of Hartford co., 45 m. N.E. of New Haven.

Tarija, or **Tarisa,** a town of Bolivia, cap. of a dept. of same name, bordering on the Argentine Republic. It is situated 80 m. S.E. of Cinti; *pop.* 2,500.

Tarkeo, or TARKIO, in *Iowa,* a post-vill. and township of Page co., abt. 11 m. W. of Clarinda.

Tarkeo River, rises in Montgomery co., Iowa, and flowing S., enters the Missouri River in Holt co.

Tarki, (*tar'ke,*) a town of the Russian dominions, in Transcaucasia, on the W. coast of the Caspian, 70 m. from Derbend; *pop.* 8,700.

Tarklin Creek, in *New Jersey,* flows into the Delaware Bay from Cumberland co.

Tar'latan, *n.* A kind of thin, gauzy muslin, used for ladies' dresses, &c.

Tarl'ton, in *Ohio,* a post-village of Pickaway co., 35 m. S.S.E. of Columbus.

Tar'ma, a town of Peru, dept. and 25 m. S. of Jumin; *pop.* abt. 8,000.

Tarn, *n.* A mountain, lake, or pool; a bog; a fen; a marsh.

Tarn, in France, a river which rises in Mount Lozère, and after a course of 220 m., joins the Garonne, 3 m. from Moissac. — A dept., formed of a part of the old province of Upper Languedoc, and adjacent to the departments of the Aveyron and Upper Garonne. *Area,* 2,234 sq. m. *Desc.* Mountainous in the S.E., being traversed by branches of the Cevennes; in the other parts exhibiting a succession of undulating hills, interspersed with beautiful plains. *Rivers.* The Agout, Aveyron, and Tarn. *Pro.* All the usual cerealia, with various fruits. Cattle and sheep are extensively reared, and coal is worked. *Manuf.* The principal are woollens and cottons, *Pop.* 355,513.

Tarn-et-Garonne, a department in the S. of France, formed of portions of the old province Guienne, and surrounded by the departments Gers, Lot, and Lot and Garonne. *Area,* 1,466 sq. m. *Desc.* Fertile in the plains; but generally exhibiting an undulating surface. *Rivers.* The Garonne, Tarn, and Aveyron. *Pro.* Wheat, barley, maize, hemp, flax, wines, chestnuts, and several fruits of a southern climate, as almonds and figs. Horses and mules are also extensively reared. *Manuf.* Unimportant. *Pop.* 228,969.

Tar'nopol, a town of Austrian Poland, on the river Sered, 70 m. from Lemberg: *pop.* 18,000.

Tar'nish, *v. a.* [Fr. *ternir.*] To sully; to diminish, deteriorate, or destroy the lustre or brightness of; as, to *tarnish* silver plate, to *tarnish* gilding by exposure to damp. — To lessen, impair, or destroy the purity of; as, a woman of *tarnished* reputation.

—*v. n.* To become impaired in lustre or sheen; to present a dull or dead appearance; as, steel will *tarnish* by corrosion.

—*n.* A spot; a stain; a blot; a blemish; state of being tarnished.

Tar'nisher, *n.* One who, or that which, tarnishes.

Tar'nishing, *n.* The act of one who, or that which, tarnishes, or the state of being tarnished. — A process of giving gold or silver a pale or dim cast, without either polishing or burnishing it.

Ta'ro, a river of N. Italy, which, after a course of 65 m., falls into the Po, 6 m. from Casal-Maggiore.

Tarpau'lin, Tarpau'ling, Tarpaw'ling, *n.* A piece of canvas covered with tar or composition, to render it water-proof, used to cover the hatches of a ship, hammocks, boats, &c.—A hat covered with painted or tarred cloth, worn by sailors and others. — Hence, by implication, a sailor; a seaman; a tar.

Tar'peian Rock. (*Rom. Hist.*) According to the legend, Tarpeia, the daughter of the governor of the citadel of Rome, surrendered it to the Sabines, who were advancing against Romulus (B. C. 722) to avenge the abduction of the Sabine virgins—on condition of receiving the gold bracelets they wore upon their left arms. Titus Tatius, the Sabine king, to punish her perfidy, as he entered the gates, cast not only his bracelet, but his shield upon her. This example was followed by his soldiers, and Tarpeia was crushed to death. Tarpeia was hurled in the capitol, and the rock, from which traitors were afterwards hurled, received her name.

Tarqui'nius, surnamed PRISCUS, or TARQUIN THE ELDER, fifth *mythical* king of Rome, was the son of Greek parents, and B. in the town of Tarquinii, in Etruria, succeeding Ancus Martius, 614 B. C. He had, according to the legends, a long and prosperous reign, and had reached his 80th year, when he was assassinated by the sons of his predecessor, B. C. 576. To *T.* Priscus are attributed several changes in the constitution, the construction of the Cloaca Maxima, and the building of the Forum.

TARQUI'NIUS, surnamed SUPERBUS, or TARQUIN THE PROUD, seventh and last *mythical* king of Rome, grandson of the preceding, obtained the throne by the murder of Servius Tullius, whose daughter, Tullia, he had married, and rendered himself odious to the Romans by his pride and cruelty. He appears also in the legends as a successful warrior, strengthening and extending the influence of Rome. The rape of Lucretia, by his son, Sextus Tarquinius, is represented as the immediate occasion of the revolution which put an end to the monarchy, and established the republic of Rome, about 507 B. C.

Tar'rago'na, a seaport-town of Spain, in Catalonia, near the mouth of the River Francoli, in the Mediterranean, 52 m. from Barcelona. *Manuf.* Soap, spirits, coarse cloth, hats, &c.

Tar'rakai, (Bay of,) a port of the Sea of Japan, dividing the island of Saghalien from Mauchooria. It is 400 m. long, with a breadth varying between 50 and 200.

Tar'rant, in *Texas*, a N. co.; *area*, 900 sq m. *Rivers.* W. Fork of Trinity river, Clear Fork, and Mary's creek. *Surface*, mostly prairies; *soil*, fertile. *Cap.* Fort Worth. *Pop.* (1897) 49,490.—A village, former cap. of Hopkins co., 300 m. N. E. of Austin.

Tarra'sa, a town of Spain, in Catalouia, 15 miles from Barcelona. *Pop.* 6,000.

Tarrega (*tar-rai'ga*), a town of Spain, in Catalonia, 7 m. from Cervara. *Pop.* 4,500.

Tarren'tum, in *Pennsylvania*, a post-borough of Allegheny co. See TARENTUM.

Tar'rianee, *n.* [From *tarry.*] Act of tarrying.

Tar'rier, *n.* One who tarries or delays.

Tar'rock, *n.* (*Zoöl.*) The young of the Kittiwake. See LARIDÆ.

Tar'ry, *v. n.* (*imp.* and *pp.* TARRIED, *tăr'rid.*) [Fr. *tarder*, to stay, from Lat. *tardus*, slow.] To loiter; to stay behind; to hold back; to remain in arrear. — To delay; to defer; to procrastinate; to dilly-dally; to put off going or coming. — To stay; to dwell; to abide; to lodge or remain in a place. —(This word is seldom used except in composition.)

—*v. a.* To wait or remain for; to stay or stop for; as, "He plodded on his way, *tarrying* no further question."

—*n.* Stay; stop; hesitation; halt; delay; procrastination.

—*a.* [From *tar.*] Consisting of, covered with, or resembling, tar; as, a *tarry* rope.

Tar'rytown, in *New York*, a post-village of Westchester co., 27 m. N. of New York.

Tarse, *n.* (*Anat.*) The TARSUS, *q. v.*

Tarsh'ish, a name frequently mentioned in Scripture, and which, in some passages, seems identical with *Tartessus*, a city and emporium of the Phœnicians in Spain, somewhere near the mouth of the Guadalquivir; while in others it seems used as a general expression applicable to all the distant shores of Europe.

Tar'sier, *n.* (*Zoöl.*) The English of *Tarsius*, a genus of Quadrumanous Mammalia, belonging to the *Lemuridæ*, and inhabiting the Moluccas. They have the tarsi elongated, which gives to their limbs a disproportionate extent; tail very long; large membranous ears; and great eyes, which indicate a nocturnal life. They feed chiefly on lizards; hold their prey in their fore arms, while they rest on their haunches; produce one young at a birth, and live in pairs.

Fig. 2470.
TARSIUS BANCANUS.

Tarsorraphy, *n.* [Gr. *tarsos*, the sole of the foot, and *raphē*, a suture.] (*Surg.*) An operation for diminishing the size of the opening between the eyelids when it is enlarged by surrounding cicatrices.

Tarsot'omy, *n.* [Gr. *tarsos*, and *tomē*, a cutting.] (*Surg.*) The section or removal of the tarsal cartilages.

Tar'sus, *n.*; *pl.* TARSI. [Lat.] (*Anat.*) The ankle, or the seven bones which constitute that portion of the lower extremity. The tarsus, or ankle-joint, connects the *tibia* and *fibula*, or bones of the leg, with those of the foot or *metatarsus*.

Tar'sus, or **Tar'sous,** a city of Asia Minor, on the River Cydnus, 18 m. from Adana. Its antiquity is great, as it is said both by Arrian and Strabo to have been founded by Sardanapalus. It was much favored by Augustus, as well as Adrian, and rose to such celebrity as to rival in wealth and grandeur, as well as in the cultivation of literature and science, Athens, Antioch, and Alexandria. Hardly a single inscription, or monument of beauty or art, can be now discovered. The port is abt. 7 or 8 m. distant from the town. *Pop.* Estimated at 30,000 in winter, and scarcely 7,000 in summer, a large part of the people repairing to the highlands of the interior during the excessive heat of summer. It is the birthplace of St. Paul, of the philosopher Athenodorus, and the Stoic Antipater.

Tart, *a.* [A. S. *teart.*] Acidulous; sharp or poignant to the taste; as, a *tart* fruit. — Cutting; sharp; severe; incisive; pungent; as, a *tart* rebuke.

—*n.* [O. Fr. *tarte*; Swed. *tart.*] A species of pie or pastry, consisting of fruit or preserves, baked in a covering of paste; as, an apple-*tart*, a jam-*tart*.

Tar'tan, *n.* [Fr. *tiretaine.*] Cloth woven in colors, originally of wool or silk; — specifically, woollen cloth, checkered or cross-barred with threads of various colors; as, Scottish *tartan*.

Tar'tan, Tar'tane, *n.* [Fr. *tartane*, from Ar. *tarrad*, a fast-sailing vessel.] (*Naut.*) A small coasting vessel of the Mediterranean, with one mast, a bowsprit, and a latcen sail.

Tar'tar, *n.* [Fr. *tartre.*] (*Chem.*) A whitish crust deposited from wines upon the inside of the casks in which they are stored. It consists essentially of the sparingly soluble bitartrate of potash. When purified, it crystallizes in oblique rhombic prisms of snowy whiteness, forming ordinary cream of *T.* Crude *T.*, or argol, forms the chief source of tartaric acid. — Also, a salivary concretion which forms an incrustation upon the teeth. According to Berzelius, it consists of salivary mucus, 13·5; animal matter soluble in muriatic acid, 7·5; earthy phosphate of lime, 79·0 = 100.

—A person of a bitter, irritable temper; especially, an irascible domineering woman; as, that man who marries a *tartar* is to be profoundly pitied.

(*Geog.*) See TARTARS. (Also written *Tatar.*)

To catch a Tartar, to encounter an antagonist who proves to be more than one's match in strength or cunning.

Tartar emetic. (*Med.*) So called because prepared by acting on the oxide of antimony by means of tartrate of potash. It is very largely used as an internal remedy in cases of pulmonary disease; as a counter-irritant, either to produce redness and heat, or excite successive crops of small pustules or blisters, in which cases it is employed in the form of an ointment, the strength depending on the quickness with which the effect is desired.

Tarta'rean, Tarta'reous, *a.* Pertaining or relating to Tartarus; hence, hellish; infernal; as, the *Tartarean* shades.

Tarta'reau, *a.* (*Geog.*) Belonging or having reference to Tartary.

Tartareous, (*tar-tā're-ŭs,*) *a.* Consisting of, or resembling, tartar.

(*Bot.*) Presenting a rough and crumbled surface, as certain lichens.

Tartar'ic Acid, *n.* (*Chem.*) An organic acid obtained principally from the crude tartar formed on the insides of the casks in which wine is stored. It also occurs in the berries of the tamarind and of the mountain ash. In order to prepare the acid, the crude tartar, which consists mainly of bitartrate of potash, is dissolved in boiling water, and chalk is added until effervescence ceases. Insoluble tartrate of lime is precipitated, and neutral tartrate of potash remains dissolved. The tartrate of potash remaining in solution is then decomposed into tartrate of lime and chloride of potassium, by chloride of calcium. The product of the two operations is well washed and digested with dilute oil of vitriol at a gentle heat. The *T. A.* is thus set free, insoluble sulphate of lime being thrown down. When cool, the liquid is filtered, evaporated in leaden vessels to the consistence of syrup, and allowed to crystallize, the formation of the crystals being favored by the presence of sulphuric acid. The acid thus obtained crystallizes in large colorless transparent rhombic prisms, which are permanent in dry air. *T. A.* dissolves readily in water, alcohol, and wood spirit. It is much used in dyeing and in medicine. *T. A.* is a dibasic, and exhibits a strong tendency to form double salts, of which there are several varieties. The most important salts of this acid are the following:— *Bitartrate of Potash*, or pure cream of tartar. It is sparingly soluble in cold water, requiring about 180 times its own weight for solution. It is used in medicine as an aperient, and when heated to redness in a covered crucible, it forms the mixture of carbon and carbonate of potash known in the laboratory as *black flux*. Calcined with twice its weight of water, it forms *white flux*. In its impure state it forms the chief source of *T. A.* Its composition may be represented by the formula $KO.HO.C_8H_4O_{10}$. The equivalent of basic water may be replaced by different bases; such as soda, sesquioxide of iron, and teroxide of antimony. *Tartrate of potash and soda*, or *Rochelle salt*, forms large hexagonal prismatic crystals. It is much used in medicine as an aperient. The double tartrates of iron and potash, and of iron and ammonia, are also used for the same purpose. *Tartrate of potash* and *antimony*, or tartar emetic, has long been extensively used in medicine. It may be prepared by mixing three parts of teroxide of antimony with four parts of cream of tartar, into a thin paste, with water, and allowing it to digest for several hours. It is then boiled with water, filtered while hot, and allowed to crystallize. Internally administered in doses of two or three grains, it acts as a powerful emetic; in doses of one grain and under, as a sedative and expectorant. It is very much prescribed in a great variety of diseases. A compound, similar in character to tartar emetic, may be formed with arsenious acid. Boracic acid will also replace the equivalent of water in the bitartrate of potash; thus acting as a pseudo-base. It forms the borotartrate of potash, a soluble tartar used in medicine as a purgative.

Tar'tarous, *a.* Consisting of tartar, or partaking of its qualities; containing tartar.

Tar'tars, or Ta'tars, *n. pl.* (*Hist.*) The *T.* were a tribe nearly allied to the Mongols in race, but their name became afterwards synonymous with that of the Mongols, and came to be extended to all the tribes brought under Mongolic sway by Genghis Khan and his successors, including Tungusic and Turkic races. The term is therefore not to be considered as ethnological, though all, or almost all, the peoples included under it, in its widest sense, belong to the Turanian family, but is rather to be understood in the same sense as the term "Frank" used by Mohammedans. In the classification of languages, Tartaric has become the distinctive name of that class of Turanian languages of which the Turkish is the most prominent member, while the Mongolic form a separate class.

Tartary, or **Tatary,** (*tar'ta-re.*) By this name is understood a vast extent of country comprising the great central belt of Asia, from the Caspian Sea to the Eastern Ocean, including a large region of Persia, Thibet, China, and Mongolia, and may be said to extend from 35° to 55° N. Lat., and from 53° to 135° E. Lon. Tartary, however, is now usually divided for convenience into East and West Tartary. Western Tartary appertains, by conquest, almost exclusively to Russia, and extends from the Black to the Caspian Seas, that portion to the east of Mount Imaus, or Belur, being taken as Independent Tartary. Eastern Tartary belongs almost entirely to China, or is tributary to that empire, and is divided into three provinces — Teitcicar, Kirin, and Leaotong. In a more restricted and proper sense, Tartary is identical with Turkistan.

Fig. 2471.
COSTUME OF KHOONDOOZ, (In Independent Tartary, or Turkistan.)

Tar'tarus, *n.* [Lat., from Gr. *tartaros*, a dark abyss.] (*Myth.*) The name of the infernal regions over which Pluto ruled; Hades.

Tartini, GUISEPPE, (*tar-tē'ne,*) a celebrated Italian musician, B. at Pisano, 1692, who became so excellent a performer on the violin that he was appointed master of the band in the Church of St. Anthony, at Padua. His works are sonatas, and a treatise on music, which was translated into English by Stillingfleet. D. 1770.

Tart'ish, *a.* [From *tart.*] Somewhat tart; as, a *tartish* taste.

Tart'let, *n.* A small tart containing fruit or jam.

Tart'ly, *adv.* Sharply; with acidity; with poignancy; severely; with sourness of aspect; in a tart manner.

Tart'ness, *n.* Quality of being tart; acidity; sharpness to the taste; also, sharpness of language or manner; sourness; keenness; poignancy; acrimony; asperity; as, *tartness* of temper.

Tar'trate, *n.* (*Chem.*) See TARTARIC ACID.

Tar'tro-vin'ic, *a.* [From Lat. *tartarum*, tartar, and *vinum*, wine.] (*Chem.*) Pertaining or relating to, or designating, a certain acid.

Tartro-vinic acid. (*Chem.*) An acid composed of tartaric acid, in which an atom of water has been replaced by oxide of ethyl.

Tartuffe', *n.* [Derived from the name of the celebrated comedy of Molière.] A nickname for an hypocritical pretender to devotion.

Tartuff'ism, (*-ĭzm,*) *n.* The practice of tartuffes.

Tar'-water, *n.* A cold infusion of tar in water, formerly a celebrated remedy for many chronic affections. — Also, the ammoniacal water of gas-works.

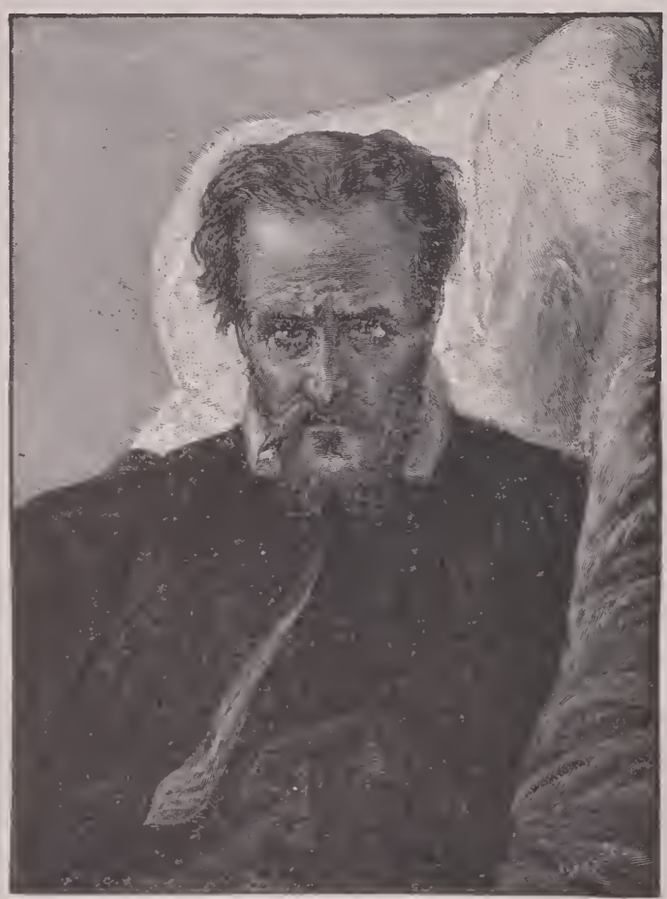
Task, *n.* [O. Fr. *tasche*: Fr. *tâche*, a task, duty; Lat. *taxatis*, a rating, valuing.] A definite amount of work or labor imposed by another, to be in a limited or specified time; as, the *task* of daily toil. — Business; undertaking; employment; occupation.

"His mental powers were equal to greater *tasks*."—*Atterbury.*

—Arduous or burdensome labor or employment; as, the herculean *task* of subjugating a brave and patriotic people. — A lesson; an allotted portion of study imposed by a teacher or preceptor; as, to set each boy his *task*.

To take to task. To chide; to reprove; to reprimand; to charge with a fault; as, to *take* a servant *to task* for dilatoriness.

—*v. a.* [O. Fr. *tascher.*] To allot or assign to a definite or specified amount of labor or employment; as, to *task* a servant. — To exact an excessive amount of toil or



Torquato Tasso

1544–1595

exertion from; to oppress with severe or burdensome labor; as, his energies were *tasked* to the utmost.

Task'er, *n.* One who imposes a task; a task-master; also, one who performs a task.

Task'-master, *n.* One who imposes a task.

Task'-work, *n.* Work done as a task.

Tas'man, ABEL JANSSEN, a celebrated Dutch navigator, who flourished in the 17th cent. He was commissioned by Anthony Van Diemen to explore the coast of the Australian continent, sailed from Batavia in 1642, and first discovered a land which he called Van Diemen, and afterwards the country now called New Zealand.

Tasma'nia. See VAN DIEMEN'S LAND.

Tas'se, *n.* [Fr.; It. *tazza.*] A cup or bowl; a chalice.

Tas'sel, *n.* [L. Lat. *tassellæ,* knots made of gold and silk, of many folds, hanging from the corners of garments.] A sort of pendent ornament, attached to the corners of cushions, to curtains, and the like, ending in loose threads. — A small ribbon of silk sewed to a book, to be put between the leaves as a marker. — The pendent head of some plants, as of maize. — A teasel. See TEASEL.

—*v. n.* (*imp.* and *pp.* TASSELLED,) (*tăs'seld.*) To put forth a tassel or flower, as the maize.

—*v. a.* To adorn or equip with tassels; as, to *tassel* a cap.

Tassinong', or TASSINONG GROVE, in *Indiana,* a post-village of Porter co., abt. 10 m. S.E. of Valparaiso.

Tas'so, TORQUATO, one of the greatest poets of modern Italy, was the son of Bernardo Tasso, himself a good poet, and was B. at Sorrento, 1544. He studied law at the University of Padua, but had no heart for it, and vexed his father by liking poetry better and writing it. After being for some years in the service of Cardinal Luigi d'Este, by whom he was introduced at the court of Alfonso, duke of Ferrara, brother of the cardinal, he entered the service of Alfonso, who admired his poetical compositions, and made him his familiar associate. *T.* the while had fallen in love with the fair Princess Eleonora, the duke's sister, and had addressed to her many love-songs, some of them overpassing the line of delicacy and propriety. The princess remained his friend, but nothing more. It appears probable that Alfonso by some means became possessed of some of *T.*'s verses to Eleonora, and that this was the cause of his subsequent treatment of the poet. The latter, however, was of a very irritable temper, and on some occasions did not restrain himself from passionate and offensive outbreaks. On one such occasion, in 1577, the duke had him arrested and confined in a convent, alleging that he was mad; but *T.* made his escape, and visited Sorrento and Rome. He soon after begged and obtained

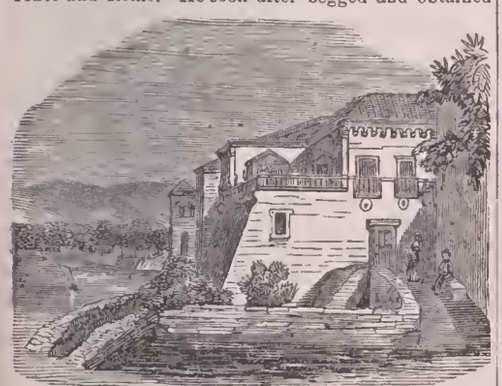


Fig. 2472. — HOME OF TASSO.

leave of the duke to return to Ferrara; but it was on condition of submitting to the rules of the physicians; and he was not permitted to see the princess. Again he left Ferrara, went to Mantua, Urbino, and Turin, but was induced to return early in 1579. His demeanor was so violent that he was once more arrested and confined in a madhouse, where after a time he appears to have been kindly treated, and was allowed to write and receive the visits of his friends. Among those who came to see him were Montaigne, the great French essayist, and the younger Aldo, one of the famous printers. Through the intercession of several sovereigns, the pope, the emperor, the duke of Mantua, and the grand-duke of Tuscany, on his behalf, he was liberated in 1586, and went first to the court of Mantua. He could not rest, but moved from place to place, now at Naples, now at Rome, then at Florence; and in 1594 he was called to Rome, to receive at the hands of Pope Clement VIII. the laurel-crown. But soon after his arrival he fell ill, and by his own desire was removed to the monastery of St. Onofrio, where he died. *T.*'s master-piece is the *Gerusalemme Liberata,* an epic poem in 24 books, on the events of the great Crusade and the recovery of Jerusalem from the Saracens. It was published in 1581; and the savage attacks made on it by the critics wounded the sensitive poet severely. It nevertheless won immense admiration, passed through seven editions within the first year, and took its place among the great poems of the world. It is constantly reprinted, and has been translated into almost all the languages of Europe. Among his other works, which are very numerous, are *Rinaldo* (his earliest poem), *Aminta* (an exquisite pastoral drama), *Il Torrismondo* (a tragedy), many short poems, dialogues, and other prose pieces. D. at Rome, April 25, 1595.

Tast'able, *a.* [From *taste.*] That may be tasted; savory; relishing.

Taste, (*taist,*) *v. a.* [O. Fr. *taster,* to taste, also to handle, to feel; It. *tastare,* to touch.] To perceive and distinguish by causing to touch the palate; to perceive by means of the tongue; to have a certain sensation in consequence of something applied to the tongue; to try the relish of by the perception of the organs of taste; as, to *taste* honey. — To try by eating a little of, or to eat a little. — To essay first; to experience; to feel; to undergo; as, to *taste* the fear of death. — To relish intellectually; to enjoy; to derive pleasure from; as, to *taste* domestic happiness.

—*v. n.* To try by the mouth; to eat or drink; or to eat or drink a little only; to have a smack; to excite a particular sensation by which the quality or flavor is distinguished; followed by *of;* as, this wine *tastes of* the wood. — To distinguish intellectually; to try the relish of anything; to be tinctured; to have a particular quality or character; to experience; to have perception of; as, he *tastes* of my bounty. — To take for gratification; to enjoy sparingly; as, one *tastes* of pleasure in moderation.

—*n.* Act of tasting; gustation.

(*Physiol.*) One of the five special senses by which are perceived certain impressions made by particles of bodies, dissolved by the saliva in the mouth. The object clearly is to take cognizance of matters about to be swallowed, and to act as sentinels to the alimentary canal, at the entrance of which they are situated. The *T.* of bodies are very different and varied; but in order to have a *T.*, a substance must be either liquid or soluble in the mouth. The organ of *T.* is the tongue, and the seat of sensibility is the mucous covering of its surface. It is dependent on the lingual branch of the fifth, and the glosso-pharyngeal nerves, — the former distributed to the two anterior thirds, and the latter to the posterior third of the tongue. This organ is covered over with minute prominences, which, when magnified, present four principal forms; viz., 1. Simple papillæ; 2. Conical or filiform papillæ; 3. Fungiform papillæ; 4. Circumvallate, or calciform papillæ. It is supposed that the two former are more especially concerned in the sense of touch, with which the tongue is also highly endowed; while the two latter, but particularly the last, constitute more especially the apparatus of *T.* Sapid bodies pressed against those papillæ give rise to impressions, which, when transmitted to the brain, occasion the peculiar sensation. The condition for the perception of *T.* are, — 1. The presence of a nerve with special endowments: 2. The irritation of this nerve by the sapid matters; 3. The solution of these matters in the secretions of the organ of *T.* The precise mode in which the nerves of the tongue are stimulated is not understood. This sense is much more acute in some persons than others, and may be much improved by education, as in the case of wine-tasters. It is diminished or lost in febrile or other disorders which alter the condition of the mucous surface of the tongue and mouth. Professor Bain classifies the different kinds of *T.* as follows: — 1. Relishes, or the agreeable feelings arising from the stimulus of food on the organs of mastigation and deglutition, — they are of an intense and massive kind; 2. Disgusts, or the opposite of relishes; 3. Sweet *T.*, as that of sugar; 4. Bitter *T.*, as that of quinine or bitter aloes; 5. Saline, as that of common salt; 6. Alkaline; 7. Sour, or acid; 8. Astringent; 9. Fiery, as that of alcoholic liquors.

(*Æsthetics.*) That faculty of the human mind by which we judge of the beautiful and proper, and distinguish them from the ugly and unsuitable. Much difference of opinion has prevailed respecting the nature of this faculty. By some it has been regarded as the result of caprice or fashion, without any uniform or permanent principles on which to ground its decisions; by others, a compound of various complex elements, in the resolution of which into its component parts several ingenious attempts have been made. It seems, however, to be, as stated by Burke, "a separate faculty of the mind;" "a species of instinct, by which we are struck naturally and at the first glance, without any previous reasoning, with the excellencies and defects of a composition." It is, however, highly susceptible of improvement by being made habitually and attentively conversant with a particular class of agreeable objects. This faculty exercises an important and highly beneficial influence in such a state of society as ours, not only over the pursuits of those who devote themselves to the study of literature and the fine arts, but over the enjoyments of every individual who partakes of the general refinement of manners.

—Style; manner with respect to what is pleasing; as, he dresses in bad *taste.* — A bit; a small portion given or taken as a sample or specimen; a little piece tasted or eaten; as, a *taste* of Gruyère cheese.

Taste'ful, *a.* Tasty; having a high taste or relish; as, a *tasteful* dish. — Having or exhibiting good taste; as, she is *tasteful* in dress.

Taste'fully, *adv.* With good taste.

Taste'fulness, *n.* State or quality of being tasteful.

Taste'less, *a.* Having no taste; insipid; as, *tasteless* food. — Having no power of giving pleasure; as, *tasteless* recreations.

Taste'lessly, *adv.* In a tasteless manner.

Taste'lessness, *n.* Want of taste or relish.

Tast'er, *n.* One who tastes; also, one who first tastes food or liquor; as, a tea-*taster,* a wine-*taster.*

Tast'ily, *adv.* With good taste; in a tasty manner.

Tast'ing, *n.* Act of perceiving by the tongue. — The sense by which we perceive or distinguish savors.

Tas'to, *adv.* [It.] (*Mus.*) A term used in conjunction with *soto,* to signify that the instruments which can accompany by chords are to play only single sounds till the direction is contradicted by the word *accordo* or *accompanimento.*

Tasty, (*tāst'y,*) *a.* (*comp.* TASTIER; *superl.* TASTIEST.) Having a good taste, or delicate perception and appreciation of excellence; — said of persons; as, a *tasty* connoisseur in women or wine. — Elegant; being in harmony with, or conformity to, the principles of good taste and proper fitness; as, a *tasty* selection of pictures.

Tate, in *Ohio,* a township of Clermont co. *Pop.* (1897) about 2,850.

Tat'nall, in *Georgia,* a S.E. co.; *area,* 1,123 sq. m. *Rivers,* Altamaha, Canoochee, and Ohoopee. *Surface,* level; *soil,* sandy, but fertile along the river banks. *Cap.* Reidsville. *Pop.* (1897) 11,140.

Tat'on, Tat'ouay, *n.* (*Zoöl.*) The *Armadillo cabassu.* See ARMADILLO.

Tat'ta, a town of British India, in Sinde, near the banks of the Indus, 57 m. from Hyderabad. *Pop.* abt. 10,000

Tat'ter, *n.* [From A. S. *toteran,* to tear or rend in pieces.] A rag, a shred, or a part torn and hanging to the main body or thing; — chiefly used in the plural; as, a poor wretch in *tatters.*

Tat'tered, *a.* Rent; torn; hanging in rags or shreds.

Tatterdemalion, (*-măl'yun,*) *n.* A man in rags or tatters; a ragamuffin; a wretched, pitiable-looking object.

Tat'ting, *n.* A kind of lace edging woven or knit from common sewing-thread, with a peculiar stitch.

Tat'tle, *v. n.* [A. S. *to-teltan.*] To tell over and over; to speak much or often; to prate; to talk idly; to use many words with little meaning; as, the *tattling* quality of old age. — To tell tales; to communicate secrets; as, a *tattling* busybody.

—*n.* Prate; idle talk or chat; trifling talk; gossip.

Tat'tler, *n.* One who tattles; an idle talker. (*Zoöl.*) The common name of several species of grallatorial birds, family *Scolopacidæ,* belonging to different genera. The Wandering Tattler, *Heteroscelus brevipes,* distinguished by its stout and compressed bill, is about 10 inches long and the wing 6 inches. It inhabits Washington.

Tat'tlery, *n.* Idle talk or chat.

Tat'tling, *a.* Given to idle talk; apt to tell tales.

—*n.* Idle talk; babbling.

Tat'tlingly, *adv.* In a tattling manner.

Tattoo', *n.* [Said to be from Fr. *tapoter,* to tap, to beat; *tapotez tous,* beat all of you.] (*Mil.*) A beat of the drum at night, giving notice to soldiers to retreat, or to repair to their quarters; — opposed to *reveille.* — *Devil's tattoo,* a drumming or tapping with the fingers or feet, as from listlessness, ennui, absence of mind, fatigue, or the like; as, having nothing better to do, he beat the *Devil's tattoo* on the window-pane.

Tattoo', *v. a.* To prick the skin and stain the punctured spots with a colored substance, forming lines and figures upon the body.

—Figures on the body, made by punctures and stains in lines and figures.

Tattoo'ed, *a.* Marked by stained lines and figures on the body; as, the *tattooed* wrist of a sailor.

Tattoo'ing, *n.* The operation or practice of pricking the skin and staining the punctured spots with a colored substance, so as to form lines and figures on the body; the figures thus formed.

Taught, *n.* (*Naut.*) Same as TAUT, *q. v.*

Taught, *imp.* and *pp.* of TEACH, *q. v.*

Taunt, *v. a.* [Fr. *tancer,* to rebuke.] To speak biting words to; to reproach with severe or insulting words; to revile; to upbraid; to exprobate; to censure; as, to *taunt* a man with his low birth.

—Upbraiding words; bitter or sarcastic reproach; insulting invective.

—*a.* (*Naut.*) Very high or towering, as a ship's mast.

Taunt'er, *n.* One who taunts.

Taunt'ing, *n.* The act of one who taunts.

Taunt'ingly, *adv.* In a taunting manner.

Taun'ton, a market-town of England, in Somersetshire, on the river Tone, 10 m. from Bridgewater. *Manuf.* Coarse woollen goods. It is a place of great antiquity, and was the residence of the West-Saxon kings. *Pop.* 15,500.

Taun'ton, in *Massachusetts,* a river which rises in Plymouth co., and flowing S.W. enters Mount Hope Bay in Rhode Island. — A city, port of entry, and semi-cap. of Bristol co., on Taunton river, 35 m. S. of Boston; Lat. 41° 54′ 11″ N., Lon. 71° 5′ 55″ W. It contains extensive manufactures of locomotives, steam-engines, cotton and other machinery, nails, tacks, cotton goods, &c.; also ship-building. *Pop.* (1895) 27,115.

Tau'ric Chersone'sus. The ancient name of the CRIMEA, *q. v.*

Tauricor'nous, *a.* [Lat. *taurus,* bull, and *cornu,* horn.] Horned after the manner of a bull.

Taurida, or KRIM, (*tau're-da,*) a S. govt. of European Russia, consisting in part of the Crimean peninsula, and in part of a tract of mainland; is bounded on the N. by Cherson and Ekaterinoslav, S. and W. by the Black Sea, and E. by the Sea of Azov; *area,* 23,460 sq. m.; between Lat. 44° 30′ and 47° 50′ N., and Lon. 31° 25′ and 40° 25′ E. The principal rivers are the Dnieper, Kouskaia, and Berda. *Pop.* 702,615.

Tau'rine, *n.* [From Gr. *tauros,* bull, because originally found in the bile of the ox.] (*Physiol.*) A crystalline substance obtained by the transformation, under the influence of acids or alkalies, of taurocholalic acid, one of the constituents of bile. It may also be prepared by the action of heat upon isethionate of ammonia.

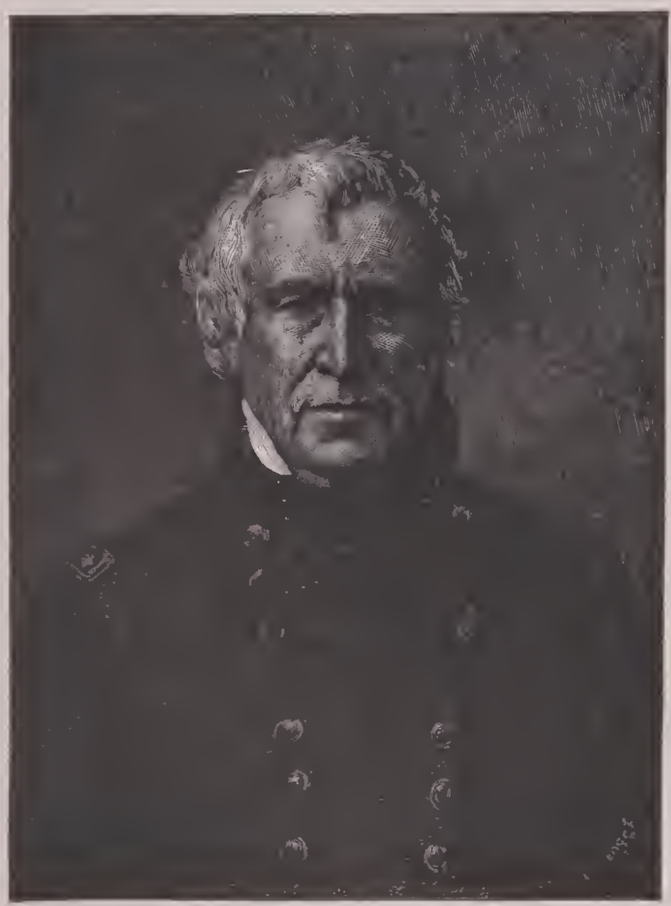
—*a.* Like or pertaining to a bull. — Connected with the constellation *Taurus.*

Tau'rocol, Taurocol'la, *n.* [Gr. *tauros,* and *kolla,* glue.] Glue made from the ears and genitals of a bull.

Tauromachian, (*-mā'ki-an,*) *a.* Pertaining or having reference to bull-fights.
—*n.* A matador; one who engages in bull-fights.
Tauromachy, (*-rom'a-ke,*) *n.* [Gr. *tauros*, bull, and *machē*, fight.] Bull-fighting.
Tau'rus, *n.* [Lat.; Gr. *tauros.*] (*Astron.*) The Bull, the second in order of the 12 zodiacal constellations. It is marked thus, ♉, and contains 141 stars, among which are *Aldebaran*, of the first magnitude, and the well-known clusters called *Pleiades* and *Hyades*. It is entered by the sun in April.
(*Geog.*) A chain of mountains. See NATOLIA.
Tauss, a town of Austrian Bohemia, 80 m. from Prague. *Manuf.* Chiefly, tapes. *Pop.* 6,940.
Tauste, (*tous'tai,*) a town of Spain, in Aragon, on the Rignel, 170 m. from Madrid: *pop.* 4,500.
Taut, (sometimes, but inelegantly, written TAUGHT,) *a.* Tightly drawn, stretched, or strained; — the opposite of *slack*; as, a *taut* rope. Also, neat; ship-shape; properly disposed or ordered; prepared against emergency; as, everything is *taut* aboard.
Tau'tochrone, (*-krōn,*) *n.* [Gr. *tauto*, and *chronos*, time.] (*Math.*) A curved line, having this property that a heavy body descending along it by the action of gravity will always arrive at the lowest point in the same time, wherever the point from which the body begins to fall be taken in the curve.
Tautoegor'ical, *a.* [Gr. *tauton*, for *to auton*, the same, and *agoreiein*, to speak.] Signifying the same word or subject, but expressed in different words, or presented in a different form; — the converse of *allegorical*. (R.)
Tautog', Tautaug', *n.* (*Zoöl.*) See LABRUS.
Tautologic, Tautological, (*-loj'ik,*) *a.* Pertaining or having reference to, or containing, tautology.
Tautol'ogy, *n.* A repetition of the same meaning in different words; needless repetition of a thing in different words or phrases.
Tautophonical, (*-fon'ik-l,*) *a.* [Gr. *tauto*, same, and *phonē*, voice, sound.] Repeating the same sound.
Tautoph'ony, *n.* Repetition of the same sound.
Tavannes, (*ta-van'.*) The name of an ancient family of Burgundy, which has furnished several distinguished personages to French history; the most celebrated being GASPARD DE SAULX DE TAVANNES, a French marshal, and one of the most eminent of their commanders, B. 1509; distinguished in the wars of Italy, and the religious wars ending in the massacre of St. Bartholomew. D. 1573.
Tav'ern, *n.* [Fr. *taverne;* Lat. *taberna.*] A house where wines or other liquors are sold, and entertainment provided for large parties; an inn.
Tavernier, JEAN BAPTISTE, (*ta-vair'ne-ai,*) a celebrated Eastern traveller, B. in Paris 1605, D. at Moscow 1686. He made an immense fortune in trading with diamonds; his *Travels*, published in 6 vols., 1679, are highly valued.
Tavira, or TAVILA (*ta-vee'ra.*) a seaport-town of Portugal, in Algarva, at the mouth of the river Segna, 156 m. from Lisbon: *pop.* 10,903, mostly connected with fisheries.
Tav'istock, a market-town of England, in Devonshire, on the Tavy or Tay, 13 m. from Plymouth; *pop.* 8,700, chiefly agricultural.
Tavoy, (*ta-voi',*) a town of British Burmah, presidency of Bengal, 25 m. from the sea, and 90 from Yeh; *pop.* 11,000.
Taw, *v. a.* [A. S. *tawian.*] To dress or prepare white leather for gloves, &c., by imbuing skins with alum, salt, and other substances.
—*n.* [A. S.] A large marble, used in boy's play; also, a game at marbles.
—*pl.* A whip or rod used by a schoolmaster as an instrument of punishment.
Tawas City, in *Michigan*, a post-village, cap. of Iosco co., on Saginaw Bay, abt. 54 m. N.E. of Bay City.
Taw'drily, *adv.* In a tawdry manner.
Taw'driness, *n.* State of being tawdry.
Taw'dry, *a.* (*comp.* TAWDRIER; *superl.* TAWDRIEST.) Having an excess of showy or tinsel ornaments; very fine and showy in colors without elegance or good taste: as, a *tawdry* costume, a *tawdry* bonnet, dress, &c.
Tawee, (*taw-e',*) an island of the Asiatic Archipelago, off the N.E. extremity of Borneo, and contiguous with the Sooloo-Island chain. *Ext.* 40 miles long, with a breadth of 15.
Taw'er, *n.* One who taws skins.
Taw'ery, *n.* The place where skins are tawed.
Taw'ing, *n.* The art or process of dressing skins. See LEATHER.
Taw'niness, *n.* Quality of being tawny.
Taw'ny, *a.* [Fr. *tanné*, from *tanner*, to tan.] Of a yellowish-brown color; of the color of things tanned, or of persons who are sunburned; as, a *tawny* mulatto, a *tawny* lion.
Tax, (*taks,*) *n.* [Norm. *taxus*, taxes; *taxer*, to settle; Lat. *taxo*, to appraise, from *tag*, root of *tango*, to touch.] A rate or duty levied by government on the incomes or property of individuals, or on the products consumed by them. — Particularly, the sum levied upon a specific thing; a sum imposed on individuals, or on some distinct branch of their property or source of revenue, for state, local, or civic purposes; as, an income-*tax*, a land-*tax*, a capitation-*tax*, a *tax* on watches, carriages, &c. — The produce of such duty or rate placed at the disposal of the national, state, local, or municipal government for the public good; as, revenue derived from the *taxes*. —Hence, any obnoxious, compulsory or burdensome demand, duty, or charge: as, unremitting labor is a heavy *tax* upon health. — Charge; censure.
(*Pol. Economy.*) Taxes are either direct or indirect. "A *direct* tax is one which is demanded from the very persons who it is intended or desired should pay it:" an *indirect* tax, one which is "demanded from one person in the expectation and intention that he shall indemnify himself at the expense of another," as in the excise or customs. Direct taxes are generally on income, indirect on expenditure. Though most governments have had recourse to direct taxes, indirect taxes have generally been viewed with the greatest favor both by princes and subjects. Being generally paid, in the first instance, by the producers, the purchasers confound them with the natural price of the commodity; and hence their effects are not so readily felt and appreciated. They have also the advantage of being paid by degrees, in small portions, and at the time when the commodities are wanted for consumption. Indirect taxes, however, have the disadvantage that they not only increase the price of the articles by their amount, but also, being advanced by the producers before they are finally paid by the consumers, the former must necessarily have a profit upon them. As the income of individuals must be derived from one or more of the three sources of rent, profit, or wages, all taxes which do not fall upon capital, must, however imposed, ultimately fall upon one or other of these sources. — *Taxes on property* are in most respects highly objectionable, differing but little from taxes on capital, about the worst that can possibly be devised. And even though such were not the case, insuperable difficulties attend in the way of establishing it on any fair basis. An *income-tax* is at first sight apparently the fairest of all taxes, but in its practical operation it is the most unequal, oppressive, and vexatious of any that it is possible to imagine. The difficulties in the way of assessing incomes are of two sorts: 1st, the difficulty of ascertaining the incomes of different individuals; and 2d, the difficulty of laying an equal tax on incomes derived from different sources; incomes arising from rents of land, houses, mortgages, funded property, &c., being very different from those arising from trade, business, or profession. Three rules are to be kept in view in the carrying out of an income-tax: 1, that incomes below a certain amount should be altogether untaxed; 2, that incomes above that limit should be taxed only in proportion to the surplus by which they exceed the limit; 3, that all sums saved from income and invested should be exempt from the tax. In providing for the enormous expenditure resulting from the Civil War, the govt. of the U. States was compelled to inaugurate the levying of an income tax.
—*v. a.* (*imp.* and *pp.* TAXED (*takst.*) To subject to pay a tax or taxes; to lay, impose, or assess upon individuals a specific sum; to lay an impost or burden upon; — specifically, to levy money from for the support of national, state, or municipal government; as, are not Americans *taxed* more than enough? — To assess, fix, or determine judicially, as the amount of professional charges on legal actions; as, to *tax* a lawyer's bill of costs. — To censure; to charge; to accuse; — usually preceding *with*, rarely *of:* as, the man was *taxed with* the crime in question. — Figuratively, to strain; to call to task; to exact from; as, to *tax* one's best endeavors.
Taxabil'ity, *n.* State or condition of being taxable.
Taxable, *a.* That may be taxed.
Tax'ableness, *n.* Taxability.
Taxa'ceæ, *n. pl.* (*Bot.*) The Yew family, an order of plants, class *Gymnogens*. DIAG. Repeatedly branched, continuous stems, simple leaves often fork-veined, solitary females, 2-celled anthers opening longitudinally and the membrane next the nucleus inclosed. — There are 9 genera and 50 species, chiefly natives of temperate regions, and of the mountains of tropical countries.
Taxation, (*tăks-ā'shun.*) *n.* [Fr.; Lat. *taxatio.*] A taxing; act of laying or levying a tax, as upon the citizens of a state, by government, local, or other proper authorities for public purposes. — Act of taxing or assessing a bill of costs. — Tax; sum imposed or thing exacted.
Tax'er, *n.* One who assesses or levies taxes.
Tax'-free, *a.* Exempt from the payment of taxes.
Tax'icorn, *n.* [Lat. *taxus*, a yew, and *cornu*, horn.] (*Zoöl.*) One of a family of Coleopterous insects, including those in which the antennæ gradually increase in size as they extend from the head, or terminate in an enlargement.
Taxider'mic, *a.* [Fr. *taxidermique.*] Pertaining or relating to taxidermy.
Taxider'mist, *n.* One skilled in taxidermy.
Tax'idermy, *n.* [Gr. *taxis*, an arrangement, and *derma*, a skin.] The art of preparing and arranging the skins of animals intended for preservation, in such a manner as to represent their natural appearance; operation of stuffing the bodies of dead animals to be kept as curiosities.
Tax'is, *n.* [Gr., a division, an arrangement.] (*Arch.*) That disposition which assigns to every part of a building its just dimensions.
—*n.* [Gr., arrangement.] (*Surg.*) The replacement of parts which have quitted their natural situation, by the hand, and without instrument or operation; as in reducing hernia or rupture.
Taxon'omy, *n.* [Gr. *taxis*, order, and *nomos*, a law.] That branch or department of natural history which treats of the laws and principles of classification.
Taxus, (*taks'us.*) *n.* [Lat.] (*Bot.*) The yew, the typical genus of the order *Taxaceæ*. *T. Baccata*, the common yew, is an evergreen tree, which often attains a great size. Specimens of remarkable antiquity are commonly seen in old churchyards. The timber is extremely durable and valuable, and was formerly much used for making bows. Its leaves and young branches act as narcotic-acrid poisons when eaten by man or the lower animals. *T. Canadensis*, the Dwarf Yew, or Ground Hemlock, is a small, evergreen shrub, with the general aspect of a dwarf hemlock spruce (*Pinus Canadensis.*) It grows on thin, rocky soils in shady places, 2 – 3 feet long, from Canada to Pennsylvania and Kentucky. Leaves nearly an inch long, arranged in 2 opposite rows, on the sides of the branchlets. Staminate flowers in small, roundish, axillary heads. Drupes oval, concave or open at the summit, red and juicy when mature.
Tay, (*tai,*) one of the largest rivers of Scotland, which rises on the frontier of Lorn, in Argyleshire, and after a course from 120 to 150 m., falls into the German Ocean, 8 m. below Dundee.
Tay (Loch), one of the most beautiful of the Scottish Lakes, lies in Breadalbane, Perthshire. *Ext.*, 15 m. long, and from 1 to 2 broad.
Taychee'da, in *Wisconsin*, a post-village and township of Fond du Lac co., on Lake Winnebago, 3 m. E. of Fond du Lac.
Tayge'tus, a part of a lofty ridge of mountains, which, traversing the whole of Laconia from the Arabian frontier, terminates in the sea at the promontory of Tænarus. Its outline, particularly as seen from the N., is of a more serrated form than the other Grecian mountains. In winter it is covered with snow, which renders the vicinity extremely cold. In summer it reflects a powerful heat upon the Spartan plain, from which it keeps the salubrious visits of the W. winds, and thus makes it one of the hottest places in Greece.

Fig. 2473.
VIEW OF MOUNT TAYGETUS FROM THE SITE OF SPARTA.

Taylor, BAYARD, an American author and traveller, B. in Kennett Square, Chester co., Penna., 1825. His first literary production, a poem on an incident in Spanish history, was written when he was eighteen. In 1844 he spent two years in Great Britain and other parts of Europe, and published on his return an account of his travels, entitled *Views Afoot; or, Europe seen with Knapsack and Staff.* Having settled in New York, he became connected with the *Tribune* newspaper, and in 1848-49 was in California, as its correspondent. He has since travelled in the same capacity, visiting Egypt and other parts of the East, Sicily, and Spain, and accompanied the U. States expedition to Japan. The results of these various journeys have been published, under the titles of *El Dorado, Life and Landscapes from Egypt, Pictures of Palestine, Japan, India, and China*, &c. His later explorations are recorded in *Northern Travel, or Summer and Winter Pictures of Sweden, Denmark, and Lapland*, (1856;) and *Travels in Greece and Russia, with an Excursion to Crete*, (1857.) During this most active life of travel, correspondence, and authorship, his best and most spirited writings were in verse. In 1848, he published *Rhymes of Travel, Ballads and other Poems;* in 1851, a *Book of Romances, Lyrics and Songs;* in 1854, *Poems of the Orient;* and in 1855, *Poems of Home and Travel.* In 1859 and 1862, he furnished two series of *At Home and Abroad, or Sketch-book of Life, Scenery, and Men*, and edited a *Cyclopædia of Modern Travel.* In 1878, appointed Minister to Berlin. At the time of his D., Dec. 19th, 1878, he was preparing a life of Goethe.
Taylor, JEREMY, an English prelate, B. at Cambridge, 1613, entered into orders, and became so eminent a preacher, that Archbishop Laud procured him a Fellowship at All Souls' College, Oxford. He was also appointed chaplain to that prelate, and rector of Uppingham, in Rutlandshire. In 1642 he received the degree of doctor of divinity from Charles I., whose chaplain he was, and to whose cause he adhered. After the defeat of the Royalists, he retired to Caermarthenshire, where he taught a school for a livelihood. He afterwards went with Lord Conway to Ireland, where he wrote his *Cases of Conscience.* Charles II., at his restoration, preferred *T.* to the bishopric of Down and Connor. In the same year he became privy councillor and Vice-chancellor of Trinity College, Dublin. Bishop Heber thinks that *J. T.* was removed to a distance from court principally because he had been married to a natural daughter of Charles I., which circumstance might have given the exemplary bishop a plausible pretence for speaking plainly to the king upon many parts of his conduct. Bishop *T.* wrote, among other eloquent works, *The Great Exemplar, or the Life and Death of Jesus Christ; Holy Living and Dying;* and several sermons and controversial and pious treatises. D. 1667. Bishop *T.* was the advocate of toleration, of freedom of thought, of charity, and of practical religion as of more worth than dogmatic strictness. By general consent *T.* assumes



Zachary Taylor

1784–1850

the highest rank among the writers of sermons of the English Church.

Taylor, ZACHARY, the 12th President of the U. States, was B. in Orange co., Va., in 1784. His father, Col. Richard Taylor, the representative of an old Virginian stock, removing to Kentucky while his son was yet an infant, young Zack grew up to manhood in that State, and at the age of 24 was appointed first lieutenant in the 7th U. S. infantry; becoming a captain in 1810. *T.*, two years later, was placed in command of Fort Harrison, a frontier post on the Wabash River, which he successfully defended against a large force of hostile Indians. For his services on this occasion, *T.* was made major by brevet, being the first instance in the service of this species of promotion. In 1814, he commanded an expedition against the British and their Indian allies on Rock River, where he fought an indecisive action against a superior force of the enemy. In 1832, he was promoted to the grade of colonel, and in the following year served in the Black Hawk war. In 1837, *T.* defeated the Seminoles in the desperate battle of Okechobee, which terminated the war. Promoted for this affair to the rank of brig.-general by brevet, he, in 1840, was appointed to the command of the army of the North-west. Six years later, he was sent at the head of a force of about 4,000 men, to protect Texas from Mexican invasion, and on the 5th of May, 1846, defeated, at Palo Alto, a Mexican force of 6,000 men commanded by General Arista. The latter retreated to Resaca de la Palma, where they assumed a position which was taken on the following day by *T.*, who, after a severe battle, drove the Mexicans across the Rio Grande. The fall of Matamoras followed, and on the 19th of Sept., *T.* attacked Monterey, defended by a strong Mexican force, which capitulated after three days obstinate fighting. On the 22d of February, Taylor defeated Santa-Anna in a hard-fought battle at Buena Vista. He received from his soldiers the familiar name of "Rough and Ready." Elected President of the U. States in 1848, *T.* entered on the duties of his high office in March, 1849, found a democratic majority in Congress, with a small but vigorous free-soil party holding the balance of power, while the most exciting questions connected with the extension of slavery, as the admission of California, the settlement of the boundaries of Texas, the organization of the newly-acquired Mexican territories, &c., were agitating the country, and threatening a disruption, postponed by the compromises introduced by Mr. Clay. Worn down by the unaccustomed turmoil of politics, the good-natured old soldier was attacked with bilious colic the 4th of July, 1850, and D. on the 9th. During his administration he fully maintained the popularity which had led to his election, and *T.* is still remembered as one of the most esteemed of those who have filled the chief executive office in the country.

Fig. 2474.—GEN. TAYLOR.

Tay'lor, in *Florida*, a N.W. co., bordering on the Gulf of Mexico; *area*, 1,079 sq. m. It is drained by the Aucilla river. *Surface*, level; *soil*, sandy. *Cap.* Perry. *Pop.* (1895) 3,124.

Taylor, in *Georgia*, a central co.; *area*, 356 sq. m. *Cap.* Butler. *Pop.* (1897) 9,120.

Taylor, in *Illinois*, a post-village and township of Ogle co., 172 m. N.E. of Springfield.

Taylor, in *Indiana*, a township of Greene county.—A township of Harrison county.—A township of Howard county.—A township of Owen county.

Taylor, in *Iowa*, a S.S.W. co., bordering on Missouri; *area*, 540 sq. m. *Rivers.* Platte and One-Hundred-and-Two. *Surface*, undulating; *soil*, fertile. *Cap.* Bedford. *Pop.* (1895) 17,347.

—A township of Allomakee county.
—A township of Appanoose county.
—A township of Benton county.
—A township of Dubuque county.
—A post-office of Pottawattamie co.

Taylor, in *Kentucky*, a S. central county, drained by several affluents of Green river. *Surface*, undulating; *soil*, fertile. *Cap.* Campbellsville. *Pop.* (1897) 10,250.

Taylor, in *Louisiana*, a post-village of Bienville parish.

Taylor, in *Maryland*, a post-village of Harford co.

Taylor, in *Michigan*, a township of Wayne co.

Taylor, in *Missouri*, a township of Greene co.
—A post-village of Marion co.

Taylor, in *Nebraska*, a post-village, cap. of Loup co.

Taylor, in *New York*, a post-township of Cortland co.

Taylor, in *Ohio*, a former township of Hardin co.
—A township of Union county.

Taylor, in *Pennsylvania*, a township of Blair county.—A township of Centre county.—A township of Fulton county.—A township of Lawrence county.

Taylor, in *Texas*, a N.W. central co.; *area*, 900 sq. m. It is drained by the Clear Fork of Brazos river. *Cap.* Abilene. *Pop.* (1897) 7,350.

Taylor, in *West Virginia*, a N. co.; *area*, 177 sq. m. *Rivers.* Tygart's Valley river, and Sandy and Elk creeks. *Surface*, hilly; *soil*, generally fertile. *Min.* Iron and bituminous coal. *Cap.* Grafton. *Pop.* (1897) 14,170.

Taylor Creek, in *Ohio*, a township of Hardin co.

Tay'lor's Falls, in *Minnesota*, a post-village of Chisago co., 30 m. N. E. of Stillwater.

Tay'lorsville, in *California*, a post-village of Plumas co., 12 m. N. E. of Quincy.

Taylorsville, in *Illinois*, a city, cap. of Christian co., 25 m. S. E. of Springfield. *Pop.* (1897) 3,130.

Taylorsville, in *Indiana*, a post-village of Bartholomew co., 7 m. N. of Columbus.

Taylorsville, in *Iowa*, a post-village of Fayette co., abt. 66 m. W.N.W. of Dubuque.

Taylorsville, in *Kentucky*, a post-village, cap. of Spencer co., 30 m. S.W. of Frankfort.

Taylorsville, in *Maryland*, a village of Anne Arundel co., 5 m. S.W. of Annapolis.

Taylorsville, in *N. Carolina*, a post-village, cap. of Alexander co., 160 m. W. of Raleigh.

Taylorsville, in *New York*, a post-village of Ontario co.

Taylorsville, in *Ohio*, a post-village of Muskingum co., 9 m. S. of Zanesville.

Taylorsville, in *Pennsylvania*, a post-village of Bucks co., 116 m. E. of Harrisburg.—A village of Indiana co., abt. 30 m. N.W. of Altoona.

Taylorsville, in *Tennessee*, a village, former cap. of Johnson co., 350 m. N.E. of Nashville.

Taylorsville, in *Texas*, a village, former cap. of Wise co., about 100 m. W.S.W. of Bonham.

Taylorsville, in *Virginia*, a post-village of Hanover co., 20 m. N. of Richmond.

Taylorsville, or **Patrick Court-House,** in *Virginia*, the former name of a post-village of Patrick co., 226 m. S.W. of Richmond.

Tay'mouth, in *Michigan*, a post-township of Saginaw co., about 12 m. S. of Saginaw City.

Taze'well, in *Georgia*, a post-village of Marion co., about 35 m. E. of Columbus.

Tazewell, in *Illinois*, a N.W. central co.; *area*, 650 sq. m. It is drained by the Mackinaw creek. *Surface*, level; *soil*, fertile. *Cap.* Pekiu. *Pop.* (1897) 31,890.

Tazewell, in *Tennessee*, a post-village, cap. of Claiborne co., 250 m. N.E. of Nashville.

Tazewell, in *Virginia*, a S.W. co., bordering on W. Virginia; *area*, 500 sq. m. *Rivers.* Bluestone and Clinch rivers, the Tug Fork of Sandy River, and Wolf Creek. *Surface*, mountainous; *soil*, fertile in the valleys. *Min.* Iron, stone coal, and limestone. *Cap.* Tazewell. *Pop.* (1897) 21,764.

Tazza, (*tat'sa,*) *n.* [It.] (*Fine Arts.*) A flat cup or shallow vase, having a foot and handles; as, a *tazza* of malachite.

Tchad, (Lake,) a lake of Africa, in Soudan; Lat. bet. 12° 30′ and 14° 30′ N., Lon. bet. 14° and 17° E. Its height above the sea is estimated at 850 feet, and its mean depth from 8 to 15. *Ext.* 200 m. long, with a breadth of 140.

Tchad'da, a river of Guinea, flows W., and joins the Quorra, abt. 40 m. N. of Iddah. It is supposed to be the principal drain of the lake Tchad.

Tchao-choo-foo, a city of China, prov. of Kwang-tong, on the Hon-kiang, and near its entrance into the China Sea.

Tche-kiang, a province of China. See CHINA.

Teherna'ya, a small stream of Crimea, flowing N.W. into the head of the principal bay on which Sebastopol is situated. On its banks, May 16, 1855, the Russians under Gen. Liprandi were defeated by the French and Italians under Marshal Pelissier and General Della Marmora.

Teher'nigov, a town of European Russia, cap. of a S.W. govt. of same name, on the Desna, 80 m. N.N.E. from Kiev. It is one of the oldest towns of the Ukraine, and formerly held by the Tartars and Poles. *Pop.* 13,000.

Tchinghiz Khan, see GENGHIS KHAN.

Tchoo'-tchoo', a city of China, prov. of Tche-kiang, on the Toon, 80 m. from the coast.

Tea, (*tē,*) *n.* [Fr. *thé*; Chin. *tshâ.*] (*Bot.* and *Agric.*) The name given to the dried leaves of one or two Chinese species of the genus *Thea*, order *Ternströmiaceæ*, differing from the genus *Camellia* by its not deciduous calyx, and by the dissepiments remaining connected in the centre of the capsule after it opens. The two Linnæan species *T. bohea* and *T. viridis*, and even the Assam Tea (*T. assamensis*), are now generally regarded as varieties of *T. sinensis*, the Tea shrub or Chinese Tea (Fig. 2475), which is 20–30 feet high, but in a state of cultivation only 5–6 feet high, with numerous branches and lanceolate leaves, which are 2–6 inches long. The flowers grow singly, or two or three together in the axils of the leaves; they are rather longer, white, and fragrant, with 5-parted calyx, 6–9 petals, and many stamens. This plant thrives best in the cooler parts of the tropical zone, but grows also in the temperate zone, and is cultivated as far N. as 45°. When one year old they are planted out, and by cropping the main shoot for the first year are kept down to a height of about three feet, and made to spread. They are placed in rows, 3 or 4 feet apart, and resemble gooseberry bushes; in the fourth and fifth years the leaves are gathered by women and converted into tea. The youngest and earliest leaves are the best and highest flavored; the second and third gatherings are more bitter and woody. The leaves, when freshly gathered, are neither decidedly astringent, aromatic, nor bitter; the pleasant taste and odor for which they are afterwards remarkable are developed by the process of drying. Another interesting chemical fact is, that different qualities of tea are prepared from the same leaves, according to the way in which they are treated in the drying; either green or black tea, though these varieties are so unlike each other, may be prepared from the same leaves, gathered at the same time, and under similar circumstances. Though possessing medicinal properties, tea has never, so to speak, properly been employed in the treatment of disease; though it has been frequently given in an experimental manner in diseases affecting the nervous system. It acts on the human body as a stimulant, a sedative, and as an astringent. On some constitutions, especially when taken strong, it acts directly on the heart through the nervous system, lowering the circulation, and producing all the effects of the foxglove or digitalis, on which account it should be very sparingly used by persons so influenced. Green tea exercises the same effect, but far more powerfully than black, and many persons are unable to take it except at the risk of nausea, faluting, palpitation of the heart, and much constitutional disturbance. To those whose avocations cause them to trench on the hours of sleep for labor, either physical or mental, tea is the best beverage they can possibly take to insure watchful vigilance. Tea contains a large amount of tannin, and in consequence is often used as a gargle in certain conditions of a sore throat, and also as an injection for the urethra in cases of gleet. Excess in the use of either tea or coffee is a fruitful source of indigestion, headache, lowness of spirits, and faintness. The well-known power of tea in driving away drowsiness is owing in the first instance to its influence on the heart.—For the chemical properties of tea, see CAFFEINE. The tea-plant, supposed to be indigenous in China, according to their writers, was first discovered in the 8th century. An impost was levied on tea by the Emperor Te-Tsang, in 781. Japanese writers maintain that it was brought there from China in the 9th century. The culture of the tea-plant was introduced into Brazil in 1815, and it was discovered in India in 1823. (See ASSAM.) It was introduced into Europe by the Dutch in 1591, and was used in England, on rare occasions, some years prior to 1657, and sold at from $30 to $50 the pound. The first American ship sailed for China in 1784; the following year two vessels were dispatched, and brought back home 1,181 860 pounds. Up to 1845 the trade in tea was transacted almost exclusively at Canton. In 1842, Shanghai, Ningpoo, Foo-chow and Amoy were opened to foreigners by the treaty of Nanking, and the China tea-trade now is mainly made with Shanghai, Foo-chow and Amoy. At Canton scented teas are still bought for England, but almost never come to this country. The principal kinds of scented teas are Pecoes and Capers. Towchong is the only tea of this class used in the U. S. In 1859, the first shipment of tea from Japan was made to England. The Japanese leaf was first brought to this country in 1860. The first direct cargo of tea from Japan, *via* San Francisco and the Pacific railroad, was brought from Yokohama, in 1868, in the American barque "Benefactress," in the remarkably short time of twenty-three days. There is no impediment to the cultivation of tea in the U. States, so far as depends upon adaptation of soil and climate; and it has been proved that there is a large extent of land in this country well adapted to the production of tea, lying between the parallels of 29° 35′ N. Lat., and which embraces N. and S. Carolina, Georgia, Alabama, Mississippi, and also portions of California. It has been proved that the tea-plant grows well and produces exceptionally good teas under high cultivation in the Southern States. Yet the climate does not favor tea culture, at least in the Southeastern States, the variations of temperature being great and the rainfall hardly sufficient at the proper season. The lack of cheap labor is also an unfavorable element of the situation; therefore, tea-culture cannot be successfully conducted in the U. S., though it may in the future pay to raise it for those who want the best qualities, which will not bear ocean transportation.—The varieties of tea are very numerous. The following are those found in our shops:—GREEN TEAS. *Chinese:* (1) Gunpowder sorts—viz., Shanghai, Ping-suey or Pin'shead, Moyune, Imperial Moyune, and Canton; (2) Hyson sorts—viz., Shanghai, Shanghai young, Moyune, Moyune young, Canton young and Twankay or Imperial Hyson. *Japanese:* Gunpowder and Young Hyson. *Java:* Gunpowder.—BLACK TEAS. *Chinese:* (1) Congo sorts—viz., Canton, Foo-chow-foo, Hung-muey, Oopack, Kaison and Oonam; (2) Pekoe sorts—viz., Plain Orange, Foo-chow, Scented Orange and Flowery Pekoe, Oolong and Souchong. *Assam:* Congou, Orange Pekoe and Souchong. *Java:* Congou and Imperial. The latter is made into balls the size of a pea, and is rare.—G. B. consumes annually abt. 60,000,000 lbs. The Imports into U. S. for 1880 were 60,194,673 lbs., value $14,577,618; for 1890, 93,998,372 lbs.,

Fig. 2475.
CHINESE TEA, (*Thea sinensis.*)

worth $12,704,440, showing a fall in price.—The name *tea* is also applied to a decoction or infusion of the dried leaves of the tea-plant in boiling water; as, to drink *tea*.—Hence, any infusion or decoction, as of the dried leaves of certain plants; as, chamomile *tea*.—Also, the expressed essence of certain animal juices, prepared in the form of a decoction, as for invalids; as, beef *tea*.—The evening meal, at which tea is usually served; as, to invite a party of friends to *tea*, i. e., to partake of the evening meal, or supper.

Tea, *v. n.* To drink tea. (Rare and colloquial.)

Tea'-board, Tea'-tray, *n.* A board or tray to put tea furniture on.

Tea'-caddy, *n.* A small ornamental case or box for holding tea to supply a tea-pot.

Tea'-cake, *n.* A light kind of cake, toasted, buttered, and eaten hot at the tea-table.

Teach, *v. a.* (*imp.* and *pp.* TAUGHT) (*tawt.*) [A. S. *tæcan.*] To exhibit so as to impress on the mind of; to communicate to another, as the knowledge of that of which he was before ignorant; to give intelligence respecting; to tell; to impart the knowledge of; as, "Men . . . learn in suffering what they *teach* in song." (*Shelley.*)—To deliver, as any doctrine, art, principles, or words for instruction; to inform; to instruct; to conduct through a course of studies; to direct as an instructor; as, to *teach* a school.—To accustom; to make familiar with; to inform or admonish; to give previous notice to; to suggest to the mind; as, he *taught* himself to act with prudence.

—*v. n.* To carry out the business of a tutor or preceptor; to practise imparting instruction; as, "History is Philosophy *teaching* by examples."—*Bolingbroke.*

Teach'able, *a.* That may be taught; docile; apt to learn.

Teach'ableness, *n.* Quality of being teachable.

Teache, *n.* [Gael. *teasaich.*] The last of the series of boilers used in the manufacture of sugar.

Teach'er, *n.* An instructor; a preceptor; one who teaches or imparts instruction; a tutor.—One who instructs others in matters of religion; a preacher; a minister of a religious denomination;—also, one who preaches without regular ordination; as, a *teacher* of the gospel.

Tea'-chest, *n.* A small, square wooden case, usually lined with sheet-lead or tin, in which tea is imported from China.

Teach'ing, *n.* Instruction; act or business of instructing.

Tea'-cupful, *n.* As much as a tea-cup can hold.

Tea'-garden, *n.* A public garden where refreshments are served; a place for al-fresco entertainment. (Engl.)

Teague, (*teeg,*) *n.* [W. *taeog*, a clown.] An Irish peasant;—used in contempt.

Teak, *n.* [*tekku*, its name in Malabar.] The name given to two kinds of hard and durable timber. East-Indian *T.*, which is extensively employed for ship-building, is the wood of *Tectona grandis*, a tree belonging to the order *Verbenaceæ*. African *T.* is the produce of *Oldfieldia africana*, one of the *Euphorbiaceæ*.

Teal, (*tēl,*) *n.* [Fr. *tarulle.*] (*Zoöl.*) The common name of the small river-ducks comprising the genera *Nettion* and *Querquedula*, family *Anatinæ*. They have a very slightly lobed hind-toe, narrow bill, as long as the head, the sides nearly parallel, or widening a little at the end, the wings pointed, the tail moderately large and wedge-shaped. There are about 20 species distributed all over the globe. Among the N. American species are the Green-winged Teal, *Nettion Carolinensis*, 14 inches long, and 22 to 24 inches in alary extent, distinguished by its broad, rich, green speculum; and the Blue-winged Teal, *Querquedula discors*, somewhat larger, and which, says Wilson, "is the first of its tribe that returns to us in the autumn from its breeding place in the N. They are usually seen early in Sept., along the shores of the Delaware, where they sit on the mud close to the edge of the water, so crowded together that the gunners often kill great numbers at a single discharge." These two species afford a delicious flesh, and the Green-winged, according to Audubon, is much superior to the Canvas-back.

Fig. 2476.—GREEN-WINGED TEAL. (*Nettion Carolinensis.*)

Team, *n.* [A. S. *team*, offspring.] A succession of anything, as animals, following in a row or in order; as, a *team* of swans, a *team* of players.—Specifically, two or more horses, oxen, or other beasts, harnessed together for drawing, as to a carriage, wagon, sleigh, and the like; as, he drives a crack, four-in-hand *team*.

Team'ster, *n.* The driver of a team; a coachman; a wagoner.

Team'-work, (*-wurk,*) *n.* Work performed by a team.

Teano, (*tai-a-no,*) a town of S. Italy, 12 m. from Capua; *pop.* 8,746.

Tear, (*teer,*) *n.* [A. S. *taare*; Lat. *lachryma.*] (*Physiol.*) A drop of the limpid fluid secreted by the lachrymal glands, and flowing on the surface of the eyes. Tears serve to prevent the friction of the eyelids on the eyes, to keep the cornea moist, and to wash away any extraneous bodies that may have fallen into the eye. See EYE.

(TEAR is occasionally employed in the formation of self-explanatory compounds; as, *tear*-drop, *tear*-stained, &c.)

Tear, (*tair,*) *v. a.* (*imp.* TORE; *pp.* TORN.) To pull in pieces; to rend; to lacerate; to separate by violence or pulling; as, to *tear* one's clothes, to *tear* the skin or flesh.—To wound; to break; to form fissures by any violence; to rend; to shatter; to divide by violent means; as, a nation *torn* by intestine strife.—To pull with violence; as, to *tear* one's hair, a tree *torn* by storms, &c.—To move or agitate violently; as, "*Torn* ocean's roar."—*Byron.*

To tear from, to separate by violence; to take away by sudden force; as, a husband *torn* from his wife by conscription.—*To tear up*, to remove from a fixed state or position by force or violence; to rip or root up; as, to *tear up* a flooring, passion frequently *tears up* modesty.

—*v. n.* To move and act with turbulent violence; to rush with violence, as a mad bull; hence, to rave; to rage; to boil over with passion or fury.

—*a.* A rent; a fissure; a laceration.

Tearer, (*tair'er,*) *n.* One who tears or rends anything.—One who raves or rages with uncontrollable violence or passion.

Tear'ful, *a.* Abounding with, or adapted to excite, tears; shedding tears; weeping; as, *tearful* eyes.

Tear'less, *a.* Shedding no tears; without tears; hence, not expressing feeling; as, profound grief is sometimes *tearless*.

Tease, (*tēz,*) *v. a.* [A. S. *tæsan*, to pluck, to gather.] To comb or card, as wool or flax.—To scratch, as cloth in dressing, for the purpose of raising a nap.—To vex by petty requests, or by untimely jests or raillery; to worry with importunity or impertinence; to annoy; to plague; to torment; to chagrin.

Teasel, (*tē'zl,*) TEA'ZEL, TEA'ZLE, TAS'SEL, TA'ZEL, *n.* [A. S. *tæsl.*] (*Bot.*) See DIPSACACEÆ.

—The burr of the *Fuller's* teasel, *Dipsacus fullonum*.—Any contrivance that acts as a substitute for teasels in dressing cloth.

—*v. a.* To raise a nap, as on cloth, by means of teasels.

Teaseler, (*te'zl-er,*) *n.* One who raises a nap on cloth by means of teasels.

Tea'sel-frame, *n.* A frame or set of iron bars in which teasel heads are fixed for carding woollen cloth.

Teaser, (*tēz'er,*) *n.* One who teases.

Tea'-service, *n.* A complete set of things for the tea-table.

Tea'-spoon, *n.* A small spoon belonging to a tea-service.

Tea'-spoonful, *n.*; *pl.* TEA-SPOONFULS. As much as will fill a tea-spoon.

Teat, (*teet;* vulg. pron. *tit,*) *n.* [A. S. *tit, titt;* Sp. *teta;* Fr. *tette, teton*, from Gr. *titthē*—*thāō*, to suckle.] The nipple or nipple of a woman's breast; also, the dug in female mammalia.

(*Mach.*) A small nozzle resembling a teat.

Tea'-urn, *n.* A vase-shaped vessel for supplying hot water for tea at table.

Teaze'-hole, *n.* (*Glass-making.*) The opening in the furnaces through which fuel is introduced.

Tea'zer, *n.* [From Fr. *tiser*, to feed a fire.] In glass-works, the stoker or fireman of a furnace.

Te'beth, *n.* [Heb.] (*Chron.*) Among the Jews, the tenth month of the ecclesiastical year, and fourth of the civil year; beginning with the new moon in December, and ending with the new moon in January.

Têche, (*tesh,*) a bayou of *Louisiana*, commences in St. Landry parish, near Opelousas, and joins the Atchafalaya Bayou, near the S.E. of Lake Chetimaches, after a S.E. course of 200 m., navigable for steamboats during high water.

Tech'ily, Tetch'ily, *adv.* In a techy manner.

Tech'iness, Tetch'iness, *n.* State or quality of being techy.

Technic, (*tĕk'nik,*) **Technical,** (*tĕk-nik'l,*) *a.* [Gr. *technikos*—*technē*, art.] Pertaining or relating to art or the arts; noting a word, term, or phrase exclusively used, or used in a peculiar sense, in any art or science; as, *technical* language.—Belonging, or especially appropriate to any particular art, science, or business; as, nautical terms are, for the most part, purely *technical*.

Technical'ity, Tech'nicalness, *n.* State or quality of being technical.

Tech'nically, *a.* In a technical manner.

Technicals, (*tĕk'nik-alz,*) *n. pl.* Technical terms; those things which have reference to the practical application of an art, science, profession, &c.

Tech'nicist, *n.* One skilled in the practical arts.

Technicol'ogy, *n.* Same as TECHNOLOGY, *q. v.*

Tech'nics, *n. sing.* or *pl.* The doctrine of arts in general; such branches of learning as respect the arts; plurally, technicals.

Technologic, (*tek-no-lŏj'ik,*) **Technolog'ical,** *a.* [Fr. *technologique.*] Pertaining or having reference to technology; relating to the arts.

Technol'ogist, *n.* One who discourses or treats of arts, or of the terms of art.

Technol'ogy, *n.* [Gr. *technē*, art, and *logos*, discourse.] The science which treats of the arts, more particularly the mechanical. It is properly the science of the arts. "Its object is not itself, *i. e.*, the practice of art, but the principles which guide or underlie art, and by conscious or unconscious obedience to which the artist secures his ends." In its ordinary acceptation, however, it includes only the utilitarian arts, and in fact only some of these. Painting, sculpture, music, poetry, do not come within its sphere. It deals only with the industrial or necessary arts, or according to the division generally adopted, to the *mechanical* and *chemical* arts, according as they relate mainly to physics or to chemistry.

Tech'y, Tetch'y, *a.* Same as TOUCHY, *q. v.*

Teco'ma, *n.* (*Bot.*) A genus of the order *Bignoniaceæ*, comprising trees or shrubs which are often climbing, and distinguished by their opposite, digitate, or unequally pinnate leaves.

Tectibranch'iata, *n. pl.* [Lat. *tego*, I cover, and *branchiæ*, gills.] (*Zoöl.*) A name given by Cuvier to an order of hermaphrodite Gasteropods, comprehending those species in which the gills are covered by a process of the mantle, containing a shell, or enveloped in a reflected margin of the foot.

Tecto'na, *n.* (*Bot.*) A genus of plants, order *Verbenaceæ*. *T. grandis*, the Teak, or Indian Oak, is an enormous tree, with deciduous leaves, covered with rough points. It inhabits the forests of the mountainous parts of Malabar, Pegu, and other districts in the E. Indies. Its timber abounds in particles of silex, and has no rival in Asia for durability. With much of the appearance of coarse mahogany, it is lighter and very strong. For ship-building it is perhaps the best in the world.

Tectonic, *a.* [Gr. *tektonikos*—*technē*, an art.] Pertaining or having reference to building or construction.

Tectrices, (*tĕk-tri'sēz,*) *n. pl.* [From Lat. *tego*, I cover.] (*Zoöl.*) The name of the feathers which cover the quill-feathers and other parts of the wing.

Tecumseh, a chief of the Indian tribe of Shawnees, b. on the banks of the Scioto River, near Chillicothe, Ohio, abt. 1770. About 1804, he formed, in conjunction with his brother Elskwatawa, called the "Prophet," a project to unite all the Western Indians in a defensive alliance against the whites. They had considerable success, and had already gathered around them several hundred warriors, when their plan was ruined by the battle of Tippecanoe, Nov. 7, 1811, in which the Indians were defeated. *T.* then made an alliance with the English, received the rank of brigadier-general, commanded all the Indians who coöperated with the English in the campaigns of 1812–13, and was present at every important action previous to that of the Thames, in which, seeing the Indians driven back, *T.* rushed forward where the American fire was thickest, and fell, Oct. 5, 1813.

Tecumseh, in *Kansas*, a post-village and township of Shawnee co., on the Kansas River, abt. 6 m. E. of Topeka.

Tecumseh, in *Michigan*, a post-village and township of Lenawee co., 10 m. N.E. of Adrian.

Tecumseh, in *Nebraska*, a prosperous city, cap. of Johnson co., on the Chicago, Bur. & Quincy R.R., 48 m. S. E. of Lincoln; is in the midst of a fine agricultural region and has some manufactures. *Pop.* (1897) 2,950.

Ted, *v. a.* (*imp.* and *pp.* TEDDED.) [W. *teddu*, from *tedd*, to spread.] To turn, as new-mown hay from the swath, and scatter it for drying;—mostly used in the past participle; as, *tedded* grass.

Ted'der, *n.* and *v. a.* See TETHER.

Te Deum, *n.* [Lat.] (*Mus.*) The name given to a celebrated hymn, from the first words of the original Latin, *Te Deum laudamus*, Thee, O God, we praise. It has been ascribed to St. Ambrose and St. Augustine; but the more probable opinion seems to be that it was composed by Nicetus, bishop of Tiers, in Gaul, who flourished about 535, and is said to have composed it for the use of the Gallican church.

—Hence, (*Eccl.,*) a religious service of thanksgiving, in which the singing of the hymn *Te Deum laudamus* forms a leading feature.

Tedge, (*tĕj,*) *n.* (*Founding.*) Same as INGATE, *q. v.*

Tedious, (*tē'di-ŭs,* or *tēd'yus,*) *a.* [Lat. *tædiosus.*] Tiresome; wearisome; irksome or fatiguing from continuance, prolixity, or slowness which causes prolixity; involving tedium; boring; as, a *tedious* task, a *tedious* person.—Slow; tardy; dilatory; sluggish; as, a *tedious* course.

Te'diously, *adv.* In a tedious manner.

Te'diousness, *n.* State or quality of being tedious; wearisome by length of continuance, or by prolixity; tiresomeness; slowness that wearies; boredom; as, the *tediousness* of a humdrum discourse.

Te'dium, *n.* [Lat. *tædium.*] Tiresomeness; wearisomeness.

Ted'si, a town of Morocco, Africa, in the prov. of Soos, 25 m. from Tarudant; *pop.* 15,000.

Tee, in *Ohio*, a township of Carroll co.; *pop.* abt. 1,700.

Teel'-seed, *n.* See SESAMUM.

Teem, *v. n.* [A. S. *tyman*, to beget, *team*, progeny.] To bring forth, as an animal; to bear; to produce; to yield fruit, as a plant.—To conceive; to be pregnant; to engender young; as, a *teeming* womb.—To be full; to be charged, as a breeding animal; to be prolific; as, the earth *teems* with natural riches.

—*v. a.* To produce; to yield; to bring forth; as, to *teem* a new idea.—To pour out; as, to *teem* a cup of tea.

Teem'er, *n.* One who, or that which, teems.

Teem'ful, *a.* Pregnant; prolific.—Brimful.

Teens, *n. pl.* Those years of one's age which have the termination *teen*, beginning with thirteen and ending with nineteen; as, a miss in her *teens*.

Tees, a river of England, running between the cos. of York and Durham, and after a course of 90 m., joining the North Sea by an æstuary, 10 m. from Stockton.

Tees'ta, a river of Hinnöstan, rising in Thibet, and after a course of 300 m., joining the Ganges 40 m. from Dacca.

Tee'ter, *v. n.* or *a.* [From Icel. *titra*, to tremble.] To seesaw; to titter. (U. S.)

Teeth, *n. pl.* of TOOTH, *q. v.*

—*v. n.* [From the noun.] To breed teeth; as, the child is *teething*.

Teeth'ing, *n.* See DENTITION.

Teeto'tal, *a.* [Formed by reduplicating, for the sake of emphasis, the initial letter of the adjective *total*.] Entire; whole; total; utter; as, a *teetotal* abstainer from intoxicating drinks. (Colloq.)

Teeto'taller, *n.* One pledged to entire abstinence from intoxicating liquors; a rechabite. (Used colloq.)

Teeto'talism, (*-izm,*) *n.* The principle or practice of

entire abstinence from alcoholic liquors; rigid temperance. (Colloq.)

Teeto'tally, *adv.* Wholly; entirely; totally. (Colloq. and vulgar.)

Teeto'tum, To'tum, *n.* A child's plaything that is spun round after the manner of a top; as, the gyrations of a *teetotum*.

Tefle, (*tef'fa,*) a river of Brazil, flows into the Amazons near Egas, after a N.E. course of 500 m.

Tef'lis, or **Tiflis,** a city of W. Asia, the cap. of Georgia, and of all the Caucasian and Transcaucasian prov. of Russia, on the Kur, 280 m. E. by N. of Trebizond; Lat. 41° 30′ 30″ N., Lon. 45° 1′ 30″ E. It is the great emporium for all the trade between Russia, Turkey, and Persia. *Manuf.* Carpets, shawls, and silks. *Pop.* 60,937, of which the majority are Armenians, with some Mussulman families.

Tefsa, or **Tef'za,** a town of Morocco, Africa, the cap. of the prov. Tedlar; *pop.* 11,000.

Teg'men, *n.; pl.* TEGMENA. [Lat.] An integument or covering.

Tegular, (*-tĕg'gu-lar,*) *a.* [Lat. *tegula*, a title.] Pertaining or relating to titles.

Teg'ularly, *adv.* In a tegular manner.

Teg'ument, *n.* [Fr.; Lat. *tegumentum.*] A covering or integument.

(*Anat.*) The skin or general covering of the body.

(*Zoöl.*) The covering of the wings of orthopterous or straight-winged insects.

Tegument'ary, *a.* Pertaining or having reference to teguments.

Teha'ma, two maritime plains of Arabia, one extending along the W. coast from Ras-Mohammed to Djeddah, a distance of 550 m.; the other from Batna to Bah-el-Mandeb, with a width of from 20 to 40 m.

Tehama, in *California*, a N. co.; *area*, 2,988 sq. m. *Rivers.* Sacramento river, and Antelope, Battle, Beaver, Cottonwood, Deer, Elder, and Rock creeks. *Surface*, diversified; *soil*, fertile in the valleys. *Cap.* Red Bluff. *Pop.* (1897) 10,650.

—A post-village and township of the above co.

Te-hee', *n.* A titter; a giggle.

—*v. n.* To laugh in a silly manner; to giggle; to titter.

Teheran, or TEHRAN, (*te-ran'* or *te-rawn',*) the capital city of Persia, 210 m. from Ispahan, and 70 from the Caspian Sea; Lat. 35° 40′ N., Lon. 50° 52′ E. It is about 5 m. in circumference, surrounded by a strong wall, flanked by innumerable towers and a broad dry ditch. The Persian monarchs make it their residence, and it has many well-furnished shops and bazaars. *T.* has greatly improved within the last quarter of a cent.; the new parts of the city have clean, broad streets and compare, in this respect, with most European cities. *Manuf.* Carpets and iron goods.

Tehuacan, (*ta-wa-kan',*) in *Mexico*, a town of La Puebla, 65 m. S.E. of La Puebla City; *pop.* abt. 14,000.

Tehuantepec, (*tai-wan'tai-pek.*) a town, river, isthmus, and gulf of Mexico. The town, which is the capital of a dept. of the same name in the prov. of Oajaca, is situated on the River *T.*, 10 m. above its mouth in the Pacific. The town has manufactures of salt and cotton fabrics, fisheries of pearl, and a mollusc that yields a purple die, and has a pop. of 16,000. The river, which runs in the middle of the prov. of Oajaca, flows E.S.E., and, after a course of 170 m., and receiving several streams, falls into the Pacific near Ventosas. The isthmus of *T.* extends from the Bay of Guasacualco in the Gulf of Mexico in the E. to the Gulf of Tehuantepec in the Pacific in the W., having an extreme length between the two oceans of 140 m. The number of streams that flow across the isthmus, and the moderate height of the Cordillera range in this part, have long since been thought to render the isthmus the most advantageous situation for the cutting through of a canal to connect the two oceans, and in 1869 a company of American capitalists was formed for the study and undertaking of a railway and canal across that isthmus. The Gulf of *T.* is an indentation of the Pacific Ocean on the W. coast of Mexico and Guatemala, and extends from Lon. 92° to 97° E., with a breadth near the centre of 70 m.

Teignmouth, (*tain'mouth,*) a seaport-town of England, in Devonshire, at the mouth of the river Teign, 13 m. from Exeter; *pop.* 5,800.

Teil, (*til,*) *n.* [Lat. *tilia.*] (*Bot.*) See TILIA.

Teka'mah, or TEKAMA, in *Nebraska*, a post-village, cap. of Burt co., abt. 42 m. N.W. of Omaha City.

Tekon'sha, in *Michigan*, a post-village and township of Calhoun co., on the St. Joseph River, abt. 14 m. S. of Marshall.

Telamo'nes, *n. pl.* [Gr. *telamon*, a bearer.] (*Arch.*) See ATLANTES.

Tel'egram, *n.* [Gr. *tēle*, afar off, and *gramma*, a writing.] Any piece of intelligence conveyed by an electric telegraph; a telegraphic despatch. (This is a modern word, introduced with a view to distinguish between the intelligence conveyed, and the apparatus which conveys it; the word *telegraph* being confined to the latter, and *telegram* to the former.)

Telegram'mic, *a.* Pertaining or having reference to a telegram.

Telegraph, (*tel'e-graf,*) *n.* [Gr. *tēle*, afar off; *graphein*, to write.] The art of conveying intelligence to a distance by means of certain signals, previously agreed upon between the parties. Telegraphs may be divided into those worked by *mechanism*, and those worked by *electricity*. Long before the *T.* attained its present perfection by the introduction of voltaic electricity as its motive power, individuals and nations were in the habit of communicating information of battles, defeats, and victories by means of beacon-fires. This continued in use from the time of the ancient Greeks and Romans down to about the end of the last century, when a French engineer, M. Chappé, invented, or rather improved, the *semaphore T.*, which was at once taken up by the French government. They erected a series of *T.* stations between Paris and Lille in 1794, and two minutes only were occupied in communicating intelligence from one city to the other. The aërial *T.* now spread, and before many years every country in Europe had its system of *T.* between its capital and the important ports on its seaboard. The idea of utilizing electrical force for the transmission of signals to a distance was almost coeval with the discovery of the conductivity of the electric current, and of the exceeding velocity with which it travels. The first electric *T.* on record is that established by M. Lesage, at Geneva, in 1782. It consisted of 24 wires, insulated from each other, and communicating with pith-ball electrometers, marked with the letters of the alphabet. On sending a current of frictional electricity along any of the wires, the pith-balls diverged and indicated the letter or symbol desired. The next we hear of is that of Lomond, which consisted of only one wire and one electrometer, the signals being made by the number and variation of the divergencies. In 1794, Reizen made a *T.* in which frictional electricity was also used. The current was conveyed to the distant station by 30 insulated wires, communicating with strips of tin foil placed on glass breaks, in the form of the different letters and figures, being made so that, in the passage of the electricity, a bright spark would be seen at each break. Several other electricians constructed *T.* involving similar principles, but most of them were mere philosophical toys. It was not until the discovery of Œrsted, in 1819, that a delicately suspended magnetic needle has a tendency to place itself at right angles to a conductor through which a current of voltaic electricity was passing, that the idea of the electric *T.* as now worked out began to be developed. Previous to this, in 1809, Sömmering employed voltaic electricity, and was the first who utilized that power for the transmission of signals. His plan was to lay insulated wires to the distant station, the ends of which terminated in gold, and dipped into tubes containing acidulated water. The tubes were lettered and numbered, and the signal was made visible by the escape of bubbles of gas, when the current was passed, and decomposed the acidulated water. In 1816, and the following years, Mr. Ronalds, of Hammersmith, devoted much time to the construction and perfection of the electric *T.* He put up a *T.* on his lawn, which communicated with eight miles of insulated wire, and used frictional electricity for the production of signals. He employed the ordinary electrical machine, and a pith-ball electrometer. Two clocks, going synchronously, were placed at different stations. They were of peculiar construction, and as the dials moved round, they displayed the letters of the alphabet in regular order. The clocks were each provided with an electrometer, the pith-balls of which diverged when the current was passed. The transmitter of the signals caused a constant current to flow through the wire and operate on the electrometers. The pith-balls therefore remained separate during the transmission of the message, collapsing as the desired letter was shown by the clock-dials, by the transmitter discharging the electricity from the wire. All that was required in the form of *T.* was that the clocks used should go synchronously only during the time the message was being transmitted, a matter which could be easily managed by a preconcerted signal between the parties before commencing operations. The first great step in advance was made by Ampère in 1820, a year after the discovery of Œrsted. Its principle of action was the same as that afterwards employed by Cooke and Wheatstone in the needle *T.* Ampère's *T.* had as many needles as there were letters in the alphabet, and the needles were surrounded by cords of wire. It was consequently easy to move any needle that was required by the passage of the current. Although a number of wires and needles was required in this instrument, it was the first good needle-*T.* Some twelve years afterwards, Baron von Schilling invented two *T.*, which were modifications of Ampère's, in one of which he employed five needles, in the other a single needle only. In 1838, Gauss and Weber constructed a *T.* which worked through a mile of wire at Göttingen. The needles in this case were deflected by a current of electricity, developed by the magneto-electric machine. This *T.* was afterwards improved upon by Steinheil. By this arrangement, either sounds could be employed, or permanent marks made upon paper, passing in front of the needles. Steinheil's was the first perfect instrument invented, and came into operation in July, 1837. It was 12 m. long, and had 3 intermediate stations in circuit. In the same year, and about the same time, Prof. S. F. B. Morse exhibited in the University of New York a *T.* constructed on the same principle, which had been gradually brought to a working condition by experiments and contrivances derived by the inventor since 1832. This *T.* was first brought into practical use, May 27, 1844, between Washington and Baltimore. His system has been almost universally adopted in all parts of the world, and almost all electric telegraphs are operated on the principles first developed by him. The electro-magnetic *T.* is based upon the principle that a magnet may be endowed and deprived at will with the peculiarity of attracting iron by connecting or disconnecting it with a galvanic battery. All magnetic *T.* are based solely on this principle. It is by breaking off the magnetic circuit, which is done near the battery, that certain marks are produced by means of a style or lever, which is depressed when the current is complete. It was at first considered necessary to use a second wire to complete the magnetic circuit. Now one wire may be used, and the earth made to perform the office of the other. In order that the depressions of the key used to make and break the electric circuit might be easily and simply translated into language, Morse invented the alphabet that bears his name, in which each letter is represented by combinations of dots and dashes. A short, quick stroke of the key makes a dot, and a slow, dwelling stroke a dash, which may be read by ear by the variation in time of the clicks of the key, or by the eye by recording on a strip of paper actual dots and dashes. In Morse's alphabet—

A dot and a dash (.—) represent the letter *a*;
A dash and three dots (—...) represent the letter *b*;
Two dots, a space and a dot (.. .) represent the letter c;
A dash and two dots (—..) represent the letter *d*.

Other combinations form the balance of the alphabet, the figures, and punctuation points. The combinations used on the Continent of Europe are slightly different from those used in the U. S., but both agree in representing *e* with a dot and *t* with a dash, these being the letters of most frequent occurrence.

MECHANISM.—The Morse system of telegraphy involves the use of an electric battery, a *Morse key* as a sending instrument, a *sounder* as a receiving instrument for the ear, and a *recorder* as a receiving instrument for the eye, and a *relay* for adding to the strength of a current, and a *repeater* for automatically repeating messages which have to be sent a great distance. The Morse key is a simple lever having a finger-piece or button, which the operator or sender depresses in accordance with the Morse code. The button is normally upheld by a spring, and its depression makes a contact, closing an electric circuit, and allowing a current to flow to the sounder at the other end of the line. The coil of the sounder becomes magnetic the instant the current reaches it, and attracts the end of a lever, or armature, causing it to rise and fall in unison with the lever of the sending instrument. This armature bears a stop which strikes a miniature anvil as it makes its strokes, emitting a sharp, clicking sound, which may be read by ear by one familiar with the Morse code. For the sake of preserving a record of the messages sent, the recorder is used. This is similar in principle to the sounder, but in place of the stop and anvil an inking-wheel and

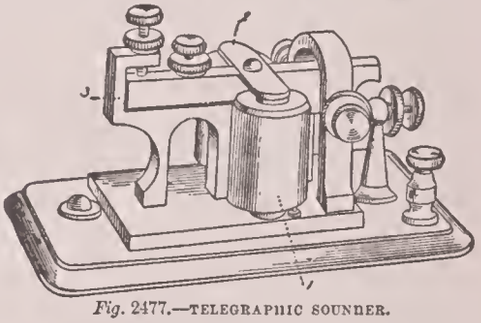


Fig. 2477.—TELEGRAPHIC SOUNDER.
1, magnet; *2*, armature; *3*, anvil.

advancing strip of paper are used. As the paper travels the strokes of the message are printed upon it in dots and dashes, dependent in length upon the dwell given the button of the sender or Morse key. A relay is placed in connection with a telegraphic circuit when a point has been reached where the current becomes weak, and it is necessary to introduce new batteries in the line to secure capacity for working a sounder or recorder. The relay resembles the sounder in principle, and the weak current which reaches it is used to magnetize its armature, making a contact that introduces the new and stronger current from local batteries. Where it is desired to operate more than a few hundred miles of telegraph line in one circuit, a repeater is used. This resembles the relay, but its office is to repeat the message and send it along an extension of the line, whereas the relay usually serves only to bring into use an instrument in the same office in which it is located. In other words, the repeater is a relay that works on distant instruments, and by introducing it at intervals of a few hundred miles a circuit may be extended indefinitely. In the case of the Indo-European line, direct working is common between London and Teheran, a distance of 3,800 miles, 5 repeaters being employed.

The *needle system* of telegraphy is essentially different from the above, and is in general use on British railways, though it has been discarded by the postal telegraph service in the United Kingdom within a few years in favor of the Morse-sounder system above described. The needle system consists in the use of a dial and magnetic needle, the latter lying normally in the direction of the current, and being deflected to the right or left by current impulses, so that a message can be deciphered by reading the deflections to one side as dots, and to the other as dashes. Telegraph lines are ordinarily erected on wooden poles spaced from 25 to 50 to the mile. The poles usually bear cross-pieces, upon the ends of which the wires are hung by insulated supports. The most common form of insulator is of glass, made to fit over a wooden support by screwing on with the hand. A turn or two of the wire about this serves to give it a point of support, without allowing direct contact. In cities, where overhead wires are objectionable, the wires are often placed underground in pipes or cables. The wire employed is most commonly

of galvanized iron. Steel would be preferred for strength, but it is not as good a conductor as iron. The different qualities of telegraph wire are known in the trade as B, BB, ExBB, &c., signifying best, double best, extra best, &c. The very best telegraph wire is bimetallic, and is restricted in use because of its cost. It has a copper core, giving great conductivity, and a steel exterior, giving the strength necessary for stringing long distances. Bichromate batteries are generally preferred for furnishing the electric current for telegraphic purposes. The Leclanché and Daniell batteries are in common use, and secondary batteries are used to a considerable extent. See GALVANIC BATTERY.

The *submarine telegraph* is described at ATLANTIC TELEGRAPH (*q. v.*). The receiving instrument used in ocean telegraphy is the *siphon-recorder*, the invention of Sir William Thomson (*q. v.*), now Lord Kelvin, who patented it in 1867. It consists of a siphon of glass, arranged to draw ink from a well, and deposit it in a waved line on a moving strip of paper, producing undulations which may be interpreted by the Morse code. As now used, in improved form, this siphon is attached to a device resembling a galvanometer, having a rectangular coil, surrounding a core of soft iron, which is suspended by two parallel threads from the line-wire, so as to hang freely between the poles of two powerful electro-magnets. When a current passes, the rectangular coil is deflected to the right or left, according to the direction of the current, and swings the recording end of the siphon. Lord Kelvin also designed the automatic *curb-sender* for diminishing induction in submarine cables. This apparatus after each contact removes the residual charge in the cable by putting the line to the other battery-pole, applying an electromotive force at the sending end equal to that producing the signal. In sending by hand the end of the cable is put to one or the other pole of the battery and to earth alternately, the relative time depending on the accuracy of movement of the operator. The automatic curb-sender puts the cable to one or the other pole of the battery and then to the reverse pole for definite periods, thus charging the cable positively and negatively for each signal sent, and also providing accurate intervals. The message requires to be prepared in advance on a strip of paper, holes being punched on one edge for the dots, and on the other edge for the dashes. This paper being passed through

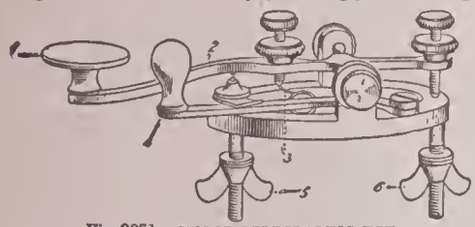


Fig. 3071.—MORSE TELEGRAPHIC KEY.
1, button; *2*, lever; *3*, spring; *4*, switch; *5*, *6*, table-clamps.

the instrument, with a lever resting over each row of holes, contacts are made through the holes at the proper intervals. The paper strip is fed regularly by a central row of holes, and the reversal of the current is provided for during the advance between holes. The *mirror galvanometer* was used for receiving signals on the first Atlantic cable. This consisted of a very small mirror, having four exceedingly light magnets attached to its back, the whole being suspended by a silk thread within a magnetic coil. As a current was passed through the coil the suspended magnets and the mirror tended to take a position at right angles to the plane of the coil, and a vibration of the mirror was accomplished by sending the current through the coil first in one direction, then in the other. A light being conveniently placed, the mirror threw reflections to one side and the other, which were interpreted as dots and dashes of the Morse code. The *spark-recorder* was used later, before the siphon-recorder was introduced. This had an indicator hung between electro-magnets, so as to vibrate with the currents. The indicator was connected with a magnetic coil arranged to discharge sparks regularly to a metal plate. The action of the indicator, as affected by the currents from the line, interrupted the sparks so as to indicate the pauses interpretable by dots and dashes.

STATISTICS.—The *T.* is used more in the U. S. than in any other country, except the United Kingdom of Great Britain and Ireland. The tolls in the two countries are practically the same, 25 cents per message of 10 words and address and signature in the U. S. for moderate distances, and a shilling in the United Kingdom. The submarine *T.* rate is commonly one shilling per word. The Western Union Telegraph Company controls almost all the *T.* lines of the U. S., having absorbed its leading competitors by purchase in 1881, and now operates nearly 200,000 miles of line, with a capital stock of $95,350,000. It also has exclusive contracts for the operation of most of the Atlantic submarine cables. The stock pays regular dividends, whereas the *T.* system conducted in the United Kingdom as a branch of the Post-office Department, under government control, shows an annual deficit. There are 5,673 *T.* offices in the United Kingdom and 32,000 miles of line. As the amount of business transacted is nearly the same in both countries, at practically similar rates, and the fact that messages are sent here over lines six times as long with more profit, speaks well for American methods. The growth of telegraphy in the past 30 years is well shown by the following figures: Number of messages, 1870—Russia, 2,716,300; Norway, 466,700; Sweden, 590,300; Denmark, 513,623; Germany, 8,207,800; Holland, 1,837,800; Belgium, 1,998,800; France, 5,663,800; Switzerland, 1,629,-235; Spain, 1,050,000; Italy, 2,189,000; Austria, 3,388,-249; Hungary, 1,489,000; United States, 9,157,646; Great Britain and Ireland, 9,650,000. Number of messages, 1900—Russia, 18,565,567; Norway, 2,267,915; Sweden, 2,643,742; Denmark, 2,317,979; Germany, 46,008,794; Holland, 5,393,872; Belgium, 14,411,487; France, 48,144,-151; Switzerland, 3,272,345; Spain, 5,058,104; Italy, 9,064,-482; Austria, 15,057,176; Hungary, 14,370,439; United States, 75,000,000: Great Britain and Ireland, 89,576,961.

Tel'egraph Plant, *n.* (*Bot.*) See DESMODIUM.

Teleg'raphy, *n.* The art or practice of telegraphing.

Telemachus (*te-lem'a-kus*). (*Heroic Hist.*) A son of Ulysses (Odysseus) and Penelope, whose history is narrated in Homer's *Odyssey*, and has been used in modern times as the subject of a celebrated romance of Fénélon.

Teleol'ogy, *n.* [Fr. *téléologie*, from Gr. *telos, teleos*, the issue, and *logos*, doctrine.] The doctrine of final causes of things; the philosophical treatment of final causes in general.

Te'leosaur, *n.* [Gr. *teleios*, perfect, *sauros*, a lizard.] One of a genus of fossil Crocodilia, differing from the *gavials* by having the vertebræ united by flat surfaces instead of ball-and-socket joints.

Telephon'ic, *a.* [Gr. *phonē*, sound.] Far-sounding.

Tel'escope, *n.* [Gr. *tēle*, afar off; *skopeo*, I view.] (*Optics.*) An optical instrument used for the purpose of observing or discovering distant objects, especially the celestial orbs. It consists of a tube which contains a lens or a concavo mirror, in whose focus is formed an image of some distant object, and of a microscope lens, or combination of lenses, known as the *eye-piece*, by which this image may be magnified and studied. (Fig. 223.) It is difficult to decide to whom the credit of discovering this useful instrument is due. Some claim that it was known to the Greeks and Romans; others, that it was possessed by the Arabian astronomers, but on very slight evidence. Roger Bacon seems to have understood its principle, but not to have constructed one, and the practical discovery of the telescope appears to have been made in Holland about 1608, the honor being probably due to Hans Lippershey. In the following year, Galileo, who had heard of this discovery, studied its optical principles, and made an independent discovery of the instrument, of which he was the first to make a practical use. On the first night in which he used it, Jan. 7, 1610, he had the good fortune to discover 3 of Jupiter's moons. His first telescope magnified 3 diameters, his second, 8; and the one with which this discovery was made, 33. In the following year, Kepler pointed out the advantages of a telescope constructed of two convex lenses, a form of the instrument which supplanted the Galilean on account of its much larger field of view. Huygens made the first powerful telescopes of this construction, and with one of them discovered, in 1655, the brightest of Saturn's satellites. The first reflecting telescope was made by Newton, who, in 1666, came to the conclusion that the difficulty arising from the colored image made by the lenses of the refracting telescope was insuperable. In this telescope the image of the object, instead of being formed in the focus of a convex lens, as in the refractor, is similarly focussed by a concave mirror, and magnified by a microscopic eye-piece. Hadley produced a telescope on this principle, which magnified up to 230 diameters. The next vital discovery in this field was made by Chester Moor Hall, an English experimenter, who, by combining different kinds of glasses, succeeded in correcting the color defect of all previous object-glasses, the refraction of light in one glass being corrected by the other, so that an achromatic effect was produced. This discovery completed the steps of evolution of the telescope, all later improvements being in the direction of increase of its optical powers. In the refracting telescope, as now made, the achromatic effect is obtained by a combination of crown-glass and flint-glass lenses, the tendency of the one to disperse the light into its primary colors being overcome by the different dispersive power of the other. These are made of as great diameter as possible, so as to take in the largest available number of light-rays from the object. They are mounted in the end of a long tube, whose other end is occupied by the eye-piece, which is movable in the tube, so as to adjust it to the focal distance of nearer or more distant objects. What is seen in the telescope is not the object, but its focussed image, which may be greatly magnified by the microscopic powers of the eye-piece. In the reflecting telescope, the light from the object enters at the end occupied by the eye-piece in the refractor, strikes on the mirror, and is reflected at an angle, so that the image may be perceived through an eye-piece placed at the edge of the mouth of the tube, or outside the tube. In some instances a double mirror is used, the second gathering the light from the first, and reflecting it back through a hole in the center of the first, behind which the eye-piece is placed. The defect in this process is the loss of light due to the double reflection. Large and powerful telescopes have been made on both principles, the largest reflector being that of Lord Rosse (72 inches aperture, 1844). Next in size is that of Mr Commons (60 inches, 1889). One of the principal difficulties in the construction of large reflectors has been the casting and annealing of metallic masses of several tons' weight. This has been overcome by the Liebig process of depositing on glass a very thin film of silver, which can be polished until highly reflective. Of large refractors in Europe may be named those of the National Observatory, Paris (23·6 inches); Cambridge, England (25 inches); Vienna, Austria (27 inches); Greenwich, England (26 and 28 inches); Nice, France (29·9 inches); Pulkowa, Russia (30 inches); Mendau, France (24, 29, and 32 inches). In the United States the largest are those of the Chamberlain Observatory, Denver, Col. (20 inches); Halsted Observatory, Princeton, N. J. (23 inches); Harvard University (24 inches); University of Virginia (26 inches); Naval Observatory, Washington, D. C. (26 inches); Lick Observatory, California (36 inches), and Yerkes Observatory, Geneva Lake, Wis. (40 inches). The last, completed and opened to observation in Oct., 1897, is the largest in the world. The great object-glass is mounted in a steel tube 64 feet long, 52 inches diameter at center, and weighing 6 tons, the total weight of the telescope and its mountings being 75 tons. Its great power has been already fully demonstrated, and it will undoubtedly add greatly to our knowledge of the celestial spheres.

Tel'escoped, *v.* To be driven into each other after the manner of a telescope; as, the cars *telescoped*. (U.S.)

Tel'escope Fly, *n.* (*Zoöl.*) See DIOPSIS.

Tel'escope-shell, *n.* (*Conchol.*) A species of *Turbo*, with plane, striated, and numerous spires.

Telescop'ic, Telescop'ical, *a.* [Fr. *télescopique.*] Pertaining, or having reference, to a telescope; performed by a telescope; as, a *telescopic* view.—Seen or discoverable only by means of a telescope; as, *telescopic* heavenly bodies.—Far-seeing; far-reaching; competent to discern objects afar off; as, *telescopic* vision.

Teleste'reoscope, *n.* [Gr. *tēle*, far; *stereos*, compact, and *skopein*, to view.] (*Optics.*) A telescopic stereoscope.

Teles'tich, *n.* [Gr. *telos*, the end, and *stichos*, verse.] A poetical composition wherein the final letters of the lines form a name;—the correlative to *acrostic*.

Tel'fair, in *Georgia*, a S. co.; *area*, 491 sq. m. *Rivers.* Ocmulgee and Little Ocmulgee rivers, and Sugar creek *Surface*, level; *soil*, sandy. *Cap.* McRae. *Pop.* (1897) 6,400.

Tell, *v. a.* (*imp.* and *pp.* TOLD.) [A.S. *tellan, getellan.*] To put together in spoken words; to utter; to express in speech; to communicate orally to others; to relate; to narrate; to rehearse, as particulars; as, to *tell* a story.—To make known; to show by words; to reveal; to discover; to disclose; to divulge; to betray; as, to *tell* of another's misdoings.—To teach; to inform; to acquaint; to interpret; to publish; to unfold; as, *tell* me how I may know him.—To reckon; to count; to number; to compute; to enumerate; to mention one by one; as, to *tell* money.—To find out; to ascertain by observation; to discern or notice so as to report; as, *I* cannot *tell* which is which.

To tell off, to count; to divide; as, a detachment was *told off* for special duty.

—*v. n.* To make report; to give an account.—To take or produce effect; as, every shot *tells*.

To tell of, to speak of; to mention; to describe or recount; as, he *tells of* many wonders.—*To inform against*, to act the tell-tale; as, he is always *telling of* others;—*on* is occasionally and incorrectly used for *of* in this sense; as, "Lest they should *tell on* us."—1 *Sam.* xxvii. 11.

—*n.* That which is told; tale; narration; account. (R.)

Tell, WILLIAM, the renowned champion of Swiss liberty, was a native of Burglen, in the canton of Uri. He was distinguished by his skill in archery, his strength and courage. He joined the league of the Three Forest-cantons formed to free the country from Austrian tyranny. The Austrian governor of Switzerland, Herman Gessler, pushed his insolence so far as to require the Swiss to uncover their heads before his hat (as an emblem of his sovereignty), and is said to have condemned *T.*, who refused to comply with this mandate, to shoot an apple from the head of his own son. *T.* was successful, but confessed that a second arrow, which he bore about his person, was intended, in case he had failed, for the punishment of the tyrant, and he was therefore retained prisoner. While crossing the Lake of the Four Cantons, or Lake of Lucerne, in the same boat with Gessler, a violent storm arose. *T.*, as the most vigorous and skilful helmsman, was set free, and he conducted the boat successfully to the shore, but seized the opportunity to spring upon a rock, at the same time pushing off the boat. On this rock, since called the *Rock of Tell*, a commemorative monument or chapel has been erected. He had fortunately taken his bow with him; and when the governor finally escaped the storm, and reached the shore, *T.* shot him dead on the road to Küssnacht. This event was the signal for a general rising, and a most obstinate war between the Swiss and Austrians, which was not brought to a close until 1499. *T.* is supposed to have lost his life during an inundation in 1350. Doubt has been thrown upon this popular story by some modern critics, and lately by M. Marc Monnier in the *Revue des Deux Mondes;* but even if some of its romantic details are mythical, it is scarcely possible, in the face of the testimony of early chroniclers, and the concurrent evidence of local customs and observances, to deny the substantial truth of the history. However, it is certain that *T.* contributed to emancipate his country; and there are many local customs referring to the events here related. The memorable event above described is said to have happened on the 7th of November, 1307; and the citizens having previously chosen for their leaders three men of approved courage and abilities, namely, Werner of Schwytz, Walther Fürst of Uri, and Arneld Melchthal of Unterwalden, they secretly agreed to surprise and demolish the castles in which the imperial governors resided. This compact being effected,

these three cantons joined in a league for ten years, which gave birth to the Helvetian Confederacy.

Tell, in *Pennsylvania*, a township of Huntingdon co.; *pop.* abt. 1,009.

Tell'able, *a.* That may be told or mentioned.

Tell City, in *Indiana*, a post-village and township of Perry co.

Tell'er, *n.* One who tells, relates, or communicates the knowledge of something.—An enumerator; a recounter.

(*Banking.*) An officer in a bank, who receives money into the bank, and pays it out on checks.

—A person appointed to count the votes given by the members of a legislative assembly, &c., on a division.

Tellicherry, (*tel-li-cher're,*) a fortified seaport-town of British India, presidency of Madras, 93 m. from Seringapatam; Lat. 11° 44′ N., Lon. 75° 36′ E. *Pop.* 22,000.

Tel'lico River, rises in Cherokee co., *N. Carolina*, and flowing N.W., enters Little Tennessee River in the N. of Monroe co., Tennessee.

Telli'na, *n.* (*Zoöl.*) A genus of Cockles (cardiaceous bivalves in the Cuvierian system), characterized by the hinge of the shell having one tooth on the left and two teeth on the right valve, often bifid; in the right valve there is a plate which does not enter a cavity in the opposite valve. There is a slight fold near the posterior extremity of both valves which renders them unequal at that part, where they gape a little.

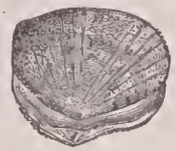


Fig. 2479.
CAT'S-TONGUE TELLINA.
(*Tellina lingua-felis.*)

Tell'ing, *n.* The act of relating.

—*p. a.* Having or producing great effect; as, a *telling* speech.

Tell'ingly, *adv.* In a telling manner; effectively.

Tell'-tale, *a.* Revealing; babbling; telling tales or secrets; as, *tell-tale* blushes.

—*n.* A babbler; a tattler; one who officiously communicates information of the private concerns of individuals; a busy-body; as, a *tell-tale* out of school.

(*Naut.*) An instrument by which, by communicating with a small barrel on the axis of the steering-wheel, indicates the position or situation of the wheel; also, a compass in the cabin of a ship giving information to persons below of the vessel's course.

(*Mus.*) A movable piece of ivory, or other material, attached to an organ, that serves to give notice, by its position, when the wind is exhausted.

(*Mach.*) A contrivance for indicating or recording something, especially for keeping a check upon employés, as factory hands, &c., by revealing to their overlookers what they have done or omitted to do.

Tel'lurite, or **Tel'luric Ochre,** *n.* (*Min.*) Native oxide of tellurium.

Tellu'rium, *n.* (*Chem.*) A brilliant crystalline, brittle metal, resembling bismuth in color, and fusing between 800° and 900° Fahr., above which temperature it may be distilled in a current of hydrogen. According to Mitscherlich, it crystallizes in a rhombohedral form. It conducts both heat and electricity, though imperfectly. Like sulphur and selenium, it dissolves to a slight extent in sulphuric acid, from which it may be precipitated unchanged by dilution. When strongly heated in the air, it takes fire, burning with a brilliant blue flame edged with green, emitting a peculiar characteristic odor and producing fumes of tellurous acid: *T.* is a very rare substance, occurring in nature in combination with gold, silver, bismuth, copper and lead, in certain mines of Hungary, Transylvania and Colorado. Identified as a distinct metal by Klāproth in 1798. It is prepared from it by a long and tedious process which cannot be detailed here. With oxygen, like sulphur and selenium, it forms two combinations, TeO_2, *tellurous acid*, and TeO_3, *telluric acid*. The former may be prepared by dissolving *T.* in nitric acid, and pouring the solution into water, when hydrated tellurous acid falls down as a bulky white precipitate. It is slightly soluble in water, reddens litmus, and combines with the alkaline bases. Its salts are said to act as emetics. It also has basic properties, forming soluble salts with oxalic and tartaric acids. *Telluric acid* is obtained by heating *T.* with nitre. Tellurate of potash is formed, from which tellurate of baryta may be procured, the baryta being afterwards separated by sulphuric acid. It crystallizes as a terhydrate, in hexagonal striated prisms. Heated to redness, they become anhydrous, and assume an orange-yellow color. Telluric acid has but a feeble affinity for bases, forming salts which contain 1, 2, and 4 equivalents of acid. Two chlorides, TeCl and $TeCl_2$, have been formed. *T.* forms *tellurides* with bismuth, gold, silver, lead, and most other metals. The tellurides belong to the class of metallic alloys. With hydrogen it forms *telluretted hydrogen*, or *hydrotelluric acid*, TeHa, a compound analogous to the combinations of sulphur and selenium with that element. It is obtained by decomposing telluride of zinc or tin with hydrochloric acid. The gas which escapes has an odor singularly similar to sulphuretted hydrogen, and has a faintly acid reaction. It dissolves in water, forming a colorless solution, which turns brown by the oxidation of the hydrogen and separation of *T.* Tellurium also forms two sulphides, corresponding to its two oxides. *T.* is interesting as being the connecting link between the metals proper and the metalloids. Equiv. 64, sp. gr. 66. *Symbol*, Te.

Tel'otype, *n.* [Gr. *têle*, afar, and *typos*, image.] An electric telegraph which prints the messages.

Temascaltepec, a town of Mexico, 68 m. S.W. of Mexico city; *pop.* 6,000.

Temera'rious, *a.* [Fr. *téméraire.*] Headstrong; recklessly adventurous; heedless of, or despising, danger.

Temera'riously, *adv.* In a temerarious manner.

Temer'ity, *n.* [Fr. *témérité;* Lat. *temeritas.*] Rashness; headlong precipitancy; reckless boldness; unreasonable contempt of hazard or danger; extreme venturesomeness; as, the *temerity* of a gun-brig attacking two frigates.

Temesvar, (*tem-esh-var',*) a fortified city of Hungary, cap. of the Banat of Temesvar, and one of the strongest fortresses of the Austrian empire, 74 m. from Belgrade, at the junction of the river Temes and the Baga canal. *Manuf.* Silk, iron goods, and woollens. *Pop.* 25,426.

Temis'caming Lake, on the border of Ontario and Quebec, 30 m. long, and 15 m. broad, discharges its surplus waters into the Ottawa River; Lat. 47° 30′ N., Lon. 80° W.

Temiscouata, (*tem-is-koo-a'ta,*) a lake of prov. of Quebec, 130 m. N.E. of Quebec, 22 m. long, and abt. 2 wide.

Tem'pe, a valley of Greece. See Greece, and Fig. 1195.

Tempean, *a.* Resembling the valley of Tempe;—hence, pastoral; beautiful; charming.

Temper, *v. a.* [Fr. *tempérer*; Lat. *tempero*—*tempus*, a section cut off.] To mingle, mix, or unite in due proportion; to adjust, as parts to each other; to mix so that one part qualifies the other; as, to *temper* justice with mercy.—Hence, to assuage; to mollify; to reduce, as any violence or excess; to soften; to soothe; to calm; as, woman's nature is designed to *temper* that of man.—To adjust; to accommodate; to modify; to fit one to the other. — To form to a proper or adequate degree of hardness; as, to *temper* a sword-blade. — To govern; —a Latinism; as, "Tartare *tempereth*." — *Spenser.*

(*Mus.*) To adjust, as the mathematical scale to the scale in actual use.

(*Founding.*) To moisten and knead to a suitable consistency; as, to *temper* moulding clay.

—*n.* Due mixture or proportion of different qualities; or the state of any compound substance which accrues from the mixture of sundry ingredients; as, the *temper* of cement. —Temperament or constitution of the body. — State or constitution of the mind, particularly with regard to the passions and affections; disposition; humor; mood; as, a man of imperturbable *temper*. — Moderation; serenity and calmness of mind. — Irritability; heat of mind or passion; tendency to anger or exasperation;—used in a reproachful sense; as, his wife has got a *temper* of her own. — State or quality of a metal, particularly as to its hardness produced by mechanical process; as, the *temper* of iron or steel. — Mean or medium; middle course; as, "some reasonable *temper*." — *Swift.*

Tem'perament, *n.* [Fr.; Lat. *temperamentum*—*tempero.*] Mental constitution; general state, frame, or disposition of the mind; state with respect to the predominance of any quality or combination of qualities; as, the *temperament* of the body. — Act of tempering, adjusting, or modifying; accommodation, as of antagonistic rules, interests, passions, &c., or the means by which such accommodation is brought to pass; as, "The common law . . . has reduced the kingdom to its just state and *temperament*." — *Hale.*

(*Physiol.*) That peculiarity of organization which to a certain extent influences man's thoughts and actions. The ancient physicians enumerated four temperaments, viz.: the *bilious* or *choleric*, the *phlegmatic*, the *sanguine*, the *melancholic*. To these some have added the *nervous;* and these terms are still in use among medical writers.

(*Mus.*) A system of compromise in keyed instruments for the avoidance of the necessity, presupposed by the strict relation of musical intervals, of having a separate row of keys corresponding to each tonic. Pianofortes are generally tuned on what is called *equal temperament*, i. e., there being eleven notes in the octave, an equal value is given to each interval between them, representing a semitone. The consequence of this is, that, although all the intervals, the thirds, fifths, &c., are slightly imperfect, yet they all approach perfection in the same degree; whereas, if some were made accurate, others must be very far wrong.

Tem'perance, *n.* [Fr.; Lat. *temperantia.*] (*Morals.*) That virtue which a man is said to possess who moderates and restrains his sensual appetites; but it is often used in a much more general sense, as synonymous with *moderation*, and is then applied indiscriminately to all the passions. *T.* is one of the best means of preserving health. "It," says Addison, "is a kind of regimen into which every man may put himself, without interruption to business, expense of money, or loss of time." "It may be practised by all ranks and conditions at any season or in any place." Since attention has been called to the pernicious effects of intemperance in the use of alcoholic liquors, the term has come to be frequently used to denote a temperate use of these, and by a somewhat singular manipulation, to denote even total abstinence from them.

Temperance societies, are institutions established for the purpose of extending the principles of total abstinence from the use of spirituous liquors. The evils that result from drunkenness are, unfortunately, too well known to require any special notice. It is only within recent times, however, that any attempt has been made to grapple with this monstrous evil. The first united effort made to check the progress of intemperance was by the formation of an association for that purpose in Massachusetts, which held its first meeting in 1813. It collected facts and statistics from year to year, exhibiting the nature and magnitude of the evil, with the view of calling public attention to it, and of directing efforts for its removal. Next year, a similar institution was organized in Connecticut, with various branches, and in 1818 the number of these societies was above forty. A new impulse was given to the movement by the formation, at Boston, on a much more extensive plan, of the American Society for the Promotion of Temperance. In 1829, the number of auxiliary associations had increased to upwards of 1,000, no State of the Union being without at least one. In 1831, there were 2,200 societies, including 170,000 members, in connection with the parent association; and since then the numbers have been very largely increased. They did much in the way of diffusing their principles by circulating tracts and employing travelling-agents to deliver addresses. The principle of total abstinence appears to have been introduced among the members by an association formed at Andover, in Sept., 1826. Soon after their establishment in the U. States, *T. S.* began to be formed in England and Scotland, and spread so that, in 1831, there were several hundreds of them in those countries. In Ireland, the cause of temperance was advocated with much success by the Rev. Father Mathew, a Roman Catholic clergyman, who affirmed that in three years (1839–1841) he had made more than a million of converts to that principle. Of late years, the advocates of total abstinence have much increased, and they now form, in the U. States, a large and influential portion of the community. They are still actively employed in the diffusion of their principles, and with much success. Whatever views may be held on the subject of total abstinence, every one must admit that these societies have been the means of effecting an incalculable amount of good. In 1851, the State of Maine passed a law *For the Suppression of Tippling Shops, &c.*, rendering penal the sale of intoxicating drinks; and though, in 1856, the existing laws were repealed, and it became lawful to distil spirits, to sell spirits, and to have spirits in possession, drinking-houses continued to be prohibited. A similar law was passed in Massachusetts in 1867, and repealed in 1875. There are now some other States in which the sale and manufacture of fermented drinks is totally prohibited, and many more in which its sale is prohibited during Sunday. See Liquor License Laws.

Tem'perance, in *Georgia*, a post-village of Telfair co., abt. 90 m. S. of Milledgeville.

Tem'peranceville, in *Pennsylvania*, a post-village of Alleghany co., abt. 2 m. S. of Pittsburg.

Tem'perate, *a.* [Fr. *tempéré;* Lat. *temperatus*—*tempero.*] Limited; moderate; not excessive or extreme; as, a *temperate* climate. — Moderate in the gratification of the appetites and passions; abstemious; as, *temperate* in pleasures. — Not marked with passion or violence; cool; calm; dispassionate; sedate; sober; as, *temperate* language.

Temperate zones. (*Geog.*) Two of the five zones into which the terrestrial globe is divided. The *north temperate zone* is included between the tropic of Cancer and the arctic circle, and the *south temperate zone* between the tropic of Capricorn and the antarctic circle.

Tem'perately, *adv.* Moderately; without excess or extravagance; calmly; without violence of passion; with moderate force.

Tem'perateness, *n.* Quality of being temperate.

Tem'perature, *n.* [Fr.; Lat. *temperatura.*] State; constitution; degree of any quality.

"Memory depends upon the consistence and *temperature* of the brain."—*Watts.*

(*Phys.*) A definite degree of sensible heat as measured by the thermometer. Thus, we say a *high T.*, a *low T.*, to denote a manifest degree of *heat* or *cold*. *T.*, in general, denotes the degree of free caloric which a body appears to possess when compared with other bodies; or, in other words, the state of a body in relation to its capability of producing in other bodies the effects arising from the presence of free caloric. There are two methods of measuring the *T.* of bodies, namely, by our sensations, or by the different degrees of expansion produced in bodies on being subjected to different degrees of free caloric. The first of these is so imperfect that no dependence can be placed upon it as a measure of *T.;* but the second is much more regular and extensive. When two bodies produce the same increase or diminution of volume in a third body, to which they are equally applied, they are said to be at a *higher* or *lower T.*, as it produces a *greater* or *less* expansion in another body with which it is in contact.

Tempered, (*tĕm'perd,*) *p. a.* Disposed;—frequently used in composition; as, a good-, or bad-*tempered* person.

Tem'pering, *n.* (*Metall.*) The process by which the hardness of steel is more or less reduced. — See Steel.

Tem'pest, *n.* [Fr. *tempête;* Lat. *tempestas.*] A violent storm of considerable duration; an extensive current of wind, rushing with great velocity and violence, and commonly attended with hail, rain, or snow; a hurricane; a storm of extreme vehemence;—hence, by analogy, any violent tumult or commotion; as, a *tempest* of the passions.

(Note. *Tempest* is occasionally employed in the construction of certain self-explanatory compounds; as, *tempest*-driven, *tempest*-tossed, &c.)

Tempest'uous, *a.* [It. *tempestoso.*] Abounding in tempests; very stormy; turbulent; rough with wind; blowing with violence; as, *tempestuous* weather.

Tempest'uously, *adv.* With great violence of wind, or great commotion; turbulently.

Tempest'uousness, *n.* State of being tempestuous.

Tem'pio, a town of Sardinia, 32 m. from Sassari; *pop.* 10,000.

Tem'plars, Knights Templars, or Knights of the Temple, *n.* (*Eccl. Hist.*) A religious order of knights, founded in the beginning of the 12th century, for the defence of the Holy Sepulchre and the protection of Christian pilgrims. Knights were fixed at Jerusalem by King Baldwin II., who gave them the ground on the

east of the Temple. Their rules, taken from those of the Benedictine monks, involved the vows of chastity, obedience, and poverty. The classes of the order were, knights, esquires, servitors, and chaplains; the universal badge of the order was a girdle of linen thread. The officers of the order were chosen by the chapter from among the knights; and the Grand Master, in some respects, assumed the dignity of a sovereign prince, being independent in secular matters, and depending solely on the Pope in spiritual. The chief part of the 9,000 estates, lordships, &c., which the society possessed in the 13th century, was situated in France; and the Grand Master was usually of that nation. The *T.*, with the rest of the Christians, were driven from Palestine by the Saracens, and then fixed the chief seat of their order in Cyprus. Their exorbitant power and wealth, and the haughty manner in which they endeavored to keep aloof from the control of European sovereigns, and

Fig. 2480. — KNIGHT TEMPLAR.

act as a military republic independent of their authority, were probably the principal reasons which induced Pope Clement V. and Philip "the Fair" of France to concert their overthrow. The charges of heresy and idolatry, which were preferred against them, were at least unsupported by evidence. In 1307, Jacques de Molay, the Grand Master, having been enticed into France, was arrested by Philip; the estates of the order were seized; many of the *T.* were burnt alive, after the mockery of a trial; and, in 1312, the order was abolished by a bull of Clement V. Its vast estates fell partly into the hands of the sovereigns of the countries in which they were situated, partly into those of the Hospitallers and other military orders. Detached bodies of the order, however, continued to exist in different countries.

TEMPLARS, MASONIC KNIGHTS, a modern adjunct to Freemasonry, based upon the ideas of the ancient Knights Templar.

—In England, a student of the law, so called from having chambers in the *Temple*, one of the inns of court, at London; and which originally belonged to the Knights Templars.

—*a.* Pertaining, or having reference to, a temple,

TEMPLARS, (INDEPENDENT ORDER OF GOOD.) In Ithaca, New York, July 21, 1852, was organized the first society, by Nathaniel Curtis, who became their first Worthy Chief Templar, and on the 17th of August was chosen the first Grand Worthy Chief Templar. He was a man of broad views, who had been reformed by the Washingtonians, and who at once threw into this new Order all his power, zeal, and energy. He established this new Temperance Order upon a new basis; discarding all beneficial features. Firstly; requiring as a qualification of membership the recognition of the existence and power of Almighty God, the Ruler of all things. Secondly; the necessity of a life-long pledge to abstain totally from the use of any intoxicating liquors. Thirdly; the importance of bringing into the same bond the entire family circle that had arrived to years of discretion. Fourthly; the equality of all members of the Order, making no distinction in sex, color, sect, or condition, merit being the only just qualification for office or position. It adopted from the first the motto of *Faith, Hope, and Charity*, and also principles of Prohibition, and the duty of its members to reclaim the fallen, as well as save others from becoming addicted to the habit of using intoxicants. The whole ritualistic ceremony is replete with holy instructions. This Order has its password, grips, and signals. Some Christian denominations, recognizing its religious influence, have one of these societies connected with their church. There are four Degrees in this Order. 1st, The Subordinate or Lodge Degree; 2d, the Degree of Fidelity; 3d, the Degree of Charity; 4th, the Grand Lodge Degree. The latter forms the head or legislative body of the state where it exists, and is composed of representatives elected from the respective lodges within that jurisdiction. In 1897 there were 100 of these Grand Lodges (including England and Scotland), with a membership of over 573,663. These Grand Bodies meet annually. They elect representatives and form what is called the Right Worthy Grand Lodge, whose province it is to legislate upon all matters of general interest to the whole Order.

Temple, (*tem'pl,*) *n.* [Fr. *temple*, from Lat. *templum, tempulum*, a dimin. of *tempus.*] A public edifice erected in honor of some deity; as, the *temple* of Juggernaut in India.

(*Jewish Antiq.*) The building erected for the worship of God at Jerusalem. — Hence, an edifice erected as a place of Christian worship; a church; a sacred or consecrated place; as, "the Lord's anointed *temple*." (*Shaks.*) — A place wherein the divine spirit specially resides; as, "Here we have no *temple* but the wood." (*Shaks.*) — In London, England, the name of two inns of court, — the *Middle Temple*, and the *Inner Temple*;—so called because anciently the dwellings of the Knights Templars; as, a barrister of the Inner *Temple*.

—[Fr. *tempe;* Lat. *temporu, tempus.*] (*Anat.*) One of the lateral and flat parts of the head above the ears; so called because time, or the age of an individual, is denoted by the hair becoming first gray here. The temporal bones are two irregular-shaped bones, one on each side of the head, connected with the occipital, parietal, and sphenoid bones. The temporal muscle is situated in the temple, and inserted into the coronoid process of the lower jaw, its principal use being to draw the lower jaw upwards, as in biting. The temporal artery is a branch of the external carotid, which runs on the temples and gives off the frontal artery.

—In weaving, a contrivance used in a loom for stretching the web transversely.

Temple, SIR WILLIAM, an eminent English statesman, diplomatist, and writer, B. in London, 1629. He spent twenty years in the service of the state, and then retired for the enjoyment of a learned leisure. He was the model of a negotiator, uniting politeness and address to honesty. His works are memoirs, miscellaneous letters, and observations on the United Provinces. D. 1700.

Temple, in *Maine*, a post-township of Franklin co., abt. 150 m. N.W. of Augusta.

Temple, in *N. Hampshire*, a post-township of Hillsborough co., 33 m. S.S.W. of Concord.

Temple, in *Pennsylvania*, a post-village of Berks co., 5 m. N.N.E. of Reading.

Tem'plemore, a neat modern town of Ireland, co. Tipperary, 75 m. from Dublin, near the Devil's Bit Mountains; *pop.* 4,000.

Tem'plet, Tem'plate, *n.* (*Arch.* and *Engin.*) A short piece of timber or stone laid under the bearing of a girder, with the object of distributing the weight of the latter; also, a mould used by bricklayers, masons, &c., for cutting or setting out work, or by millwrights for cutting the teeth of wheels; also, any plate or board formed to the exact dimensions of parts of engines and machines, so that new parts may be produced from such templets of the exact size required to fit the other parts.

Tem'pleton, in *Massachusetts*, a post-village and twp. of Worcester co., 55 m. W. of Boston.

Tem'pleville, in *Maryland*, a post-village of Queen Anne co., abt. 55 m. S.E. of Baltimore.

Tem'po, *n.* [It., time.] (*Mus.*) Time.

Tem'poral, *a.* [Fr. *temporel;* Lat. *temporalis*, from *tempus*, time.] Pertaining or having reference to time; belonging to this life, or this world, or this body only; measured or limited by time, or by this life or mundane state of things; secular;—in distinction from *sacred* or *eternal;* as, *temporal* matters.—Civil or political;—as opposed to *ecclesiastical;* as, *temporal* power.

Temporal augment. (*Gram.*) In certain tenses, the augmentation of the short initial vowel of a verb into the corresponding long one.

—[Fr.] (*Anat.*) Pertaining or relating to the temple, or temples, of the head; as, the *temporal* bone.

—*n.* That which is secular; a temporality.

Temporal'ity, *n.* [L. Lat. *temporalitas*, ecclesiastical goods.] (*Eng. Law.*) State or quality of being temporary;—in contradistinction to *perpetuity.*

(*Eccl.*) See TEMPORALS.

Tem'porally, *adv.* In a temporal manner.

Tem'porals, Temporal'ities, Tem'poralties, *n. pl.* Secular possessions; ecclesiastical revenues, proceeding from lands, tenements, lay-fees, tithes, and the like; as, the Pope's *temporalities.*

Tem'porarily, *adv.* In a temporary manner.

Tem'porariness, *n.* State or condition of being temporary.

Tem'porary, *a.* [Fr. *temporaire.*] Pertaining or relating to time; lasting but for a time; existing or continuing for a limited period of time;—hence, fleeting; transitory; as, to obtain *temporary* relief or assistance, a *temporary* truce, a *temporary* expedient, &c.

Temporization, (*-zā'shun,*) *n.* Act of temporizing.

Tem'porize, *v. n.* [Fr. *temporiser.*] To comply with the time or occasion; to humor, or yield to, the current of opinion or the pressure of circumstances.—To delay; to procrastinate. (R.)

Tem'porizer, *n.* A trimmer; one who temporizes or yields to the time or to the force of circumstances, or complies with the prevailing opinions, modes, or occasions.

Tem'porizing, *n.* A yielding to the time, or to its attendant circumstances; a complying with the prevailing opinions, fashions, or occasions.

Tempt, (*tĕmt,*) *v. a.* [Fr. *tenter;* Lat. *tento*, also *tempto*, to prove, to test, to urge.] To try; to attempt; to venture on; to endeavor to reach or accomplish; as, to *tempt* one's fate.—To provoke; to incite; to instigate; to seek to persuade.—To test; to prove; to put to trial or demonstration.

"Ye shall not *tempt* the Lord your God."—*Deut.* vi. 16.

—To tamper with; to excite; to solicit to an evil act; to incite to something wrongly, presenting inducements that are plausible or alluring, or by the offer of some pleasure or apparent advantage as the inducement; to seduce; to decoy; as, to *tempt* a person into committing a sin.

Temptabil'ity, *n.* State or quality of being temptable.

Tempt'able, *a.* That may be tempted or allured; susceptible to temptation.

Temptation, (*tĕm-tā'shun,*) *n.* [Fr. *tentation;* Lat. *tentatio.*] Act of tempting; allurement to evil or wrongdoing; enticement to sin or error proceeding from the prospect of pleasure or advantage.

"All *temptation* to transgress repel."—*Milton.*

—State of being tempted or enticed to evil.—Trial; allurement; attraction; that which is presented to the mind or passions as an inducement to evil; as, a great city abounds with *temptations.*

Tempter, (*tĕm'tẽr,*) *n.* One who tempts; one who entices or solicits to evil.—Particularly, the arch-fiend; the Devil; the great adversary of man.

Tempting, *p. a.* Attractive; adapted to entice or allure; as, a *tempting* woman.

Temp'tress, *n.* A female who beguiles, allures, bewitches, or entices.

Ten, *a.* [A. S. *tyn;* Lat. *decem;* Gr. *deka.*] Twice five; nine and one.—Many; several;—used as a kind of proverbial number; as, you have given for it *ten* times more than it is worth.

—*n.* The sum of five and five; the number comprising nine and one.—A symbol expressing ten units, as X, or 10.

Tenabil'ity, *n.* Same as TENABLENESS, *q. v.*

Ten'able, *a.* [Fr., from Lat. *teneo*, to hold tightly.] That may be held, maintained, or defended against an assailant, or against attempts to take or overthrow it; as, a *tenable* fort or city.

Ten'ableness, *n.* State of being tenable; tenability.

Tenace, (*ten'ās,*) *n.* (*Games.*) In whist-playing, the state of holding the best and third-best cards.

Tenacious, (*te-nā'shus,*) *a.* [Fr. *tenace;* Lat. *tenax.*] Holding fast or inclined to hold fast; inclined to retain what is in possession; retentive; apt to retain long what is committed to it; as, a *tenacious* memory.—Adhesive; apt to adhere to another body, as oily, glutinous, or viscous matter; as, glue is a *tenacious* substance.—Close-fisted; niggardly, meanly parsimonious.

Tena'ciously, *adv.* In a tenacious manner.

Tena'ciousness, *n.* State or quality of being tenacious.

Tenacity, (*te-nās'e-te,*) *n.* [Fr. *tenacité;* Lat. *tenacitas.*] State or quality of being tenacious; retentiveness; adhesiveness; firmness; as, *tenacity* of opinion.—Cohesiveness; that quality of bodies which makes them stick or adhere to others; glutinous; stickiness; that quality of bodies which keeps them from parting without considerable force;—opposed to *fragility.*

Tenac'ulum, *n.* [Lat., a holder.] (*Surg.*) A sharp-pointed, crooked instrument used by surgeons to transfix and pull out bleeding arteries which require to be tied.

Tenaille, (*ten-ile',*) *n.* [Fr.] (*Fort.*) A rampart raised in the main ditch immediately in front of the curtain between two bastions. In its simplest form, it consists of two faces, coinciding in direction with the faces of the bastions, and consequently forming with each other a re-entering angle. A tenaille, however, usually consists of three faces, of which two have the directions above stated, while the third forms a curtain, which is parallel to that of the enceinte.

Tenaillon, or **Great Tenaille,** (*ten-ile'yon(g),*) *n.* [Fr.] (*Fort.*) A species of exterior work constructed on each side of the ravelins, like the lunettes, to increase the strength of the ravelins, procure additional ground beyond the moat, or cover the shoulders of the bastions.

Ten'ancy, *n.* [L. Lat. *tenantia*, from Lat. *teneo.*] (*Law.*) A holding or possession of lands or tenements; tenure.

Ten'ant, *n.* [Lat. *teneo*, I hold.] (*Law.*) One who holds or possesses lands or tenements by any kind of title, either in fee, for life, for years, or at will. In a popular sense, he is one who has the temporary use and occupation of lands or tenements which belong to another, the duration and other terms of whose occupation are usually defined by an agreement called a lease.

—*v. a.* To hold or possess, as a tenant.

Ten'antable, *a.* In a state of repair suitable for a tenant; fit to be rented.

Ten'antableness, *n.* The state of being tenantable.

Ten'antless, *a.* Having no tenant; unoccupied.

Ten'antry, *n.* The body of tenants.

Tenant's (*or* **Tennant's**) **Harbor,** in *Maine*, a p.-v. of Knox co., on the Atlantic, 14 m. S.S.W. of Rockland.

Tenas'serim Provinces, in British Burmah, a long, narrow and mountainous strip of territory in Further India, separated from Siam on the E. by a mountain-chain, and having on their W. the Indian Ocean and the Salween River. *Ext.* 500 m. long, and 40 to 80 broad. A canal through this peninsula and Siam is projected, connecting the bay of Bengal with the Gulf of Siam, commencing at Kraw, on the W. coast. *Area*, 33,000 sq. m. *Pop.* 150,000.—Also, a river of Further India, falling, after a course of 200 m., into the Indian Ocean.

Ten'by, a small town and fashionable watering-place of England, in Wales, situated on Caermarthen Bay, at the mouth of the Bristol Channel, 11 m. from Pembroke; *pop.* 3,200.

Tence, (*tānce.*) a town of France, dept. of the Haute Loire, on the Lignon, 9 m. from Yssengeaux; *pop.* 6,746.

Tench, *n.* [Fr. *tanche.*] (*Zoöl.*) *Tinea vulgaris*, a fish *Fig.* 2481. TENCH, (*Tinea vulgaris.*)

KENTUCKY AND TENNESSEE

SCALE OF MILES
10 0 10 20 30 40 50 60

State Capitals ⊛ County Seats ⊙

Places of 25,000 and over		LOUISVILLE
" " 10,000 to 25,000		Henderson
" " 5,000 to 10,000		Bristol
" " 3,000 to 5,000		Harriman

Hammond's 8 x 11 Map of Kentucky and Tennessee
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NORTHEASTERN PORTION OF TENNESSEE
Same Scale as Main Map

Longitude West from Greenwich

TENNESSEE.

Land surface, Sq. m. 41,750
Water surface, Sq. m. 300
Pop. 1900..2,020,616
White...1,540,186
African ..480,213
Indian 108
Chinese.....75
Japanese..... 4
Native-born, 2,002,870
Foreign-born, 17,746
Males...1,021,224
Females..999,392

COUNTIES.

Anderson.....G 4
Bedford ..... E 5
Benton .....C 4
Bledsoe.....F 5
Blount..... H 5
Bradley.....G 5
Campbell .....G 4
Cannon ... ...E 5
Carroll .....C 5
Carter .....J 4
Cheatham.....D 4
Chester.....C 5
Claiborne. ...H 4
Clay.....F 4
Cocke .....H 5
Coffee .....E 5
Crockett .. .. B 5
Cumberland..F 5
Davidson..... E 4
Decatur .....C 5
DeKalb.....F 5
Dickson.... ..D 4
Dyer.....B 4
Fayette.....B 5
Fentress.....G 4
Franklin .....E 5
Gibson .....B 5
Giles.....D 5
Grainger. ... H 4
Greene.....J 4
Grundy .....F 5
Hamblem.....H 4
Hamilton.... .F 5
Hancock.....H 4
Hardeman....B 5
Hardin .....C 5
Hawkins.....J 4
Haywood .....B 5
Henderson....C 5
Henry.....C 4
Hickman. ....D 5
Houston .. ..D 4
Humphreys...D 4
Jackson.... ..F 4
James. .....F 5
Jefferson .... H 4
Johnson .....J 5
Knox.....H 4
Lake .....B 4
Lauderdale....B 5
Lawrence ....D 5
Lewis ... .D 5
Lincoln. .....E 5
Loudon .....G 5
McMinn .....G 5
McNairy.....C 5
Macon .....E 4
Madison.....C 5
Marion ..... F 5
Marshall .....E 5
Maury .....D 5
Meigs .. ..G 5
Monroe.....G 5
Montgomery..D 4
Moore .....E 5
Morgan .....G 4
Obion.....B 4
Overton.....F 4
Perry ..... D 5
Pickett.....F 4
Polk.....G 5
Putnam.....F 4
Rhea .....G 5
Roane.....G 5
Robertson.....E 4
Rutherford...E 5
Scott.... .....G 4
Sequatchie....F 5
Sevier.....H 5
Shelby.....B 5
Smith.....F 4
Stewart .....D 4
Sullivan.....J 4
Sumner.....E 4
Tipton. .....B 5
Trousdale.....E 4
Unicoi.....J 4
Union. .....H 4
Van Buren....F 5
Warren.....F 5
Washington.. J 4
Wayne.....D 5
Weakley .....C 4
White .....F 5
Williamson....E 5
Wilson .....E 4

CITIES-TOWNS

Pop. Thousands.

102 Memphis..A 5
80 Nashville...E 4
32 Knoxville..H 4
30 Chattanooga F 5
14 Jackson ....C 5
9 Bristol.....J 4
9 Clarksville..D 4
6 Columbia ...D 5
4 Johnson CityJ 4
3 Murfreesboro E 5
3 Cleveland.. G 5
3 Dyersburg..B 4
3 Harriman...G 5
3 Union City..B 4
2 Morristown.H 4
2 Rockwood..G 5
2 Humboldt...C 5
2 Pulaski .....D 5
2 Covington . B 5
2 Cookeville..F 4
2 Fayetteville.E 5
2 Tallahoma...E 5
2 Brownsville.B 5
2 Gallatin.....E 4
2 Trenton.....C 5
2 Shelbyville..E 5
2 Gainesboro..F 4
2 Franklin.....E 5
2 Paris.....C 4
2 Mountpleasant D 5
2 Dayton.....F 5
1 McMinnville.F 5
1 Lebanon ....E 4
1 Athens .....G 5
1 Greenville...J 4
1 S. Pittsburg.F 5
1 Springfield..E 4
1 Martin. .... C 4
1 Sweetwater.G 5
1 Milan.....C 5
1 Ripley.....B 5
1 Newport.....H 5
1 McKenzie ...C 4
1 Newbern.... B 4
1 Lewisburg ..E 5
1 Rogersville H 4
1 Dickson.....D 4
1 Winchester..E 5
1 Lexington...C 5
1 Huntingdon C 5
1 Jellico.....G 4
1 Jefferson City H 4
1 Dyer.....C 4
1 Clinton ..... G 4
1 Bolivar.....B 5
1 Obion.....B 4

Pop. Hundreds.

9 Bonair .....F 5
9 Wartburg...G 4
8 Sparta,.....F 5
8 Loudon..... G 5
8 Jonesboro....J 4
8 Collierville..A 5
8 Lawrenceburg D 5
7 Waverly ....D 4
7 Somerville...B 5
7 Bells ..... B 5
7 Anderson....C 5
6 Rutherford..C 4
6 Bellbuckle..E 5
6 Wartrace ...E 5
6 Spring Cy...G 5
6 Clifton..... D 5
6 Jacksboro...G 4
5 Selmer .....C 5
5 Sneedville..H 4
5 Kingston....G 5
5 Bluff Cy.....J 4
4 Woodbury...E 5
4 Whiteville..B 5
4 Mason.....B 5
4 Troy.....B 4
4 Petersburg. E 5
4 Dover..... D 4
4 Lynchburg..E 5
3 Camden.....C 5
3 Halls.....B 5
3 Grand Jc....B 5
3 BinghamtonB 5
3 Lafollette...G 4
3 Lagrange...B 5
3 Iron City... D 5
3 Lenox .....B 5
2 Middleburg.B 5
2 Raleigh.....B 5
2 Germantown B 5
2 Toone .....C 5
2 Cadsden.....B 5
1 Thomastown B 5
1 Longview...E 5
1 Gates..... B 5
1 Double Sprs.F 4
1 Walling.....B 5
1 Midway.....D 4
1 Gallaway....B 5
1 Richmond ..E 5

of the Carp family, or *Cyprinidæ*, common in most of the lakes of Europe. Like the carp, the tench is extremely tenacious of life. It is about 24 inches long, and of a deep yellowish-brown (sometimes golden and greenish) color.

Tend, *v. a.* [Lat. *tendere.*] To accompany as an assistant or protector; to watch; to guard; to look after. — To be attentive to; to attend. — *To tend a vessel.* (*Naut.*) To turn or swing round, as a vessel when at single anchor, or moved by the head in a tide-way, at the beginning of the flood or ebb.

—*v. n.* To move in a certain direction. — To be directed to any end or purpose; to aim. — To contribute. — To wait; to attend, as servants. (R.)

Tend'ency, *n.* [Fr. *tendance*, from Lat. *tendo*, to stretch.] Direction or course towards any place, object, effect, or result; inclination; drift.

Ten'der, *n.* One who attends or takes care of; a nurse. —On railways, a carriage which attends on the locomotive to supply the fuel.

(*Naut.*) A small vessel employed to attend a larger one for supplying her with provisions and other stores, or to convey intelligence, and the like.

(*Law.*) An offer to deliver something, made in pursuance of some contract or obligation, under such circumstances as to require no further act from the party making it to complete the transfer. See LEGAL TENDER.

—*v. a.* To offer in payment or satisfaction of a demand, for saving a penalty or forfeiture. — To offer in words, or to exhibit or present for acceptance.

—*a.* [Fr. *tendre*; It. *tenero*; Lat. *tener*, soft, delicate.] Easily impressed, broken, bruised, or injured; not firm or hard; as, "the *tender* grass." (*Milton.*) — Very sensible to impression or pain; easily pained. — Not hardy or able to endure hardship; delicate; effeminate. — Weak; feeble; as, *tender* age. — Susceptible of the softer passions, as love, compassion, kindness; forgiving; kind; merciful; pitiful. — Exciting kind concern; expressive of the softer passions; dear; precious. — Careful to save inviolate, or not to injure.

"I have been *tender* of every particular person's reputation."
Tillotson.

—Unwilling to cause pain; mild. — Apt to give pain; as, a *tender* subject. — Adapted to excite feeling or sympathy.

Ten'der-hearted, *a.* Having great sensibility; susceptible of impressions or influence; very susceptible of the softer passions of love, pity, or kindness.

Ten'derling, *n.* One made tender by too much kindness; a fondling. (R.) — The first horns of a deer.

Ten'derloin, *n.* The tender, fleshy part in the hind-quarter of beef.

Ten'derly, *adv.* With tenderness; mildly; gently.

Ten'derness, *n.* The state or quality of being tender, or easily broken, bruised, or injured; softness; brittleness. — The state of being easily hurt; soreness. — Susceptibility of the softer passions; sensibility. — Kindness; compassion; pity; humanity; benevolence. — Extreme care or concern not to give or commit offence. — Cautious care to preserve or not to injure. — Softness of expression; pathos.

Ten'dinous, *a.* [It. *tendinoso.*] Pertaining to a tendon; partaking of the nature of tendons. — Full of tendons; sinewy.

Ten'don, *n.* [Fr. and Sp.; Lat. *tendo.*] (*Anat.*) The white, glistening bands or cords, commonly called *sinews*, which are continued from both ends of muscles to attach them to the bones; the upper tendon, which is the shortest, forms the head, or the fixed point of the muscle's origin; the lower, and longest, its insertion.

Tendo Achillis. See ACHILLIS TENDO.

Tendre, (Mont,) (*ten'dr.*) One of the Jura mountains of Switzerland, on the E. side of the Lake of Joux. *Height*, 5,338 feet above sea-level.

Ten'dril, *n.* [Fr. *tendron.*] (*Bot.*) Any slender twining or clasping part or organ by which a plant attaches itself to some other object.

—*a.* Clasping; climbing, as a tendril.

Tenebrific, Tenebrificous, *a.* [From Lat. *tenebræ*, darkness, and *facere*, to make.] Causing darkness.

Tene'brious, *a.* Dark; gloomy.

Ten'ebrose, *a.* Tenebrous.

Tenebros'ity, *n.* Darkness; gloom.

Ten'ebrous, Ten'ebrose, *a.* Dark; gloomy.

Ten'ebrousness, *n.* State or quality of being tenebrous.

Tenebrion'idæ, *n. pl.* (*Zoöl.*) A family of coleopterous insects, distinguished by having the elytra not

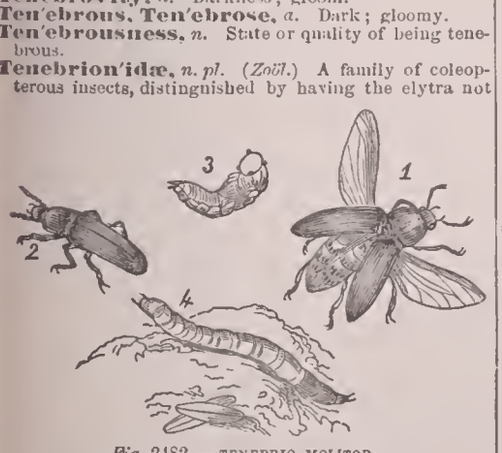


Fig. 2482. — TENEBRIO MOLITOR.
1 and 2, perfect insect; 3, pupa; 4, larva (meal-worm).

soldered together, with the wings fitted for flight. The *Tenebrio molitor* (Fig. 2482), the larva of which is commonly called the *Meal-worm*, may be taken as the type of the family. This insect frequents corn-mills, granaries, bake-houses, &c., doing much damage by devouring flour, meal, bran, &c. It is also very destructive to ship-biscuit packed in casks, which, when opened, are found eaten through in holes by these insects and their larvæ.

Ten'edos, [Turk. *Bogdsha-adassi.*] An island belonging to Turkey in the Grecian Archipelago, off the coast of Asia Minor, and adjoining ancient Troy, 14 m. S. of the Straits of Gallipoli. It is 5 m. long, by 3 wide, and famous for its Muscadine wine. — Also, the name of a town, the cap. of the island.

Ten'ement, *n.* [Fr., from Lat. *teneo*, to hold.] A house; a building for a habitation; or an apartment in a building, used by one family.

(*Law.*) In its largest acceptation, denotes anything that may be holden in the legal sense; viz., all corporeal hereditaments, and incorporeal hereditaments of a permanent nature issuing out of the same, as lands, houses, right of common, franchises, offices, &c. In its more narrow and popular signification, it is applied only to houses and other buildings.

Tenement'al, *a.* Pertaining to tenanted lands; that is, or may be, held by tenants.

Tenement'ary, *a.* Held by tenants.

Te'neoid, *a.* [Lat. *tænia*, a tape-worm.] Resembling, or pertaining to, tape-worms.

Teneriffe, (*ten-e-rif'.*) See CANARY ISLANDS.

Te'nès, a seaport-town of Algeria, 100 m. W. of Algiers; *pop.* 7,552.

Tenes'mus, *n.* [Gr. *teinesmos*, from *teinein*, to stretch.] (*Med.*) A continuous and painful sensation of the rectum; a constant straining and attempt to empty the bowel, with no result. This very distressing pain is a symptom or an effect of diarrhœa or dysentery. Sitting on a vessel filled with hot water for a few minutes has been recommended for this exhausting complaint, but the best and most expeditious remedy is a suppository of three or four grains of soft opium passed up the rectum, the patient assuming the recumbent position till the opium begins to act.

Ten'et, *n.* [Lat., from *tenere*, to hold.] That which a person firmly believes or maintains as a part of his creed; doctrine; opinion; principle; dogma.

Ten'fold, *a.* Ten times more.

Te'niers, DAVID, the ELDER, a celebrated painter of the Flemish school, was B. at Antwerp, in 1582; studied under Rubens, and afterwards at Rome. On his return to his native country, he occupied himself principally in the delineation of fairs, rustic sports, and carousals, &c., which he exhibited with such truth, humor, and originality, that he may be considered the founder of a style of painting which his son afterwards brought to perfection. His pictures are usually of a small size, and are highly valued. D. 1649.

TENIERS, DAVID, the YOUNGER, son of the preceding, was B. at Brussels, in 1610. In his youth, such was his facility of imitating the styles of various masters, that he was called the Proteus, and the Apo of painting. He confined himself principally to the same kind of subjects as his father, but excelled him in correctness and finish. D. 1694. The younger *T.* rose to the highest reputation in his profession, and was patronized by Christina of Sweden, the King of Spain, and other illustrious personages.

Ten'-mile Creek, in *Pennsylvania*, enters the Monongahela River from Greene co.

Ten'-mile Valley, in *Pennsylvania*, a village of Greene co.

Ten'nantite, *n.* (*Min.*) A sulphido of copper, arsenic, and iron, occurring in lead-gray crystals.

Ten'né, TAWNY, or BRUSK, *n.* [Sp. *tanetto*, a chestnut.] (*Her.*) A color not often used in coat-armor. It is the same as *tawny*, and is composed of red, yellow, and brown; which, when mixed together, form a kind of chestnut color. By some heralds it is called *brusk*, and in engraving it is expressed by diagonal lines drawn from the sinister chief point, and traversed by horizontal ones.

Ten'nemann, WILHELM GOTTLIEB, a German philosopher and historian of philosophy, B. 1761, at Brembach, near Erfurt. He became, in 1804, ordinary professor of philosophy at the University of Marburg, a post which he filled till his death. His most important work is the *Geschichte der Philosophie*, published in eleven volumes, between 1798–1809. His well-known *Manual of the History of Philosophy*, of which an English translation, by Johnson, appeared in 1832, is an epitome of the *History*. Among *T.*'s other works, are an exposition of the *System of the Platonic Philosophy*, and German translations of Locke's *Essay on the Human Understanding*, and Hume's *Inquiry concerning the Human Understanding*. *T.* was a disciple of the Kantian philosophy, and employed its terminology. D. 1819.

Tennessee', one of the Southern States of the American Union, in the basin of the Mississippi, between Lat. 35° and 36° 40′ N., and Lon. 82° and 90° W., having N. Kentucky and Virginia, E. North Carolina, S. Georgia, Alabama, and Mississippi, and W. the river Mississippi, which divides it from Arkansas and Missouri; *area*, 45,600 sq. m. The E. part of this State is intersected by the Alleghany chain, which here sometimes rises to the height of 2,000 ft.; the middle part is hilly, while the W. portion is an extensive undulating plain. Principal rivers, after the Mississippi, the Tennessee and Cumberland, both tributaries of the Ohio. *T.* is generally well watered, and, except in the mountainous parts, comprises a good deal of excellent land. Eastern *T.* is crossed by several ridges of the Alleghany Mountains, some of which have elevations of 2,000 feet; the middle region between the Cumberland and Tennessee river is hilly, and the west level. The western portion of the State, between the Mississippi and the Tennessee, is of the alluvial and cretaceous formation of the shores of the Atlantic and Gulf of Mexico. Extensive iron mines lie between the Tennessee and Cumberland rivers. In the limestone regions are numerous caves, mostly unexplored. Several in the Cumberland Mountains are 100 feet deep, and miles in extent. A considerable river has been discovered in one at a depth of 400 feet; another opening perpendicularly in a mountain has never been fathomed. In some of these caves are large deposits of fossil bones of extinct animals. In many places are interesting remains of ancient mounds and fortifications. Agriculture is the chief occupation of the inhabitants. The products are much the same as those of Kentucky, with the addition of cotton. Indian corn, wheat, and oats are the principal corn crops. Cotton is grown in most parts of the State. Tobacco is also cultivated to a considerable extent. The central portion of middle *T.* ranges from 250 to 500 feet above sea-level, and is noted for its great fertility. It forms the garden spot, not only of the State, but of the South, producing in great luxuriance all the leading crops of the temperate zone. In western *T.* the soil between the Mississippi and Tennessee rivers is finely adapted to all crops that require a fast growth, especially garden stuffs and small vegetables. These are sent in large quantities to the Northern markets, anticipating the gardens in that locality by several weeks, and giving large returns. The climate of *T.* is temperate and very salubrious, excepting in the swampy districts of the northwest. The eastern division is noted for its pure, bracing mountain air. The State is richly wooded with pine, oak, hickory, sugar-maple, cedar, black-walnut, and other hardwood timber, the forests of this timber forming a great natural source of wealth. — *Minerals.* East *T.* is noted for its numerous fine quarries of marble, some of which are widely celebrated for their beauty. Among the other valuable rocks of this region are its granites and its deposits of lithographic stone. The carboniferous deposits of the Cumberland plateau form a part of the great Appalachian coal-field, the coal measures covering an area of 5,100 sq. m., and containing veins of exceptional thickness. The available supply of bituminous coal has been estimated to be fully equal to that of Pennsylvania, if not to exceed it. Iron is as well represented as coal, the deposits of ore in different sections of the State being very large. Other minerals include copper and zinc, and there are several famous mineral springs, much resorted to by invalids. The development of the coal and iron mines is increasing, the production of pig-iron having been greatly enhanced within recent years. The annual yield of the coal mines is over 2,500,000 tons, and of iron in proportion, a production which is susceptible of an immense increase. — *Manuf.* The production of iron has been followed by the development of various iron-manufacturing industries, including machinery, agricultural implements, &c. There are also numerous woollen and cotton factories, paper and flour mills, with tobacco factories, potteries, &c. — *Education.* The State is well provided with public schools, while the Peabody fund supplies normal school instruction, and there are many private schools. There are over 20 collegiate institutions, at whose head is the Vanderbilt University at Nashville. State asylums for the deaf and dumb, the blind, and the insane exist. The State is divided into 96 counties, viz.:

Fig. 2483. — SEAL OF THE STATE.

Anderson,	Fentress,	Lake,	Rhea,
Bedford,	Franklin,	Lauderdale,	Roane,
Benton,	Gibson,	Lawrence,	Robertson,
Bledsoe,	Giles,	Lewis,	Rutherford,
Blount,	Grainger,	Lincoln,	Scott,
Bradley,	Greene,	Loudon,	Sequatchie,
Campbell,	Grundy,	Macon,	Sevier,
Cannon,	Hamblen,	Madison,	Shelby,
Carroll,	Hamilton,	Marion,	Smith,
Carter,	Hancock,	Marshall,	Stewart,
Cheatham,	Hardeman,	Maury,	Sullivan,
Chester,	Hardin,	McMinn,	Sumner,
Claiborne,	Hawkins,	McNairy,	Tipton,
Clay,	Haywood,	Meigs,	Trousdale,
Cocke,	Henderson,	Monroe,	Unicoi,
Coffee,	Henry,	Montgomery,	Union,
Crockett,	Hickman,	Moore,	Van Buren,
Cumberland,	Houston,	Morgan,	Warren,
Davidson,	Humphreys,	Obion,	Washington,
Decatur,	Jackson,	Overton,	Wayne,
Dekalb,	James,	Perry,	Weakley,
Dickson,	Jefferson,	Pickett,	White,
Dyer,	Johnson,	Polk,	Williamson,
Fayette,	Knox,	Putnam,	Wilson.

Cities and Towns. Nashville (the capital), Memphis, Knoxville, Columbia, Shelbyville, Lebanon, Pulaski, Jackson, Brownsville, Franklin, Greenville, Chattanooga, &c. — *History.* In 1756 a settlement was formed near Knoxville, then a part of North Carolina. Nashville was settled near the close of the Revolution; in 1790 Tennessee was organized as a territory with Kentucky; and admitted, in 1796, into the Union as a

separate State. In January, 1861, a proposition to secede from the Union was defeated; but in June, carried by a majority of 57,667. In ten months the State raised 50 regiments for the Southern Confederacy; while 5 or 6 were also recruited for the Union. The State was the scene, at Knoxville and Chattanooga, of some of the most important operations of the war. For years after the general pacification of the country, local disorders continued in *T.* to disturb the tranquillity of the community, and it was only in 1870 that, after the adoption of the 15th amendment to the Constitution of the U. States, and of a new State constitution, *T.* was readmitted to representation in Congress. *Pop.* (1880) 1,542,359; (1890) 1,767,518; (1900) 2,020,616.

Tennessee', a river of the U. States, and the principal tributary of the Ohio, formed by the junction of the Clinch and Holston rivers, at Kingston, in Roane co., Tennessee. It flows first S.W. to Chattanooga, in Hamilton co., thence S.W. and W., passing through N. Alabama, to the N.E. of Mississippi, from whence it proceeds N., passing through Tennessee and Kentucky, and falling into the Ohio River at Paducah, 48 m. from its mouth. Its entire length is estimated at 800 m., and including the Holston, 1,100 m. It is navigable for steamboats 280 m. to Florence, at the foot of the Muscle Shoals, above which it is again navigable 500 m. to Knoxville.

Tennessee, in *Illinois*, a post-village and township of McDonough co., 51 m. N.E. of Quincy.

Ten'nis, *n.* [Fr. *tenir*, to hold.] A game in which a ball is kept up, or driven continuously to and fro, by several persons striking it alternately, either with the hand or a small bat, called a racket, the object being to keep the ball in motion as long as possible, without allowing it to fall to the ground. This game was very popular with the nobility in most of the states of Europe, in the 16th century.

Ten'nyson, ALFRED, an English poet, B. in Somerby, Lincolnshire, 1809, was educated by his father, rector of Somerby, and in due course proceeded to Cambridge. With the exception of a volume of poems published in conjunction with his brother Charles, when they were boys, and a prize poem, composed whilst an undergraduate at Cambridge, *T.* did not publish anything till

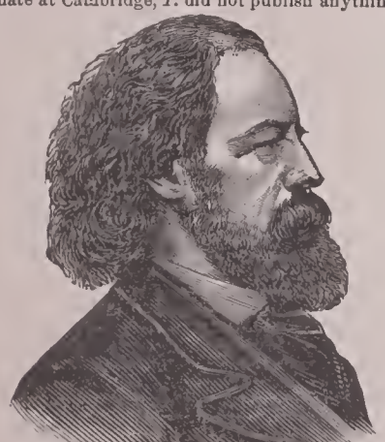


Fig. 2484. — TENNYSON.

1830, when he put forth a collection of poems, chiefly lyrical, which contained, among other pieces, *Mariana; Lilian; The Mermaid; Recollections of the Arabian Nights; The Dying Swan; All Things Will Die;* and *The Sea-Fairies.* Two years after, *T.* published a second volume containing, in addition to several of his former productions improved and altered, *The Miller's Daughter; The Lotos-Eaters; Locksley Hall; Lady Clara Vere de Vere; The Talking Oak,* &c. In 1847, *T.* gave to the public *The Princess*, and shortly after he was appointed Poet Laureate. The *Ode on the Death of the Duke of Wellington* appeared in 1852, *Maud* in 1855, and *The Idylls of the King* in 1859. A gorgeously illustrated edition of his poems has been published, upon which the best artists of the time have been employed. In 1856 he was created D. C. L. of the University of Oxford. In 1864 was published *Enoch Arden*, the most popular of all his books, having reached in his country alone a circulation of over one hundred thousand copies. He also wrote *Holy Grail* (1869); *Queen Mary*, a drama (1875). *T.* led a retired life at Farringford, Isle of Wight, and in a residence that he built in a picturesque valley in Surrey. He was raised to the peerage as Lord Tennyson in 1883, and died Oct. 6, 1892.

Ten'on, *n.* [Fr., from Lat. *teneo*, to hold.] (*Carp. and Joinery.*) The projection left at the end of a piece of timber to be inserted into a socket, or *mortise*, made to receive it. (See Fig. 1862.)

Ten'or, *n.* [Lat., from *teneo*, to hold.] Stamp; character.—Sense intended; purport; substance; general course or drift: as, the *tenor* of a letter.

(*Mus.*) The most common natural pitch of a man's voice in singing, or the higher of the two kinds of voices usually belonging to adult males; hence the part of a tune adapted to this voice, the second of the four parts, reckoning from the bass. — The person who sings the tenor, or the instrument that plays it.

(*Law.*) The exact copy of a writing, pursuing the course of its words as they succeed one another; — the true intent and meaning of an instrument.

Tenot'omy, *n.* [From Gr. *tenon*, a tendon, and *temnein*, to cut.] (*Surg.*) The operation of dividing a tendon.

Ten Pound Island, in *Massachusetts*, in Ann Harbor, immediately S. of Gloucester, contains a fixed light 45 ft. above the sea; Lat. 42° 35′ N., Lon. 70° 40′ W.

Ten'rec, *n.* (*Zoöl.*) A small insectivorous quadruped of Madagascar, allied to the hedgehog; it forms the type of the genus *Centetes*.

Ten'sas, or TENSAW, a river of *Louisiana*, rises in Carroll parish, and unites with the Washita and Trinity, after a S. course of 250 m., for 150 of which it is navigable for steamboats during 6 months of the year.

Tensas, in *Louisiana*, an E.N.E. parish, bordering on the Mississippi River; *area*, 680 sq. m. *Rivers.* Tensas River and Macon Bayou. *Surface*, level; *soil*, fertile. *Cap.* St. Joseph.

Tense, *a.* [Lat. *tensus*, from *tendo*, to stretch.] Drawn tight; strained to stiffness; rigid; not lax; stretched.

—[Lat. *tempus.*] (*Gram.*) The particular modification of a verb which expresses the time at which an action is conceived as taking place. The three primary or simple *T.* are the present, past, and future; but these admit of various modifications in different languages. In English there are six *T.* usually recognized; namely, the present, imperfect, perfect, pluperfect, future, and future perfect.

Tense'ly, *adv.* With tension.

Tense'ness, *n.* State of being tense or stretched to stiffness.

Tensibil'ity, *n.* The state of being tensible.

Ten'sible, *a.* Capable of being extended. (R.)

Tensile, (*ten'sil,*) *a.* Capable of extension.

Tensil'ity, *n.* The state or quality of being tensile.

Tension, (*ten'shun,*) *n.* [Fr.; Lat. *tensio*, from *tendere.*] The act of stretching or straining. — The state of being stretched or strained to stiffness.—The degree of stretching to which a wire, cord, piece of timber, &c., is strained by drawing it in the direction of its length.

(*Mech.*) The force by which a bar or string is stretched. Thus, when a weight is suspended by a string, the tension at every point of the latter is equal to that weight.

(*Physics.*) Gases are bodies whose molecules are in a constant state of repulsion, in virtue of which they possess the most perfect mobility, and are continually tending to occupy a greater space. This property of gases is known by the names *expansibility*, *tension*, or *elastic force*, from which they are often called *elastic fluids.*

Ten'sity, *n.* The state of being tense; tenseness.

Ten'sive, *a.* [Fr. *tensif.*] Giving a sensation of stiffness or contraction.

Ten'sor, *n.* [From Lat. *tendere*, to stretch.] (*Anat.*) The name of some muscles whose action is to stretch or make rigid some part. One of the most important is the *tensor vaginæ femoris*, or the muscle that stretches the thigh and adjacent parts.

Tent, *n.* [Fr. *tente;* Lat. *tentorium.*] A pavilion or portable lodge, consisting of canvas or other coarse cloth, stretched and sustained by poles, used for sheltering persons from the weather. Dwelling in tents was very general in ancient times among eastern nations. The patriarchs Abraham, Isaac, and Jacob dwelt in tents; and on the exodus of the Israelites from Egypt, throughout their peregrinations until they obtained the promised land, and to some extent afterwards, they adopted the same

Fig. 2485. — ARAB TENT.

kind of habitation. But the people most remarkable for this unsettled and wandering mode of life are the Arabs, who from the time of Ishmael to the present have continued the custom of dwelling in tents. Amid the revolutions which have transferred kingdoms from one possessor to another, these wandering tribes still dwell in tents unsubdued and wild as was their progenitor. This kind of dwelling is not, however, confined to the Arabs, but is used throughout the continent of Asia, and by the Indians of N. America. In modern times and among civilized nations, tents are almost exclusively used as a shelter for soldiers when in active service.

(*Surg.*) A roll of lint or linen, used to dilate an opening in the flesh.

—*v. n.* To lodge, as in a tent; to tabernacle. (R.)

—*v. a.* To cover with tents; as, a *tented* field.—To probe; to search, as with a tent.—To keep open with a surgical tent.

Tentacle, (*ten'ta-kl.*) *n.* [Fr.; L. Lat. *tentaculum.*] (*Zoöl.*) A term used in a restricted sense to signify the elongated, filiform, inarticulate appendages of the mouth of Annelides, but also applied to all appendages, whether jointed or not, which are used as instruments of exploration and prehension. Thus, the oral arms of the Polyps, the prehensile processes of Cirripeds and Annelides, the cephalic fect of the Cephalopods, the barbs of fishes, are termed *tentacles.*

Ten'tative, *a.* [Fr. *tentatif.*] Trying; essaying.

—*n.* [Fr.] An essay; a trial.

Ten'tatively, *adv.* In a tentative manner.

Tent'-bed, *n.* A post-bedstead, having the roof formed like a tent.

Tent'ed, *a.* Covered or furnished with tents.

Ten'ter, *n.* [Lat. *tendo, tentus*, to stretch.] A stretcher; a machine for stretching cloth, by means of hooks called *tenter-hooks.*

—*v. a.* To hang or stretch on tenters.

—*v. n.* To admit extension, as by tenters.

Ten'terden, a town of England, in Kent, near the river Rother, 24 m. from Canterbury. *Pop.* 4,500.

Tenth, *a.* The ordinal of ten; the first after the ninth

—*n.* The tenth part; tithe; the tenth part of annual produce or increase.

(*Mus.*) An interval, which is the octave of the chord

Tenth'ly, *adv.* In the tenth place.

Tenthredin'etæ, *n. pl.* (*Zoöl.*) A family comprising Hymenopterous insects in which the female has an ovipositor consisting of double saws lodged under the body, and covered by two pieces which serve as a sheath. They are sluggish in their habits, and fly only in the warmest days. Their larvæ have from 18 to 22 legs, and are found in communities on the leaves of birch and alder, holding on by their true legs, while the rest of the body is curved curiously upwards; or appearing like slugs on the leaves of the pear and other fruit-trees, and those of the rose; while others feed upon the stems of plants, or roll up a leaf, or construct cases of particles of leaves to hide in.

Tenuiros'tres, *n. pl.* [Lat. *tenuis*, slender, and *rostrum*, a beak.] (*Zoöl.*) A tribe of insessorial birds, including those which have a long and slender bill.

Tenu'ity, *n.* [Fr. *ténuité*; Lat. *tenuitas.*] State of being stretched out or drawn out; thinness; smallness in diameter; exility; thinness (applied to a broad substance), and slenderness (applied to one that is long); rarity; rareness; tbinness, as of a finid; simplicity; plainness.

Tenure, (*yūr,*) *n.* [From Fr. *tenir*, to hold.] (*Eng. Law.*) The manner of holding lands or tenements of a superior, or the feudal relation which subsists between lord and vassal in respect of these. All land in England is held mediately or immediately of the crown, and thus, ultimately, all land is held of the king, who is lord paramount. Tenants holding immediately under the king, when they grant out portions of their lands to inferior persons, become, with respect to these, lords, as they were tenants with respect to the king; thus partaking of a middle nature, and hence called *mesne* or *middle lords.*

—Manner of holding or having possession of anything.

Teocal'li, *n. pl.* Pyramidal buildings erected for religious worship by the ancient inhabitants of Mexico.

Tepea'ka, or **Tepeaca,** a town of Mexico, 30 m. from Puebla. *Pop.* unascertained.

Tepecotah, in *Minnesota*, a village of Wabashaw co., on the Mississippi River, abt. 7 m. S.E. of Wabashaw.

Tepefac'tion, *n.* Act or operation of making tepid or moderately warm; state of being made tepid.

Te'pefy, *v. a.* [Lat. *tepefacio—tepeo*, to be moderately warm, and *facio*, to make.] To make tepid or moderately warm.

—*v. n.* To become moderately warm.

Teph'roite, *n.* [Gr. *tephra*, ash-gray.] (*Min.*) A native silicato of manganese.

Tephro'sia, *n.* [From Gr. *tephros*, ash-colored, gray.] (*Bot.*) A genus of herbs or shrubs, with unequally pinnate leaves, order *Fabaceæ.* The Goat's Rue or Catgut, *T. Virginiana*, is 1–2 feet high, with beautiful white and purple flowers. It is found in dry, sandy soil, from Canada to Florida.

Tepic', a territory of Mexico; *area*, 11,275 sq. m. *Pop.* (1897) 152,480.

Tep'id, *a.* [Lat. *tepidus.*] Moderately warm; lukewarm.

Tepid'ity, Te'pidness, *n.* Moderate warmth; lukewarmness.

Te'por, *n.* [Lat.] Moderate or gentle warmth; tepidity.

Tequandama Falls, in S. America. See BOGOTA (RIO DE).

Te'rah. (*Script.*) The son of Nahor, and father of Nahor, Haran, and Abraham (*Gen.* xi. 24), begat Abraham at the age of 72 years, in Ur of the Chaldeans. Upon Abraham's first call to remove into the land of promise, Terah and all his family went with him as far as Haran, in Mesopotamia, about B. C. 1918 (*Gen.* xi. 31, 32). He died there the same year, aged 275 years. Scripture intimates plainly that Terah had fallen into idolatry, or had for a time mingled some idolatrous practices with the worship of the true God (*Josh.* xxiv. 2, 14.)

Teramo, (*tai-ra'mo,*) (anc. *Interamna,*) a town of S. Italy, prov. of Abruzzo (Ultra I.), 28 m. N.E. of Aquila. It carries on an active trade in corn, wine, and olives. *Pop.* 28,253. In the plain below *T.* took place, July 27, 1460, between the army of John, Duke of Anjou, and the Milanese allies of Ferdinand I. of Aragon, one of the most sanguinary battles ever fought in Italy.

Ter'aphim, (*f im,*) *n. pl.* [Heb., commonly translated *idols.*] (*Script.*) This word is used 13 or 14 times in the Old Testament, appearing to be applied to household gods, where worship was sometimes blended with that of Jehovah. The images of Rachel (*Gen.* xxxi. 19, 30) were teraphim.

Teratog'eny, *n.* The formation of monsters.

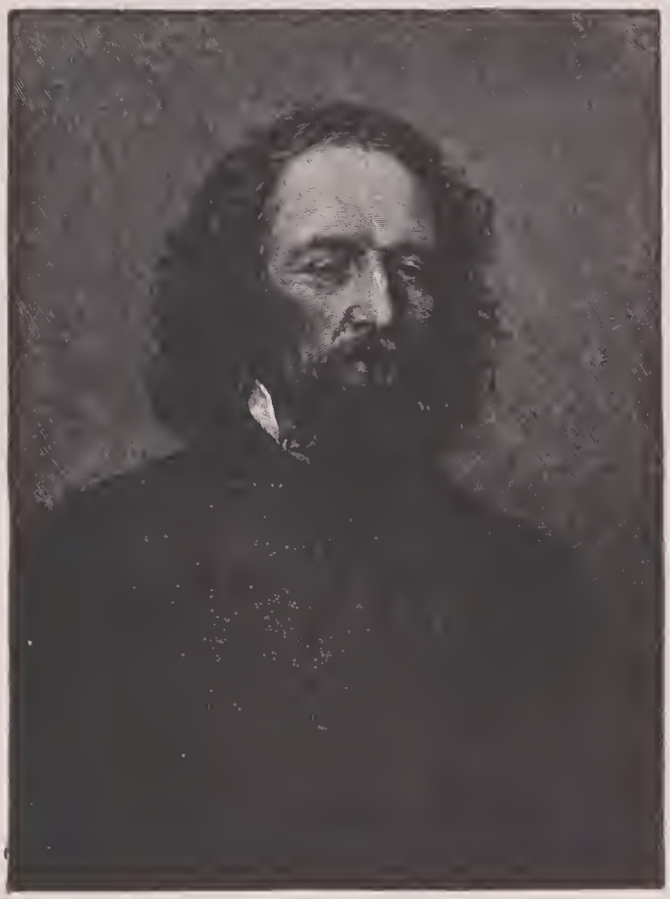
Teratol'ogy, *n.* [Gr. *teras*, monster, and *logos*, a discourse.] Bombast in language.

(*Physiol.*) A name given by Geoffroy St. Hilaire to the doctrine of congenital deformities.

Terce, *n.* See TIERCE.

Terceira, (*ter-sai-e-ra,*) a mountainous island near the coast of Africa, forming one of the group of the Azores; Lat. 38° 38′ 9″ N., Lon. 37° 13′ 7″ W. *Area*, 223 sq. m. *Chief town.* Angra. *Pop.* 50,000.

Tercen'tenary, *a.* [Lat. *ter*, thrice, and *centum*, a hundred.] That comprises three hundred years.



Alfred Tennyson

1809–1892

Tercc'ro, a river of the Argentine Republic, rises in the state of Cordova, and flowing S.E. joins the Parana, abt. 30 m. N. of Rosario.

Ter'cet, *n.* (*Mus.*) A third.

Ter'ebinth-tree, *n.* (*Bot.*) *Pistachia terebinthus.* See PISTACHIA.

Terebran'tia, (*-she-ah,*) *n.* (*Zoöl.*) A section of hymenopterous insects, characterized by the possession of an anal instrument organized for the perforation of the bodies of animals, or the substance of plants. The borer (*terebra*) is peculiar to the female, and is composed of three long and slender pieces, of which two serve as a sheath for the third.

Terebrat'ula, *n.* [Lat. *terebro*, to bore.] (*Zoöl.*) A genus of deep-sea brachiopodous mollusca, in which one of the valves is perforated for the transmission of a peduncle.

Tere'do, *n.* [Lat.; Gr. *teredon*, the ship-worm.] (*Zoöl.*) A genus of lamellibranchiate mollusks, family *Pholadidæ.* See BORING-WORM.

Terek', a considerable river of Asiatic Russia, govt. of Caucasus. After a course of 350 m., it divides in three branches, and falls into the Caspian Sea in Lat. 44° N., Lon. 46° to 48° E.

Ter'ence, (PUBLIUS TERENTIUS AFER,) a celebrated author of comedies in the Latin tongue, supposed to have been born in Carthage about 194 B. C. He was carried to Rome as a slave, and brought out his first play, the *Andria*, in 166, and the others now extant between that period and 160 B. C. Shortly afterwards he went on a literary journey to Greece, and having translated the plays of Menander, is supposed to have died on his voyage home, about 146 B. C.

Terenite, *n.* (*Min.*) A kind of altered scapolite.

Terete', *a.* [From Lat. *tero*, to rub.] (*Bot.*) Cylindrical, and somewhat tapering.

Ter'gal, *a.* [Lat. *tergum*, the back.] Relating to the back; dorsal.

Tergem'inous, *a.* [Lat. *ter*, thrice, and *geminus*, twin.] Threefold.

Ter'giant, *a.* [Lat. *tergum.*] Showing the back part; recusant.

Tergif'erous, *a.* [Lat. *tergum*, and *fero*, to bear.] (*Bot.*) Dorsiferous.

Tergiversate, (*ter-jiv'er-sāt,*) *v. n.* [Fr. *tergiverser*, from Lat. *tergum*, and *verso*, to turn.] To use evasion; to shift; to boggle.

Tergiversa'tion, *n.* [Fr.] A shifting; shift; subterfuge; evasion; change; fickleness of conduct.

Ter'giversator, *n.* [Lat.] One who practises tergiversation.

Ter'gum, *n.* [Lat., the back.] (*Zoöl.*) The upper or supine surface of the abdomen, in insects.

Terlizzi, (*tair-lit'se,*) a town of S. Italy, 60 m. from Taranto, and 7 from the Adriatic; *pop.* 13,136.

Term, *n.* [Fr. *terme*; Lat. *terminus.*] A limit; a boundary; a bound; a confine; the extremity of anything; that which limits its extent.—The time for which anything lasts; any limited time. — The limitation of an estate; or, rather, the whole time or duration of the holding of an estate.—The time in which a court is held or open for the trial of causes.—The time during which instruction is regularly given to students in universities and colleges.—A word or expression; the word by which a thing is expressed; that which fixes or determines ideas; a word or expression that denotes something peculiar to an art.—The subject or the predicate of a propositiou in logic. — In algebra, a member of a compound quantity.

—*pl.* Conditions; propositions stated or promises made, which, when assented to or accepted by another, settle the contract and bind the parties.

—*v. a.* To name; to call; to denominate.

Ter'maganey, *n.* Turbulence; tumultuousness.

Ter'magant, *a.* [Corrupted from *Tervagant*, the name of an old Saracen deity, represented in old plays as of a most violent character.] Tumultuous; turbulent; boisterous or furious; quarrelsome; scolding.

—*n.* A boisterous, brawling, turbulent woman; a shrew; a virago.

Term'er, *n.* One who travels up from the country to a law term for the sake of tricks to be practised, and for other purposes; — sometimes called *term-trotter.* — One who holds an estate for a term of years, or for life.

Ter'minable, *a.* That may be terminated; limitable.

Ter'minal, *a.* [From Lat. *terminus.*] Forming the end or extremity; terminating; of, or belonging to, a terminus.

—*n.* The extremity; the end.

Terminal'ia, *n.* [From Lat. *terminus*, the leaves being in bunches at the end of all the branches.] (*Bot.*) A genus of trees or shrubs, order *Combretaceæ*, dispersed over the tropics of both hemispheres. The astringent fruits of several of them are used in considerable quantities, chiefly by calico-printers, under the name of *Myrobalans*, for the production of a permanent black. The principal kinds of Myrobalan are the Chebullic, the produce of *T. chebula*, which are smooth and oval; and the Belleric, *T. Bellerica*, obscurely five-angled, and covered with grayish silky down.

Ter'minate, *v. a.* [Fr. *terminer*, from Lat. *terminus.*] To set bounds to; to mark off by boundaries; to bound; to limit; to set the extreme point or side of; to put an end to; to complete; to finish; to close; to end.

—*v. n.* To be bounded or limited; to end; to come to the farthest point in space; to close; to come to a limit in time.

—*a.* Limited; bounded; that comes to an end.

Termina'tion, *n.* [Lat. *terminatio.*] Act of limiting or setting bounds; act of terminating; act of ending or concluding; bound; limit in space or extent; end in time or existence; the end or ending of a word; the syllable or letter that ends a word; end; conclusion; result; last purpose.

Termina'tional, *a.* Pertaining to, or forming the end or concluding syllable.

Ter'minative, *a.* That terminates; absolute; not relative.

Ter'minator, *n.* One who, or that which, terminates.

Ter'miner, *n.* (*Law.*) See OYER.

Termini, (*tair'me-ne,*) a seaport-town of Sicily, in the Val di Mazzara, at the mouth of the river Termini, 23 m. from Palermo; Lat. 38° 5′ N., Lon. 13° 43′ E. *Pop.* 10,000.

Ter'minists, *n. pl.* (*Eccl. Hist.*) A name given to a class among the Calvinists whose tenet it is (or was, for such opinions hardly exist at the present day) that there are persons to whom God has fixed, by a secret decree, a certain *term* before their death, after which He no longer wills their salvation, however long they may live.

Terminol'ogy, *n.* [Gr. *termōn*, a boundary, *logos*, a discourse.] The name given in every science or art, to the definitions of the words or phrases peculiarly employed in it; otherwise called *technical terms.*

Ter'minos, (LAGUNA DE,) in Mexico, a seaport-town of Yucatan; Lat. 18° 38′ 24″ N., Lon. 91° 50′ 42″ W. *Pop.* abt. 2,500.

Ter'minos Lake, an inlet of the Gulf of Mexico, dividing the Mexican states of Tabasco and Yucatan; between Lat. 18° and 19° N., Lon. 91° and 92° W.; 70 m. long and 40 m. wide.

Ter'minus, *n.*; *pl.* TERMINI. [Lat.] A boundary line; bounday; bound; limit; a column; also, the extreme point, as either end of a railway.

Ter'mite, *n.* [Lat. *termes*, a bough or twig.] (*Zoöl.*) One of the TERMITIDÆ, *q. v.*

Termit'idæ, *n. pl.* (*Zoöl.*) The Termite family, comprising neuropterous insects divided into several genera, which have the body depressed, wings when present longer than the body and laid horizontally on the back, head rounded, thorax nearly square or semicircular, abdomen with two small conical points at the extremity, and the legs short (Fig. 2486.) *T.* inhabit warm countries mainly, and are known by the name of *White Ants.* They live in communities, whose numbers are great. In their communities there are five classes — males, females, workers, neuters, and soldiers. The workers, neuters, and soldiers seem all to be imperfectly developed females. They are among the most destructive of all insects, particularly in the larva state, devouring all kinds of wooden furniture, boards, timber, and all the

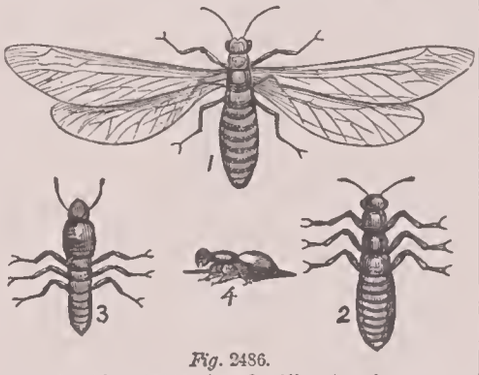


Fig. 2486.

1 and 2, perfect termites; 3, soldier; 4, worker.

wood-work of houses, excavating galleries in all directions in these materials, leaving only a thin surface-crust or shell untouched, which on the slightest shock crumbles to pieces. A beautiful edifice in the Isle of France was thus entirely destroyed in a few months after its completion. Some species of this family raise their nests or domiciles above the surface of the ground, in the form of pyramids or turrets, sometimes surmounted with a solid roof; they are so high — ten or twelve feet sometimes — and numerous, that they resemble a little village (Fig. 1048). Some species make their nests in the form of a globular mass upon trees. Having become perfect insects, *T.* leave their retreats and fly off for sexual reproduction.

Term'or, *n.* (*Law.*) One who holds lands and tenements for a term of years, or life.

Tern, *n.* (*Zoöl.*) See STERNA.

Ter'nary, *a.* [Lat. *ternarius*, from *terni*, three each.] Proceeding by threes; consisting of three.

—*n.* The number three.

Ter'nate, *a.* [Lat. *ternus*, three (distributive.)] (*Bot.*) A term applied when three things are in opposition round a common axis; a whorl of three; as, *ternate* leaves, *i. e.*, leaves with three leaflets.

Ternaux, GUILLAUME LOUIS, BARON, (*tair'no,*) a celebrated French manufacturer of shawls, B. 1763; he was the first to introduce spinning-machines in France. D. 1833.

Terni, (*tair'ne,*) [anc. *Interamna,*] a town of Italy, in the former States of the Church, between two branches of the river Nera, 48 m. from Rome. The cascades of the Velino, abt. 4 m. from *T.*, are considered among the finest in the world. *Pop.* 15,217.

Terno'va, or TIRNOVA, a town of European Turkey in Bulgaria, 110 miles from Adrianople. It stands on a basaltic hill 1,000 feet high, and is inclosed by a wall and trench. *Pop.* 17,400.

Ternströmia'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Guttiferales.* DIAG. Single alternate leaves, without stipules, or with very small ones, symmetrical flowers, equilateral petals, versatile anthers, few or single seeds, and stigmas on a long style. The plants of this order are ornamental trees or shrubs, natives chiefly of South America, a few being found in the East Indies, China, and North America, and one only in Africa. See CAMELLIA, TEA, and GORDONIA.

Ter'odant, or TARUDANT, a city of Morocco, cap. of prov. of Sôos, 120 m. from Morocco. The inhabitants excel in the art of dyeing. *Pop.* 22,000.

Terpsichore, (*terp-sik'o-re.*) (*Myth.*) One of the Muses, daughter of Jupiter and Mnemosyne. She presided over dancing, and is represented as a young virgin, holding in her hand a musical instrument (Fig. 2487).

Fig. 2487.—TERPSICHORE.

Ter'ra, *n.* [Lat.] The earth.

Ter'race, *n.* [Fr. *terrasse.*] A raised level space or platform of earth, supported on one or more sides by a wall or bank of turf, &c., used either for cultivation, or as a promenade.— The flat roof of a house.

—*v. a.* To form into a terrace; to open to the air and light.

Ter'ra-cot'ta, *n.*; *pl.* TERRA-COTTAS. [It.; Lat. *terra cocta*, baked clay.] (*Fine Arts.*) The name given to statues, architectural decorations, figures, vases, &c., modelled or cast in a paste made of pipe or potter's clay and a fine-grained colorless sand, with pulverized pot-shreds, slowly dried in the air, and afterwards fired to a stony hardness in a proper kiln.

Ter'ra del Fuego, more correctly TIERRA-DEL-FUEGO, *q. v.*

Ter'ra di Lavo'ro, (anc. *Campania Felix,*) a maritime province of S. Italy, now administratively called Caserta. *Area*, 2,500 square miles. It was anciently inhabited by the Ausonii, the Osci, and later by the Campani. *T. di L.* is watered by two rivers, the Liris, or Garigliano, and the Volturno. Towards the east, it is broken by the Apennines, and its beautiful ranges of hills are clothed with vine and olive yards, and studded with country-seats. It produces corn, strong wines, oil, fruits, and silk. Its seaport-towns are populous and busy, although here and there the sea-board is interrupted by marshes. The climate is very mild in winter, and extremely hot in summer. *Pop.* 692,723.

Ter'ra di Sien'na, *n.* [It.] (*Painting.*) A kind of ochre, of a brownish-yellow color, found near Sieuna, in Italy. It is used as a paint both in its natural state (*raw sienna*), and after ignition, when it becomes of a rich chestnut color, and is called *burnt sienna.*

Ter'ra-fir'ma, *n.* [Lat., firm or solid earth.] A term frequently employed to denote continental land as distinguished from islands.

Ter'ra Japon'ica, *n.* See CATECHU.

Ter'rapin, *n.* (*Zoöl.*) The common name of the *Emydoidæ*, a family of fresh-water turtles, which have the shell highest in the middle, and the sternum flat, broad, and long. It is the largest of all the turtle families, and its representatives present a wide range of difference. Most of its members inhabit bogs, marshes, still streams, and ponds. Some, however, live upon the land; nearly all are perfectly harmless. Their food is both vegetable and animal. Their eggs are more or less elongated, and covered with a shell which is in most cases flexible. About 12 genera and 20 species belong to N. America. *Cistudo Virginea*, the Common Box Turtle of the United States, is about 7 inches long; its plastron is composed of two parts that are movable upon an axis, and which can be brought into close contact with the carapace, and thus completely conceal all the extremities of the animal. They are found in dry woods.

Terra'queous, *a.* [From Lat. *terra*, the earth, and *aqua*, water.] Consisting of land and water, as the globe or earth.

Terre-anx-Bœufs, (*ter-o-boof,*) in *Louisiana*, a village of St. Bernard parish, 15 m. S.E. of New Orleans.

Terre Bonne (*ter-bonn'*), in *Louisiana*, a S. E. parish, bordering on the Gulf of Mexico; *area*, 1,800 sq. m. It is drained by the Black, Caillou, and Terre Bonne bayous. *Surface*, low and flat, and subject to inundations; *soil*, fertile. *Cap.* Houma. *Pop.* (1897) 21,540.

—A bayou of the above parish, which flows S.E. into the Gulf of Mexico.

Terre Coupee (*ter-koo-pee'*), in *Indiana*, a village of St. Joseph co., 150 m. N.W. of Indianapolis.

Terre-de-Haut (*ter-de-ho'*), and **Terre-de-Bas** (*ter-de-ba'*), in the French West Indies, two small islands forming the group of Petit-Terre, 26 m. E. of Guadeloupe.

Terre Haute (*ter'reh-hōt*), in *Illinois*, a post-village of Henderson co., about 14 m. S.S.E. of Burlington, Ia.

Terre Haute, in *Indiana*, a thriving city, cap. of Vigo co., on the Wabash, 73 m. W.S.W. of Indianapolis. It is the center of an active and important trade, is well built, on an elevated plateau, in a rich agricultural country, with 3 railways, the Wabash and Erie canal, machine shops and manufactories. *Pop.* (1897) 34,415.

Terre Haute, in *Missouri*, a post-village of Putnam co., abt. 50 m. N. of La Clede.

Terre Haute, in *Ohio*, a post-village of Champaign co., 50 m. W. of Columbus.

Ter'rell, in *Georgia*, a S.W. co.; *area*, 350 sq. m. It is drained by the Ichawaynochaway Creek. *Surface*, level; *soil*, generally fertile. *Cap.* Dawson.

Terreno', *a.* [Lat. *terrenus.*] Pertaining to the earth; earthy. — Earthly; terrestrial.

Terre Noir, (*ter-nwar',*) "Black Land," in *Arkansas*, a township of Clarke co.

Terre-plein, (*ter'plān.*) *n.* [Fr., from Lat. *terra*, and *planus*, level, even.] (*Fort.*) The upper surface of the rampart where the guns are placed and worked.

Terres'trial, *a.* [Lat. *terrestris.*] Pertaining to the earth; existing on the earth. — Consisting of earth. — Pertaining to the world, or to the present state; sublunary. — Consisting of earth, as distinguished from *water*.

—*n.* An inhabitant of the earth.

Terres'trially, *adv.* In a terrestrial manner.

Ter'ret, *n.* The ring on a saddle through which the gig-reins pass.

Terre-ten'ant, *n.* [Fr. *terre*, earth, and *tenant*, holding.] (*Law.*) One who has the actual possession of land; but, in a more technical sense, he who is seized of the land.

Terre-verte, (*ter'-vert.*) *n.* [Fr., green earth.] A species of chlorite of a green or olive color. The green earth of Verona, formerly used as a pigment, is a variety of this mineral.

Ter'rible, *a.* [Fr.; Lat. *terribilis*, from *terreo*, to frighten.] Adapted to excite terror; adapted to impress dread, terror, or solemn awe and reverence. — Severe; extreme. (Colloq.)

Ter'ribleness, *n.* Quality or state of being terrible.

Ter'ribly, *adv.* In a manner to excite terror or fright. — Violently; very greatly. (Colloq.)

Ter'rier, *n.* [Fr., from Lat. *terra.*] (*Zoöl.*) A small variety of dog, used for drawing out foxes, rats, &c., when they take to earth or being hunted; as, a Scotch *terrier*.

(*Feudal Law.*) A register containing a description or enumeration of the various lands and tenements held in a manor, with the extent of the lands, the names of the tenants, and the rents or services due from each.

Terrific, *a.* [Lat. *terrificus.*] Causing terror; dreadful; adapted to excite great fear or dread.

Ter'rify, *v. a.* To alarm or shock with fear; to frighten.

Terrig'enous, *a.* [From Lat. *terra*, the earth, and *gigno*, to beget.] Earth-born; produced by the earth.

Territo'rial, *a.* Pertaining to territory or land. — Limited to a certain district.

Territo'rially, *adv.* In regard to territory.

Ter'ritory, *n.* [Fr. *territoire;* Lat. *territorium*, from *terra.*] The extent or compass of land within the bounds, or belonging to the jurisdiction, of any state, city, or other body.

(*Amer. Law.*) A portion of the country subject to and belonging to the U. States, which is not within the boundary of any of the States, and has a temporary government.

Ter'ror, *n.* [Fr. *terreur;* Lat. *terror*, from *terreo*, to frighten.] Great fear; affright; violent fear, that agitates the body and mind. — That which may excite dread; the cause of extreme fear.

Reign of Terror. (*Fr. Hist.*) A term generally applied to that period of the Revolution when the executions were most numerous, and the people living in constant terror in consequence of the ferocious conduct of their governors. It applies more properly to that period between October, 1793, when the revolutionary tribunal first came into permanent action, and the overthrow of Robespierre and his party, in July, 1794. The agents and partisans of the system have been termed *Terrorists*.

Ter'ryville, in *Connecticut*, a post-village of Litchfield co., abt. 24 m. W.S.W. of Hartford.

Terse, *a.* [Lat. *tersus*, from *tergeo*, to wipe.] Elegant without pompousness; compact; as, *terse* language.

Terse'ly, *adv.* Neatly; in a terse manner.

Terse'ness, *n.* The state or quality of being terse; neatness of style; smoothness of language.

Tertial, (*ter'shal,*) *a.* (*Zoöl.*) Applied to the quills growing on the last or innermost joint of a bird's wing.

Tertian, (*ter'shan,*) *a.* [From Lat. *tertius*, third.] Occurring every third year; as, a *tertian* fever.

—*n.* (*Med.*) An intermittent fever or ague, the paroxysms of which occur every other day. See AGUE.

Tertiary, (*ter'shi-a-ry,*) *a.* [Lat. *tertiarius.*] Containing a third part; third; pertaining to the third.

—*n.* (*Eccl. Hist.*) The name given, in the Roman Catholic Church, to one who, without entering into the seclusion of a monastery, aspires to practise in ordinary life all the substantial obligations of the scheme of virtue supposed to be laid down in the Gospel. The obligation of tertiary, once accepted, is irrevocable, unless the party should be released, or should enter into a more strict religious order.

Tertiary or Cenozoic Formation or System. (*Geol.*) In dividing the stratified crust of the earth into primary, secondary, and tertiary formations, the early geologists regarded as *tertiary* all that occurs above the chalk. In recent geology the Tertiary system is restricted to the formations between the chalk and the somewhat indefinite glacial drift and other superficial accumulations, which are known as the Quaternary, Post-pliocene, or Pleistocene formations. The tertiary system included, originally, three groups of strata—the Eocene, Miocene, and Pliocene—to which has more recently been added the Oligocene, following the Eocene in order upwards. The organic remains of the Tertiary are all of recent types, though only in part of recent species. With the incoming of this geological division the supremacy of the reptiles ceased, and the mammals, which previously had been represented only by small marsupial forms, became predominant, many of them attaining enormous proportions. In mineral constitution the Tertiary formations present great variety, consisting of clays, sands, marls, calcareous grits, limestones, gypsum, and beds of lignite, with evidences of frequent alternation from marine to freshwater conditions. In the older Tertiary the number of recent species of shells is very small, while in the later Pliocene they reach from 90 to 95 per cent. In regard to the mammalia, very few species have survived to recent times. During this age, numerous gigantic quadrupeds appeared, the fauna of the European Tertiary, including the elephant, mammoth, deinotherium, palæotherium, rhinoceros, &c.; that of South America, the megatherium, megalonyx, glyptodon, &c.; of North America, the mastodon, rhinoceros, elephant, horse, camel, &c., or rather early forms of these families. The Tertiary of the Western U. S. is very rich in mammalian forms, and in particular presents the evolutionary succession of the horse tribe from an original four-toed to the modern one-toed form. The stages of advance of some other families have been less completely made out, and the mammalian fossils of the Rocky Mountain region present strong support to the evolutionary theory of animal development. A strip of Tertiary strata extends along the Atlantic border, from New Jersey to Mississippi, which has added largely to the list of American Tertiary fossils.

Tertul'lian, (QUINTUS SEPTIMUS FLORENS TERTULIANUS,) the first, and one of the most celebrated, of the Latin Fathers, flourished about A. D. 190–214, in the reigns of the emperors Severus and Caracalla. He was son of a centurion in the service of the proconsul of Africa, and was born at Carthage; became an eminent rhetorician; was converted to the Christian religion either at Carthage or Rome, and obtained the office of presbyter. After he was past middle-age, he embraced the doctrines of Montanus, to which his ardent, sensuous imagination, and ascetic tendencies would naturally incline him. He is said to have been determined to that course by the ill treatment he received from the Roman clergy. Whether he remained a Montanist till his death, or ultimately returned to the Catholic Church, cannot be decided. He lived to a great age, and ultimately wrote a very large number of works, some of which were early lost. The most important of his extant works are the *Apologeticus Adversus Gentes pro Christianis* (addressed to the Roman magistracy in 198); *Ad Martyres; De Testimonio Animæ* (in which he endeavors to work out the idea of the preconformity of the human soul to the doctrine of Christ), *De Præscriptione Hæreticorum; De Pœnitentia; De Patientia; De Oratione;* and *De Baptismo.* His works are of four classes, — apologetical, practical, doctrinal, and polemical. They are characterized by vast learning, profound and comprehensive thought, fiery imagination, and passionate partisanship, leading into exaggeration and sophistry. His style is frequently obscure.

Ternel, (*tai-roo-el,*) a town of Spain, prov. of Aragon, 70 m. from Valencia; *pop.* 7,145.

Terza Rima, *n.* [It., third or triple rhyme.] A complicated system of versification, rendered celebrated by Dante, who wrote in it his *Divina Commedia*, and adopted in English by Byron, in his *Prophecy of Dante.* The rhyme is thus arranged: At the commencement of a poem or portion of a poem in the ordinary Italian heroic lines of 11 syllables, verses 1 and 3 rhyme together, as do verses 2, 4, and 6; the third rhyme begins with verse 5, which rhymes to 7 and 9; the fourth is formed by 8, 10, and 12, and so on; and the poem or canto ends abruptly — the last rhyme, like the first, being on a couplet instead of a triplet. It is obvious that the rhyme is interlaced throughout, and continually in suspense, so that no pause can be found until at the end of the poem or canto, as at the end of every line there must still be a rhyme incomplete.

Terzetto, (*tert-zet'to,*) *n.* [It.] (*Music.*) A composition in three parts.

Teschen, (*tesh'en,*) a town of Austrian Silesia, on the Olsa, 60 m. from Olmutz; *pop.* 7,000.

Tes'sin. See TICINO.

Tes'sellar, *a.* [Lat. *tesselta*, a small, square piece of wood.] Formed in squares.

Tes'sellate, *v. a.* To form into squares or checkers; to lay with checkered work.

Tes'sellated, *a.* Formed in little squares or mosaic work; checkered. See MOSAIC.

(*Bot.*) Spotted like a chess-board.

Tessella'tion, *n.* Mosaic work, or the operation of making such.

Tes'seral, Tes'sular, *a.* (*Crystall.*) Same as MONOMETRIC, *q. v.*

Test, *n.* [Lat. *testa*, a piece of burned clay, also a shell, from *torreo*, to bake by heat.] (*Metal.*) A large cupel, or a vessel in which metals are melted for trial and refinement. — Examination by the cupel; hence, any critical trial and examination. — Means of trial. — That with which anything is compared for proof of its genuineness; a criterion; a standard. — Discriminative characteristic. — Judgment; distinction.

(*Chem.*) A substance which, on being applied to other substances whose composition is unknown, indicates, by the sensible effects which it produces or fails to produce, their constituent elements.

—*v. a.* To compare with a standard; to prove the truth or genuineness of by experiment, or by some fixed principle or standard.

(*Metal.*) To refine, as gold or silver by means of lead, in a test, by the vitrification, scorification, &c., of all extraneous matter.

(*Chem.*) To try or examine by applying a reagent or reagents.

Tes'ta, *n.* [Lat., a shell.] (*Zoöl.*) The covering of testaceous animals.

(*Bot.*) The integuments of a seed.

Testa'ceau, *n.* (*Zoöl.*) A mollusc covered with a calcareous shell.

Testa'ceous, *a.* [Lat. *testaceus*, from *testa*, a shell.] Of, or pertaining to shells; consisting of a hard shell, or having a continuous shell which is often very thick and strong; pertaining to animals which have a strong, thick and entire shell, as oysters: — opposed to *crustaceous.*

Testaceous medicines or *powders.* (*Med.*) Powders consisting of burnt shells.

Tes'tament, *n.* [Fr.; It. *testamento;* Lat. *testamentum*, from *testor.*] (*Law.*) Same as WILL, *q. v.*

(*Script.*) The name of each general division of the canonical books of the Scriptures; as, the Old *Testament*, the New *Testament.* See BIBLE.

Testament'al, *a.* Testamentary.

Testament'ary, *a.* [Fr. *testamentaire.*] Of, or pertaining to, a testament, or to a will or wills. — Bequeathed by will; given by testament. — Done by testament or will.

Testamenta'tion, *n.* The power or act of bestowing by testament or will. (R.)

Tes'tate, *a.* [Lat. *testatus.*] (*Law.*) Having made and left a will.

—*n.* A person who leaves a valid will at his death.

Testa'tor, *n.* [Lat.] A man who makes and leaves a will or testament at death.

Testa'trix, *n.* [Lat.] A female testator.

Tes'ter, *n.* [O. Fr. *teste*, the head.] The head or top of a bed. — A flat canopy over a bed, pulpit, tomb, &c.

—[Lat. *testa;* O. Fr. *teste*, a shell.] An old French coin of the value of about twelve cents, having the king's head impressed upon it.

Tes'ticle, *n.* [Lat. *testiculus*, dimin. of *testis*, a witness.] (*Anat.*) One of the glands which secrete the seminal fluid in males; — so called because they testify the sex.

Testic'ular, *a.* Relating to the testicles.

Testic'ulate, *a.* (*Bot.*) Said of a root having two oblong tubercles.

Testifica'tion, *n.* [Lat. *testificatio.*] The act of testifying or giving evidence.

Tes'tifier, *n.* One who testifies; one who gives testimony or bears witness to prove anything.

Tes'tify, *v. n.* [Lat. *testificor*, from *testis*, a witness, and *facere*, to make.] To make a solemn declaration; to establish some fact; to give testimony.

(*Law.*) To make a solemn declaration under oath, for the purpose of establishing or making proof of some fact to a court. — To declare a charge against one; to protest; to declare against.

—*v. a.* To bear witness to; to support the truth of by testimony; to affirm or declare solemnly for the purpose of establishing a fact.

(*Law.*) To affirm or declare under oath, before a tribunal, for the purpose of proving some fact.

Testi'gos, a group of islands in the Caribbean Sea, belonging to Venezuela, 50 m. N.W. of Margarita; Lat. 11° 23′ N., Lon. 63° 12′ W.

Tes'tily, *adv.* Fretfully; peevishly; with petulance.

Testimo'nial, *n.* [Fr.] A writing or certificate in favor of one's character or good conduct.

—*a.* Relating to, or containing, testimony.

Tes'timony, *n.* [Lat. *testimonium*, from *testari*, to witness.] A solemn declaration or affirmation made in judicial proceedings under oath, for the purpose of establishing or proving some fact. — Affirmation; declaration. — Open attestation; profession. — Proof of some fact; witness.

Tes'tiness, *n.* The state or quality of being testy.

Test'ing, *n.* The act of trying for proof.

(*Metal.*) The operation of refining large quantities of gold and silver by means of lead, in the vessel called a *test* or cupel. See CUPELLATION.

Test'-paper, *n.* (*Chem.*) Paper colored by a concentrated vegetable infusion, as of blue cabbage, or of litmus, used as a chemical test. If colored by an infusion of blue cabbage, it acquires a bright-green color by contact with alkalies, and a bright-red color by contact with acids.

Testu'dinal, *a.* Pertaining to, or resembling the tortoise.

Testudina'ria, *n.* [Lat *testudo*, a tortoise.] A genus of plants, order *Dioscoreaceæ. T. elephantipes*, the Tortoise-plant of the Cape, or Elephant's-foot, is pretty generally known in collections, from its having a very peculiar short thick stem, resembling an elephant's foot; from the top of this thick stem a climbing stem is sent, which bears leaves and flowers. It is covered with a soft, corky bark, which is rugged and

Testudina'ta, *n. pl.* (*Zoöl.*) An order of reptiles, embracing the tortoises and turtles. This word, which by Agassiz, is synonymous with CHELONIA, *q. v.*

Testudina'rious, *a.* Relating to, or resembling the shell of the tortoise.

Testu'dinate, Testudinated, *a.* [Lat. *testudinatus.*] Roofed; arched.

Testudi'nidæ, *n. pl.* (*Zoöl.*) The Land tortoise family. See CHELONIA.

Tes'tudo, *n.* [Lat., the tortoise.] (*Zoöl.*) A genus of reptiles, family *Testudinadæ*, containing the

TEXAS

SCALE OF MILES

0 20 40 60 80 100

State Capital ⊛ County Seats ⊙

Places of 25,000 and over ___ DALLAS
" " 10,000 to 25,000 ___ Sherman
" " 5,000 to 10,000 ___ Tyler
" " 2,000 to 5,000 ___ Abilene

Hammond's 8 x 11 Map of Texas

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WESTERN PORTION OF TEXAS
Same Scale as Main Map

TEXAS.

Land surface, Sq. m. 262,290
Water surface, Sq. m. 3,490
Pop. 1900 ..3,048,710
White ..2,426,669
African. .620,722
Indian..... .470
Chinese 836
Japanese... ..13
Native-born, 2,869,353
Foreign-born, 179,357
Males ..1,578,900
Females1,469,810

COUNTIES.

Anderson.....J 6
Andrews.....B 5
Angelina.....K 6
Aransas.....H 9
Archer .....F 4
Armstroug....C 3
Atascosa .....F 9
Austin .....H 8
Bailey..... B 3
Bandera.....E 8
Bastrop .....G 7
Baylor.....E 4
Bee .....G 9
Bell.....G 7
Bexar..... ...F 8
Blanco .....F 7
Borden.... ...C 5
Bosque.....G 6
Bowie.....K 4
Brazoria ..... J 8
Brazos .. ....H 7
Brewster.....B 8
Briscoe.....C 3
Brown. . .....E 6
Burleson.....H 7
Burnet.....F 7
Caldwell.....G 8
Calhoun .....H 9
Callahan..... E 5
Cameron.....G11
Camp .....K 5
Carson .....C 2
Cass.....K 4
Castro.....B 3
Chambers ....K 8
Cherokee ..... J 6
Childress.....D 3
Clay ....F 4
Cochran .....B 4
Coke..... D 6
Coleman .....E 6
Collin. ..... H 4
Collingsworth.D 2
Colorado .....H 8
Colmal .....F 8
Comanche.....F 6
Concho .....E 6
Cooke.....G 4
Coryell ..... G 6
Cottle .....D 3
Crane.....B 6
Crockett .....C 7
Crosby..... C 4
Dallam.....B 1
Dallas.....H 5
Dawson ..... C 5
Deaf Smith.. B 3
Delta ....J 4
Denton .....G 4
Dewitt .....G 8
Dickens.....D 4
Dimmit..... E 9
Donley.....D 2
Duval F10
Eastlaud .....F 5
Ector.....B 6
Edwards.....D 8
Ellis..... H 5
El Paso.....C10
Erath.....F 5
Falls .....H 6
Fannin.....H 4
Fayette.....G 8
Fisher..... ...D 5
Floyd..... C 3
Foard..... E 4
Ft. Bend.....J 8
Franklin.....J 4
Freestone .... H 6
Frio.....E 9
Gaines.....B 5
Galveston.....K 8
Garza.....C 4
Gillespie.....F 7
Glasscock.....C 6
Gollad .....G 9
Gonzales.....G 8
Gray... .....D 2
Grayson .....H 4
Gregg.....K 5
Grimes..... H 7
Guadalupe....G 8
Hale .....C 3
Hall..... D 3
Hamilton .....F 6
Hansford .....C 1
Hardeman... E 3
Hardin. .....K 7
Harris.....J 8
Harrison.....K 5
Hartley .....B 2
Haskell .....E 4
Hays. .....F 7
Hemphill .....D 2
Henderson ... J 5
Hidalgo.....F11
Hill.....G 6
Hockley..... B 4
Hood.....G 5
Hopkins.....J 4
Houstou ..... J 6
Howard .....C 5
Hunt.....H 4
Hutchinson...C 2
Irion.....D 6
Jack .....F 4
Jackson.....H 9
Jasper.....L 7
Jeff Davis.....D11
Jefferson.....K 8
Johnson.....G 5
Jones .....E 5
Karnes... ....G 9
Kaufman.....H 5
Kendall..... F 7
Kent.....D 4
Kerr.....E 7
Kimball ..... E 7
King.. ..... D 4
Kinney.....D 8
Knox.....E 4
Lamar..... J 4
Lamb.....B 3
Lampasas.....F 6
Lasalle .....E 9
Lavaca.....H 8
Lee.....H 7
Leon .....H 6
Liberty .....K 7
Limestone....H 6
Lipscomb.....D 1
Live Oak.....F 9
Llano.....F 7
Loving.....D10
Lubbock .....C 4
Lynn.....C 4
McCulloch ....E 6
McLennan ....G 6
McMullen.....F 9
Madison .....J 6
Marion.....K 5
Martin.....C 5
Mason.....E 7
Matagorda ....J 9
Maverick .... D 9
Medina.....E 8
Menard .....E 7
Midland.....C 6
Milam.....G 7
Mills ....F 6
Mitchell.....D 5
Montague.....G 4
Montgomery..J 6
Moore.....C 2
Morris.....K 4
Motley .....D 3
Necogdoches..K 6
Navarro .....H 6
Newton.....L 7
Nolan ..... .D 5
Nueces.....G10
Ochiltree.....D 1
Oldbam.....B 2
Orange.....L 7
Palo Pinto....F 5
Panola .....K 5
Parker.....G 5
Parmer.....B 3
Pecos.....B 7
Polk.....K 7
Potter.....C 2
Presidio.....C12
Rains .....J 5
Randall .....C 3
Reagan.....C 6
Red River ....K 4
Reeves D10
Refugio.....G 9
Roberts.....D 2
Robertson ....H 6
Rockwall .....H 5
Runnels.....E 6
Rusk.....K 5
Sabine .....L 6
San Augustine K 6
San Jacinto... J 6
San Patricio..G10
San Saba.....F 6
Schleicher ....D 7
Scurry.....D 5
Shackelford...E 5
Shelby .....K 6
Sherman.....C 1
Smith.....J 5
Somervell.....G 5
Starr F11
Stevens.....F 5
Sterling .....D 6
Stonewall.....D 4
Sutton.....D 7
Swisher .....C 3
Tarrant .....G 5
Taylor.....E 5
Terry.....B 4
ThrockmortonE 4
Titus ... .K 4
Tom Green....D 6
Travis.....G 7
Trinity .....J 6
Tyler.....K 7
Upshur.....K 5
Upton.....B 6
Uvalde.....E 8
Valverde.....C 8
Van Zandt.....J 5
Victoria ..... G 2
Walker.....J 6
Waller.....H 8
Ward ..... B 6
Washington..H 7
Webb..... E10
Wharton.....H 8
Wheeler.....D 2
Wichita .....F 4
Wilbarger.... E 4
Williamson ...G 7
Wilson .....F 3
Winklee.....B 6
Wise.....G 4
Wood ..... J 5
Yoakum.....B 4
Young ..... F 4
Zapata E10
Zavalla.....E 9

CITIES-TOWNS

Pop. Thousands.		
53	San Antonio	F 8
44	Houston	J 8
42	Dallas	H 5
37	Galveston	K 8
26	Ft. Worth	G 5
22	Austin	G 7
20	Waco	G 6
15	El Paso.	A10
13	Laredo	E10
11	Denison	H 4
10	Sherman	H 4
9	Beaumont	K 7
9	Paris.	J 4
9	Corsicana	H 5
8	Palestine	J 6
8	Tyler	J 5
7	Gainesville	G 4
7	Marshall	K 5
7	Cleburne	G 5
7	Temple	G 7
6	Greenville	H 4
6	Terrell	H 5
6	Brownsville	G12
5	Brenham	H 7
5	Hillsboro	G 5
5	Texarkana	K 4
5	Bonham	H 4
4	Ennis	H 5
4	Weatherford	G 5
4	Corpus Christi	G10
4	McKinney	H 4
4	Gonzales	G 8
4	Waxahachie	H 5
4	Taylor	G 7
4	Denton	G 4
4	Victoria	G 9
3	Brownwood	F 6
3	Navasota	H 7
3	Orange	L 7
3	Belton	G 6
3	Sulphur Springs	J 4
3	Oak Cliff	H 5
3	Longview	K 5
3	Bryan	H 7
3	Yoakum	G 8
3	Cuero	G 8
3	Abilene	E 5
3	Cameron	G 7
3	Calvert	H 7
3	Marlin	H 6
2	Jefferson	K 5
2	Georgetown	G 7
2	Crockett	J 6
2	Bowie	G 4
2	Smithville	G 7
2	Rockdale	G 7
2	Huntsville	J 7
2	Honey Grove	H 4
2	Wichita	F 4
2	Seguin	G 8
2	Mexia	H 6
2	La Grange	G 8
2	Kaufman	H 5
2	Dublin	F 5
2	Lockhart	G 8
2	San Marcos	G 8
2	Bastrop	G 7
2	Hearne	H 7
2	Lampasas	F 6
2	New Braunfels	F 8
2	Comanche	F 6
2	Clarksville	K 4
2	Mineral Wells	F 5
1	Vernon	E 4
1	Van Alstyne	H 4
1	Stephenville	F 5
1	Uvalde	E 8
1	Gatesville	G 6

Land-tortoise, *T. græca*, 6 to 10 inches long; and the Galapagos or Indian Tortoise, *T. indica*, which is 3 feet long, and the largest land-tortoise known.

(*Mus.*) The lyre of Mercury, origiually made from the shell of a tortoise.

(*Med.*) An encysted tumor, supposed to resemble the shell of a tortoise.

(*Mil.*) A contrivance adopted by the Greeks and Romans principally in attacking walls and fortified places. It was formed by a body of troops holding their shields above their heads, so as to overlap one another and form a kind of pent-house, which threw off the missiles of the enemy while the assailants were approaching the walls.

Tes'ty, *a.* [O. Fr. *testes*, from *teste*, the head.] Fretful; peevish; petulant; easily irritated.

Tetan'ic, *a.* Relating to tetanus.

—*n.* (*Med.*) A remedy which acts on the nerves, and, through them, on the muscles, occasioning, in large doses, convulsions, as *nux vomica*, *strychnia*, &c.

Tet'anus, *n.* [Lat.; Gr. *tetanos*, from *teino*, I stretch.] (*Med.*) A disease characterized by a violent and rigid spasm of many or all of the muscles of voluntary motion. Persons of all ages and of both sexes are liable to its attack, but it occurs much more frequently in warm than in cold climates. It frequently arises from some irritation of the nerves, in consequence of local injury by puncture, incision, or laceration. In some instances it comes on suddenly and with great violence, but more frequently its attack is gradual, beginning with a slight stiffness in the back part of the neck, which in a short time is considerably increased, and, at length, renders the motion of the head difficult and painful. An uneasy sensation is felt at the root of the tongue, which increases and causes a difficulty in swallowing; at length preventing it altogether. A great tightness is perceived about the chest, with a violent pain at the lower part of the sternum, shooting into the back. A stiffness also takes place in the jaws, which soon increases to such a height that the teeth become so closely set together as not to admit of the smallest opening. This is the most common form of the disease, and is known as *locked jaw*. Frequently, however, the disease extends farther, and the muscles of the spine become affected, so as to bend the body forcibly backwards, or, on the other hand, the muscles of the abdomen are affected, and the body bent forwards; and sometimes the muscles both before and behind are affected. These spasms are attended with the most severe pain, but seldom with any fever. This disease is frequently fatal, and, unfortunately, it too often resists every mode of treatment. The modes of treatment indicated by the disease are: 1. The removal of any local irritation which may appear to have excited it; 2. Lessening the general irritability and spasmodic tendency; and 3. Restoring the tone of the system. Opium is the remedy which is most frequently resorted to in such cases, which must be given in very large doses, repeated at short intervals. Some recommend purgatives given in large doses, and continued for some time. When the jaws have become locked, it is necessary to administer food or medicine in the form of clysters, or something to draw some of the front teeth.

tête, (*tat,*) *n.* [Fr., the head.] A kind of wig made of false hair.

Tête-a-tête, (*tāt-a-tāt,*) *n.* [Fr.] A familiar conversation or interview.

—*adv.* Familiarly.

Tete Des Morts, in *Iowa*, a township of Jackson co., on the Mississippi River.

tête-de-pont, (*tat-de-pong',*) *n.* [Fr.] (*Mil.*) See Bridge-head.

Teth'er, *n.* A rope or chain by which a beast is fastened or confined for feeding within certain limits.

—*v. a.* To confine, as a beast, with a rope or chain for feeding within certain limits.

Te'thys, (*Myth.*) A daughter of *Oranos* or *Uranus* (heaven), and of *Gaia*, or *Gæa* (earth), and the wife of Oceanus: — used for the *sea* in the later Greek and Roman poets.

Te'thys, *n.* [Gr. *tethos*, an oyster.] (*Zoöl.*) A genus of nudibranchiate gasteropods, found by Cuvier, and characterized by having two rows of branchiæ along the back in the form of tufts.

Tetrabranch'iata, *n. pl.* (*Zoöl.*) An order of *Cephalopods*, which are nearly extinct, the only remaining representative of it being the Pearly Nautilus.

Tetrace'ra, *n.* (*Bot.*) A genus of plants, order *Dilleniaceæ*, consisting chiefly of climbing shrubs, widely spread over the tropics of Asia, Africa, and America. The species have some astringent qualities.

Tetrachot'omous, *a.* [Gr. *tetrachos*, in a fourfold manner, and *temno*, to cut.] (*Bot.*) Applied to a stem that ramifies in fours.

Tetraco'lon, *n.* [Gr. *tetra*, four, and *kolon*, limb.] (*Pros.*) A division of lyric poetry consisting of four verses; a stanza.

Tet'rad, *n.* [Lat. *tetras.*] The number four; — a collection of four things.

Tetradac'tyl, *n.* [Fr. *tétradactyle.*] (*Zoöl.*) An animal having four toes.

Tetrade'capods, *n. pl.* (*Zoöl.*) An order of Crustacea, which normally have seven cephalic segments and pairs of appendages, and seven foot-rings or pairs of feet.

Tet'radrachm, *n.* [Gr. *tetra*, four, and *drachma*, a drachm.] (*Numis.*) A silver coin (Fig. 78 and 149).

Tetradyna'mia, *n.* [Gr. *tetra*, and *dynamis*, power.] (*Bot.*) A class of plants which, in the Linnæan system, includes those whose flowers have six stamens, two of which are shorter than the others.

Tet'ragon, *n.* [Gr. *tetragonos*, from *tetra*, for *tessares*, four, and *gōnia*, an angle.] (*Geom.*) A plane figure having four angles; a quadrangle, as a square, a rhombus, &c.

Tetrag'onal, *a.* Pertaining to a tetragon; having four angles or sides.

Tetragonia'ceæ, *n. pl.* (*Bot.*) A small order of plants, alliance *Ficoidales*. Diag. No petals, and several consolidated carpels. They are succulent, leaved, herbaceous plants, or small shrubs, chiefly natives of New Zealand.

Tetrag'onoids, *n. pl.* (*Chem.*) See Atomechanics.

Tetragy'nia, *n.* (*Bot.*) One of the orders of the Linnæan classification, comprising plants with four pistils.

Tetrahe'dral, *a.* Having four sides; having four equal and equilateral triangles.

Tetrahe'drite, *n.* [So called from the tetrahedral form of the crystals in which it usually occurs.] (*Min.*) A native sulphide of copper, containing variable proportions of antimony or arsenic, or of both antimony and arsenic, and sometimes of silver or of mercury.

Tetrahe'dron, *n.* [Gr. *tetra*, and *hedra*, a side. See Cathedral.] (*Geom.*) A solid figure having four sides, or four equilateral and equal triangles; or it is a triangular pyramid having four equal and equilateral faces.

Tetrahexahe'dron, *n.* [Gr. *tetra*, *ex*, six, and *edra*, a base.] (*Crystal.*) A crystal having 24 faces, each of which is an isosceles triangle.

Tetram'eter, *n.* [Gr. *tetrametros.*] (*Anc. Pros.*) A verse consisting of four measures.

Tetran'dria, *n.* (*Bot.*) The fourth class of the Linnæan system of classification, containing plants furnished with four stamens.

Tetra'odon, *n.* (*Zoöt.*) A genus of bony fishes, order *Plectognathes*. Like the Diodon, they have the faculty of inflating themselves, by filling with air a thin and extensile membranous sac, which adheres to the peritoneum the whole length of the abdomen. When thus inflated, they roll over, and float with the belly uppermost, without any power of directing their course. Each jaw of the *T.* is marked with a suture, so as to give the appearance of four teeth. The spines are small and low, and some species are reckoned poisonous.

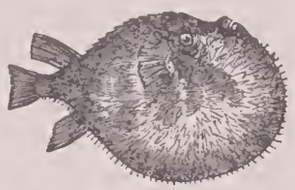


Fig. 2488. — Globe-fish. (*Tetraodon hispidus.*)

Tetraon'idæ, *n. pl.* (*Zoöl.*) See Grouse.

Tetrapet'alous, *a.* (*Bot.*) Having four petals.

Tetraphar'macon, *n.* [Gr. *tetra*, and *pharmacon*, a drug.] (*Med.*) An ointment composed of four remedies; viz., wax, resin, lard, and pitch.

Te'trarch, *n.* [From Gr. *tetra*, and *archē*, sovereignty.] (*Roman Hist.*) The governor of a fourth part of a country. This was a title granted by the Romans to some tributary princes, whom they did not dignify with the style of king. Such were the sons of Herod the Great, among whom his dominions were divided after his death.

Tetrarch'ate, Tet'rarchy, *n.* The fourth part of a province under a Roman tetrarch, or the office of a tetrarch.

Tetrasep'alous, *a.* (*Bot.*) Having four sepals.

Tetrasperm'ous, *a.* (*Bot.*) Having four seeds.

Tet'raspore, *n.* [Fr. *spora*, a seed.] (*Bot.*) One of the forms of fructification found in some sea-weeds. It consists of little clusters of spores, in most cases four in number, but very rarely eight.

Tet'rastich, *a.* [Gr. *tetrastychos*, in four rows.] (*Poetry.*) A stanza of four verses.

Tet'rastyle, *n.* [Gr. *tetrastylos.*] (*Arch.*) A building having four columns in front.

Tetrasyllab'ic, Tetrasyllab'ical, *a.* Consisting of four syllables.

Tetrasyl'lable, *n.* [Gr. *tetra*, and *syllabē*, a syllable.] A word consisting of four syllables.

Tet'ter, *n.* [A. S. *teter, tetr.*] The Herpes, *q. v.*

—*v. a.* To affect with the disease called tetter.

Tet'ter-tot'ter, *n.* An amusement of children, in which one or more ride upon each end of a plank or piece of timber, balanced upon some support in the middle; see-saw; also called *titter-come-totter.*

Tetuan, (*tet-oo-an',*) a seaport-town of Morocco, Africa, prov. of El Garb, on the Mediterranean, immediately within the Straits of Gibraltar, 22 m. from Ceuta. The environs are carefully planted with vineyards and gardens; the grapes are exquisite, and the oranges reckoned, by some, superior to any in the world. Lat. 35° 50′ N., Lon. 5° 20′ W. In 1861, the Spanish government, having determined to abandon its claims against Morocco, declared *T.* the property of Spain, rendered it impregnable, and colonized its territory. *Pop.* 17,000.

Teu'crium, *n.* (*Bot.*) A genus of plants, order *Lamiaceæ*, consisting of herbs and shrubs widely dispersed throughout the world, but abounding chiefly in the northern temperate and subtropical regions of the eastern hemisphere. They are called *Germanders.* Several species were formerly reputed to possess medicinal virtues, but are now discarded. The genus is represented in N. America by *T. Canadense*, the wild Germander, about two feet high, found in fields and roadsides throughout the U. States.

Teu'tates. (*Myth.*) A deity mentioned by Lucan as being worshipped with sacrifices not unlike those of Moloch.

Teuthi'dæ, *n. pl.* (*Zoöl.*) The Lancet-fish family, comprising acanthopterygious, spine-rayed, herbivorous fishes which inhabit the warmer seas.

Teu'ton, *n.* One of the Teutones or Teutons. See Teutones.

Teu'tones, or **Teu'tons,** *n. pl.* A powerful German tribe, which, in alliance with the Cimbri, advanced into Illyria, and defeated the consul Cn. Papirius Carbo, at Noreia, B. C. 113. They afterwards forced their way into Roman Gaul, and defeated Manlius and Scipio, B. C. 105; and they invaded Spain, B. C. 104. On their retreat from Spain, they were met by the Romans, under Marius, at Aquæ Sextiæ, the modern Aix, and totally defeated, B. C. 102.

Teuton'ic, *a.* Pertaining to the Teutones or Teutons.

Teutonic languages. A name given to the dialects which are comprised under the High German, Low German, and Scandinavian branches of the Aryan family of languages. Of these, the English and Dutch belong to the Low German branch. These dialects cannot be directly derived from each other, any more than Greek can be derived from Latin, or Latin from Greek, or either of these from Sanskrit; and if they are traceable at all to a common source, this source must be found in a language preceding all dialects which are known to us historically. It need scarcely be said that the language of a tribe or nation is no *conclusive* evidence in questions of ethnology.

—*n.* The Teutonic language.

Teuton'ic Order, *n.* (*Eccl. Hist.*) A military religious order, which took its rise about 1189, during the Crusades. Frederick of Suabia, on his arrival with his army before Acre, in 1191, under the sanction of a bull of Pope Cœlestine III., named it the Order of the German House of the Holy Virgin of Jerusalem. After their return to Germany, they were, in 1226, invited by Conrad, duke of Masovia, to assist him in conquering the heathen Prussians, and a bull was issued, empowering them to do so. They settled in Poland in 1233, and were united with the Brethren of the Sword in 1237. They conquered Prussia in 1283; but insurrections afterwards broke out, and they were defeated by the Poles and Lithuanians in a great battle near Tannenburg, in Germany, July 15, 1410, when the grand master and 40,000 of his followers were slain. The order, dissolved by the peace of Cracow, in 1525, was abolished by Napoleon I., in 1809.

Teuto'nia, in *Pennsylvania*, a village of McKean co., 190 m. N.W. of Harrisburg.

Teuton'icism, (*-sizm,*) *n.* A Germanism.

Teutop'olis, in *Illinois*, a post-village of Effingham co., 88 m. S.E. of Springfield.

Tev'iot, a river of Scotland, in Roxburghshire, unites with the Tweed at Kelso.

Tew, *v. a.* [A. S. *tawian.*] To prepare or dress by beating, as hemp or leather. — To beat; to pull. — To tease.

Tewel, (*tū'el,*) *n.* [Fr. *tuyau.*] A pipe or funnel, as for smoke; an iron pipe in a forge to receive the pipe of a bellows.

Tewkesbury, (*tūkes'ber-re,*) a town of England, in Gloucestershire, on the Avon, 10 m. from Gloucester. *Manuf.* Stocking framework-knitting, particularly in cotton. *Pop.* 7,000.

Tewkesbury, in *New Jersey*, a township of Hunterdon co.

Tewks'bury, in *Massachusetts*, a post-town of Middlesex co., about 22 m. N.W. of Boston.

Texa'na, in *Texas*, a village, former cap. of Jackson co., 150 m. S. E. of Austin city.

Tex'as, one of the S. W. States of the American Union, is situated between Lat. 25° 50′ and 36° 30′ N., and Lon. 93° 30′ and 107° W.; extreme length from S. E. to N.W. more than 800 m.; greatest breadth from E. to W., about 750 m.; *area*, 237,504 sq. m. It is bounded N. by Oklahoma, Indian Territory, and Kansas, being separated from these by the Red river; E. by Arkansas and Louisiana, from the latter of which it is separated in part by the Sabine; S.E. by the Gulf of Mexico; and S.W. and W. by Mexico and New Mexico. It is the largest State in the Union, and has a territory nearly 6 times as great as that of Pennsylvania. The general aspect of the country is that of a vast inclined plane, gradually sloping from the mountains on the W. eastward to the sea, and intersected by numerous rivers, all having a S.E. direction. The State may be divided into three separate regions, differing in many respects from each other. The first, or level, region, extends along the coast with a breadth inland varying from 100 to 70 and 30 m. The soil of this region is principally a rich pasture land. The second division, the largest of the three, is the undulating or rolling-prairie region, which extends for 150 or 200 m. farther inland, its wide grassy tracts alternating with others that are thickly timbered. These last are especially prevalent in the E., though the bottoms and river valleys throughout the whole region are well wooded. Limestone and sandstone form the common substrata of this region; the upper soil consists of a rich friable loam, mixed indeed with sand, but seldom to such an extent as to prevent the culture of the most

Fig. 2489. — Seal of the State.

exhausting products. The third, or mountainous region, situated principally in the S.W., includes the Sierra Guadalupe, a portion of the Mexican Alps, and a desert tract at the foot of the mountains. It has been little explored, and is without settlements. The mountain sides are clothed with forests of pine, oak, cedar, and a great variety of trees and shrubs, and they inclose extensive alluvial valleys, most of which are susceptible of irrigation and culture. After the rivers already named, the principal, proceeding from N. to S., are the Neches, Trinity, Brazos, Colorado, and Nueces. They all fall into the Gulf of Mexico, or rather (except the Brazos) into its bays and lagoons. The coast presents everywhere formidable obstacles to navigation, in the long, low, narrow belts of land by which it is fenced, and which bound the lagoons: in the want of harbors for vessels drawing more than 12½ ft. water; and in the bars at the mouths of the rivers. Still, however, steam-vessels have been able to enter and ascend these rivers to a considerable distance. The Rio Grande del Norte, a noble stream, having an estimated course of 1,800 m., is, though in parts broken by rapids, an important commercial channel. Galveston Bay, into which the Trinity flows, by far the finest on the coast, is about 35 m. in length N. and S., and from 12 to 18 E. and W. Its average depth is about 12 ft., but in the channel there are from 18 to 30 ft. water. The Texan year is divided into a wet and a dry season. The former lasts from December to March, during which N. and N.E. winds are most prevalent; the latter, from March till the end of November, during which the winds vary from the S.E. round to S.W. It may be subdivided into spring, summer, and autumn. From April to September the thermometer in different parts of the country has been found, at a general average, to range from 63° to 100°; average heat, 9 A. M., 73° F.; at noon, 83°; 3 P. M., 77°. These great heats are, however, tempered by continual and strong breezes, which commence soon after sunrise, and continue till about 3 or 4 o'clock P. M., and the nights throughout the year are cool. From March to October little rain falls, though thunder-storms frequently occur. During the rest of the year wet weather is prevalent; the rivers swell and inundate the country, and the roads are generally rendered impassable. Snow is seldom seen in the winter, except on the mountains. The surface is in most parts covered with luxuriant native grass, comprising, with the common prairie-grass, the gama, musquite, wild clover, and wild rye, and affording excellent pasturage. It has also an ample supply of timber, as well for use as for ornament. Live-oak (*Quercus sempervirens*), so valuable for ship-building, is here more abundant and of better quality, perhaps, than in any other part of America. White, black, and post-oak, ash, elm, hickory, mezquite (acacia), walnut, sycamore, *bois d'arc*, (so called from the Indians using it to make their bows,) cypress, and caoutchouc, are among the common trees; and the mountainous parts in the S.E. abound with pine and cedar of fine quality. Among the natural curiosities of the country is the "Cross-timber" of N. Texas, a continuous series of forests, varying in width from 5 to 50 m., and extending in a direct line about the 97° of W. Lon. from the woody region at the sources of the Trinity, northward to the Arkansas River. It appears at a distance like an immense wall of wood, and such is its linear regularity, from the W., that it looks as if it were planted by art. It forms the great boundary of the W. prairies. Texas is amply supplied with fruits and garden products. The climate of the lowlands is too warm for the apple, but almost every other fruit of temperate climates comes to perfection. Peaches, melons, figs, oranges, lemons, pine-apples, dates, and olives, may be grown in different localities with little cost. Grapes are abundant, and being free from the "foxy" flavor common to the grapes of most parts of America, very tolerable wine has been made from them. Vanilla, indigo, sarsaparilla, and a large variety of dyeing and medicinal shrubs and plants, are indigenous; and on all the river-bottoms is an undergrowth of cane so thick as to be almost impervious. Along the water-courses also and near the sea, the larger trees are sometimes wreathed with Spanish moss, which serves both for fodder and for the manufacture of cheap bedding. The *flora* of Texas is particularly rich and copious. Cotton was the great agricultural staple before the Civil War, and is still largely cultivated, the best being produced in the low alluvial soils, and on the rolling or undulating lands. The rearing of live-stock has been long the principal and favorite occupation of the Texan settlers, and many of the prairies are covered with a valuable breed of oxen, which scarcely require, and certainly do not receive, much more care or attention than the prairie deer. It is usually estimated that 100 cows and calves, purchased for $1,000, will, in ten years, have increased about 36-fold, thus numbering 3,600, worth, at the same price, $36,000. A profitable trade in cattle is opened with New Orleans; and the W. India islands offer coffee, which the Texans use largely in exchange for cattle. The rearing of horses and mules is extensively pursued; sheep thrive on the upper lands, but require folding. Bears, cougars, peccaries, wolves, foxes, and raccoons are common. The State is divided into 246 counties, viz.:

Anderson,	Bastrop,	Brazos,	Cameron,
Andrews,	Baylor,	Brewster,	Camp,
Angelina,	Bee,	Briscoe,	Carson,
Aransas,	Bell,	Brown,	Cass,
Archer,	Bexar,	Buchel,	Castro,
Armstrong,	Blanco	Burleson,	Chambers,
Atascosa,	Borden,	Burnet,	Cherokee,
Austin,	Bosque,	Caldwell,	Childress,
Bailey,	Bowie,	Calhoun,	Clay,
Bandera,	Brazoria,	Callahan,	Cochran,
Coke,	Grayson,	Lipscomb,	Sabine,
Coleman,	Gregg,	Live Oak,	San Augustine,
Collin,	Grimes,	Llano,	San Jacinto,
Collingsworth,	Guadalupe,	Loving,	San Patricio,
Colorado,	Hale,	Lubbock,	San Saba,
Comal,	Hall,	Lynn,	Schleicher,
Comanche,	Hamilton,	Madison,	Scurry,
Concho,	Hansford,	Marion,	Shackelford,
Cooke,	Hardeman,	Martin,	Shelby,
Coryell,	Hardin	Mason,	Sherman,
Cottle,	Harris,	Matagorda,	Smith,
Crane,	Harrison,	Maverick,	Somerville,
Crockett,	Hartley,	McCullough,	Starr,
Crosby	Haskell,	McLennan,	Stephens,
Dallam,	Hays,	McMullen,	Sterling,
Dallas,	Hemphill,	Medina,	Stonewall,
Dawson,	Henderson	Menard,	Sutton,
Deaf Smith	Hidalgo,	Midland,	Swisher,
Delta,	Hill,	Milan,	Tarrant,
Denio,	Hockley,	Mills,	Taylor,
De Witt,	Hood,	Mitchell,	Terry,
Dickens,	Hopkins,	Montague,	Throckmorton,
Dimmitt,	Houston,	Montgomery,	Titus,
Donley,	Howard,	Moore,	Tom Green,
Duval,	Hunt,	Morris,	Travis,
Eastland,	Hutchinson,	Motley,	Trinity,
Ector,	Irwin,	Nacogdoches,	Tyler,
Edwards,	Jack,	Navarro,	Upshur,
Ellis,	Jackson,	Newton,	Upton,
El Paso,	Jasper,	Nolan,	Uvalde,
Encinal,	Jeff Davis,	Nueces,	Val Verde,
Erath,	Jefferson,	Ochiltree	Van Zandt,
Falls,	Johnson,	Oldham,	Victoria,
Fannin,	Jones,	Orange,	Walker,
Fayette,	Karnes,	Palo Pinto	Waller,
Fisher,	Kaufman,	Panola,	Ward,
Floyd,	Kendall,	Parker,	Washington,
Foard,	Kent,	Parmer,	Webb,
Foley,	Kerr,	Pecos,	Wharton,
Fort Bend,	Kimble,	Polk,	Wheeler,
Franklin,	King,	Potter,	Wichita,
Freestone,	Kinney,	Presidio,	Wilbarger,
Frio,	Knox,	Rains,	Williamson,
Gaines,	Lamar,	Randall,	Wilson,
Galveston,	Lamb,	Red River,	Winkler,
Garza,	Lampasas,	Reeves,	Wise,
Gillespie,	La Salle,	Refugio,	Wood,
Glasscock,	Lavaca,	Roberts,	Yoakum,
Goliad,	Lee,	Robertson,	Young,
Gonzales,	Leon,	Rockwall,	Zapata,
Gray,	Liberty,	Runnels,	Zavalla.
	Limestone,	Rusk,	

The principal towns are: Austin (the State capital), San Antonio, Dallas, Galveston, Houston, Forth Worth, Waco, El Paso, Denison, Marshall, Paris, Sherman, Laredo, Gainesville, Corsicana, Texarkana, Victoria, Abilene, Belton, Bryan, and Tyler.—The chief exports are cotton, sugar, tobacco, cattle, grain, and wool, in two of which, cotton and cattle, *T.* stands first among the States of the Union.—*Govt.* The executive officers of the State consist of a governor, lieutenant-governor, secretary of state, attorney-general, treasurer, comptroller, superintendent of public instruction, and land commissioner, all holding office for 2 years. The railroad commission is an important feature of the Texas State government. The legislature is composed of 31 Senators chosen for 4 years, and 93 Representatives chosen for 2 years; the legislature meets biennially. *Judiciary*, consists of a supreme court, composed of a chief and two associate judges elected by the people for 6 years; a court of appeals, of 3 judges elected for 6 years; five courts of civil appeals, district courts, county courts, and justices of the peace. The district and county judges are elected for 2 years, and a district court is held twice a year in each county. La Salle, the French explorer, erected a fort on Matagorda Bay, 1687. A Spanish settlement and mission was formed in 1690, but soon abandoned. In 1715, the country was settled by the Spaniards, under the name of New Philippines, and several missions established; but the Comanche and Apache Indians, among the most warlike in America, and still the terror of the border settlements, hindered the progress of the country. In 1803, when Louisiana was ceded by France to the U. S., *T.*, claimed by both Spain and the U. S., became a disputed territory. From 1806 to 1816, settlements were formed, and several attempts made to wrest the country from Spain. In one of these, in 1813, 2,500 Americans and Mexicans were killed, and 700 inhabitants of San Antonio. Mina, a Spanish refugee, gained some successes, but was defeated and shot. Lafitte, a Gulf pirate, made a settlement at Galveston in 1815, but it was broken up in 1821. In 1819, the river Sabine was established as the boundary. In 1820, Moses Austin, an American, got a large grant of lands in *T.* from the Mexican government, and began a settlement, which rapidly increased; but many of the settlers were of so lawless a character, that, in 1830, the government forbade any more Americans coming into Texas. In 1833 a convention of settlers, 20,000 in number, made an unsuccessful attempt to form an independent Mexican State; and in 1835, a provisional government was formed, Sam Houston (q. v.) chosen commander-in-chief, and the Mexicans driven out of Texas. Santa Anna, President of Mexico, invaded the country with 7,500 men, and after some successes, was entirely routed at San Jacinto, April 21; and *T.* became an independent republic, acknowledged, 1837, by the U. S., and in 1840 by England, France, and Belgium. In December, 1845, *T.* was annexed to the U. S., but was invaded by Mexico which had never acknowledged its independence, and thus originated the war with the U. States. In February, 1860, *T.* joined the Secession, and during the war furnished to the Confederates immense supplies, a large number of troops, several able officers, and one of its most successful generals, Ben. McCulloch, long identified with the history of the State as a partisan leader, and killed at the battle of Pea Ridge, Arkansas. In 1869 a new Constitution was adopted, and the State, after having adopted the 15th amendment to the National Constitution, was readmitted to representation in Congress. *Pop.* (1890) 2,235,523; (1900) 3,048,710.

Têx'as, in *Pennsylvania*, a village of Lancaster co.

Tex'el, an island of Holland, on the Zuyder Zee, separated from the continent of North Holland by the narrow channel called the Mart-diep. *Pop.* 5,820.

Text, (*tekst,*) *n.* [Fr. *texte;* Lat. *textus*, from *texo*, to weave.] A written composition; a discourse or composition on which a note or commentary is written.—A verse or passage of Scripture which a preacher selects as the subject of a discourse; any particular passage of Scripture used as authority in argument for proof of a doctrine.—A particular kind of handwriting; as, large *text*, middle *text*, small *text*.

Text'-book, *n.* A book containing the leading principles or most important points of a science or branch of learning, arranged in order for the use of students.

Text'-hand, *n.* A large hand in writing.

Tex'tile, *a.* [Lat. *textilis*, from *texo*, *textus*, to weave.] Woven, or capable of being woven.

Texto'rial, Tex'trine, *a.* Pertaining to weaving.

Text'-pen, *n.* A pen for engrossing.

Text'ual, *a.* Contained in the text; serving for text.

Text'ualist, *n.* One who adheres to the text; one who is well versed in the Scriptures, and can easily quote texts.

Text'ually, *adv.* In the text or body of a work; in accordance with a text.

Text'uary, *n.* One ready in citing texts.
—*a.* Same as TEXTUAL.

Text'ure, *n.* [Lat. *textura*, from *texo*, *textus*, to weave.] Act or art of weaving.—A web; that which is woven.—The disposition or connection of threads, filaments, or other slender bodies, interwoven; the disposition of the several parts of any body in connection with each other or the manner in which the constituent parts are united.

Teza, (*tā'za,*) a town of Fez, in Africa, 60 m. from Fez, *pop.* 11,000.

Tezcuco, or TEZCOCO, (*tes-koo'ko,*) a lake of Mexico, about 2½ m. E. of the city of Mexico, 15 m. long and 9 m. in its greatest width. It was formerly much more extensive and contained numerous islands, upon which the old city of Mexico was built. Its waters are strongly impregnated with salt.—A town on the above lake, 16 m. E.N.E. of Mexico, was ancieutly of considerable importance, of which only the ruins of its palaces and temples remain. It contains numerous handsome modern odifices. *Pop.* abt. 6,000.

Thackeray, WILLIAM MAKEPEACE, an English novelist and essayist, B. in Calcutta, 1811, was early sent to England, was educated first at the Charter House School, and finally at Cambridge. It was not, however, till near his thirtieth year that he adopted literature as his profession, first as a contributor to the *Times*, and subsequently to the magazines, and soon became noted for his wit and sarcasm under the signature of "Michael Angelo Titmarsh," under which pseudonym he published *The Great Hoggarty Diamond*, *A Journey from Cornhill to Cairo*, and several others. His first important, and certainly his greatest work, was *Vanity Fair*. From this time his reputation was established, and every subsequent production has been a success. *Pendennis*, *Esmond*, *The Newcomes*, and *The Virginians*; *Jeames' Diary*, *The English Humorists*, *The Snob Papers*, *The Adventures of Philip*, *The Great Hoggarty Diamond*, *Barry Lyndon*, and his essays entitled *The Four Georges* are among the most celebrated of his works. D. 1863.

Thaïs, (*tha-is,*) a famous Athenian courtesan. She accompanied Alexander, who, during an orgy, was persuaded by her to destroy the city of Persepolis. After the death of the Macedonian conqueror, she became the wife of Ptolemy, king of Egypt.

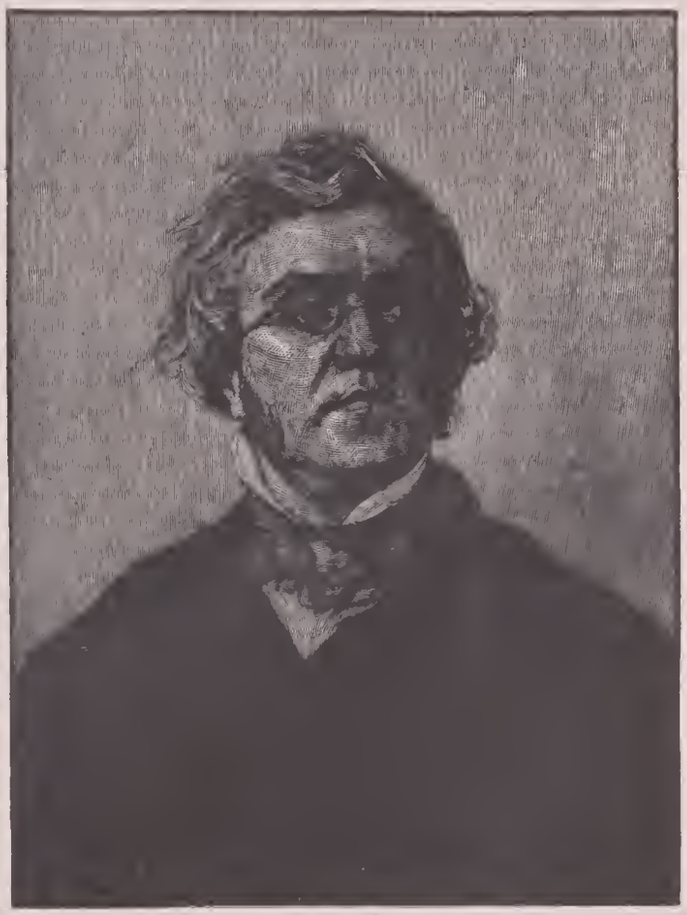
Thal'amus, *n.* [Gr., a bed or couch.] (*Bot.*) The apex of the peduncle or floral axis, upon which the different whorls of a solitary flower are arranged. In the majority of plants the *T.* is a little flattened surface or point in no way remarkable; but in some plants it becomes much enlarged, and then assumes a variety of shapes, and thus modifies to a considerable extent the form of the flower. In the pine-apple it is nearly cylindrical, in the raspberry it is conical; in the rose it forms a concavity upon which the carpels are placed.
(*Anat.*) The place where a nerve has, or is considered to have, its origin.

Thal'berg, SIGISMUND, a Swiss pianist, B. in Geneva, 1812, was educated in Vienna under Hummel. He played for the first time in public in 1830, made his *début* in Paris in 1835, and from that time attained great celebrity. *T.* is the founder of the school of which Chopin, Döhler, Liszt, and other modern composers, were followers. He married in 1845 a daughter of Lablache, and having spent some seven years in the U. States, returned and took his residence in Europe. His compositions consist of concertos, fantasias, variations, études, &c., for the pianoforte. D. at Naples, 1870.

Thal'er, *n.* [Ger.] A Prussian silver coin = about $0.73. In a thaler there are 30 silver *groschen*.

Thales, (*thā'leez,*) a Greek philosopher, and one of the 7 wise men, B. abt. 640 B. C. Having travelled over the East in the study of wisdom and knowledge, and after a long time spent in Egypt, he returned to Miletus where he established a school of philosophy, and had Anaximander and Pythagoras as disciples. He was the first to observe the apparent diameter of the sun, and who reasoned on the nature and course of eclipses. D. 545 B. C.

Thalia, (*thal-i-a.*) (*Myth.*) One of the nine Muses,



William M. Thackeray

1811–1863

who presided over festivals, pastoral and comic poetry. She is represented leaning on a column, holding a mask in her right hand, by which she is distinguished from her sisters, as also by a shepherd's crook.

Fig. 2490. — THALIA.

Thalic'trum, *n.* (*Bot.*) The Meadow Rue, a genus of plants, order *Ranunculaceæ*. *Thalictrum cornuti* is a handsome herbaceous plant, 3–4 ft. high, racemose roots, and smooth, finely-divided leaves. It is common in meadows.

Thal'ite, *n.* (*Min.*) A kind of Soapstone of a pale yellowish-green color, which is found diffused in the amygdaloidal trap-rocks on the north shore of Lake Superior.

Thal'lite, *n.* (*Min.*) A variety of epidote.

Thal'lium, *n.* [Gr. *thallos*, a young shoot or twig.] (*Chem.*) A metal discovered by Crookes in 1861. The spectrum of this product furnished a singularly brilliant green line, which led him to examine it further, and suggested the above name. It has since been found in some varieties of pyrites and in the residue of the evaporation of certain mineral waters. It is a soft lead-like metal; its specific gravity between 11 and 12; its atomic weight 204; it tarnishes in the air; fuses at about 560°, and at about 600° takes fire and burns with a green light; in ductility, malleability, and tenacity, it much resembles lead. It forms alloys with most of the other metals. It forms two oxides, the most important of which is the protoxide (= Tl$_2$O). This oxide is soluble in water, furnishing an alkaline liquor which absorbs carbonic acid; it is yellow when anhydrous, soluble in sulphuric, nitric, and hydrochloric acids, and is thrown down from its solutions by sulphide of ammonium in the form of a dark-brown sulphide. No precipitate is formed in solution of sulphate or nitrate of thallium by the caustic alkalies, but the carbonated alkalies give a precipitate in very concentrated solutions; chlorides, bromides, and iodides, give yellowish precipitates. The salts of thallium are very poisonous; they are colorless, when formed with colorless acid, and are easily decomposed by feeble electric currents. *Symbol*, Tl.

Thal'logens, *n. pl.* [Gr. *thallos*, a shoot, and *gennao*, to bring forth.] (*Bot.*) The first class of the vegetable kingdom, comprising those cryptogams which are extremely simple in their structure, and exhibit nothing like the green leaves of phænogams. In the few cases in which there are leaf-like expansions, they are not arranged symmetrically round a stem, and are destitute of all traces of stomates and breathing pores; while in those lichens or *Algæ* whose stems are of long duration, though there may be something like centrifugal growth indicated by zones, it is of a totally different nature from that of acrogens. The most definite point of distinction consists in the fact that the spores of acrogens when germinating produce either a cellular mass or plant, in which bodies called *archegonia* are formed, which by impregnation produce from an embryonic cell either a new plant or a spore-bearing capsule, while in thallogens no bodies corresponding to archegonia are ever produced. *T.* includes the 3 alliances ALGALES, FUNGALES, and LICHENALES.

Thal'lus, *n.*; *pl.* THALLI. (*Bot.*) This term, used to indicate a fusion of root, stem, and leaves into one general mass, is applied to that part of thallogens immediately bearing the fructification, more particularly to the cellular mass in which the perithecia are enclosed, or still more especially to the whole vegetative system of lichens.

Thames, (*temz,*) the largest and most important river of England, rises, under the name of the Isis, abt. 2 m. S. of Cirencester, and near Lechlade, 138 m. from London, becomes navigable for barges. After receiving the Windrush and the Evenlode, it reaches Oxford, turning round the city towards the N.E. It is here joined by the Charwell, after which it proceeds to Abingdon, and thence to Dorchester, where it receives the Thame. Continuing its course S.E. by Wallingford to Reading, and forming a boundary to the cos. of Berks, Bucks, Surrey, Middlesex, Essex, and Kent, it washes the towns of Henley, Marlow, Maidenhead, Windsor, Eton, Egham, Staines, Laleham, Chertsey, Weybridge, Shepperton, Walton, Sunbury, E. and W. Moulsey, Hampton, Thames Ditton, Kingston, Teddington, Twickenham, Richmond, Isleworth, Brentford, Kew, Mortlake, Barnes, Chiswick, Hammersmith, Putney, Fulham, Wandsworth, Battersea, Chelsea, and Lambeth. Here, on its N. bank, are Westminster and London, and, on the opposite side, Southwark; forming together one continued city, extending to Limehouse and Deptford; and hence it rolls by Greenwich, Erith, Greenhithe, Gravesend, and Margate, into the North Sea. It receives, in its course from Dorchester, the rivers Kennet, Loddon, Colne, Wey, Mole, Wandle, Lea, Roding, Darent, and Medway, and drains a basin estimated at an area of 6,160 sq. m. *Total course*, 215 m. It is navigable to Deptford for ships of any burden, and to London Bridge for vessels of 200 tons. It is tunnelled at London.

Thames, a river of *Connecticut*, formed by the junction of the Quinebaug, Shetucket, and Yantic rivers, near Norwich, in New London co., and enters the E. extremity of Long Island Sound after a S. course of 14 m.

Thames, a river of Upper Canada, rises in Oxford co., and flows into Lake St. Clair, after a S.W. course of 160 m. At the Moravian settlement, on that river, Oct. 5, 1813, the Americans, under Gen. W. H. Harrison, defeated the English under Gen. Proctor, and in this battle, known as the battle of the Thames, the Indian chief Tecumseh, *q. v.*, was killed.

Tham'muz, or **Tam'muz,** *n.* [Heb.] A Phœnician deity, identified with *Adonis*, the father (according to one legend) of *Priapus*.

(*Calendar.*) The tenth month of the Jewish civil year, answering to part of June and July, and containing 29 days.

Than, *conj.* [A. S. *thonne, thænne.*] A particle placed in comparison after some comparative adjective or adverb; noting a less degree of the quality compared in the word that follows *than*; as, wisdom is better *than* strength.

—*prep.* In comparison with.

> "You are a girl as much brighter *than* he
> As he was a poet sublimer *than* me." — *Prior.*

Thanatol'ogy, *n.* [Gr. *thanatos*, death, and *logos*, a discourse.] A description, or the doctrine, of death. *Dungl.*

Thane, (*thaine,*) *n.* [A. S. *thegn*, to serve.] (*Eng. Hist.*) A name originally applied to the minister or servant of a king or chief; and as these were often persons of influence and power, it came to signify a particular rank or dignity. It seems at one time to have been applied to all lauded proprietors below the rank of earl and above that of alderman. There were also superior and common or inferior thanes. In Scotland, the title seems to have been higher than in England, being attached to the territory of a county.

Thane'dom, *n.* The property or jurisdiction of a thane.

Thank, *v. a.* [A. S. *thancian.*] To express gratitude to for a favor; to make acknowledgments to for kindness bestowed.

—*n.* (Generally in the plural.) [A. S. *thanc.*] Expression of gratitude; an acknowledgment made to express a sense of favor or kindness received.

Thank'ful, *a.* Grateful; impressed with a sense of kindness received, and ready to acknowledge it.

Thank'fully, *adv.* With a grateful sense of favor or kindness received.

Thank'fulness, *n.* Expression of gratitude; acknowledgment of a favor; gratitude; a lively sense of good received.

Thank'less, *a.* Unthankful; ungrateful; not acknowledging favors; not obtaining thanks, or not likely to gain thanks.

Thank'lessly, *adv.* With ingratitude; unthankfully.

Thank'lessness, *n.* Quality of being thankless; ingratitude; failure to acknowledge a kindness.

Thank'-offering, *n.* An offering made in acknowledgment of mercy.

Thanks'giver, *n.* One who gives thanks or acknowledges a kindness.

Thanks'giving, *n.* Act of rendering thanks, or expressing gratitude for favors or mercies; a public celebration of divine goodness; also, a day set apart for religious services in acknowledgment of the divine goodness.

Thank'worthiness, *n.* State of being thankworthy.

Thank'worthy, *a.* That deserves thanks or gratitude.

Thann, (*tan,*) a town of France, dept. of the Haut Rhin, 22 m. from Colmar. *Manuf.* Cotton handkerchiefs, twist, hosiery, starch, and salt. *Pop.* 6,000.

Thap'sia, *n.* (*Bot.*) A genus of plants, order *Apiaceæ*, anciently celebrated for its medicinal products; the Cyrenean Silphium, or *Laser cyrenicum*, being supposed to have been the produce of one of the species. They are herbaceous perennials, all natives of the countries bordering on the Mediterranean.

Tharm, *n.* [A. S. *thearm.*] Intestines twisted into a cord.

Tha'sos, Thas'sus, Tas'so, an island in the Ægean Sea, 4 m. from the mainland; *area*, 85 sq. m.; *pop.* 6,000.

That, *pron.*, or *pronominal adj.* [A. S. *thæt*, the, that.] Not this but the other; the former person or thing; the more distant thing, as opposed to *this*; designating or pointing to some person or thing mentioned or alluded to before; often used emphatically.

—*prom. relative.* Equivalent to *who, whom*, or *which*; relating to the antecedent person or thing.

—*conj.* Because; noting a reason; noting the object, the final end, or purpose; noting a result or consequence.

Thatch, *n.* [A. S. *thac, thæc.*] A covering; a roof; straw or other substance used to cover the roofs of buildings, or stacks of hay or grain, for securing them from rain, &c.

—*v. a.* To cover with straw, reeds, or some similar substance.

Thatched, *a.* Covered with straw or thatch.

Thatch'ing, *n.* The act or art of covering buildings with thatch, so as to keep out water; the materials used for this purpose.

Thau'matrope, *n.* [Gr. *thauma*, a wonder, *themo*, I turn.] An optical toy, illustrating the persistence of impressions made on the retina of the eye.

Thaumatur'gic, Thaumatur'gical, *a.* Exciting wonder; working wonders.

Thaumatur'gist, *n.* [L. Lat. *thaumaturgus.*] A performer or worker of wonders or miracles.

Thau'maturgy, *n.* [Gr. *thauma, thaumatos*, a wonder, and *ergon*, work.] Act of performing something wonderful.

Thaw, *v. n.* [A. S. *thawan.*] To melt, dissolve, or become fluid, as ice or snow; to become so warm as to melt ice and snow.

—*v. a.* To melt; to dissolve, as ice, snow, hail, or frozen earth.

—*n.* The melting of ice or snow; the resolution of ice into the state of a fluid.

Thaw'y, *a.* Growing liquid; thawing.

Thax'ton's, in *Virginia*, a post-village of Bedford co., 30 m. W. of Lynchburg.

The, *definite article.* [A. S.] A word prefixed to nouns in the singular and plural number, to indicate what particular thing or things are meant; used also before adjectives in the comparative and superlative degree.

Thea, *n.* (*Bot.*) See TEA.

Thean'thropism, *n.* [Gr. *theos*, god, and *anthropos*, man.] The state of being both God and man.

Thean'thropy, *n.* Union of the divine and human nature.

The'archy, *n.* [Gr. *theos*, and *archo*, to govern.] Theocracy.

The'atin, The'atine, *n.* [Fr.; It. *Teatino.*] (*Eccl.*) A religious order in the Roman Catholic Church, the earliest of the communities of regular clerks; it was founded in 1524 by St. Cajetan of Thiene. The members, besides the ordinary monastic vows, bound themselves to the duties of the care of souls, preaching against heresies, tending the sick and convicts, while they pledged themselves to abstain from possessing property or asking for alms.

Theatre, (*the'a-ter,*) *n.* [Fr.; Lat. *theatrum*; Gr. *theātron*, from *theaomai*, to see.] Among the ancients, an edifice in which spectacles or shows were exhibited for the amusement of spectators. — Among the moderns, a house for the exhibition of dramatic performances, as tragedies, comedies, and farces; a play-house. — A place rising by steps or gradations like the seats of a theatre; as, a *theatre* of oaks. (*Harte.*) — A place of action or exhibition; a building for the exhibition of scholastic exercises, as in a college. — A room with circular seats and a table in the centre turning on a pivot, for anatomical demonstrations.

(*Mil.*) The scene of operations of an army.

Theat'ric, Theat'rical, *a.* [Gr. *theatrikos.*] Pertaining or relating to a theatre, or to scenic representations; resembling the manner of dramatic performers; calculated for display; pompous; as, *theatrical* performances, *theatrical* costumes, &c.

Theat'rically, *adv.* In the manner of players or actors on the stage; in a manner suiting the stage.

Theat'ricals, *n. pl.* Dramatic performances.

The'baine, *n.* (*Chem.*) See OPIUM.

Thebes, (*theebs.*) (*Anc. Geog.*) The remains of a great city, which, at an early period, was the capital of Egypt, and the ruins of which, in Upper Egypt, extended for 7 miles along both banks of the Nile. Among its temples, the most remarkable are those of Karnak (Fig. 918) and Luxor, on the E. bank of the river. A monolith obelisk of the former has been conveyed to Paris, and erected in the Place de la Concord. Several villages are scattered over the site of this ancient city, the importance of which was destroyed after its capture by Ptolemy Lathyrus, in the 3d century B. C.

Thebes, THIVA, the cap. of Bœotia in ancient Greece, was founded, according to tradition, by a colony of Phœnicians, under Cadmus, B. C. 1550 or B. C. 1400. They were driven out by the Bœotians, B. C. 1124. Platæa, one of the Bœotian cities, revolted from Thebes B. C. 510, and applied for help to Athens. A war ensued between Thebes and Athens, in which the latter were victorious. This caused much animosity between Thebes and Athens, and in the Persian war, B. C. 480, the Thebans deserted the cause of Greece and fought against the Athenians at Platæa, B. C. 479. The Athenians invaded Bœotia, and established a democratic government in Thebes. B.C. 456. The Thebans were allies of the Spartans in the Peloponnesian war, B. C. 431–B. C. 404. Sparta having claimed supremacy over the whole of Greece, the Thebans joined the Athenians, B. C. 395. The peace of Antalcidas put an end to the war, B. C. 387, and deprived Thebes of her supremacy over Bœotia. The Spartans, who treacherously seized the citadel of Thebes B. C. 382, were defeated at Leuctra, in July, B. C. 371; and the Thebans regained their power in Greece. Thebes was razed to the ground by Alexander III., B. C. 335, after which it never again formed an independent state. Cassander restored the city B. C. 315, and it was taken by Demetrius B. C. 293, and again B. C. 290. The Thebans were defeated in an attempt to expel the Bulgarians from Greece in 1040, and their city was plundered by the Normans of Sicily in 1146. It was one of the most flourishing cities of Greece during the 10th and 11th centuries. The modern Thebes has a pop. of abt. 10,000.

Thebes, (*theebz,*) in *Illinois*, a post-village of Alexander co., on the Mississippi, 144 m. S.E. of St. Louis.

Thebolas'tic Acid, *n.* (*Chem.*) See OPIUM.

The Buttes, in *California*, a group of porphyritic mountains, in Sutter co., 11 m. W. of Marysville, 30 m. in circumference, the principal peak of which is 1,500 feet above the sea.

The'ca, *n.*; *pl.* THECÆ. [Lat., from Gr. *thēke*, a case, box, chest.] A case.

(*Bot.*) One of the lobes of an anther; also, the eporevessel of a moss.

(*Anat.*) A case, sheath, or inclosure.

Thecaphore, (*the'ka-fōr,*) *n.* [Fr., from Gr. *thēkē*, a

case, and *phoros*, bearing.] (*Bot.*) A surface or organ covered with thecæ; also, the long stalk upon which the ovarium of certain plants is seated, as in the caper-bush.

The'cla, *n.* (*Zoöl.*) See LYCÆNIDÆ.

The'codont, *n.* [From Gr. *thēkē*, a case, and *odous, odontos*, a tooth.] (*Pal.*) An extinct saurian, having the teeth implanted in sockets.

—*a.* Pertaining or relating to the thecodonts; having the teeth fixed in a bony socket.

Thee, *pron.*, the objective case of THOU, *q. v.*

Theft, *n.* [A. S. *theofth, thyfth.*] Act of thieving or of stealing; the private, unlawful, felonious taking of another person's goods or movables, with an intent to steal them.—The thing stolen.

(*Law.*) Same as LARCENY.

Theine, *n.* (*Chem.*) See CAFFEINE.

Their, (*thār,*) *pronominal* or *possessive adj.* [A. S. *hiora.*] Of them, or belonging to them; in the plural, *theirs*, the possessive case of *they*.

Theism, (*the'izm,*) *n.* [Gr. *Theos*, Lat. *Deus*, God.] Etymologically, *theism* is the same word as *deism*; but a distinction is sometimes drawn between them, the name *theist* being applied to those who, while they reject the idea of an external revelation, maintain the existence of a Deity who directs the government of the cosmos by the constant exercise of His beneficent power; the *deist*, on the other hand, being defined as one who holds that God, having before creation laid down a law or laws, leaves those laws to execute themselves without further action on His own part.

Theiss, [Hung. *Tisza,*] (*tīce.*) a river of Hungary, rising from two springs on the N.E. frontier of the kingdom, called the Black and the White Theiss. After a course of 500 m. it joins the Danube, 22 m. from Peterwardein.

The'ist, *n.* One who believes in the existence of a God; —correlative to *atheist*.

Theis'tic, Theis'tical, *a.* Pertaining to theism, or to a theist; according to the doctrine held by theists.

Them, *pron.* [The objective case of THEY, and of both genders.] Those; those persons or things.

Theme, *n.* [Lat. and Gr. *thema*, from Gr. *tithēmi.*] That which is placed or laid down, as for argument; a subject; a proposition for discussion; a topic on which a person writes or speaks; as, his conduct was the *theme* of conversation.—A short essay or dissertation composed by a student, generally on some specified subject.

(*Gram.*) A radical verb, or the verb in its primary absolute state, not modified by inflections.

(*Mus.*) A series of notes selected as the text or subject of a new composition.

The'mis, (*Myth.*) The goddess of justice among the Greeks. She was the first to whom the inhabitants of the earth raised temples. Her oracle was famous in Attica in the age of Deucalion. She was generally attended by the Seasons. Among the moderns she is represented as holding a sword in one hand and a pair of scales in the other.

Themistocles, (*the-mis'to-klees,*) an Athenian statesman and general, n. in the latter half of the 6th century B. C. His public career was contemporaneous with that of Aristides, and the rivalry between them became a subject of the highest public importance soon after the battle of Marathon (see MILTIADES). The character of Aristides seems to have been that of a sturdy conservative republican, resolute to stand upon the good old ways; that of *T.* was more suited to the exigencies of the period, and he possessed far greater political foresight, not unmixed with the duplicity so characteristic of statesmanship in more modern times. Greece was threatened with a partisan warfare between these leaders, when the dispute was terminated by the banishment of Aristides, B. C. 483, and *T.* was left at liberty to pursue his policy. His great object was the creation of a navy, able to cope with that of the Persians, and to the success of his design may be attributed not only the salvation of Greece, but the supremacy of Athens over the other Grecian cities. By a master-stroke of policy, he fairly tricked both the Greeks and Persians into fighting the great naval battle off Salamis, in which he totally defeated Xerxes, B. C. 480; he then took the necessary measures for securing the supremacy of Athens by internal defences, the works of which were carried on in defiance of Sparta. In B. C. 466, the jealousies excited by his great power led to his banishment by ostracism, and he retired to the Persian court, where, it would appear, he forgot his patriotism, and plotted against his country. It is related by Plutarch, however, that he poisoned himself rather than yield to the overtures of Artaxerxes. His death, from whatever cause, took place at Magnesia In Asia Minor, B. C. 470, or 472.

Fig. 2491. — THEMISTOCLES.

Themsche, (*temsh,*) a town of Belgium, on the Scheldt, 9 m. from Dendermonde. *Manuf.* Linens, lace, and printed calicoes. *Pop.* 6,846.

Themselves, (*them-selvz',*) *pron.* A compound of *them* and *selves*, and added to *they* by way of emphasis or pointed distinction. See HIMSELF, HERSELF, ITSELF.

Then, *adv.* [A. S. *thænne.*] At that time; referring to a time specified, either past or future; as, my parents were *then* living.—Afterward; soon afterward, or immediately; as, first finish your work, and *then* think of play.—Therefore; for this reason; as, if *then* he should refuse, it would appear odd.—At another time; as, now and *then*, at one time and another.

By then, by the time that; as, one may be dead *by then*. —*Till then*, until such time, noting a time specified; as, *till then* I knew not his worth.—(NOTE. *Then* is frequently employed elliptically, in the sense of an adjective for the *then existing*; as, the *then* President of the U. States. (Not elegant.)

—*conj.* In that case; in consequence; as, "I *then* without a crime the crown had worn." — *Dryden.*

Then'adays, *adv.* At that time; in those days; —correlative to *nowadays*. (R.)

Then'ar, *n.* [Gr., from *thenein*, to strike.] (*Anat.*) The palm of the hand, or the sole of the foot.

Thenard's Blue, *n.* (*Paint.*) See COBALT.

Thence, (*thens,*) *adv.* [A. S. *thanon.*] From that place; as, he departed *thence*, and was seen no more. (*From* is often used, pleonastically, before *thence*; as, he was fetched *from thence.*) — From that time.

"There shall be no more *thence* an infant of days."—*Isa.* lxv. 20.

—For that reason; as, "A gift useless, and *thence* ridiculous." — *Milton.*

Thence'forth, *adv.* From that time; as, the people *thenceforth* were free.—*From thenceforth*, is a pleonasm occasionally, but inelegantly, used; as, "A proposition which, *from thenceforth*, he never questions." — *Locke.*

Thencefor'ward, *adv.* From that time forward or onward.

Theobro'ma, *n.* [Gr. *theos*, a god; *broma*, fruit; from the delicious quality of its fruit.] (*Bot.*) A genus of plants, order *Byttneriaceæ*. *T. cacao*, the Cacao or Cocoa tree, is a native of Mexico, and is now more or less extensively grown throughout Central America, Brazil, Peru, Venezuela, Caracas, Ecuador, Grenada, Demerara, Essequibo, Guayaquil, and Surinam, with some of the West-India islands, foremost among which stands Trinidad. The various kinds of cocoa and chocolate are prepared from the seeds. The pods containing the seeds are gathered when ripe, and after having lain for a day and a night, are opened, and the seeds, which are taken out by hand, are submitted to what is termed the *sweating* process. They are first placed on a sloping floor or in baskets, so that the chief part of the pulp in which they are enveloped may drain off, and are then shut up in a close box, and left for 24 to 48 hours, according to the season and weather, after which they are turned out in the sun to dry. Upon a nice performance of the sweating process, which may be likened to *malting*, the value of the cocoa greatly depends. When quite dry, the seeds are packed in barrels or bags, and are ready for shipment. The process of *roasting* is effected in a metal cylinder, with holes at each end, through which the vapor generated is allowed to escape. When the aroma is sufficiently developed, the seeds are cooled, and then passed to a mill, which removes the husks from the *nibs*. To prepare *chocolate*, the cocoa-nibs are ground in a mill consisting of stone or metal rollers, which are usually heated either by charcoal fires or by steam, so as to soften or melt the natural fat. The warm smooth paste which passes from the mill is then placed in a mixing-mill, and incorporated with *refined sugar*, and usually *vanilla* or other *flavoring substances*. The trituration is continued until the whole paste is converted into an entirely homogeneous mass, which is finally shaped, by means of suitable moulds, into various forms, as blocks, loaves, tablets, lozenges, &c. The article known as *soluble cocoa* is prepared from cocoa-nibs and arrowroot, or other starch, ground together. The addition of starch gives the article the property of readily forming an emulsion with boiling water. Cocoa-seeds contain a peculiar alkaloid called *theobromine*, which resembles *caffeine*, the principle common to coffee and tea. To this alkaloid, and the peculiar fat called *butter of cocoa*, the beverages prepared from the seed owe their exhilarating and nutritious properties. The annual consumption of cocoa in one form or another is about 100,000,000 lbs. The cocoa-tree must not be confounded with the cocoa-palm (*Cocos nucifera*), from which we obtain the cocoa-nut.

Theobro'mine, *n.* (*Chem.*) See THEOBROMA.

Theochristie, (*-krist'ik,*) *a.* [Gr. *Theos*, God, and *kristos*, anointed.] Anointing by God.

Theoc'racy, *n.* [Gr. *Theos*, God, and *krateo*, I rule.] A term applied to that form of government established by Moses among the Jews, as being under the direct control of God. Their chief magistrates or judges were appointed under the express direction of Jehovah, and governed under him. When they came, therefore, to demand a king, it was expressly declared to be an act of rebellion against God.

Theocrasy, (*-ok'ra-se,*) *n.* [Gr. *Theos*, God, and *krasis*, a mixing.] (*Anc. Philos.*) A term invented to signify that intimate union of the soul with God in contemplation, which was considered attainable by the newer Platonists. Similar ideas are entertained by the philosophers of India, and by many religious sects. See QUIETISTS.—A mixture of the worship of different gods.

Theocrat'ic, Theocrat'ical, *a.* Pertaining or having reference to a theocracy.

Theocritus, (*the-ok'ri-tus,*) a Greek pastoral poet, some of whose "Idyls" and "Epigrams" are still extant. He lived in the time of Ptolemy Philadelphus, B. C. 284–247.

Theo'dicy, *n.* [Gr. *theos*, and *dike*, right, justice; L. Lat. *Theodicæa.*] A name given to the exposition of the theory of Divine Providence, with a view especially to the vindication of the attributes, and particularly of the sanctity and justice of God in establishing the present order of things, in which evil, moral as well as physical, so largely appears to prevail. The name is of modern origin, dating from the close of the 17th century or the beginning of the 18th century; but the theory itself, as well as the mysterious problem which it is meant to resolve, is as old as philosophy itself.

Theod'olite, *n.* [Gr. *theaomai*, I view; *dolos*, stratagem.] In surveying, an instrument used for measuring the angular distances between objects projected on the plane of the horizon. In its simplest form the *T.* consists of a divided circle, which has to be set parallel with the horizon, and a telescope which has so much motion in a vertical plane as to enable the observer to view any object which he may require, above or below the horizon.

Theodo'ra. See JUSTINIAN I.

Theod'oric, king of the Ostrogoths in Italy, B. about 455, was the natural son of Theodomir, and given as a hostage to the emperor Leo Magnus, in 461. He rendered great services to the emperor Zeno, who honored him with the consulate in 484. He afterwards defeated and put to death Odoacer, and made himself master of all Italy. In 509 he espoused a sister of Clovis, king of the Franks. Theodoric displayed the qualities of a great prince. He regulated the administration of justice, allayed religious disputes, revised the laws and encouraged commerce. D. 526.

Theod'oric I., king of the Visigoths, succeeded Wallia in 420. During the interval 426–436, he made war upon the Romans three times, and attempted to take the city of Narbonne. He obtained territory both in Spain and Gaul, and subsequently became the ally of the Romans against Attila, whom he defeated at Châlons-sur-Marne in 451, but lost his life in the battle. His son Thorismund succeeded him.

THEODORIC II., son of Theodoric I., acquired the throne by the murder of his brother Thorismund, in 452, but was himself killed by Euric, another of the sons of Theodoric I. During his short reign he increased the empire of the Visigoths, and advanced almost as far as the Loire. Killed, 466.

Theodo'rus I., POPE, succeeded John IV. in 642. He excommunicated Paulus, patriarch of Constantinople, and condemned the heresy of the Monothelites. His successor was Martin I. D. 649.

THEODORUS II., succeeded John IX. in 897, but died in less than a month after his election.

Theodo'sius, THE GREAT, emperor of the East, was a native of Spain, and was B. about A. D. 346. He was the son of the general of the same name, who was appointed to the command in Britain in 367, afterwards distinguished himself in Africa, and, in 379, fell into disgrace, and was put to death. *T.* accompanied his father in his campaigns, and was named duke of Mœsia, which province he saved by a victory over the Sarmatians. After the great defeat of the Romans, and the death of Valens at the battle of Adrianople in 378, *T.* was called by Gratian from his retreat in Spain to assume the government of the East, and to take the conduct of the Gothic War. He fixed his head-quarters at Thessalonica, and by prudent and cautious measures gradually weakened the Goths and delivered the empire. The revolt of Maximus and the murder of Gratian soon followed, and the former was recognized as emperor of the West by *T.* But the latter subsequently took arms in the cause of Valentinian, defeated Maximus near Aquileia, and had him put to death in 388. After spending the winter at Milan, he made a triumphal entry into Rome. *T.* was a zealous Catholic, and theological conflicts form a prominent part of the history of his reign. He was baptized by an orthodox bishop before the end of the first year of his reign, and immediately published an edict in support of the doctrine of the Trinity, branding all who did not hold it as heretics. The rites and sacrifices of Paganism were finally suppressed by *T.*, who promulgated many severe laws against them, and had many of the temples destroyed. In 390 broke out the sedition of Thessalonica, which the emperor avenged by a general massacre of the people when assembled in the circus by his own invitation. This frightful crime, by which 700, or perhaps double that number of lives, were sacrificed, brought on *T.* the solemn rebuke of St. Ambrose, *q. v.* After establishing Valentinian in the Western empire, he returned to his own capital, but in 394 he was called to a new war against the usurper Eugenius, and his supporter, Arbogastes, both of whom were defeated and slain. *T.* D. at Milan only four months after his victory, in January, 395, leaving the empire to be divided between his sons, Arcadius and Honorius.

THEODOSIUS II., son of Arcadius, whom he succeeded, in 408, in the Empire of the East. The government was carried on, during the greater part of his reign, by his sister Pulcheria. In his reign was compiled and published the celebrated code of laws, styled after him the *Theodosian Code*. D. 450.

THEODOSIUS III., was nominated Emperor of Constantinople in succession to Anastasius II., 716. After a reign of two years, he abdicated in favor of Leo III.

Theog'ony, *n.* [Fr. *théogonie*; Gr. *theogonia* — *Theos*, and *gonē*, generation.] The generation of the gods, or that branch of heathen theology which treats of the descent and relationship of the various gods who were, or are, the objects of popular pagan worship.

Theologian, (*thē-o-lō'jan,*) *n.* [Fr. *theologien.*] A person well versed in theology; a divine, or a professor of divinity.

Theologic, Theolog'ical, *a.* [Fr. *théologique.*] Pertaining, or having reference, to theology or divinity.

Theolog'ically, *adv.* In a theological manner.

Theolog'ics, *n. sing.* The science of theology.

Theologist, (*-ŏl'o-jist,*) *n.* A theologian.

Theologize, (*-ŏl'o-jīz.*) *v. a.* To render theological; as, *to theologize* philosophy.

—*v. n.* To theorize or speculate upon theological subjects.

Theol'ogizer, *n.* A theologian. (R.)

Theol'ogy, *n.* [Gr. *theologia*, from *Theos*, God, and *logos*, discourse.] Literally, a discourse concerning God. In common language, a word used synonymously with *divinity*, to designate that science which treats not only of the divine existence and attributes, but also of the relations which subsist between God and his intelligent creatures, the duties of which consequently devolve upon the latter, and the arrangements which God has entered into for their government and benefit. *T.* stands to religion in the same relation as that in which any other science stands to its subject, being, in fact, the truths of religion arranged in a scientific form. Among the ancient Greeks, *theologia* denoted the philosophy of the divine existences, and included all questions relating to the nature, origin, and services of the gods. The word is not used in the New Testament, but was employed by the earliest Christian writers, who styled the author of the Apocalypse, by way of eminence, the *Theologos*, or Divine, and the doctrine of Christ, *theologia*. Theologian, hence, came to be applied as a title of honor to one who defended well the doctrine of Christ's divinity, or of the Trinity. The first who uses the term in its modern signification was Peter Abelard, who flourished in the early part of the 12th century, and wrote a system of scholastic divinity, to which he gave the name of *Theologia Christiana*. *T.*, in the form in which it now exists, is comparatively a modern science. Among the Christian fathers, we find all the essential dogmas of our faith asserted and defended; but they made few, and these very imperfect, efforts to present them in a complete and systematic form. The science began with the scholastic divines of the Middle Ages, as Anselm, Abelard, Albertus Magnus, Thomas Aquinas, Bonaventura, Duns Scotus, and others. Since the Reformation, it has been assiduously cultivated, and many digests of it have been published.

Theop'athy, *n.* [From Gr. *Theos*, God, and *pathos*, suffering.] Susceptibility of receiving religious impressions; devotional capacity.

Theophany, (*-ŏf'a-ne,*) *n.* [Gr. *Theos*, and *phanosthai*, to appear.] A visible revelation of God to man.

Theophilan'thropism, *n.* [Gr. *Theos*, God, and *philanthropos*, a love of man.] A system of religion uniting theism and philosophy.

Theophras'tus, the Greek philosopher and naturalist, was a native of Eresus, in Lesbos, and flourished in the 4th century, B. C. He became a pupil of Plato at Athens, and made, at the academy, the acquaintance of Aristotle; but he quitted the academy after Plato's death, and was absent from Athens for some years. On his return, he gladly studied philosophy under his friend Aristotle, who had so high a regard for him as to bequeath to him his library, and to name him his successor. *T.* had extraordinary success as head of the Lyceum, and was attended, it is said, by 2,000 disciples. Among them were Demetrius, Phalereus, and Menander. A charge of impiety was brought against him, but he successfully defended himself, and generously interposed to save his adversary from the popular vengeance. He was, however, compelled to leave Athens in 305, under the law which banished all philosophers. The law was soon repealed, and he returned to his post, and peacefully taught and commented on the system of his master, Aristotle, till his death. His writings were very numerous, but have perished with the following exceptions: his work entitled *Characters*, a set of his lively sketches of vicious or ridiculous characters; treatises on the *History of Plants*, on the *Causes of Plants*, and on *Stones*; a work on the *Senses*, and several fragments. The *Characters* served as the model for La Bruyère's work with the same title; it has been several times translated into English, French, and German.

Theopneus'tic, *a.* [Gr. *Theos*, God, and *pnein*, to breathe.] Proceeding from the inspiration of the Almighty Spirit.

The'opneusty, *n.* Divine inspiration.

Theor'bo, *n.* [It. *tiorba.*] (*Mus.*) A lute of large dimensions, sometimes called the *arch-lute*, and formerly used for striking the chords of the thorough bass in accompaniments.

The'orem, *n.* [From Gr. *thĕorĕs*, to look out.] A *T.* is properly a thing to be looked at or seen, and is used in mathematics to signify something that requires to be proved, in opposition to a *problem*, which is something that requires to be done.

Theoret'ic, Theoret'ical, *a.* [Gr. *theōrētikos.*] Pertaining or having reference to theory; depending upon theory or speculation; speculative; as, *theoretical* ideas. —Terminating in theory or speculation; not practical.

Theoret'ically, *adv.* In or by theory; speculatively.

Theoret'ics, *n. sing.* The speculative part of a science.

The'orist, The'orizer, *n.* One who forms theories.

The'orize, *v. n.* [Fr. *théoriser.*] To form opinions solely by theory; to speculate.

The'ory, *n.* [Fr. *théorie;* Lat. and Gr. *theoria*, from Gr. *thĕoros*, a spectator.] Speculation; hypothesis; a doctrine or scheme of things, which terminates in speculation or contemplation, without a view to practice; the rules, or abstract principles of any art, considered without reference to practice; scientifically, a connected arrangement of facts, according to their bearing on some real or hypothetical law.

Theos'ophism, Theos'ophy, *n.* The belief or the system of the theosophists.

Theosophist, (*-ŏs'o-fĭst,*) *n.* [Gr. *theosophos*, wise in the things of God.] One of that class of mystical religious thinkers and writers who aim at displaying, or believe themselves to possess, a knowledge of the Divinity and His works by supernatural inspiration. The best-known names at this day of the Theosophic order are those of Jacob Böhme, Madame Guyon, Swedenborg, Saint Martin. Schelling and others, who regarded the foundation of their metaphysical tenets as resting on divine intuition, have been called Theosophists, but with less exactness. See THEOSOPHY, in SECTION II.

Therapeu'tic, Therapen'tical, *a.* [Fr. *thérapeutique*, from Gr. *therapenein*, to heal.] Curative; pertaining, or having reference to the healing art.

Therapeu'tics, *n. sing.* (*Med.*) That department of the science which deals with the way of curing disease. It treats of the symptoms of disease and the conclusions to be drawn from them; of the power of nature and how far it may be relied on; of the modes of operation of the various remedies, &c.

Therapen'tist, *n.* A person skilled in therapeutics.

Thera'sia, a small rocky island in the Grecian Archipelago, separated from the N.W. coast of Santorin (anc. *Thera*) by a narrow channel. Large excavations were lately made in that volcanic island for the extraction of tufa or pumice used in the construction of the Suez Canal, which resulted, in 1869, in the discovery of a buried city, supposed by some to belong to a civilization anterior to the Egyptians.

There, (*thār,*) *adv.* [A. S. *thær.*] In that place; also, in the place most distant, as opposed to *here*. *There* is used to begin sentences, or before a verb; sometimes pertinently, and sometimes without signification.—*There* is also used by way of exclamation, as pointing to something distant; as, look *there!*

Here and there, in one place and another.

Thereabout', Thereabouts', *adv.* Near that place. — Nearly, or near that number, degree, quantity, or extent; as, a couple of tons or *thereabouts.*—Concerning that; touching that matter. (R.)

Thereafter, *adv.* After that; afterward; coming after; as, it came to pass *thereafter.* — According to that; accordingly; as, when you can draw the head well, proportion the body *thereafter.*

Thereat', *adv.* At that place.— On that account.

There'by, *adv.* By that; by means, or in consequence, of that; as, the paper will not suffer any change *thereby.*

Therefor', *adv.* For that, or this, or it.

Therefore, *conj.* and *adv.* For that; for that or this reason, referring to something previously stated; as, he was sick, *therefore* he could not attend. —Consequently; as, he prevaricates, *therefore* he is suspected. — In return or recompense for this or that; as, "We have forsaken all and followed thee, what shall we have *therefore?*"

Matt. xix. 27.

Therefrom', *adv.* From this or that; as, the leaves that spring *therefrom* grow white.

Therein', *adv.* In that or this place, time, or thing; as, I find myself unable to serve you *therein.*

Thereinto', *adv.* Into that; into that place.

Thereof, (*thār-ŏv',*) *adv.* Of that or this.

Thereon', *adv.* On that or this.

Thereout', *adv.* Out of that or this.

There'sa, (St.,) a reformer of the order of Carmelites, was B. in Old Castile, in 1515. She was remarkable almost from infancy for her fervent piety, but through a long course of years, periods of ascetic devotion alternated with periods of gaiety and indulgence in worldly pleasures, accordingly as she was affected by great sorrows or was free from them. She had been placed in the convent of the Augustine order in her native town, Avila, soon after the death of her mother, in 1527, and she took the vows seven years later. After years of painful interior conflicts, she resolved to attempt the reform of her order, which she commenced by founding, in 1562, another convent at Avila, in which a more close and rigorous observance of the rule should be enforced. The new society was called the "Barefooted Carmelites," and other houses were soon founded. St. Theresa was aided in her pious enterprise by the co-operation of John de Santa Cruz. D. at Alba, 1582, and was canonized by Gregory XV. in 1621. Her remains were removed to Avila in 1585, but were restored to Alba in the following year by order of the pope. The writings of St. Theresa, chiefly ascetic, were published in 1675, in 2 vols. folio, and have several times been republished. Among them is her Life, written by herself, that has been translated into almost all European languages, and is still frequently reprinted. *T.* describes the internal struggles and aspirations of her heart, and her frequent visions, with a candor that cannot be mistaken, while the excellence of language and style of her works have secured for them a place in the history of Spanish literature.

There'sa, in *New York*, a post-vill. and twp. of Jefferson co., abt. 20 m. N.N.E. of Watertown.

Theresa, in *Wisconsin*, a post-village and township of Dodge co., 20 m. S. of Fond du Lac.

There'siopel, more commonly called MARIA-THERESIOPEL (Ger. *Theresienstadt*), an important town of the Servian Woiwodschaft, 24 m. W.S.W. of Szegedin, on the Palitsch Lake. It is well built, but unpaved. Manufactures of leather and shoes, linen-weaving, dyeing, the cultivation of tobacco and fruits, together with the rearing of cattle, are the chief branches of industry. *Pop.* 57,450.

Thereto, (*thār-too',*) *adv.* To that or this.

Thereun'der, *adv.* Under that or this.

Thereun'to, *adv.* Thereto; unto that or this.

Thereupon', *adv.* Upon that or this.—On account of that; in consequence of that.—Immediately; at once.

Therewith', *adv.* With that or this.

(NOTE. The foregoing compounds of *there* with the prepositions are, for the most part, deemed inelegant and obsolete.)

The'riac, Theri'aca, *n.* [Fr. *thériaque*, from Lat. *theriaca.*] A term given in ancient pharmacy to certain complex remedies supposed to be antidotes to poisons; they were usually in the form of confections.

Theriot'omy, *n.* [Gr. *thērion*, a wild beast, and *temnein*, to cut.] The anatomy of animals; zoötomy.

Ther'mæ, *n. pl.* [Lat., from Gr. *thermē*, heat.] Warm baths; spas.

(*Antiq.*) In the Roman *Thermæ*, the baths were of secondary importance. They were a Roman adaptation of the Greek gymnasium, contained exedræ for the philosophers and rhetoricians to lecture in, porticoes for the idle, and libraries for the learned, and were adorned with marbles, fountains, and shaded walks and plantations.

Ther'mal, *a.* Pertaining to heat; warm;—a term chiefly applied to warm or hot springs; as, *thermal* waters.

Thermetograph, (*-mĕt'o-grăf,*) *n.* [Gr. *thermē*, heat, *metron*, measure, and *graphein*, to write.] A self-registering thermometer, especially one that registers the maximum and minimum during long periods.

Ther'mia, an island of European Turkey, in the Grecian Archipelago, belonging to the Cyclades, abt. 40 m. from the island of Paros; *a.*, 48 sq. m.; *pop.*, 6,000.

Ther'mic, *a.* [From Gr. *thermē*, heat.] Thermal; belonging or having reference to heat.

Ther'mic Fever. See SUN STROKE.

Thermidor, (*tair-mē-dōr'.*) (*French Hist.*) The name of the 11th month of the year in the French Republican calendar. It commenced on July 19, and ended on August 17. The name is derived from the Gr. θερμός, warm, and was borrowed from the great heat which characterizes that period of the year. It was the month signalized by the overthrow of Robespierre and the Reign of Terror, thence commonly called the Revolution of Thermidor; and those who boasted of having participated in it called themselves *Thermidorians.*

Thermo-barom'eter, *n.* A barometric instrument graduated for giving altitudes by the boiling-point of water.

Thermoc'rosis, *n.* [Gr. *thermē*, heat, and *chrōmis*, coloring.] (*Physics.*) A red flame looked at through a red glass appears quite bright, but through a green glass it appears dim or scarcely visible. So in like manner heat which has traversed a red glass passes through another red glass with little diminution, but is almost completely stopped by a green glass. To these different obscure calorific rays Melloni gave the name of *thermocrosis* or heat coloration.

Thermo-dynam'ics, *n. sing.* The science which treats of the mechanical action or relations of heat.

Thermo-elec'tric, *a.* Pertaining, or relating, to thermo-electricity.

Thermo-electric'ity, *n.* (*Physics.*) When the junction of two dissimilar metals is heated or cooled, the free ends being joined by a wire, an electric current is generated. This development of electricity by heat was discovered by Prof. Seebach in 1822, and has received the name of *thermo-electricity.* The intensity of the thermo-electric current depends on two things: the nature of the metals employed, and the difference in temperature which exists between the two ends of the metal bars. The direction of the current can be understood by reference to the annexed figure. A represents a bar of antimony, B a bar of bismuth, the couple being soldered at the point C, and united by a wire *w.* On heating the junction C a current is generated, which moves in the direction of the arrow, i. e. from bismuth to antimony through the junction, and from antimony to bismuth along the connecting wire. On the other hand, if C be chilled, the current is reversed, now passing from antimony to bismuth across the junction. By uniting several of these couples so as to have alternate bars of bismuth and antimony soldered at their ends, the strength of the current can be greatly increased. Thus multiplying the number of pairs, and compactly arranging them in a cubical shape, Nobili constructed the first *thermo-electric pile*, an instrument which has become invaluable in researches on radiant heat. When one end of such a pile is heated, a current is produced which moves in the opposite direction when the other end is warmed. The existence of a current, therefore, depends, as already stated, upon the difference of temperature between the two opposite faces of the pile, and within certain limits the strength of the current is exactly proportional to this difference. *T.-E.* currents can also be produced in a circuit formed of a single metal. If a straight and homogeneous wire be heated, no current is produced: but if the wire be coiled or knotted, a current will at once flow from the heated part to that in which the homogeneity has been destroyed. Two pieces of bismuth or two of antimony will also generate a current, if so placed together that their crystals shall occupy different relative positions. The origin of the *T.-E.* current is probably to be found in the unequal propagation of heat in a conducting circuit. The electricity is not created;

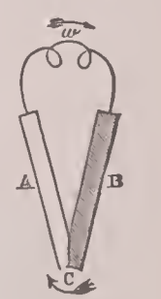


Fig. 2492.

it results from the disappearance of an equivalent amount of heat.

Ther'mogen, (*-jĕn,*) *n.* [Gr. *thermē*, heat, and *geneïn*, to produce.] Caloric; the elementary principle of heat; — a term confined chiefly to hot springs.

Thermol'ogy, *n.* A discourse or treatise on heat; an account of heat.

Thermo-mag'netism, *n.* The relation of heat to magnetism.

Thermom'eter, *n.* [Gr. *thermē*, heat; *metron*, a measure.] (*Physics.*) An instrument for measuring heat, founded on the principle that solid, liquid, and gaseous bodies always expand in exact proportion to the temperature to which they are subjected. *T.* are of various constructions, according to the purpose for which they are intended. The first kind of *T.* invented was the *air T.*, which consisted simply of a bulb of glass, with a narrow stem dipping into a colored liquid. As the air expanded or contracted in the bulb, the liquid fell or rose in the tube. This form of instrument was too much affected by atmospheric changes to be of much service. A modification of it is much used under the name of the DIFFERENTIAL, *q. v.* The *T.*, as at present constructed, consists of a bulb of glass, to which a tube is attached, sealed at the end, and containing mercury or spirits of wine. The operation of filling is conducted in such a manner that the mercury or spirit is at its boiling-point when the tube is sealed, in order that it may have a vacuum above it when it contracts. A good mercurial *T.* should bear the following tests: — When immersed in melting ice, it should indicate 32° Fahr; when suspended in the steam of water boiling in a metallic vessel, the mercury should remain stationary at 212° Fahr. When suddenly inverted, the mercury should fall with a sharp metallic click, showing that a perfect vacuum exists in the tube. The bore of the tube may be tested by separating a short column of mercury, which should occupy the same number of degrees in any part of the tube. The thermometric scale is unfortunately differently divided in different countries. In this country, and in England, Fahrenheit's scale is used, the difference between freezing and boiling points being 180°; the former being 32°, the latter 212°. In the Centigrade, which is used in France, Italy, &c., this interval is divided into 100°, while in that of Réaumur, which is still used in Germany and Russia, the same distance is divided into 80°. In all these systems the degrees below the zero 0° of the scale are indicated by the sign *minus* (—). For scientific and chemical uses the Centigrade scale now prevails, though the meteorologists hold fast to Fahrenheit's system. In most chemical books, tables are given, showing the value of the degrees on one scale in those of another. The following formula may be used for the purpose:

F into C = $\frac{5}{9}$ (F—32) = C. C into F = 32 + ($\frac{9}{5}$ C) = F.

R into F = 32 + ($\frac{9}{4}$ R) = F. F into R = $\frac{4}{9}$ (F—32) = R.

For meteorological purposes the most useful form of instrument is the *maximum and minimum self-registering T.* The maximum instrument is an ordinary mercurial *T.*, arranged horizontally, in the bore of which is placed a small piece of steel wire, in the empty part of the tube. The instrument is set by drawing the wire down to the mercury with a small magnet. As the mercury expands, it pushes the index along, leaving it behind when it contracts. The minimum instrument is arranged in a similar manner, spirit being used instead of mercury, and a little enamel tube containing an atom of steel wire forming the index. This is placed below the surface of the spirit, and is drawn back by it when it contracts, but is not pushed forward when it expands. There are numerous other maximum and minimum instrumeuts (see Fig. 1770), but of too complicated a nature for description here. For meteorological use the scale is generally marked in an ivory, boxwood, or enamelled slab, placed behind the tube, but for chemical purposes the degrees are marked on the tube itself with a diamond, a piece of white enamel being often let into the glass to form a background. For the measurement

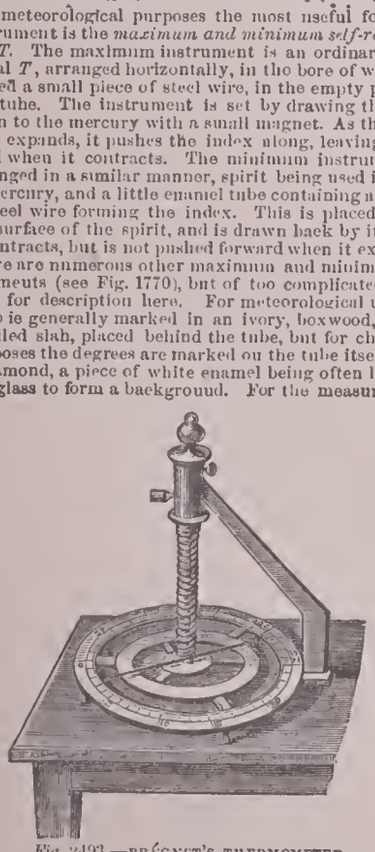


Fig. 2493.—BRÉGNET'S THERMOMETER.

of degrees of heat beyond 600° Fahr., which tends to melt the material, *pyrometers* are used. (See SECTION II.) A good pyrometer is, however, a desideratum. Brégnet's metallic *T.* is an application of the unequal expansiou of differeut metals; a compound bar of platinum, gold, and silver, is rolled into an extremely thin ribbon, which is coiled into a spiral, the platinum outermost, one end being fixed and the other acting on an index moving over a circular scale; the silver, expanding most with heat, tends to unbend the spiral, and moves the index. This *T.* is both exceedingly sensitive and accurate, and can be used for very high temperatures.

Chromatic T. When the edge of a rectangular plate of glass is applied to a piece of heated metal, or other substance having a temperature different from that of the glass and exposed to a beam of polarized light, colored fringes are developed; and as the particular tints depend on the difference between the temperature of the glass (which is supposed to be known) and that of the substance to which it is applied, the color of the central fringe affords a means of inferring approximately the temperature of the substance. Hence the term *C. T.*

Thermomet'ric, Thermomet'rical, *a.* Pertaining or relating to a thermometer; as, the *thermometrical* tube. — Obtained by means of a thermometer; as, *thermometrical* observations.

Thermomet'rically, *adv.* In a thermometrical manner.

Thermopylæ, (*ther-mop'i-le,*) a pass in the N.E. of Greece, at the base of Mount Œta, famous for the fate of Leonidas and his 300 Spartans, who here devoted themselves to their country, 480 B. C. It consists of a narrow passage, between high cliffs on one side, and on the other the sea, or an impassable marsh, formed by alluvial deposits, 9 m. from Lamia (Fig. 1557).

Ther'moscope, *n.* [Fr., from Gr. *thermē*, heat, and *skopein*, to view.] An instrument by which changes of temperature are indicated.

Ther'mostat, *n.* [Gr. *thermē*, *thermos*, and *istanai*, to set.] A self-acting physical apparatus for regulating temperature by the unequal expansion of different metals by heat.

Thermo-tension, (*-tĕn'shun,*) *n.* [Gr. *thermos*, and Eng. *tension.*] A stretching or expanding by heat, as of iron.

Thermot'ics, *n. sing.* The science of heat, as regards its action upon matter.

Thersi'tes. (*Homeric Hist.*) An officer, the most deformed and illiberal of the Greeks during the Trojan war. He was fond of ridiculing his fellow-soldiers, particularly Agamemnon, Achilles, and Ulysses. Achilles killed him with one blow of his fist, because he laughed at his mourning the death of Penthesilea.

Thesau'rus, *n.* [Lat.] A repository or treasury, as of general or cyclopædic knowledge; a lexicon.

These, (*thēz,*) *pronominal adj.* The plural of THIS, *q. v.* *These* is opposed to *those*, as *this* is to *that*, and when two persons or things, or collection of things, are named, *these* refers to the things or persons which are nearest in place or order, or which are last mentioned.

The'seus. (*Heroic Hist.*) A king of Athens, and the son of Ægeus by Æthra, the daughter of Pittheus, was educated at the house of his father-in-law at Trœzene. On arriving at years of maturity he was sent by his mother to Athens, a sword being given him by which he might make himself known to Ægeus. On his way from Trœzene he destroyed Corynetes, Sigomis, Sciron, Cercyon, Procrustes, and the celebrated Phæa. He was not well received at Athens, and Medea attempted to poison him before his arrival was publicly known. The Pallatides, who attempted to assassinate him, he put to death by his own hand. He next destroyed the bull of Marathon; and at Crete, by means of Ariadne, who was enamored of him, he killed the Minotaur, and thereby redeemed the Atheniane from the annual tribute of seven chosen youths and as many virgins, to be devoured by the monster. On ascending his father'e throne he ruled the Athenians with mildness, made new laws and regulations, and by his policy won the friendship of the king of the Lapithæ. *T.*, in conjunction with Pirithous, carried off Helen, the daughter of Leda, but whom he was compelled to restore. While he was in captivity, Mnestheus obtained the crown, and *T.* on his return attempted to eject the usurper, but, failing, he retired to the court of Lycomedes, king of the island of Scyros, who, jealous of his fame, carried him to a high rock and threw him down a precipice. The children of *T.*, after the death of Mnestheus, recovered the Athenian throne.

The'sis, *n.*; *pl.* THESES. [Lat., from Gr. *tithemi*, to set or place.] In a general sense, a term applied to denote any proposition, affirmative or negative, which is laid down or advanced to be supported by argument; but it is more particularly applied to those questions which are propounded in most of the European universities to the students previously to their obtaining a degree. — Hence, an essay or dissertation composed upon a definite or specific theme.

(*Mus.*) The depression of the hand in marking or beating time.

(*Pros.*) The depression of the voice in pronouncing the syllables of a word. Also, the part of the foot upon which such depression falls.

Thes'mothete, *n.* [Fr., from Gr. *thesmothetēs.*] (*Gr. Antiq.*) Same as ARCHON, *q. v.*

Thes'pian, *a.* [From Gr. *Thespis*, the reputed founder of the Greek drama, who was b. at Xarca, in Attica, and flourished abt. 550 B. C.] Pertaining or relating to the representation of dramatic tragedy, or to the Tragic Muse; as, the *Thespian* art.

Thes'pius. (*Myth.*) A king of the Thespiades, and father of 50 daughters, all of whom bore children to Hercules. The Thespiades were conducted to Sardinia by Iolus.

Thessalo'nians, (EPISTLES OF ST. PAUL TO THE.) (*Script.*) Two books of the New Testament, the authenticity and canonical authority of which have been admitted from the earliest ages by all who have received any of Paul'e epistles. The first epistle was written by the Apostle from Corinth, and not from Athens, as the subscription imports, about A. D. 52. Its design was to confirm the Thessalonians in the faith, and to encourage them to a patient and consistent profession of Christianity. In his second epistle, which was evidently written soon after the first, and from the same place, the Apostle endeavors to dissipate a mistaken notion, that the coming of Christ, which he had referred to, was near at hand. The rest of the epistle consists of expressions of affection to the Thessalonians, of confidence in them, prayers on their behalf, and exhortations and directions suited to the circumstances in which they were placed.

Thessalon'ica, the ancient name of SALONICA, *q. v.*

Thes'saly, the largest political division of ancient Greece, lay to the S. of Macedonia and the E. of Epirus, being separated from the latter by Mount Pindus, and from the former by the Cambunian Mountains, the Ægean Sea bounding it on the E., and the Maliac Gulf and Mount Œta on the S. Thessaly proper is a vast plain shut in on every side by mountains; on the N. and W. by those already named, on the S. by Mount Othrys, and on the E. by Mounts Pelion and Ossa, the only opening being the Vale of Tempe (Fig. 1195) in the N.E., between Ossa and Olympus. *T.* was held by the Turks from 1355 to 1881, when, as a result of the recommendation of the Congress of Berlin, *T.* south of the ridge of mountains forming the water-shed of the Salambria (the ancient Peneus) was ceded to Greece, which thus secured much the largest and most fertile part of the province. *T.* was the seat of the war between Greece and Turkey in 1897, and after the defeat of the Greek army was occupied by Turkey. The terms of peace required its restoration to Greece, though Turkey retained an advantageous position upon the northern frontier.

The'ta, *n.* [Gr.] The unlucky letter of the Greek alphabet, so named from its being the first letter of *thanatos*, death; — it corresponds with the English *th.*

Thet'ford, a town of England, co. of Norfolk.

Thetford, in *Michigan*, a post-township of Genesee co., abt. 12 m. N.E. of Flint.

Thetford, in *Vermont*, a post-village and township of Orange co., 33 m. S.S.E. of Montpelier.

The'tis. (*Myth.*) One of the sea-deities, who was courted by Neptune and Jupiter. But when the gods were informed that the son she should bring forth must become greater than his father, they ceased their solicitations; and Peleus, the son of Æacus, was permitted to gain her hand. *T.* became mother of several children, among them Achilles, whom she rendered invulnerable by plunging him in the waters of the Styx, except that part of the heel by which she held him.

The'urgy, *n.* [Gr. *theourgia* — *theios*, divine, and *ergon*, work.] The power of doing supernatural things by lawful means, as prayer to God. — Also, supernatural magic, as distinguished from *natural* magic.

They, (*thā,*) *pron. pl.*; (*obj.* THEM) [A. S. *thæge*, these.] The nominative plural of *he*, *she*, or *it*; the men, the women, the animals, the things. It is used indefinitely, as our ancestors used *man*; as, *they* say, that is, it is said by persons indefinitely.

Thi'an-shan, (Chin., "celestial mountains,") a lofty chain of Chinese Turkestan, forming the N. boundary of the great table-land of Central Asia, and extending between Lat. 42° and 43° N., Lon. 80° to 90° E.

Thibet, or **Tibet,** (*tib'et* or *tib-et',*) (native *Toup'ho*, *Bhote*, and *Pŭë-koachim*, "snowy region of the north,") a very extensive region of Central Asia, mostly comprised within the Chinese empire, between Lat. 22° and 31° N., and Lon. 72° and 104° E., having N. Chinese Turkestan and the desert of Gobi, E. the Chinese prov. of Se-tchuen, S. Yunan, N. Birmah and the Great Himalaya, separating it from Assam, Bootan, Sikkim, Nepaul, and the upper British provs., and W. the Punjab territories N. of the Himalaya, Budukh-shan, the Beeloot-Tagh Mountains, &c. The W. parts of this vast tract, called Little *T.*, including Ladakh, Lé, and Baltee, appear, however, to be independent of China. Its boundaries on every side but the S. being so uncertain, and our knowledge of the country so limited, it is impossible to form anything like an accurate estimate either of its area or population. *T.*, though it does not include the highest summits of the Himalaya, comprises a large portion of the elevated table-land in the centre of the continent, with the sources of almost all the great rivers of S. Asia, including the Indus, Sutlej, Ganges, Brahmapootra, Irrawadi, Thanlweng, and Mekan-koug or river of Cambodia, as well as those of the great Chinese rivers, the Yang-tse-kiang and the Hoang-ho. Its mountain-chains generally run parallel to the Great Himalaya, of which *T.* is the N. slope; but some are said to stretch in a N.E. direction to the frontiers of Koko-nor, and others extend from N. to S. between the valleys of the great rivers in the S.E. *T.* has numerous lakes. The chief are the Tengkiri-nor (the largest, about 110 m. N.W. of Lassa), and the lake Palto or Yamo-rouk (S. of the San-po River, which surrounds in the form of a ring a large island of a shape similar to its own). *T.* strikes a traveller, at first sight, as one of the least-favored countries under heaven. It exhibits only low, rocky hills, without any visible vegetation, or extensive, arid plains, both of the most stern and stubborn aspect, promising as little as they produce: and it is in general extremely bare of trees and the larger vegetable products. — *Climate.* The temperature and seasons possess a remarkable uniformity. The same division takes

place here as in the more southern region of Bengal: during the spring, a variable atmosphere, heat, thunderstorms, and occasionally refreshing showers; from June to September, heavy and continued rains; from October to March, a clear and uniform sky. For three months of this season, a degree of cold is felt, far greater, perhaps, than is known to prevail in Europe. Its extreme severity is more particularly confined to the S. boundary of *T.*, near the elevated range of mountains which divides it from Assam, Bootan, and Nepaul. The summits of these are covered all the year with snow; and their vicinity is remarkable, at all seasons, for the dryness of the winds. — *Zoöl.* *T.*, though barren of vegetable produce, teems with animal life. The variety and abundance of wild fowl, game, and beasts of prey, flocks, droves, and herds is astonishing. Among the most remarkable animals are the cattle, which are extremely useful to the inhabitants. The bull is known by the name of the yak of Tartary, or bushy-tailed bull of *T.*

Fig. 2494. — THIBET DOG.

The musk-deer also abounds in the coldest parts of the mountains; and the goat, which yields the materials for the manufacture of the finest shawls, is also an inhabitant of these regions. This is the most beautiful of the species of goats. Wild horses are found; and there is also a fine race of dogs. Among the most valuable and useful animals of *T.* is the breed of sheep, which merits a distinguished rank. The flocks of these are numerous; and upon them the inhabitants place their chief reliance for present support as well as for winter food. — *Prod.* The usual crops are wheat, pease, and barley; but in many parts these grains never ripen. — *Minerals.* Gold, copper, cinnabar, and lead. In many cases, however, these cannot be worked, for want of fuel to smelt the ores. The dung of animals is the only substance used for fuel; and with that alone it is impossible to excite a degree of heat sufficiently intense for such purposes. Thus situated, the most valuable discovery for them would be that of a coal-mine. Tincal is found in inexhaustible quantities. It is a fossil, brought to market in the state in which it is dug out of the lake, and afterwards refined into borax in Europe. — *Exports.* To China, gold-dust, precious stones, musk, and woollen cloths; to Bengal, gold-dust, musk, tincal. The roads and bridges are much inferior to those of China, and greatly impede the progress of commerce. — *Religion.* Buddhism, of which it is the chief seat; and the country abounds with temples. It is said that there are about 80,000 lamas, or priests, supported at the expense of government. — *Race.* Mongol. — *Estim. pop.* 6,000,000. — *T.* enjoys but the shadow of independence, being ruled by Chinese sovereigns, who obtained their ascendancy over it in 1720, by interfering in the intestine commotions by which the country was then agitated.

Thibetan, (*tib'-*) *a.* (*Geog.*) Pertaining or having reference to Thibet.

—*n.* (*Geog.*) A native or inhabitant of Thibet.

Thib'et-cloth, *n.* A camlet or fabric made of coarse goat's hair.

Thibodeaux (*tib-o-do'*), in *Louisiana*, a post-town, cap. of La Fourche parish, 100 m. W.S.W. of New Orleans. *Pop.* (1897) 2,275.

Thick, *a.* (*comp.* THICKER; *superl.* THICKEST.) [A. S. *thic.*] Dense; close; compact; inspissated; — opposed to *thin*; as, a *thick* fog. — Turbid; muddy; not clear or transparent; as, *thick* liquor. — Noting the diameter of a solid body; as, a slab of timber twelve inches *thick*. — Following in quick succession; closely planted or set; abundant; close or crowded in space; not easily pervious; as, a *thick* wood. a *thick* concourse of people, honors were showered *thick* upon him, &c. — Having more depth or extent from one surface to its opposite than usual; as, a *thick* board, a *thick* sheet of paper. — Without proper intervals of articulation; not having due distinction of syllables; as, to speak *thick*, a *thick* delivery of words, &c. — Somewhat deaf, dull, or obtuse in the auditory nerves; as, a person *thick* of hearing. — Intimately acquainted; on terms of close or familiar friendship; as, they are as *thick* as two thieves. (Col.)

(NOTE. *Thick* enters into frequent combination with other words in the formation of such self-explaining compounds as *thick*-bodied, *thick*-lipped, *thick*-necked, *thick*-ribbed, *thick*-strewn, and the like.)

—*n.* The thickest part, or the time when anything is thickest; as, he fell in the *thick* of the fight.

Thick and thin, whatever is in the way, great or little; as, a *thick and thin* partisan.

—*adv.* Frequently; fast; as, "*thick*-beating feet." (*Dryden.*) — Closely; as, an acre of land *thick* sown with grain. — To a great depth, or to a thicker depth than is common; as, cheeks covered *thick* with paint, land strewn *thick* with lime.

—*v. a.* To thicken; to make thick; to curdle; as, terror is apt to *thick* men's blood. (a.)

Thick-and-thin, *a.* (*Naut.*) With one of the sheaves larger than the other; — said of a tackle-block.

Through thick-and-thin, through all impediments, difficulties, or trials; through every fortune; as, a lover of his country will stick by her *through thick-and-thin.*

Thicken, (*thik'n,*) *v. a.* [A. S. *thiccian.*] To make thick or thicker, in any senses of the word; as, (1.) To make dense or concrete; to inspissate; as, to *thicken* varnish. (2.) To fill up interstices or openings in: to make close; as, to *thicken* a plantation of young trees. (3.) To make frequent, or more frequent or numerous; as, to *thicken* blows.

—*v. n.* To become thick or more thick in any senses of the word; as, (1.) To be inspissated; to become more dense or less tenuous; as, paint *thickens*, a fog *thickens* by degrees. (2.) To become dark, gloomy, or obscure; as, the approaching night *thickens*, the clouds *thicken* for rain, &c. (3.) To become consolidated or more compact; to concrete; as, sap *thickens* into wood. (4.) To press; to be crowded; to become close or more thick and numerous; as, the mob *thickens* each minute. (5.) To become quick, brisk, or animated; as, the plot *thickens*, the fight *thickens.*

Thick'ening, *n.* Something put into a liquid or any mass to make it more thick or concrete.

Thick'et, *n.* [From *thick.*] A coppice; a small wood, or collection of trees or shrubs thickly set; as, the chief *thicket* of the park.

Thick'-head, *n.* A thick-headed, and, hence, stupid person; a dolt; one of dull intellects.

Thick'ish, *a.* Somewhat thick; of medium thickness; as, a *thickish* slice of bread.

Thick'-knee, *n.* (*Zoöl.*) The common name of the genus *Oedicnemus*, family *Charadridæ*, comprising European birds which differ from the true plovers in having both mandibles inflated towards the tip, and not merely the upper mandible.

Thick'ly, *adv.* In a thick manner or condition.

Thick'ness, *n.* State or quality of being thick; denseness; state of being concrete or inspissated; density; consistence; as, the *thickness* of the atmosphere, of paint, mortar, blood, soup, and the like. — The extent of a body from side to side, or from surface to surface; as, the *thickness* of a plank, the *thickness* of a wall, &c. — State of being close, dense, or impervious; as, the *thickness* of the forest shade. — Closeness of the parts; state of being crowded or near; as, the *thickness* of trees in a plantation. — Lack of quickness, sharpness, or acuteness; dullness of the auricular sense; as, *thickness* of hearing. — Wanting clear articulation or syllabic pronunciation; as, *thickness* of utterance.

Thick'set, *a.* Planted in close contiguity; as, a *thick-set* hedge. — Stout; burly; having a short, thick body; as, a *thickset* man.

—*n.* A hedge closely or thickly planted with sets. — A kind of stout, twilled cotton cloth; a kind of fustian cord or velveteen.

Thick'-skin, Thick'-skull, *n.* A coarse, gross-minded person; a numskull; a dullard; one notable for excessive stupidity.

Thick'-skinned, Thick'-skulled, *a.* Possessing a thick skin or cuticle. — Hence, by analogy, stupid; gross; dull; obtuse; lacking intelligence or sensibility; as, a *thick-skinned* ignoramus.

Thief, (*thēf,*) *n.*; *pl.* THIEVES (*thēvz.*) [A. S. *theof, thef*; Icel. *thiufr.*] A person guilty of theft or larceny; one who secretly, unlawfully, and feloniously takes the goods or personal property of another; one who takes the property of another wrongfully, either secretly or by violence. — An excrescence in the snuff of a candle.

Thief'-catcher, Thief'-taker, *n.* An old term for a detective police-officer. See DETECTIVE.

Thiel, or **Tiel,** (*teel,*) a town of Holland, near the river Waal, 20 m. from Utrecht; *pop.* 5,742.

Thielt, (*telt,*) a town of Belgium, in West Flanders, 18 m. from Ghent. *Manuf.* Linens, lace, &c.

Thiensville, in *Wisconsin*, a village of Ozaukee co., on Milwaukee River, abt. 15 m. N. of Milwaukee.

Thierry, AMÉDÉE SIMON DOMINIQUE, (*tee-er-re.*) a French historian, B. at Blois, 1797, was made a member of the Institute, 1841, and senator, 1860. He assisted his brother Augustine in several of the great works produced by the latter, and himself wrote, *Histoire de Gaulois*, 1828; *Histoire de la Gaule sous l'Administration Romaine*, 1840–2, a continuation of the former work; *Récits et Nouveaux Récits de l'Histoire Romaine*, 1860–4; *Tableaux de l'Empire Romaine*, 1862; and *Histoire d'Attila et de ses Successeurs*, a new edition in 1864. D. 1873.

Thierry, JACQUES NICOLAS AUGUSTIN, an eminent French historian, B. at Blois, 1795. Educated at the college of his native town, he went to Paris in 1814, an ardent enthusiastic youth, full of theories and speculative inquiries, and threw himself into the Socialist school of St. Simon. In conjunction with whom he published several political pamphlets. Disappointed in this quarter, he commenced writing for the press, and his pen was engaged in a constant supply of political and historical articles to the *Censeur Européen*, and the *Courrier Français*. These papers laid the foundation of his brilliant *History of the Norman Conquest of England*, which appeared in 1825, and gained him a world-wide reputation. His fame is sustained by his *Letters on the History of France*, published two years later. His sight and his nervous system now failed him; but though he passed the remainder of his days in total blindness, his mental eye remained undimmed, and his vigor unabated. Receiving material assistance from his brother, Amedée, and his wife, Julia Thierry, he continued to issue to the world his philosophic thoughts in various essays, which he subsequently reprinted in a collective form. In 1840 he published his work, entitled *Récits des temps Mérovingiens*, in which he explores a considerable portion of the traditionary records of that time; and which contains, among other interesting features, an autobiography. His last work was his essay on the *History of the Tiers Etat.* It was published in 1853, and is marked by the same picturesque style and felicity of observation for which his previous works were conspicuous. D. 1856.

Thiers, LOUIS ADOLPHE, a French historian and statesman, B. 1797, at Marseilles, where his father was a working locksmith, obtained admission to the public schools, in which he made marked progress, and studied geometry with a view to the military profession. His friends decided to bring him up to the law, and he was sent to

Fig. 2495. — M. THIERS.

Aix, where in due time he made his appearance at the bar, but with very indifferent success. This disappointment induced him to turn his attention to literature, and he accordingly set out for Paris. By great perseverance he gained a footing in literary society, and having obtained an introduction to the conductor of the *Constitutionnel*, was engaged to write political articles. The first volume of his *History of the French Revolution* appeared in 1823, and the tenth and last in 1832. This work, highly appreciated for its brilliant style and historical accurateness, won for him great popularity with the public at large, and has passed through more than 20 editions. In the *National*, *T.* opposed the unconstitutional proceedings of Charles X. and his minister Polignac, and, after the revolution of July, 1830, held various minor official posts, and was made Under-Secretary of State under Lafitte's administration. About this period he was elected deputy for Aix, and distinguished himself by his financial ability and oratorical power. In 1832 he was appointed minister of the Interior, which he soon exchanged for the portfolio of Commerce and Public Works. In 1836 he was President of the Council and Minister of Foreign Affairs; and in March, 1840, again held that office. During his ministry, the Eastern question having been settled by Russia, England, and Austria, without consulting France, *T.*, resenting warmly this insult to his country, and convinced that war alone could again raise France to its proper standing, was fearlessly preparing for such an emergency, and constructed the fortifications of Paris. But at last he could not prevail upon Louis-Philippe to resort to such desperate means. *T.* resigned his powerless premiership, and thenceforth was never more recalled to the control of public affairs. He employed his leisure in writing his *History of the Consulate and Empire* (20 vols. 8vo, 1845–1862), which has been several times translated in almost all the European languages, and is one of the greatest historical works of the age. The revolution of February, 1848, found him unprepared, and when the republic was proclaimed, *T.* joined the National Guard, with a musket on his shoulder. His talents and caution, however, secured him a position, first in the Constituent, and then in the National Assembly. On the elevation of Louis-Napoleon to the Presidency, it was thought by many that *T.*, whom the prince had proclaimed as his minister in the abortive expedition of Boulogne, in 1840, would take office; but though he professed to accept the republic heartily, he was banished during the *coup d'état* of Dec. 2, 1851, and, after living some time in Switzerland, was permitted to return to Paris. He devoted his attention to the completion of *The Consulate and Empire.* In 1863 he was elected deputy for the department of the Seine by the Liberal opposition; and in the Legislative Assembly, in which he was the champion of an extension of the liberties of the French people, he manifested all his former brilliancy as a parliamentary orator. He was opposed to Italian unity, and to a war for the liberation of Poland. In 1870, he delivered one of his most eloquent speeches in opposition to the declaration of war against Prussia. He was chosen president of the provisional Republic (March 17, 1871) (see FRANCE, p. 1031), and urged the definitive establishment of the Republic, but fell under the systematical opposition of the Conservatives, who held the ascendancy in the assembly, March 24, 1873, and was succeeded by Marshal MacMahon. He died near Paris, of apoplexy, Sept. 3d, 1877.

Thiers, a town of France, dept. of Puy-de-Dôme, 22 m. from Clermont. *Manuf.* Cutlery, paper, and candles. *Pop.* 15,268.

Thieve, (*thēēv,*) *v. a.* [A. S. *thcofian.*] To steal; to practise theft.

Thiev'ery, *n.* The practico of stealing; theft.—That which is stolen.

Thiev'ish, *a.* Given to thieving or stealing; addicted to the practice of theft; as, a *thievish* servant.—Secret; sly; stealthy; acting in the manner of a thief; as, *thievish* Timo.—Partaking of the nature or character of theft; as, a *thievish* act.

Thiev'ishly, *adv.* In a thievish manner; by theft.

Thiev'ishness, *n.* State or quality of being thievish.

Thigh, (*thī,*) *n.* [A. S. *theoh;* allied to *thick,* q. v.] (*Anat.*) The thick part of the lower limb, between the knee and the hip joint.

Thill, *n.* [A. S. *thil* or *thill.*] The shaft, or one of the shafts, of a cart, gig, or other carriage.

Thill'er, Thill'-horse, *n.* The horse which goes between the thills or shafts and supports them.

Thimble, (*thim'bl,*) *n.* [A corruption of *thumb-bell.*] A cover for the thumb, such as that still used by seamen and sailmakers;—specifically, a kind of cap or covering for the finger, indented with small depressions, and usually made of silver or other metal, used by tailors and seamstresses for urging the needle through cloth.

(*Naut.*) An iron ring with a hollow or groove round its whole circumference, to receive the rope which is spliced about it, used to keep the eye of the rope from being chafed.

(*Mach.*) A fixed or movable tube, ring, or lining placed in a hole. Also, a strut through which a bolt or pin passes.

Thim'ble-berry, *n.* (*Bot.*) The Blackberry. See RUBUS.

Thim'blefnl, *n.; pl.* THIMBLEFULS. As much as a thimble will hold;—hence, proverbially, a small quantity.

Thim'ble-rig, *n.* A trick of legerdemain, played with three small thimble-shaped cups and a small ball.

—*v. a.* One who cheats by tricks of sleight-of-hand; especially one who practises the game of thimble-rig.

Thim'ble-rig'ger, *n.* One who practises sleight-of-hand tricks, especially the game of thimble-rig;—hence, a low cheat or trickster.

Thim'ble-rig'ging, *n.* Tricks or practices of a thimble-rigger.

Thin, *a.* (*comp.* THINNER; *superl.* THINNEST.) [A. S. *thyn;* Ger. *dünn.*] Stretched out or extended so as to have little thickness; having little thickness or extent from one surface to the opposite;—the opposite of *thick;* as, a *thin* board, a *thin* piece of cloth.—Rare; tenuous; subtile; not dense; as, *thin* air, *thin* blood.—Not close; not crowded; not filling the space; not having the individuals that compose the thing in a close or compact state;—hence, not plentiful; as, a *thin* crop of grain, a *thin* head of hair, a *thin* attendance of people, &c.—Not fully developed or well grown; as, a *thin* ear of wheat.—Lean; slim; slender; gaunt; attenuated; as, a *thin* person.—Small; exile; not sonorous or full; as, a *thin* hollow sound, a *thin* voice.—Flimsy; slight; diaphonous; not sufficient to hide what is beneath; as, a *thin* veil, a *thin* disguise.

(NOTE. *Thin* is of frequent occurrence as a prefix in the construction of self-explaining compound terms; as, *thin*-faced, *thin*-peopled, *thin*-soled, and the like.)

—*adv.* In a scattered or loose state; not thickly or closely; as, grain *thin* sown, to go about *thin* clad, &c.

—*v. a.* (*imp* and *pp.* THINNED.) [A. S. *thunnian.*] To make thin in any of its senses; as, (1.) To attenuate; to make rare or less thick or inspissated; as, to *thin* the blood, to *thin* a liquid substance. (2.) To make less close, crowded, compact, or numerous; as, to *thin* weeds in a garden, or the trees of a forest; to *thin* the ranks of an opposition party. (3.) To rarefy; to attenuate; to make less dense, solid, or concrete; as, to *thin* vapors.

—*v. n.* To grow or become thin or attenuated;—generally used before such adverbs as *out, away,* &c.; as, geological strata *thin out* when they gradually diminish in thickness and disappear.

Thine, (*thīn,*) *pronominal adj.* [A. S. *thīn;* Fr. *tien.*] Thy; belonging or relating to, or being the property of thee;—used principally, nowadays, when a verb is interposed between this word and the noun to which it refers; as, I will not take anything that is *thine.* (The term *thine* is now generally esteemed antiquated, and only obtains place in scriptural language, in poetry, and in the peculiar phraseology of the Society of Friends: its place is commonly supersolled by *your.*)

Thing, *n.* [A. S. *thing, thinc.*] Any inanimate substance, in distinction from a living object.—That which is created as a separate being, whether animate or lifeless; that which exists, or is conceived to exist, as a separable or distinguishable object of thought; as, God created all *things.*—A matter; an affair; a cause, transaction, or occurrence; an event, deed, or action; that which happens or falls out; that which is done, told, or proposed; as, this is a sad state of *things.*—Something; a portion, part, or modicum; as, he understands not any *thing* of this matter.—Any object considered as simply existing;—used, commonly, in pity, contempt, or disparagement; as, an abject *thing,* the poor *thing* sighed, it is a trumpery *thing,* &c.—Also, an object viewed as a prodigy, or rarity of excellence or preëminence; something commanding honorable appreciation; as, "She was the sweetest *thing* that grew."—*Wordsworth.*

—*pl.* Clothes; furniture; accoutrements; appointments; baggage; traps; as, to pack up one's *things.*

Think, (*thingk,*) *v. n.* (*imp.* and *pp.* THOUGHT, (*thawt.*) [A. S. *thencan.*] To look with the mind's eye; to have the mind occupied on some subject; to have ideas, or to revolve ideas in the mind;—hence, specifically, to reflect or deliberate upon any subject; to muse; to meditate; to dwell upon in contemplation; to ponder; to consider; as, he is a man who *thinks* much and says little.—To recollect or call to mind; to remember; as, I did not *think* of it before.—To hold as a settled opinion; to judge; to conclude; to believe; to suppose; to imagine; to fancy; as, let him act as he *thinks* best.—To intend; to design; to purpose; to view as probable or likely; as, I *thought* to do her a kindness by keeping silence.—To venture; to presume; to undertake; as, do not *think* to prevent my doing so.

To think much of, or *to think well of,* to esteem; to hold in friendly estimation, respect, or regard; as, one is not apt to *think much of* strangers.

—*v. a.* To imagine; to conceive; to view in the mind; as, to *think* ill of a person.—To believe; to consider; to esteem.

"A woman's reason: I *think* him so, because I *think* him so." *Shaks.*

To think much, to grudge; to look upon as a great matter; as, "We have no reason *to think much* to sacrifice to God our dearest interests."—*Tillotson.*

Think'able, *a.* That may be thought or conceived.

Think'er, *n.* One who thinks, reflects, or cogitates; especially, one who thinks in a particular manner; as, a deep *thinker,* a superficial *thinker.*

Think'ing, *p. a.* Possessing or employing the faculty of thought; cogitative; susceptible of a regular concatenation of ideas; as, a *thinking* mind.

—*n.* Imagination; cogitation; judgment; as, she was, to my *thinking,* quite an agreeable woman.

Think'ingly, *adv.* By thought or cogitation.

Thin'ly, *adv.* [From *thin.*] In a thin, loose, scattered manner; not thickly or closely; as, a country *thinly* peopled.

Thin'ner, *n.* One who makes thin.

Thin'ness, *n.* State or quality of being thin, in any of the senses of the word; smallness of extent from one side or surface to the opposite; as, the *thinness* of a wall or partition.—Rareness; tenuity;—opposed to *spissitude;* as, the *thinness* of ice, the *thinness* of paper, the *thinness* of vapor.—A scattered state; paucity; as, the *thinness* of an audience or congregation, *thinness* of vegetation in a tract of country.

Thin'nish, *a.* Somewhat thin or meagre.

Thin'-skinned, (*-skind.*) *a.* Having a thin skin; hence, unduly sensitive; scrupulous; fastidious; as, a *thin-skinned* person.

Thionville, (*tee'awn(g)-veel,*) a fortified town of France, on the Moselle, 15 m. from Metz. *Manuf.* Gloves, hosiery, and oils. This place was a residence of the Merovingian and Carlovingian kings. It was taken by the Prussians in 1870. *Pop.* 7,766.

Third, (*thērd,*) *a.* [A. S. *thridda.*] The first after the second;—the ordinal of three; as, the *third* day of the week. Constituting or being one of three equal parts into which a thing is divided.—*Third estate.* (*Pol.*) In England, the commonalty, as represented in Parliament by the House of Commons.—In France, under the ancient regimé, the body of the people, below the rank of the noblesse or titled classes.—*Third order.* (*Eccl. Hist.*) An order among the Remonstrants, Carmelites, Franciscans, Augustines, &c., composed of secular associates not bound by vows, but conforming to a certain extent to the general designs of the order.—*Third person.* (*Gram.*) The person spoken of.

—*n.* The third part of anything; the quotient of a unit divided by three; as, a *third* of a share.—The sixtieth part of a second of time.

(*Mus.*) An interval in the musical scale, which may be either *major* or *minor,* the former containing *four,* the latter *three* semitones;—sometimes called *third sound.*

—*pl.* (*Law.*) The third part of a deceased husband's estate, which, in some countries, a widow is authorized to enjoy during her life.

Third'ly, *adv.* In the third place.

Third'-rate, *a.* Next inferior to that which is secondary or second-rate.

—*n.* (*Naut.*) Formerly, a ship of war carrying from 70 to 80 guns.

Thirsk, a town of England, in Yorkshire, 23 m. from York; *pop.* 5,000.

Thirst, (*thērst,*) *n.* State of being dry or parched.

(*Physiol.*) That painful sensation of the throat or fauces, occasioned by the want of drink; a vehement or uncontrollable desire for beverage; hence, an eager or vehement desire for something;—generally preceding *for,* or, sometimes, *of,* or *after;* as, *thirst of* praise, a *thirst after* happiness, a *thirst for* fame.—Dryness; drought.—A peculiar sensation which attends the desire to drink.—During the operations of the animal functions, a great quantity of moisture is consumed, the loss of which must be supplied: and *T.* is the voice of nature calling upon the animal to supply the place of the lost moisture by drinking. Water is the proper object of this desire; and the quantity necessary for this purpose varies greatly according to the different circumstances of age, sex, and temperament; and still more according to the nature of the food taken, the state of the atmosphere, the mode of life, and the custom of the individual. The sensation of dryness of the mouth and throat, which most strongly charactorizes *T.,* is not always the result of these parts being actually deficient in moisture, nor is it removed by supplying the mouth alone with fluid. An outward application of moisture is found to diminish *T.;* and sailors have been able to sustain life by bathing in the sea. *T.* is a sensation much more difficult to bear than hunger, leading from restlessness to anxiety, despair, and madness.

—*v. n.* [A. S. *thrystan.*] To be or become dry; to experience a painful sensation in the throat and fauces for want of drink; to be athirst;—before *for;* as, a man *thirsts for* his beer.—To have a vehement desire to obtain something; with *for* or *after;* as, to *thirst for* an enemy's blood.

Thirst'er, *n.* One who thirsts.

Thirst'ily, *adv.* In a thirsty manner.

Thirst'iness, *n.* State of being thirsty or athirst.

Thirst'y, *a.* (*comp.* THIRSTIER; *superl.* THIRSTIEST.) Suffering from thirst; experiencing a painful or distressing sensation in the throat or fauces, for want of drink; as, a *thirsty* toper.—Very dry; parched; lacking moisture; as, "The *thirsty* earth soaks up the rain." (*Cowley.*)—Feeling a vehement or eager desire for something.

Thir'teen, *a.* [A. S. *threotheyne.*] Ten or three, or one more than twelve and less than fourteen.

—*n.* The sum of ten and three; the number greater by one than twelve, or less by one than fourteen.—A symbol denoting thirteen units, as 13, or xiii.

Thir'teenth, *a.* [From *thirteen.*] The third after the tenth;—the ordinal of thirteen; as, the *thirteenth* day of January.—Consisting, or being one of thirteen equal parts of a thing when divided.

—*n.* One of thirteen equal parts; the quotient of a unit divided by thirteen.

(*Mus.*) The interval embracing an octave and a sixth.

Thir'tieth, *a.* The tenth three-fold;—the ordinal of thirty; as, the *thirtieth* year of Our Lord.—Being, or constituting, one of thirty equal parts into which a thing is divided.

—*n.* The quotient of a unit divided by thirty; one of thirty equal parts.

Thirty, (*thēr'ty,*) *a.* [A. S. *thrittig.*] Thrice ten, or twenty and ten; as, *thirty* shillings.

—*n.* The sum of three times ten, or twenty and ten.—A symbol expressing thirty units, as 30, or xxx.

Thirty Year's War. (*Hist.*) The name given to a series of wars carried on between the Protestants and Roman Catholic leagues in Germany, in the first half of the seventeenth century. The house of Austria was throughout at the head of the latter party. The Protestant princes of Germany were assisted by various foreign powers; in the earlier part of the war by Denmark and Sweden, and afterwards by France. It is considered to have commenced with the insurrection of the Bohemians in 1618, and it ended with the peace of Westphalia in 1648.

This, *pron.* or *pronominal adj.; pl.* THESE. [A. S. masc. *thes,* fem. *theos,* neut. *this.*] That is present or near in place or time; that is just mentioned; that is to be now mentioned or referred to; as, must I endure all *this?*—Denoting the present time, or time last past; as, he has not written home for *these* three years.—Denoting a correlative to *that,* and sometimes the opposite to *other;* as, *this* way and *that;* the author had to write *this,* or to design the *other.*

(NOTE. When *this* and *that* bear reference to subjects previously expressed, *this* relates to the thing last mentioned, and *that* conversely; as, "Their judgment in *this* we may not, and in *that* we need not follow."—*Hooker.*

By this, by this time; after such an interval has elapsed;—employed elliptically for *by this time;* as, *by this* he will have received my letter.

This'be. See PYRAMUS.

Thistle, (*this'sl,*) *n.* [A. S. *thistel.*] (*Bot.*) See CARDUUS.

—Figuratively, the national emblem of Scotland.

Order of the Thistle. (*Her.*) See ANDREW, (ST.)

This'tle-down, *n.* The fine, flocculent substance attached to the seeds of thistles, by which they are wafted to a distance by the wind.

Thistly, (*this'ly,*) *a.* Overgrown with thistles; as, a *thistly* brake.—Figuratively, pungent; poignant; keen; painful.

Thither, (*thith'ér,*) *adv.* [A. S. *thider, thyder.*] To that place;—correlative to *hither;* as, I am going *thither* shortly.—To that end, point, or effect.—*Hither and thither,* to this place and to that.

Thith'erward, Thith'erwards, *adv.* Toward that place.

Thlas'pi, *n.* (*Bot.*) A genus of plants, order *Brassicaceæ. T. arvense,* the Shepherd's purse or Penny-cress, is found in cultivated stony fields.

Thlip'sis, *n.* [Gr., pressure.] (*Med.*) Compression; especially, constriction of vessels by an external cause.

Tho', *conj.* A contraction of THOUGH, *q. v.*

Thole, *n.* [A. S. *thol.*] The handle of a scythe-swath.

—*pl.* (*Naut.*) The pins forming the rowlocks in the gunwale.—Also called *thole-pins.*

Thol'en, an island of Holland, prov. of Zealand, bounded on the S. by the Scheldt. It contains about 34,000 acres of rich land, and is defended from floods by strong dykes. *Pop.* 15,000.

Thol'obate, *n.* [Gr. *tholos,* and *batos,* that may be passed.] (*Arch.*) That part of a building on which a cupola is placed.

Thomar, (*to'mar,*) a town of Portugal, in Estremadura, 17 m. from Abrantes; *pop,* 4,682.

Thom'as, GEORGE HENRY, a major-general in the U. S. army, b. in Southampton co., Va., 1826. After studying law for some time, he entered as a cadet in West Point Military Academy, graduated June 30, 1840, and joined the U. S. Army as second lieutenant of artillery, served with distinction in the Mexican War, and obtained his captaincy, Sept. 23, 1846. After some other service, he was transferred to West Point as instructor of artillery and cavalry, March 28, 1851. When the Civil War broke out, he was ordered to Carlisle Barracks, to remount the 2d Cavalry, became lieutenant-colonel of his

George Henry Thomas

1826–1870

regiment April 25, and colonel, May 3, 1861. After various services, he was made brigadier-general, Oct. 27, 1863, and greatly distinguished himself at the battle of Chattanooga, in Nov. of the same year. He was made major-general, June 27, 1865; and, March 11, 1867, was assigned to the command of the third military district,

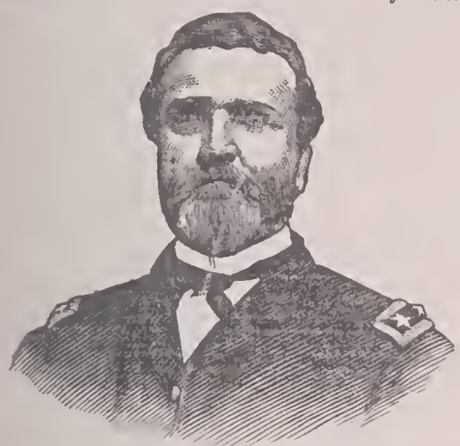


Fig. 2496. — GEN. THOMAS.

under the reconstruction act of Congress, embracing the States of Georgia, Florida, and Alabama. He was afterwards for some time in command of the department of the Cumberland, which was discontinued by an order of March 16, 1869, which assigned him to the command of the military division of the Pacific. To this post he soon after repaired, making his headquarters at San Francisco, where he d. 1870.

Thom'as, in *Georgia*, a S.W. co., bordering on Florida; *area*, 800 sq. m. It is drained by the Ocklockonee river. *Surface*, level; *soil*, productive. *Cap.* Thomasville. *Pop.* (1897) 21,480.

Thomas à Kem'pis, the most generally reputed author of the celebrated *De Imitazione Christi*, born about 1380, at Kempen, entered the religious body called the Brethren of the Common Life, and finally was made sub-prior of the convent of Mount St. Agnes, near Zwoll. D. 1471.

Thom'as, (St.,) one of the twelve apostles of Jesus Christ, is presumed to have been a native of Galilee. He is distinguished in sacred history by his disbelief of the resurrection of his master; on which Jesus vouchsafed to permit him to put his fingers into his wounds, and Thomas exclaimed, "My Lord and my God!" He is supposed to have suffered martyrdom in Coromandel, where there are still Christian churches which are called by his name.

Thom'as, (St.,) a Portuguese island in the Gulf of Guinea, off the coast of Africa; Lat. 0° 5′ to 0° 50′ N., Lon. 6° 25′ E.; *area*, 145 sq. m. In its centre is the peak of Santa Anna, 7,020 feet high. *Pop.* unascertained.

Thom'as, (St.,) an island of the W. Indies. See SAINT THOMAS.

Thom'aston, in *Georgia*, a post-village, cap. of Upson co., 75 m. S.W. of Milledgeville.

Thomaston, in *Maine*, a post-village and township of Knox co., 80 m. E.N.E. of Portland.

Thomaston, in *Michigan*, a township of Saginaw co.

Thom'asville, in *Georgia*, a post-vill., cap. of Thomas co., 200 m. S.W. of Milledgeville. This place has become of late a popular winter resort.

Thomasville, in *N. Carolina*, a post-village of Davidson co., 28 m. N.E. of Salisbury.

Thom'ists, *n. pl.* (*Eccl. Hist.*) The name assumed by the followers of St. Thomas Aquinas, as distinguished from the *Scotists*. See AQUINAS.

Thompson, WILLIAM, a distinguished British naturalist, b. at Belfast, 1805. Of his great work on the *Natural History of Ireland*, the first 3 vols., devoted to Birds, appeared in 1841–59; but he died before finishing it. The final vol. was published in 1856, with a biography of the author, edited by Prof. Dickie. D. 1852.

Thomp'son, in *Arkansas*, a township of Pike co.

Thompson, in *Connecticut*, a post-village and township of Windham co., 35 m. N.E. of Norwich. *Manuf.* Cotton and woollen goods.

Thompson, in *Georgia*, a post-village, cap. of McDuffie co., 60 m. E.N.E. of Milledgeville.

Thompson, in *Illinois*, a township of Jo Daviess county.

Thompson, in *Iowa*, a township of Guthrie co.

Thompson, in *New York*, a township of Sullivan county.

Thompson, in *Ohio*, a township of Delaware co.
—A post-township of Geauga co.
—A township of Seneca co.

Thompson, in *Pennsylvania*, a township of Fulton county.
—A post-borough of Susquehanna county, 20 m. E. of Montrose.

Thomp'son's Creek, in *Louisiana*, rises in Wilkinson co., Mississippi, and flowing S. enters the Mississippi on the border of E. and W. Feliciana parishes, 2 m. N. of Port Hudson.

Thomp'sontown, in *Pennsylvania*, a post-borough of Juniata co., 37 m. W. N.W. of Harrisburg.

Thomp'sonville, in *Conn.*, a town of Hartford co., 17 m. N.E. of Hartford. The Hartford Carpet Co., situated at *T.*, give employment to 1,300 hands, consuming 12,000 lbs. wool daily, with an average daily product of 8,000 yards of Brussels, 2-ply and 3-ply carpets, all from original designs. *Pop.* (1897) 5,150.—In *N. Y.*, a post-village of Sullivan co., 100 m. S.S.W. of Albany. —In *Penna.*, a post-village of Washington co.

Thompsonville, in *Wisconsin*, a post-village of Racine co., 92 m. S. of Madison.

Thom'son, JAMES, an English poet, b. in 1700, and educated at Edinburgh. Abandoning his original intention of taking holy orders, he resorted to London, where, from 1726 to 1730, he produced the four great poems collectively called *The Seasons*. Besides these, he afterwards published several dramatic works, and *The Castle of Indolence*, his second-best poem. *The Seasons* still retains its popularity, while the *Castle of Indolence*, though less generally read, is more carefully finished, and in some respects deserves the highest place. D. 1748.

Thong, *n.* [A. S. *thwang.*] A band; a strap of leather used for fastening anything; also, the lash of a whip.

Thor, or **Asa-Thor.** (*Scandinavian Myth.*) A son of Odin, the Supreme God, and Freya his wife. He reigned over all the aërial regions, in a palace composed of 540 halls; directed the meteors, winds, and storms; launched the thunder and pointed the lightning. To him the Saxons and Danes prayed, when requiring favorable winds, rains, and plentiful seasons. The fifth day of the week, which still bears his name (Thor's-day), was dedicated to him.

Thoracic, (*-răs'ik,*) *a.* [From Lat. *thorax.*] Pertaining or relating to the thorax or breast; as, the *thoracic* arteries.
T. duct. (*Anat.*) See THORAX.

Thorax, (*thō'răks,*) *n.* [Gr., from *thoreo*, I leap, because the heart leaps in it.] (*Anat.*) The chest, or that part of the body which is situated between the neck and the abdomen. It is composed of bones, cartilages, and ligaments, which form a large conical cavity for the lodgment of the heart, lungs, and large blood-vessels. Its walls are formed posteriorly by the dorsa-thoracic vertebræ and the ribs as far outwards as their angles, laterally by the bodies of their ribs, and anteriorly by the anterior extremities of the ribs, the sternum, and the costal cartilages. It is separated from the abdomen below by the diaphragm. The *thoracic duct* (Fig. 597) lies upon the dorsal vertebræ between the aorta and the vena azygos, and extending from the opening of the diaphragm to the angle formed by the union of the left subclavian and jugular veins, into which it opens and pours its contents. It is the great trunk of the absorbents, which pour their contents into it from almost every part of the body.
(*Zoöl.*) The second segment of insects is so called by Latreille and Andouin; the term is restricted to the upper surface of the trunk by Linné and Fabricius. In Arachnidans the thorax and head are confluent, and form but one segment, which is termed the *cephalo-thorax*.

Thor'da, or **Thorenburg,** a town of Austria, in Transylvania, 16 m. from Klauseuburg, near the Aranjos; *pop.* 8,640.

Tho'rium, or **Thorinum,** *n.* [From *Thor*, the Scandinavian deity.] (*Chem.*) A rare metal, much resembling aluminium, but taking fire considerably below a red heat, and burning with great brilliancy. *Thorina*, or *Thoria*, is supposed to be the protoxide, and is remarkable for its high specific gravity, 9·4. Thorinum was discovered in 1829 by Berzelius in an earth to which he had given the name *Thorina*, and which occurs in a rare black Norwegian mineral termed *Thorite*. None of the compounds of this metal are of any practical importance. *Equiv.*, 231·5; *Symbol* Th.

Thorn, *n.* [A. S. and Icel.] A spine; a sharp, ligneous, or woody shoot from the stem of a tree or shrub; a pointed process from the woody part of a plant; a prickle. — Hence, by analogy, that which pricks, annoys, or troubles the mind; as, "those *thorns* that in her bosom lodge." — *Shaks.*
(*Bot.*) A common name applied to various kinds of plants, which are furnished with thorns or spines, as the *Cratægus Oxyacantha*, also known as the Whitethorn, Hawthorn, or Quick; the Blackthorn, *Prunus spinosa*; the Buckthorn, *Rhamnus*; the Camel's-thorn, *Alhagi Camelorum*; the Christ's Thorn, *Paliurus aculeatus*; and the Willow-thorn, *Hippophaë rhamnoides*.

Thorn, (*torn,*) a fortified town of W. Prussia, on the Vistula, 92 m. from Dantzic. *Manuf.* Woollens, linens, hats, leather, gloves, &c. It is the birthplace of Copernicus. *Pop.* 11,266.

Thorn, in *Ohio*, a township of Perry co. *Pop.* (1897) 1,740.

Thorn'-apple, *n.* (*Bot.*) See DATURA.

Thron'apple, in *Michigan*, a river which rises in Eaton co., and enters Grand river in Kent co., 10 m. E. of Grand Rapids, after a N.W. course of 80 m.
—A township of Barry co. *Pop.* (1897) 1,764.

Thorn'back, *n.* (*Zoöl.*) The name of a species of ray (*Raia clavata*), distinguished by the short and strong recurved spines, rising from a broad osseous tubercular base, which are scattered over the back and tail. Two of these broad-based spines occupy the central ridge of the nose.

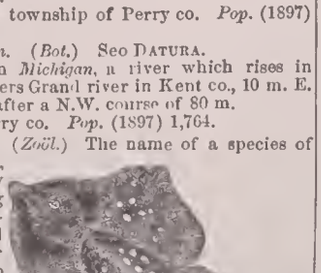


Fig. 2497. — THORNBACK.

Thorn'burg, in *Virginia*, a post-village of Spottsylvania co., 69 m. N. of Richmond.

Thorn'bury, a town of England, co. of Gloucestershire, near the Severn, 11 m. from Bristol. *Pop.* (1897) 4,360.

Thornbury, in *Pennsylvania*, a post-township of Chester co., 24 m. W. of Philadelphia.
—A township of Delaware co.

Thorn Creek, in *Indiana*, a township of Whitley co.

Thorn'dike, in *Maine*, a post-township of Waldo co., 38 m. N.E. of Augusta.

Thorn'dike, in *Massachusetts*, a post-village of Hampden co., abt. 18 m. E.N.E. of Springfield.

Thorn Hill, in *Virginia*, a post-village of Orange co., abt. 5 m. S.E. of Orange Court-House.

Thorn'leysville, in *Indiana*, a village of Boone co., 7 m. S.E. of Lebanon.

Thorn'set, *a.* Set with thorns, as a hedge. (Tautological.)

Thorn'ton, in *Illinois*, a post-village and township of Cook co., abt. 24 m. S. of Chicago.

Thornton, in *New Hampshire*, a post-township of Grafton co., 54 m. N.W. of Concord.

Thornton, in *Pennsylvania*, a post-village of Delaware co., 87 m. S.E. of Harrisburg.

Thorn'ton's, in *Virginia*, a river which rises in the W. border of Rappahannock co., and flowing S.E., unites with Hedgman's River in Culpepper co., to form the N. Fork of the Rappahannock.

Thorn'ton's Ferry, in *New Hampshire*, a post-vill. of Hillsborough co., 11 m. S. of Manchester.

Thorn'town, in *Indiana*, a post-village and township of Boone co., 36 m. N.W. of Indianapolis.

Thorn'y, *a.* (*comp.* THORNIER; *superl.* THORNIEST.) [A. S. *thorniht.*] Full of thorns, spines, or prickles; rough with thorns; as, a *thorny* brake, a *thorny* branch. — Sharp; piercing; prickling; as, "*thorny* points." (*Shaks.*) — Figuratively, occasioning pain or distress; troublesome; harassing; vexatious; provoking; as, "the steep and *thorny* way to heaven." — *Shaks.*

Thorough, (*thŭr'o,*) *a.* [A. S., O. Sax., and O. Ger. *thurh.*] Passing through or to the end; — hence, entire; perfect; complete; as, a *thorough* scholar, a *thorough* reformation, a *thorough* scoundrel.
—*n.* (*Agric.*) An inter-furrow between two ridges.

Thor'ough-bass, *n.* (*Mus.*) See BASS.

Thor'ough-brace, *n.* A leathern strap serving the purpose of a spring for supporting the body of a carriage.

Thor'ough-bred, *a.* Bred from the purest strain of blood; as, a *thorough-bred* race-horse, a *thorough-bred* hound. — Hence, by analogy, perfectly bred, refined, or accomplished; as, a *thorough-bred* gentleman.
—*n.* A horse of the best strain of blood.

Thor'oughfare, (*-fair,*) *n.* [A. S. *thurhfaru.*] A passage through; — especially, a passage from one street or opening to another; an unimpeded way; — hence, a public street or road; as, Broadway is a noble *thoroughfare*. — Power of passing.

"Hell . . . one continent of easy *thoroughfare*." — *Milton.*

Thor'ough-go'ing, *a.* Going through to the end or the bottom; complete; entire. — Hence, going all lengths; extreme; as, a *thorough-going* impostor.

Thor'ough-light'ed, *a.* Furnished with thorough lights or windows at opposite sides, as an apartment or building.

Thoroughly, (*thŭr'o-lȳ.*) *adv.* In a thorough manner; fully; perfectly; completely.

Thoroughness, (*thŭr'o-nes,*) *n.* State or quality of being thorough; fullness; entireness; completeness; as, the *thoroughness* of a mutual understanding.

Thorough-paced, (*thŭr'o-pāst,*) *a.* Going all lengths; stopped by nothing; consummate; complete; perfect.

Thor'ough-pin, *n.* (*Vet.*) A kind of encysted tumor on either side of a horse's hough, caused by extravasation of the synovial fluid.

Thor'ough-sped, *a.* Thorough-paced; finished in opinions or principles; as, "a *thorough-sped* republic of Whigs." — *Swift.*

Thor'ough-wax, *n.* (*Bot.*) An herbaceous plant, called also Modesty (*Bupleurum rotundifolium*), the only representative in N. America of the genus *Bupleurum*, order *Brassicaceæ*; stem, one foot or more high, branching; umbels, 5–9-rayed; flowers, yellow. It is rare in New York and Pennsylvania.

Thorough-wort, (*thŭr'o-wurt,*) *n.* (*Bot.*) See EUPATORIUM.

Thorp, *n.* [A. S.; Du. *dorp.*] A hamlet; a little village.

Thor'waldsen, ALBERT BERTEL, a Danish sculptor, b. near Coponhagen, 1770, was the son of a carver in wood, and was gratuitously educated at the Copenhagen Academy of Arts. Here he studied so effectually that he obtained two gold medals and a travelling studentship, which entitles the competitor to a salary for three years. Thus far fortunate, *T.* proceeded to Rome. The young sculptor was preparing to return home, his three years' allowance being completely exhausted, when the clay model of his Jason was seen by Henry Philip Hope, a princely patron of art, who ordered the marble statue at a price which set aside all his thoughts of returning home. The model had received emphatic praise from Canova. The Jason once completed, and by Mr Hope's means made known, *T.*'s fortune was virtually made; orders at vast prices poured in upon him from all parts; and the numerous works completed by him from the commencement of 1800 to the close of 1837, gave him a high place among modern sculptors. His countrymen were justly proud of him, and honored him with a public funeral. Among his most celebrated works are the *Triumph of Alexander*, a bas-relief; *Night and Day*; *Christ and the Twelve Apostles*; *Procession to Golgotha*; monuments to Copernicus, Poniatowski, Maximilian of Bavaria, &c. D. 1844.

Those, (*thōz,*) *prom. pl.* of THAT, *q. v.*

Thou, *pron.* (In the obj., THEE.) [A. S.] (*Gram.*) The second personal pronoun in the singular number, denoting the person addressed; — used only in the solemn style, unless in very familiar language, and by the Friends, or Quakers, who, however, generally employ the more corrupt form, *thee*.

—*v. a.* To treat with undue familiarity or contumely, by making use of the word *thou* toward.

—*v. n.* To use *thee* and *thou* in conversation or discourse.

Though, (*thō,*) *adv.* and *conj.* [A. S. *theah, theh.*] Grant; admit; allow; even if; notwithstanding; as, *though* his fault he great, I will forgive him. — However; — used familiarly at the end of a sentence; as, we may manage with this, *though*. — *As though*, as if; as, it was *as though* an affront was intended. See ALTHOUGH.

Thought, (*thawt,*) *imp.* and *pp.* of THINK, *q. v.*

Thought, (*thawt,*) *n.* [A. S. *theaht*, from *thencan*, to think.] Act of thinking; reflection; exercise of the higher intellectual functions; operation of the faculties of the mind in any way except sense and perception. — Act of pondering; meditation; cogitation; serious consideration; as, "This dead of midnight is the noon of *thought*." (*Barbauld.*) — That which the mind thinks; something framed in the mind; an idea; a conception or preconceived notion; as, (1.) An opinion; a notion; a judgment; a supposition; a conclusion; as, we interchanged *thoughts* on this subject. (2.) An offspring of the imagination; a sentiment; a conceit; a fancy. — Design; purpose; intention. — Solicitude; care; compunction; concern; workings of conscience; as, "Adam took no *thought*, eating his fill." (*Milton.*) — A small degree or quantity; as, this stew requires a *thought* more pepper.

Thought'ful, *a.* Full of, or absorbed by, thought; employed in meditation or cogitation; reflecting; contemplative; musing; as, a *thoughtful* man. — Having the mind or attention directed toward an object; careful; intent; regardful; heedful; as, a person *thoughtful* of the future. — Anxious; solicitous; exhibiting concern; as, an act of *thoughtful* kindness. — Favorable to pondering or meditation; having a tendency or aptness to superinduce serious thought or contemplation; as, a *thoughtful* mood.

Thought'fully, *a.* In a thoughtful manner.

Thought'fulness, *n.* State or quality of being thoughtful; deep reflection or meditation; serious attention, especially to spiritual concerns; solicitude; anxiety.

Thought'less, *a.* Lacking, or exhibiting absence of, thought; heedless; negligent; careless; as, a man *thoughtless* of his duties. — Gay; volatile; dissipated; full of levity; as, a *thoughtless* youth. — Stupid; dull; insensate; as, *thoughtless* majesty.

Thought'lessly, *adv.* Without thought; heedlessly; stupidly.

Thought'lessness, *n.* State or quality of being thoughtless.

Thousand, (*thou'zand,*) *a.* [A. S. *thusand.*] Denoting the number of ten hundred. — Proverbially, denoting a great number indefinitely; as, I have mentioned the thing a *thousand* times.

—*n.* The number of ten hundred; the sum of ten times one hundred; — frequently used in the plural; as, he is worth a score *thousands* of dollars. — Hence, a great number indefinitely. — A symbol expressing one thousand units; as, 1000, M. or CIↃ.

Thou'sand-fold, *a.* Multiplied by a thousand.

Thousand Islands, the most numerous collection of river islands in the world, between the U. States and prov. of Ontario, consist of about 1,500 rocky islets, in an expansion of the St. Lawrence, at its emergence from Lake Ontario, hence called the Lake of the Thousand Islands.

Thousandth, (*thou'zandth,*) *a.* The ordinal of thousand; as, the *thousandth* part of a thing. — Being, or constituting, one of a thousand equal parts into which a thing is divided. — Hence, by implication, minute; very small; trifling; — used in a proverbial sense.

—*n.* The thousandth part of anything; the quotient of a unit divided by a thousand.

Thowls, *n. pl.* (*Naut.*) Same as THOLES, *q. v.*

Thrace. (*Anc. Hist.*) The ancient name of the Turkish prov. of Roumelia. It is said to have been peopled by a tribe of Pelasgians. The authentic history of the country commences with the formation of the Greek settlements in the 6th century, B. C. Of these, the principal were Byzantium (675 B. C.), Selymbria, Abdera (560 B. C.), Mesembria, Dicæa, Maronea, Ænus, Cardia, Sestus, Amphipolis, &c.; but their want of union enabled the Thracian chiefs of the interior to preserve their independence. In 513 B. C., Darius, king of Persia, marched through *T.* on his way to punish the European Scythians, and on his return, left Megabazus, with 80,000 men, to subdue the country. In this he partially succeeded, but new disturbances and complications arose between the Persians and Greeks, which resulted (480 B. C.) in the famous expedition of Xerxes. The rise of the Macedonian kingdom, under Philip II. (359 B. C.), destroyed the independence of a great part of Thrace. Under the government of Lysimachus, Thracia was incorporated with Macedonia, and became complete. On the fall of the Macedonian kingdom (168 B. C.) it passed into the hands of the Romans, and subsequently shared the vicissitudes of the Roman Empire. In 395, it was overrun by Alaric, and in 447, by Attila. In 1353, Amurath obtained possession of all its fortresses, except Constantinople, and it has ever since remained in the hands of the Turks.

Thral'dom, Thrall'dom, *n.* [Dan. *trældom.*] State of a thrall or slave; state of servitude; bondage; slavery; serfdom; as, to live in *thraldom*.

Thrash, Thresh, *v. a.* [A. S. *therscan*; Ger. *dreschen.*] To beat out, as grain from the husk with a flail, or with a machine; as, to *thrash* wheat. — To beat or belabor soundly with a stick or whip; to drub; to castigate; as, to *thrash* a bully.

—*v. n.* To practise thrashing; to perform the business of beating out grain from the ear, either by manual or mechanical process; as, the machine *thrashes* capitally. — Hence, to drudge; to toil; to labor; to work in a servile manner; as, "I would rather *thrash* for rhymes."

Thrash'er, Thresher, *n.* One who thrashes grain; also, a thrashing-machine; as, a patent *thrasher*.

(*Zoöl.*) See THRUSH.

Thrash'ing, Thresh'ing, *n.* (*Agric.*) The act of beating out the grain from wheat or other crops. In former times, the hand-flail was the only implement used for *T.* grain; it separated the grain from the husks and straw very effectively; but that method is too expensive in this country, and has been abandoned in Europe for the same cause, and also because it was found that the flail always bruised a large number of seeds. Proper machines, provided with a large number of flails, or other parts answering the same purpose, and moved by the power of water, wind, or horses, were soon introduced. It was found that by this means the process of *T.* could be effected more cheaply, more quickly, and with less damage to the health of the thrasher, than by the old means. To the farmer on an extensive scale, the *T.* machine is an absolute necessity. In the present ordinary *T.* machine in its improved form, a rapid motion is given to a hollow cylinder round an horizontal axis; on the outer surface there are projecting ribs, parallel to the axis, at equal distance from each other; the width of these is from two to six inches. Round one-half of the cylinder is a case, the inner surface of which is lined with plates of cast iron, grooved in the direction of the axis. Since the beaters, or ribs, come quite close to these ribs, an ear of corn or other grain cannot well pass through them without being flattened. After being unbound, the sheaves of grain are spread upon a slanting table, and in some machines are drawn in between two iron rollers, one of which is fluted and the other plain. The motion of these rollers is slow, while that of the cylinder is rapid. As the straw comes through, the heaters act upon it, and thrash out most of the grain; that which remains is carried in between the beaters and the fluted cases, and on making half a revolution, all the grain has been beaten or rubbed out. It falls on a shaker, which allows the grain to pass through, but tosses off the straw. In England, *T.* machines worked by steam-power have been erected on very large farms; and travelling steam-machines (Fig. 2498) thrash out the largest quantity of the grain grown

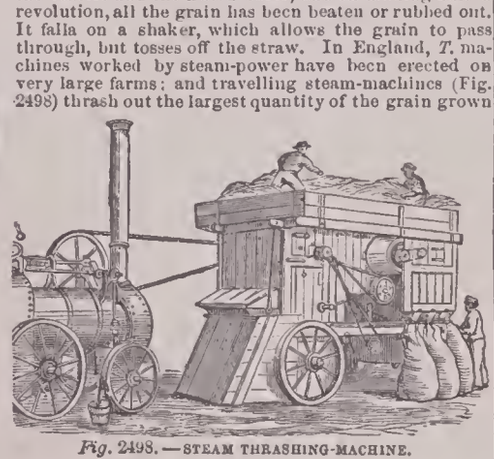


Fig. 2498. — STEAM THRASHING-MACHINE.

in that country. In the U. States, innumerable thrashing-machines have been patented, in which the spiked cylinder is generally employed. Most modern *T.* machines have grain separators attached, by which the grain is winnowed by a revolving fan, and also elevators, which are long endless aprons moved on rollers, by means of which the straw is taken up into a mow or on to a stack.

Thrason'ical, *a.* [From Lat. *Thraso*, the name of a braggadocio in the "Eunuch" of Terence.] Giving to boasting, swagger, or braggadocio. — Gasconading; boastful; pretentious; as, *thrasonical* behavior. — *Shaks.*

Thrasybulus, a celebrated Athenian general, who, in the time of the Thirty Tyrants, took refuge at Thebes. Having gained some followers, he marched against the usurpers and expelled them. In commemoration of this triumph, a yearly festival was instituted at Athens. Thrasybulus wisely procured the passing of a general amnesty, which decreed that no one but the principals should be punished for the atrocities which had been committed. He subsequently displayed great valor in Thrace, and slew the Lacedæmonian general with his own hand. Thrasybulus fell in a battle with the Aspendians, who were the allies of Sparta, 394 B. C.

Thrave, *n.* [A. S. *thrúf*, a handful; W. *dref*, a bundle.] The number of two dozen. — In some parts of England 24, in other parts 12, sheaves of wheat or barley.

Thread, (*thred,*) *n.* [A. S. *thræd, thred.*] A very small, attenuated twist of flax, wool, cotton, silk, or other fibrous material, spun out to a considerable length. — The filament of any fibrous substance, as of bark; a fine filament or line of gold or silver. — Something resembling a thread; something carried out in a continued course or uniform tenor; as, the *thread* of an argument or narrative. — The prominent spiral part of a screw. — *Air-threads*, gossamer. — *Thread and thrum*, good and bad taken together.

—*v. a.* To pass a thread through the eye, as of a needle. — To pass or pierce through, as a narrow way or channel.

Thread'bare, *a.* Worn to the bare thread; having the nap or gloss worn off; as, a *threadbare* coat. — Hence, by analogy, worn out; trite; stale; hackneyed; humdrum; having lost its novelty or interest; as, a *threadbare* joke, a *threadbare* quotation.

Thread'foot, *n.* (*Bot.*) See PODOSTEMACEÆ.

Threadiness, (*thrĕd'-,*) *n.* State of being drawn out into threads, or after the manner of threads.

Thread'-lace, *n.* Lace fabricated of linen thread.

Thread'-needle, Thread-the-needle, *n.* A game among children, in which they stand in a row, with joined hands, when the outer one, still holding the hand of the next one, runs between the others.

Thread-shaped, (*thrĕd'shāpt,*) *a.* (*Bot.*) Filiform.

Thread'-worm, (*-wurm,*) *n.* (*Zoöl.*) See ASCARIS.

Thready, (*thrĕd'y,*) *a.* Resembling thread or filaments. — Consisting of, or resembling, thread.

Threat, (*thrĕt,*) *n.* [A. S. *thryth.*] A menace; denunciation of evil; declaration of an intention or determination to inflict punishment, loss, or pain on another.

—*v. a.* To threaten; — used only in poetry.

Threaten, (*thrĕt'n,*) *v. a.* [A. S. *threatian.*] To pain or harass by threats or menaces; to declare the purpose of inflicting punishment, pain, or other evil upon; to terrify, or attempt to terrify, by menaces or denunciation; to charge or enjoin with menace or with implied rebuke; to charge strictly or censoriously; as, to *threaten* a man's life. — To menace by action; to present, or assume, the appearance of coming evil; to exhibit the indication of some danger or catastrophe which will happen; as, the state of the weather *threatens* us with a storm.

—*v. n.* To employ threats or menaces.

Threat'ener, *n.* One who threatens or menaces.

Threat'ening, *p. a.* Denoting a threat or menace; as, *threatening* language. — Indicating something about to happen; as, the clouds look *threatening*.

—*n.* Act of menacing; also, a menace; a denunciation of evil, or declaration of a purpose to inflict evil on an individual, or a country, usually for sins and offences.

Threat'eningly, *adv.* In a threatening manner.

Three, *a.* [A. S. *thry*; Lat. *tres*; Gr. *treis.*] Two and one; — often used, like other adjectives, without the noun to which it refers.

(NOTE. *Three* is very frequently joined with other words to form compounds having a generic signification of three parts, portions, organs, &c.; as, *three*-celled, *three*-edged, *three*-legged, *three*-pronged, *three*-stringed, &c.)

—*n.* The sum of two and one; the number next above two, and one less than four. — Proverbially, a small number; as, "a *three*-suited knave." (*Shaks.*) (R.) — A symbol indicating three units, as 3, or iii.

Three'-coat, *n.* (*Arch.*) Applied to a kind of plastering which consists of roughing-up, or roughing-in, floating, and a finishing coat.

Three'-cornered, (*-kor-nerd,*) *a.* [*Three* and *corner.*] With three corners; triangular; as, a *three-cornered* hat. (*Bot.*) Having three salient, longitudinal angles, as a stem.

Three'-decker, (*-dĕk'er,*) *n.* (*Naut.*) A man-of-war carrying guns on three decks.

Three'fold, *a.* [A. S. *thryfeald.*] Consisting of a sequence of three; as, a *threefold* offering.

Three Mile Bay, in *New York*, a post-village of Jefferson co., 16 m. W.N.W. of Watertown.

Three Oaks, in *Michigan*, a post-township of Berrien co., abt. 22 m. W. of Niles.

Three Parks. See COLORADO.

Three'-nerved, (*-nurvd,*) *a.* (*Bot.*) Possessing three slender ribs; trinervate.

Three'-parted, *a.* Same as TRIPARTITE, *q. v.*

Threepence, (*thrĭp'ens,*) *n.* [*Three* and *pence.*] The sum of three pennies; or, in England, a small silver coin of three times the value of a penny.

Three'penny, *a.* Worth three pennies only; as, a *threepenny* bit (*i. e.*, a small English silver coin); — hence, of little value; mean; poor; trivial.

Three'-pile, *n.* The finest quality or costliest kind of velvet.

Three'-piled, *a.* Having the quality of three-pile; — hence, of the best or costliest kind; as, a *three-piled* piece of velvet. — Hence, high-flown; exaggerated; bombastic; as, "*three-piled* hyperboles." (*Shaks.*) — Piled in sets of three.

Three'-ply, *a.* [From *three*, and Fr. *plier*; Lat. *plico.* See PLY.] Threefold; consisting of three thicknesses or folds; as, a *three-ply* carpet.

Three'-pointed, *a.* (*Bot.*) Same as TRICUSPIDATE, *q. v.*

Three'-quarter, *a.* (*Paint.*) A term applied to designate a particular size of portraiture, measuring 30 inches by 25. The term is also applied (adjectively) to a portrait delineated to the hips only.

Three Rivers, (or TROIS RIVIÈRES,) in prov. of Quebec, a town, cap. of St. Maurice co., at the confluence of the St. Lawrence and St. Maurice rivers, 90 m. S.W. of Quebec.

Three Rivers, in *Massachusetts*, a post-village of Hampden co., 65 m. W.S.W. of Boston.

Three Rivers, in *Michigan*, a post-village of St. Joseph co., 86 m. S.W. of Lansing.

Three'-score, *a.* Three times a score; thrice twenty; sixty.

Threnet'ic, *a.* [Gr. *threnetikos.*] Mournful; sorrowful.

Thren'ody, *n.* [Gr. *thrēnos*, a wailing, from *threomai*, to cry aloud, and *ōdē*, a song.] A song of lamentation; a monody.

Threpsol'ogy, (*-je,*) *n.* [Gr. *threpsis*, aliment, and *logos*, treatise.] (*Med.*) The doctrine of, or a treatise on, the nutrition of organized bodies.

Thresh, (*thrĕsh,*) *v. a.* See THRASH.

Thresh'old, *n.* [A. S. *thersc-wald, thresc-wald.*] A

door-sill; the plank, stone, or piece of timber which lies at the bottom or under a door, particularly of a dwelling-house, church, and the like; hence, entrance; gate; door; as, on the *threshold* of ono's own home. — The place or point of entering or beginning; outset; as, they are now at the *threshold* of their enterprise.

Threw, (*thru,*) *imp.* of THROW, *q. v.*

Thrice, (*thrīs,*) *adv.* [From *three.* A.S. *thriga.*] Three times; as, he made the nttempt *thrice.*—Very; emphatically; — used hy way of amplification; as, "*thrice* noble Lord." — *Shaks.*

(NOTE. *Thrice* is frequontly used in the formation of compounds conveying intensive application; as, *thrice*-favored, *thrice*-happy, *thrice*-told, &c.)

Thrid, *v. a.* [A corruption of *thread.*] To thrend; to slip, shoot, or run through, ns a needle, bodkin, or the like; to elido through by a narrow passage; as, to *thrid* a labyrinth.

Thrift, *n.* [From *thrive.*] A state of thriving; frugality; economy; good husbandry; careful management in regard to property. — Acquisition or Increase of property or worldly goods; prosperity; gain; as, "*thrift* may follow farming." (*Shaks.*) — Vigorous growth or development, as of a plant.

(*Bot.*) See ARMERIA.

Thrift'ily, *adv.* In a thrifty manner.

Thrift'iness, *n.* State or quality of being thrifty.

Thrift'lessly, *adv.* Without thriving; extravagnntly.

Thrift'lessness, *n.* State or condition of being thriftless.

Thrift'y, *a.* (*comp.* THRIFTIER; *superl.* THRIFTIEST.) Economical; frugal; sparing in tho use of means or money; given to, or exhibiting thrift; employing economy and good management of property; as, a *thrifty* housewife. — Increasing in wealth or substance; prosperous in the acqulsition or accumulation of worldly riches; thriving by industry and parsimony; as, a *thrifty* tradesman.—Well-hushandod; as, *thrifty* hire. (*Shaks.*) (R.) — Thriving with quick or vigorous growth, as a plant or tree.

Thrill, *n.* A drill; a borer. — A thrilling or tingling sensation; as, a *thrill* of ecstasy, a *thrill* of horror.

—*v. a.* [A. S. *thyrlian.*] To hore; to drill; to pierce; to puncture; to perforate by turning an auger or similar instrument in. — Hence, to pierce; to penetrate, as something sharp; particularly, to causo a tingling sensation that pervades the system with a slight ehiver; as, a voice that *thrills* tho hearer.

—*v. n.* To feol a sharp, shivering sensation running through the body; as, a sudden horror *thrilled* through his veins.

Thrill'ingly, *adv.* In a thrilling manner.

Thrips, *n.* [Lat. and Gr., a worm.] (*Zoöl.*) A genus of small spotted flies, family *Aphidæ.* The species are numerous, and wldely distributed. They aro very active, and some of them very troublesome, by the lnjury which they do to cultivated plants, upon the juices of which they live.

Thrive, *v. n.* (*imp.* THROVE, or THRIVED; *pp.* THRIVEN, or THRIVED; — *thrived* is rarely used.) [Icel. *threifa,* to put one's hand to.] To advance or increase in anything valuable or advantageous; to increase in goods or estate; to prosper by industry, frugality, and good management of property or means; as, a person *thrives* by diligence and economy in expenditure. — To have profit, increase, or success; to prosper or succeed in any business or occupation; as, a *thriving* manufacturer, a *thriving* country. — To flourish: to vegetate luxuriantly; to increase in bulk or stature; as, the palm *thrives* in tropical latitudos.

Thriven, (*thrĭv'n.*) *pp.* of THRIVE, *q. v.*

Thrlving, (*thrĭv'-.*) *n.* The act of increasing in wealth or size.

Thriv'ingly, *adv.* In a thriving manner.

Thro', (*throo.*) A contraction of THROUGH, *q. v.*

Throat, (*thrōt,*) *n.* [A. S. *throte.*] (*Anat.*) The anterior part of the neck of an animal, in which are the gullet and windpipe, or the passages for the food and breath; the pharynx.

Diseases of the throat. See DIPHTHERIA, QUINSY, THRUSH.

(*Arch.*) See CHIMNEY.

(*Bot.*) The opening or orifice of a monopetalous corolla.

(*Ship-building.*) The hollow part of the knee-timbere.

(*Naut.*) The wide end of a gaff next the mast, in opposition to the *peak.*—Also, a part of the ANCHOR, *q. v.*

To give one the lie in his throat, to tax one with lying deliherately and impudently. — *To lie in one's throat,* to lie barefacedly or manifestly. — *Throat-brails.* (*Naut.*) Brails attached to the gaff close to a ehip'e mast. — *Throat-halyards,* those halyards that serve to raise the throat of the gaff.

Throat'-band, Throat'-latch, *n.* A strap of a halter, bridle, &c., passing under a horse's throat.

Throat'-pipe, *n.* The windpipe or trachea.

Throb, *v. n.* (*imp.* and *pp.* THROBBED. (*thrŏbd.*) [Of uncertain etymology.] To beat, as the heart or pulse, with more than common force or rapldity; to palpitate; to beat in consequence of agitation or excitement; as, *throbbing* temples.

Throbbing pain, a kind of pain which ls, or seems to be, caused or augmented by the pulsation of arteries.

—*n.* A beat or strong pulsation; — especially, a violent agitation of the heart und arteries; a palpitation.

Throb'bing, *n.* Act of heating with unusual force, as the heart and pulse; palpitation.

Throck'morton, in *Texas,* a N.W. co.; *area,* 900 sq. m. *Rivers.* BRAZOS, and Clear Fork.

Throe, (*thrō,*) *n.* [A. S. *throwian,* to suffer, to endure.] Extreme pnin; anguish; agony; violent pang; — particularly applied to the anguish of travail attendant on parturition.

—An instrument for splitting wood into shingles.

—*v. n.* To agonize; to etruggle in acute or lutense paln.

Throm'bolite, *n.* [Gr. *thrombos,* a mass, and *lithos,* stone.] (*Min.*) Native amorphous, hydrated sulphato of copper, of an opaque-green color, which becomes black on expoeure to the air.

Throm'bus, *n.* [Gr. *thrombos,* a clot of blood.] (*Med.*) A small tuuor, which sometimes ensues in consequence of the eecape of blood lnto the cellular membrane in the operation of bleeding.

Throne, *n.* [Fr. *trône;* Lat. *thronus* = Gr. *thrŏnos.*] A royal seat of state; — also, sometimes, the seat of a bishop.—Hence, regal power or dignity; as, in constitutional monarchies, the lnw is above the *throne.*—Hence, also, the place where God peculiarly manifests his powor and glory; as, "Th' eternal Father from his *throne.*" *Dryden.*

—*v. a.* To enthrone. — Hence, to place in an elevated position; to oxalt; to give a high or elevuted place to.

—*v. n.* To be placed in, or as if upon, a throne; as, "Venice . . . *throned* on her hundred isles." — *Byron.*

Throng, *n.* [A. S. *thrang.*] A crowd; a concourse; a multitude of persons or of living heinge pressing or pressed into a close body or assemhlage. — A great multitude; as, the heavenly *throng.*

—*v. n.* [A. S. *thringan.*] To press or crowd together; to come in crowds or multitudes; to press into a close body, as a concourse of persous; as, people *throng* to the President's levee.

—*v. a.* To crowd, or press, ns a multitudo of persons; to incommode or annoy with a concourso of living beiugs; ae, the place of meeting was *thronged* to excess.

Throop, in *New York,* a post-village and township of Cayuga co., nbt. 3 m. N.W. of Auhurn.

Throstle, (*thrŏs'l,*) *n.* [A. S.; Icel. *thrôstr.*] (*Zoöl.*) The song-thrush. See THRUSH.

Throstle, (*thrŏs'l,*) *n.* A machine for spinning wool, cotton, &c., from the rove, consisting of a set of drawing rollers with hobbins and flyers, and differing from the *mule* in having the twisting apparntus stationary.

Throstling, (*thrŏs'ling,*) *n.* A diseaso affecting the glands of the throats of cattle.

Throt'tle, *n.* The windpipe or trachea; — vulgarly, tho weasand.

—*v. a.* [From *throat.*] To seize and compress the throat of, so as to choke; to suffocate, or to obstruct so as to endanger suffocation; as, a *throttling* quinsy. (*Dryden.*) — To utter with breaks or luterruptions, as a person half enffocated.

—*v. n.* To choke; to suffocnte; — also, to breathe hard.

Throt'tle-lever, *n.* (*Mach.*) In a locomotive steam-engine, tho hand-lever by which a throttle-valve is moved.

Throt'tle-valve, *n.* (*Mach.*) A valve in the steam-pipe of an engine, tor regulating the supply of steam to the cylinder. It is moved by a hand-lever called the *throttle-lever.*

Through, (*throo,*) *prep.* [A. S.] Noting passage by transmission; indicating the means of conveyance; noting passage among or in the midst of; as, a ship moves *through* the water, a mau walks *through* a wood. — From end to end, or from side to side; from one surface or limit to the opposite; as, a nail is driven *through* a board, a shot passes *through* one's body. — By means of; hy the agency of; — noting instrumentality; as, he heard of it *through* me. — Within; between the walls or sides of; to pass *through* a gatoway. — Over the whole surfaco or extent of; as, to ramble *through* a country. — From the beginning or commencement to the end or conclusiou; as, some people have a hard time of it *through* life.

—*adv.* From one end or side to the other; as, the cold piorces one *through* and *through.* — From heginning to end; as, to read a book *through.* — To the end or conclusion; to tho nltimate purpose; as, to carry an undertaking *through.*

(NOTE. *Through* occnsionnlly forms the prefix to certain compounds; as, *through*-bolt, *through*-train, &c.)

To drop or *fall through,* to collapse; to fall to pieces; to become futile; as, the project *dropped through.*

Through'-bolt, *n.* A bolt which passes through all the thicknesses of that in which it is fixed.

Throughout', *prep.* Quite through; ln every part; from one end or extremity to the other; as, we were busy *throughout* the year.

—*adv.* In every part; in all ways; as, he ie a good fellow *throughout.*

Through'-stone, *n.* (*Arch.*) A stone in a wall which reaches entirely through it, and shows itself on both sides.

Through'-ticket, *n.* A ticket for an entire journey.

Through'-train, *n.* A railroad train which goes over the whole of a long route.

Throve, the old *imp.* of THRIVE, *q. v.*

Throw, (*thrō,*) *v. a.* (*imp.* THREW; *pp.* THROWN.) [A. S. *thrawan.*] To fling or cast in any manner; to propel; to send; to drive to a distance from the hand or from an engine; to hurl; as, to *throw* a stone with the hand, a fire-engine *throws* water to put out a fire. — To wind; to twist together, as fibres or filaments. — To venture at dice; as, to *throw* a main in hazard. — To divest or strip one's self of; to put off; as, a serpent *throws* its skin. — To put on; to lay over carelessly; as, he *threw* a cloak over his shoulders. — To cast; to send; to hurl; to fling; as, to *throw* words of contempt on another. — To prostrate or overturn; as, to *throw* an antagonist in wrestling. — To drive or impel by force or violence; as, sallore *thrown* upon a desert island. — To bear; to bring forth or produce, as young; — said particularly of rabbits.

To throw away. (1.) To expend to no purpose; to lose by neglect, folly, or misapplication; as, asking a miser to lend money is time *thrown away.* (2.) To reject; to discard; as, to *throw away* a good opportunity. — *To throw back.* (1.) To reject; to refuse. (2.) To retort; to fling hack, as an answer. — *To throw by,* to cast aside as no longer wanted; as, to *throw by* an old hat.—*To throw down.* (1.) To suhvert; to overturn; to destroy; as, to *throw down* a fenco. (2.) To degrade; to reduce from a high station to a lower.—*To throw in.* (1.) To inject, as a liquid. (2.) To put in along with others; to deposit or add without enumeration or valuation; as, an article *thrown in* to complete a bnrgain. (3.) To give up; to relinquish. — *To throw off.* (1.) To discard; to reject; to forsake; as, to *throw off* a unlstress. (2.) To purge or clear from; to expel; as. to *throw off* a disorder. — *To throw on,* to load; to cast or fling on. — *To throw one's self down,* to fall prone; to lie down. — *To throw one's self on* or *upon,* to repose upon; to resign one's self to the disposal of; as, the prisoner *threw himself on* the mercy of the court.—*To throw out.* (1.) To cast out; to reject, discard, or decline to entertain; as, the bill was *thrown out.* (2.) To speak; to utter; to give expression to; as, to *throw out* a hint. — *To throw up.* (1.) To resign; to demit; to surrender; as, he *threw up* a good situation. (2.) To vomit.

—*v. n.* To perform the act of throwing; — specifically, to cast dice.

—*n.* Act of hurling, casting, or flinging; a drlving or propelling from the hand or from an engine; as, a straight *throw.* — A cast of dice; also the manner of casting dice; as, a fair *throw,* a lucky *throw.* — The distance which a missile is or may he thrown; as, the place is not a stone's *throw* off. — An overturn in wrestling.—A turner'e lathe.—A potter's jigger. See JIGGER.

(*Mach.*) In steam-engines, the extreme movement of a slide-valve; also of a crank or eccentric meaeured on a direct lino passing through the centre of motion.

Throw'-crook, *n.* (*Agric.*) An instrument by which ropes are twisted out of straw.

Throw'er, *n.* One who throws.

Thrown Silk, *n.* (*Com.*) Silk consisting of two or more singles twisted together like a rope, in a direction contrary to that in which the singles of which it is composed are twisted.

Throw'-off, *n.* A start in hunting or racing. (Eng.)

Throw'ster, *n.* One who throws, twists, or winds silk.

Thrum, *n.* [Ger. *tromm.*] A tuft; one of the ende of weavers' threads. — Any coarse yarn.

—*v. n.* (*imp.* and *pp.* THRUMMED, (*thrŭmd.*) To play coarsely or inharmoniously on a musical lnstrument with the fingers; to strum; as, to *thrum* the pianoforte.

—*v. a.* To fringe, or furnish with thrums or small tufts. — To strum, or play inelegantly upon with the fingers, as on a musical instrument.

(*Naut.*) To stick short pieces of yarn through, as a mat.

Thrum'my, *a.* Containing. or resembling, thrums.

Thrush, *n.* [A. S. *thrisc.*] (*Zoöl.*) The common name of insessorial birds, comprising the family *Turdidæ.* Thrushes, or birds hearing considerable resemblance to thrushes, are found in almost every part of the world. Those which inhabit high latitndes, and placee which are otherwise very seasonal in their character, are in general migratory, and those which inhabit places of more mild and uniform character are in general stationary. The generic characters are,—beak of moderate size, stralght, convex ahove; point of the upper mandible compressed, notched, and slightly curved downwards; the gape furnished with a few hairs, the nostrils oval, lateral, half concealed by membrane; middle toe not so long as the tarsus, and the outer toes joined to it at the base. 140 to 150 species have been deecribed. The Wood *T.* (*Turdus melodus,* or *T. mustelinus*) is one of the most abundant American species. It is about 8 inches in length; the whole of the upper parts of the body are fulvous brown, brightest on the head, and inclining to olive on the rump and tail: throat and breast white, tinged with buff, and sprinkled all over with dusky spots; eyes surrounded with a whlte circle; legs

Fig. 2499. — WOOD-THRUSH.

and claws flesh-color. It inhabits the whole of N. America, from Hudson's Bay to Florida; lts song is heard every morning nnd evening during the months of May and June, and is greatly admired; but during the day it is silent; its favorite haunts are thick shaded hollows hy the sides of brooks or rivulets; its nest, made of withered beech-leaves with layers of dry grass mixed with mud, nnd lined with dry fibrous roots, is often placed in an alder-bush. Its eggs are four or five in nnmber, and of a light hlue color. Among the other American epecies are the Hermit *T.* (*Turdos pallasi,* or *T. solitarius*); the Dwarf *T.* (*Turdus nanus*); Wilson's *T.*

(*Turdus fuscescens*). The Robin, the Blue-bird, the Wren, and the Water Ouzel, described under their respective names, belong also to the *Turdidæ*. The Song *T.*, or Throstle (*Turdus musicus*), of Europe, much resembles the Wood *T.* The Brown *T.*, or Thrasher (*Harporhynchus rufus*), of N. America, east of the Missouri, has been placed by Cabanis and Baird in the family *Liotrichidæ*. It is over 11 inches long, the wing over 4; the color above light cinnamon-red, beneath pale rufous-white, with longitudinal streaks of dark brown. In the pleasant spring mornings, this bird utters the sweetest melodies from the topmost twigs of some isolated tree. Later in the day, and at all times late in the season, it prefers low thick bushes. Its flight is low and heavy, and continued only a few rods at a time. The nest is made in a clump of low bushes a few feet from the ground; the eggs four to six, dull buff, thickly sprinkled with dots of brown.

(*Med.*) A disease common to infants who are ill-fed, consisting of an eruption of *aphthæ*, or small white or ash-colored ulcers on the tongue and inside of the mouth, and not unfrequently extending to the throat and fauces. It is caused by irritation of the bowels, and is almost always attended with diarrhœa. It is rarely dangerous; and in its treatment the disordered state of the bowels is to be corrected by the administration of some anti-acid and astringent mixture, and the system strengthened by preparations of iron and cod-liver oil. A dilute solution of nitrate of silver should be applied to the eruptions of the mouth.

(*Far.*) An inflammatory or suppurative affection in the feet of the horse and certain other animals.

Thrust, *v. a.* (*imp.* and *pp.* THRUST.) [Icel. *thrista.*] To push or drive with force; to impel with some degree of violence.

To thrust away, off, out, or *from,* to push or drive away; to reject; to discard; as, he *thrust* the woman *off.* — *To thrust in,* to push or drive in; as, to *thrust* a bayonet *in* a man's body. — *To thrust on,* to urge; to impel; to cause to move; as, a divine *thrusting on.* (*Shaks.*) — *To thrust one's self,* to obtrude or intrude; to enter without leave or welcome; as, an officious person *thrusts himself* where he is not wanted. — *To thrust through,* to pierce; to stab; as, he *thrust* the knife *through* his hand. — *To thrust together,* to compress; as, he *thrust* the fleece *together.*

—*v. n.* To make a push or driving; to attack with a pointed instrument or weapon. — To squeeze or urge in; to enter by pushing; to intrude; as, an office-seeker *thrusts* into notice. — To press on or push forward; to come with force or violence; as, fresh men still *thrust* on.

—*n.* A violent push or driving, as with a pointed weapon, or with the hand or foot, or with any instrument; — a term commonly used in fencing. — Attack; assault; onslaught; as, the *thrust* of a repartee.

(*Arch.*) The horizontal force of an arch, by which it acts against the piers from which it springs. Also, a similar action of rafters or of a beam against the walls which bear them.

Thucydides, (*thu-cid'i-dees,*) a Greek historian, B. at Athens, about 471 B. C., D. about 400 B. C. He was of noble birth, and, on arriving at maturity, took part in the Peloponnesian War; but, failing in an expedition with which he had been intrusted, he was banished, and during the 20 years of his banishment collected materials for his *History of the Peloponnesian War.* This history is the first example of philosophical history, portraying not so much the merely outward and visible facts and movements, as the development of character in actions and the operation of human action on the world. Motives and the secret workings of things are unfolded, not speculatively, but as ascertained matters of fact. A very marked feature of the work is the speeches, introduced sometimes as actually spoken, sometimes as discourses appropriate to occasions, and for the explication of causes. The most conscientious care in the ascertaining of facts and dates, brevity and clearness of narration, perfect consistency in the details of one part with another, and of the whole with the laws of nature and the known characters of the actors, inspire the fullest confidence in the truth and fidelity of the historian.

Thuin, (*twi'd.*) a town of Belgium, on the Sambre, 8 m. from Charleroi. *Manuf.* Woollens and linens. *Pop.* 4,642.

Thu'ja, Thu'ya, *n.* [Gr. *thuon,* a sacrifice.] (*Bot.*) A genus of trees or shrubs, with evergreen, squamose, intricate leaves, ord. *Pinaceæ. T. occidentalis* is the *Arbor Vitæ,* the resin of the Eastern variety of which is used instead of incense at sacrifices. Why it is called Arbor Vitæ is not known, unless it be on account of the supposed medicinal qualities of its berries. In the E. the Cypress is called the tree of life, and its berries are considered a cure for all diseases.

Thug, *n.* [From Hind. *thugna,* to deceive.] A member of a singular association of robbers and murderers long existing in Hindostan, but which has, of late years, been almost extirpated by the British government. The Thugs were directed in all their proceedings by auguries supposed to be vouchsafed by their goddess Kali; and particular classes were altogether exempt from their attacks. They seldom destroyed women unless for their own safety; and they very seldom ventured to attack Englishmen. They usually moved in large gangs, and attached themselves to travelling parties, with whom they would journey for days, until they found an opportunity for mastering them. When all would be ready, one division of the murderers strangled their victims, while another body prepared their graves; and by means of this division of labor the fearful work was accomplished with wonderful celerity. The destruction of life occasioned by them may be conjectured from the fact that one Thug confessed that he had been concerned in the murder of 719 people.

Fig. 2500. — A THUG.

Thu'le, (or ULTIMA THULE,) the name given by the ancients to the most N. parts of Europe known to them, and in the description of which, fancy played a conspicuous part.

Thu'lite, *n.* (*Min.*) A rose-colored variety of epidote, containing cerium.

Thumb, (*thŭm,*) *n.* [A. S. and Fris. *thuma.*] The short, strong, thick finger, answering to the other four in the human hand; also, the corresponding member of other animals.

—*v. a.* To handle clumsily or awkwardly; to play with the fingers; as, to *thumb* a pianoforte. — To soil by frequent contact with the fingers; as, to *thumb* a pack of playing-cards.

—*v. n.* To thrum; to strum; to play on with the fingers.

Thumb'-band, *n.* A twist of any material made as thick as the thumb; as, a *thumb-band* of hay.

Thumb'-blue, *n.* Indigo in the form of small balls or lumps, used by laundresses to blue linen and the like.

Thumb'kin, Thumb'-screw, *n.* An instrument of torture for compressing the thumb.

Thum'erstone, Thu'mite, *n.* (*Min.*) Same as AXINITE, *q. v.*

Thum'mim, *n. pl.* [Heb.] See URIM.

Thump, *n.* [Perhaps allied to Scot. *bump,* a stroke; formed in imitation of the sound of a heavy blow.] A heavy blow given with anything that is thick, as with a club or the fist.

—*v. a.* To strike or beat with something thick or heavy.

—*v. n.* To strike or fall on with a heavy blow.

Thun, (*toon.*) in the canton of Berne, Switzerland, a lake situated between the town of Interlaken on the E., and that of Thun on the N.W.; is 10 m. long, 2 m. broad, 1,775 feet above sea-level, and in some places between 700 and 800 feet deep. The scenery is very attractive. — A town, 17 m. S.S.E. of Berne. It stands on the Aar, 1 m. from the Lake of Thun, out of which the river rushes past the town in a stream of crystal clearness. *Pop.* 4,000.

Thun'der, *n.* [A. S. *thuner, thunor;* D. *donder;* Ger. *donner.*] (*Meteorol.*) The violent report which succeeds lightning in stormy weather. The lightning and the *T.* are always simultaneous, but an interval of several seconds is always observed between these two phenomena, which arises from the fact that sound only travels at the rate of about 1,100 feet in a second, while the passage of light is almost instantaneous. Hence an observer will only hear the noise of *T.* five or six seconds, for instance, after the lightning, according as the distance of the *T.*-cloud is five or six times 1,100 feet. The noise of *T.* arises from the disturbance which the electric discharge produces in the air. Near the place where the lightning strikes, the sound is dry and of short duration. At a greater distance a series of reports are heard in rapid succession. At a still greater distance the noise, feeble at the commencement, changes into a prolonged rolling sound of varying intensity. Some attribute the noise of the rolling of *T.* to the reflection of sound from the ground and from the clouds. Others have considered the lightning not as a single discharge, but as a series of discharges, each of which gives rise to a particular sound. But as these partial discharges proceed from points at different distances, and from zones of unequal density, it follows not only that they reach the ear of the observer successively, but that they bring sounds of unequal density, which occasion the duration and inequality of the rolling. The phenomenon has finally been ascribed to the zigzag of lightning, assuming that the air at each salient angle is at its greatest compression, which would produce the unequal intensity of the sound.

—Hence, by analogy, any loud noise; as, the *thunder* of artillery. — Fulmination; an alarming or startling threat, menace, or denunciation; as, the *thunders* of the Church.

—*v. n.* To sound, rattle, or roar, as an explosion of electricity. — To make a loud noise, especially a heavy sound of some continuance; as, the walls fell with a *thundering* crash.

—*v. a.* To publish, as a threat, menace, or denunciation; to fulminate; to emit with noise and terror; as, to *thunder* out an ecclesiastical censure.

Thun'der Bay, in *Michigan,* an arm of Lake Huron, on the coast of Alpena co., 13 m. long and 10 m. broad.

Thun'der Bay River, in *Michigan,* rises in Montmorency co., and flowing E., enters the upper part of Thunder Bay.

Thun'derbolt, *n.* [*Thunder* and *bolt.*] A shaft of lightning; a brilliant stream of the electrical fluid passing from one part of the heavens to another, and particularly from the clouds to the earth. — Figuratively, a daring or irresistible hero; as, "those *thunderbolts* of war." (*Dryden.*) — Fulmination; ecclesiastical denunciation; as, the *thunderbolt* of excommunication.

Thun'der-clap, *n.* A clap or burst of thunder.

Thun'der-cloud, *n.* A cloud that produces lightning and thunder.

Thun'derer, *n.* One who, or that which, thunders; — a term applied by the ancients to Jupiter.

Thun'dering, *n.* Thunder; the report of an electrical explosion.

Thun'der-shower, *n.* A shower of rain attended with thunder.

Thun'der-storm, *n.* A storm of wind, rain, or hail, accompanied with lightning or thunder.

Thun'der-stroke, *n.* A thunder-clap.

Thun'der-struck, *p. a.* Amazed; astonished; confounded; struck dumb by something marvellous, surprising, or terrible, suddenly presented to the mind or view.

Thun'der-tube, *n.* Same as FULGURITE, *q. v.*

Thurgau, or **Thurgo'via,** (*toor'gow,*) a canton of Switzerland, in the N.E. part of the confederation, between Lat. 47° 20′ and 47° 40′ N., Lon. 8° 40′ and 9° 30′ E.; having S. St. Gall, W. Zurich and Schaffhausen, and N. and E. the Rhine and the Lake of Constance; *area,* 268 sq. m. The surface is undulating or hilly, but nowhere mountainous, the chief height being the Hörnli in the extreme south, 3,605 feet. The principal river is the Thur, which, flowing W.N.W. through a broad valley, joins the Rhine in the canton of Zurich. The soil is fertile in the ordinary crops, and remarkably so in fruits. *Cap.* Frauenfeld. *Pop.* 94,760.

Thu'rible, *n.* [L. Lat. *thuribulum.*] A CENSER, *q. v.*

Thuringia, (*thoo-rin'je-a.*) [Ger. *Thüringen.*] The name, almost obsolete, of that part of central Germany which embraced the six small states of Saxe-Weimar-Eisenach; Saxe-Meiningen; Saxe-Altenburg; Saxe-Coburg-Gotha; Schwarzburg-Sondershausen; Schwarzburg-Rudolstadt; and the principalities of Reuss. *T.* was so called from the *Thuringi,* or *Doringi,* a Gothic tribe by whom it was found inhabited in the 5th century. — The *Thuringian forest,* which bounds the above territory on the S.W. and S., is a narrow and wooded mountain range, extending abt. 70 m. in length, not including some offshoots toward the Hartz.

Thurin'gite, *n.* (*Min.*) A hydrated silicate of alumina, and the protoxide and peroxide of iron, which occurs in the form of an aggregation of minute olive-green scales in Thuringia.

Thurl, *n.* (*Mining.*) A short communication between the adits.

Thur'man, in *New York,* a post-township of Warren co., abt. 7 m. N.W. of Caldwell.

Thurs'day, *n.* [Dan. *Torsdag,* that is, *Thor's day,* the day consecrated to *Thor,* the old Saxon god of thunder.] The fifth day of the week.

Thurs'ton, in *New York,* a post-township of Steuben co., 7 m. S. of Bath.

Thurston, in *Washington,* a N.W. co., bordering on Puget Sound; *area,* 768 sq. m. *Rivers.* Black, Chehalis, and Nisqually. *Surface,* diversified; *soil,* fertile. *Cap.* Olympia. *Pop.* (1897) 10,260.

Thurzofalva, (*thoortz-o-föl'vŏ,*) a town of Hungary, on the borders of Galicia. It has mineral baths. *Pop.* 7,200.

Thus, *adv.* [A. S.] In this or that manner; in this wise; as, "with tokens *thus* and *thus.*" (*Shaks.*) — To this degree or extent; as, having come *thus* far, go further.

Thutmes III., an Egyptian King, abt. B. C. 1600.

Thwack, (*thwăk,*) *v. a.* [A. S. *thaccian,* to stroke.] To belabor; to thump; to bang; to beat or thrash; to strike with something flat or heavy.

Thwart, *a.* [A. S. *thweor, thweorh.*] Transverse; being across something else.

—*v. a.* To be, lie, or come across the bent or direction of; to move counter to. — To cross, as a purpose; to resist; to withstand; to oppose; to contravene; hence, to balk; to frustrate; to defeat.

—*v. n.* To move or go in an oblique or crosswise manner

—*n.* (*Naut.*) One of the cross-beams of an open boat, forming seats for the rowers, and bracing the sides together.

Thwart'er, *n.* A disease in sheep, indicated by tremors or convulsive motions.

Thwart'ing, *n.* Act of crossing or frustrating.

Thwart'ly, *adv.* In a thwart manner.

Thy, *a.* [Contracted from *thine.*] Of thee, or belonging to thee; — the possessive of *thee,* used in poetry and in solemn declamation.

Thy'lacine, *n.* (*Zoöl.*) A marsupial animal of the family *Didelphidæ,* found in Australia, and distinguished from the true opossum by two incisors less in each

jaw, a non-prehensile tail, and the absence of a thumb on the hind feet.

Thy'ine-Wood, *n.* (*Script.*) A precious wood, which was formerly used in burning incense. It is probably the wood of the Arbor Vitæ. See THUJA.

Thyme, (*tim,*) *n.* [Fr. *thym.*] (*Bot.*) See THYMUS.

Thymela'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Daphnales.* — DIAG. Apetalous or polypetalous flowers, anthers bursting lengthwise, a solitary suspended ovule, and an imbricated calyx. — They are shrubs, or very rarely herbs. — This order, inhabiting most parts of the world, are especially abundant in Australia. They are chiefly remarkable for the toughness and acridity of their bark. The fruit of *Dirca palustris* is narcotic, and that of the plants generally poisonous or dangerous; however, the seeds of *Inocarpus edulis* are said to resemble chestnuts when roasted. Several species of *Daphne* and *Pimelea* are handsome shrubby plants.

Thymiatechny, (*thim'i-a-tĕk-ne,*) *n.* [Gr. *thymiama,* incense, and *technē,* art.] (*Med.*) The art of employing perfumes in medicine.

Thy'mus, *n.* (*Bot.*) The Thyme, a genus of plants, order *Lamiaceæ.* The Garden *T.*, *T. vulgaris*, is common upon dry hills in the south of Europe, and is very commonly cultivated in gardens, on account of its fragrance. — Wild *T.*, or Mother of *T.*, *T. serpyllum*, occasionally found in Massachusetts, N. Y., and Pennsylvania, is abundant on hills and mountains in all parts of Europe, and the north of Asia. It is less fragrant than Garden *T.*, but both species contain an aromatic essential oil. The flowering branches (*Herba Thymi* and *Herba Serpylli*) are used in medicine as a powerful stimulant, and those of Garden *T.* are also used in cookery for flavoring. — The Lemon-*T.*, or Lemon-scented *T.*, of our gardens, is regarded as a variety of *T. Serpyllum.*

(*Anat.*) A small gland found in the anterior *mediastina* of the thorax in the fœtal infant, but which as soon as respiration commences, collapses and rapidly disappears. Neither anatomists nor physiologists have yet discovered a satisfactory theory for the duty this organ performs in fœtal life; all that we really know of it is the fact that it is always present in the fœtus, and never in the adult, entirely disappearing a few weeks after birth.

Thy'roid Cartilage, *n.* [From Gr. *thyreos,* an oblong shield.] (*Anat.*) See LARYNX.

Thy'roid Gland, *n.* (*Anat.*) A gland situated upon the thyroid and cricoid cartilages of the trachea (Fig. 783); it is of the class of ductless glands, and, when enlarged, forms the bronchocele, or goitre.

Thyrsus, (*thûr'-,*) *n.*; *pl.* THYRSI. [Lat.; Gr. *thyrsos.*] A staff entwined with ivy, which formed part of the accoutrements of a bacchanal, or performer in the orgies of Bacchus.

(*Bot.*) A form of inflorescence, consisting of a compact panicle, the lower branches of which are shorter than those of the middle; in other words, it is composed of a primary axis developing secondary axes from its sides, which in their turn develop tertiary axes, the upper and lower branches being shorter than those of the middle, as in the common lilac.

Thyself, *pron.* [*Thy* and *self.*] A pronoun used after *thou,* to express distinction with emphasis; as, thou *thyself* shalt go.—It is sometimes, also, used in the predicate, without *thou;* as, it must be so, content *thyself.*

Tia'ra, *n.* [Sp., It., Lat., and Gr. *tiara;* Fr. *tiare.*] In antiquity, a dress for the head, worn by the Persians, and somewhat similar to the covering used by the Jewish priests. — In modern times, the triple crown of the Pope (Fig. 719), which is considered to be symbolical of his *temporal,* as the keys are of his *spiritual* authority. It is composed of a high cap of gold cloth, encircled by three coronets, with a mound and cross of gold on the top. From the cap hang two pendants, embroidered and fringed at the ends, and semée of crosses of gold.

Tiarel'la, *n.* (*Bot.*) A genus of plants, order *Saxifragaceæ. T. cordifolia,* the Mitre-wort, Gem-fruit, or Cool-wort, is found in rocky woods, from Canada to Pennsylvania. Its leaves are cordate, acutely lobed; its scape racemose; its stolons are creeping; and its flowers white, with minute bracts.

Ti'ber. [It. *Tevere.*] A river of central Italy, rises from two springs in a dell of the Tuscan Apennines, Lat. abt. 43° 45′ N. Its course, until it reaches Perugia, is S.S.E.; thence, as far as Rome, it pursues, along a zigzag line, a S. direction; but when it enters the plain of the Campagna, it curves to the S.S.W., and enters the Mediterranean by two branches, which inclose the Isola Sacra. Its entire course is abt. 212 m. In 1877 the commencement was made by the Italian govt. of straightening the *T.* and draining the Campagna, under plans brought before the Italian Parliament by Garibaldi. See Fig. 1238.

Tibe'rias, a city of Galilee, founded by Herod Antipas, and named by him in honor of the Emperor Tiberius. *T.* was situated on the W. shore of the Sea of Galilee, or Lake of Genessareth, about two hours' ride from the place where the Jordan issues from the lake. In the vicinity of the city were hot springs which were much celebrated. The lake is also sometimes called, from the city, the Sea of Tiberias (Fig. 1101). After the destruction of Jerusalem, *T.* was celebrated as the seat of a flourishing school of Jewish learning. Modern *Tubariyeh* lies on a narrow undulating plain between the high table-land and the sea. It was half destroyed by an earthquake in 1837. *Pop.* 2,500, nearly one-third of whom are Jews. — Here, July 3 and 4, 1187, Saladin defeated the Crusaders under Guy of Lusignan, king of Jerusalem. Guy, Marquis of Montferrat, and many of the chief Christian leaders, were made prisoners, and the reputed true cross, used as a standard during the battle, fell into the hands of the enemy. Saladin disgraced his victory by the massacre in cold blood of 230 knights of St. John, who were among the prisoners.

Tibe'rius, CLAUDIUS NERO, the second emperor of Rome, was born B. C. 42, and succeeded Augustus, A. D. 14. He was a great general, and a master of Greek and Roman literature, but as he grew older in years he disgraced himself with every species of cruelty and debauchery. He was probably insane long before the commander of his prætorian guard assumed the responsibility of putting him to death, March 16, A. D. 37.

Tibe'rius Constantine', called also TIBERIUS II., one of the most virtuous emperors of Constantinople, was a native of Thrace, and was brought up at the court of Justinian. He succeeded to the throne in 578, and having suppressed the conspiracy of Sophia, widow of his predecessor, reigned unchallenged till his death, in 582.

Tib'et. See THIBET.

Tib'ia, *n.* [Lat.] (*Mus*) The pipe, a primitive instrument much used by the ancients. It was of various forms, and occasionally double. (See 4, Fig. 1893.)

(*Anat.*) See LEG.

(*Zoöl.*) The fourth joint of the leg in insects. It is very long, and usually triquetrous.

Tibul'lus, ALBIUS, a Roman patrician and elegiac poet, whose productions are marked by much feeling for the beauties of nature and the pleasures of a country life. They are generally printed with the compositions of Catullus and Propertius; flourished in the 1st century.

Tiburon', an island in the Gulf of California, 30 m. long, and 20 broad; Lat. 29° N., Lon. 112° 26′ W.

Tiburon', a seaport-town of Hayti, on the S.W. coast, 38 m. W.N.W. of Aux Cayes.

Tic, *n.* (*Med.*) A local and habitual convulsion of certain muscles; — especially, such a motion of some of the muscles of the face; twitching; vellication.

Tic-douloureux, (*tik-dol-u-roo',*) *n.* [Fr., painful spasm.] (*Med.*) A very painful affection of a facial nerve, most commonly that branch of the fifth pair which comes out of the infra-orbitary foramen. It comes on in sudden and excruciating attacks, attended with convulsive twitchings of the muscles, and continues from a few minutes to several hours. The nature of this affection is unknown, and no definite mode of treatment has been discovered. Sometimes a division of the nerve has been recommended; otherwise, the general treatment resorted to in other cases of neuralgia may be adopted. See NEURALGIA.

Tich'field, a town of England, in Hampshire, near the Tichfield river, 3 m. from Fareham. *Pop.* 4,500.

Ticino, (*te-che'no.*) a river of Switzerland and the N. of Italy, rises on the S. slopes of Mount St. Gothard, and flows S. through Lake Maggiore, and S.S.E. through the N. of Italy to its junction with the Po, 4 m. below Pavia. Entire length abt. 120 m., for the last 75 of which, from the point at which it leaves Lake Maggiore, it is navigable.

Ticino, or **Tessin',** the most S. canton of Switzerland, between Lat. 45° 50′ and 46° 37′ N., and Lon. 8° 25′ and 9° 12′ E., being separated by the main chain of the Alps from Uri and the Grisons on the N., while on either side it is surrounded by Italy; *area,* 1,034 sq. m. Offsets from the Lepontine and Rhætian Alps occupy the greater part of the canton. In the S., the country falls away into flats, and the scenery becomes Italian in character. The principal river is the Ticino. In the N., cattle-breeding and the preparation of dairy produce are the chief employments. S. of the Alpine regions are elevated forest-clad districts; and farther S., olive-yards and vineyards, corn-fields, and plantations of figs, almonds, oranges, citrons, and pomegranates occur. The canton varies as much in climate as in productions. Cattle, cheese, wine, fruits, and hay are exported. The N. part of Lake Maggiore, and almost the whole of Lake Lugano, are included within the canton. The inhabitants belong to the Italian type, and for the most part speak the Italian language, and are of the Catholic religion. The chief towns are Bellinzona, Locarno, and Lugano, each of which is by turns the seat of government. *Pop.* 119,619.

Tick, (*tik,*) *n.* [Fr. *tique;* Ger. *zecke.*] (*Zoöl.*) A species of minute animals of a parasitical nature, belonging to the general division *Acaridæ.* Ticks have the mouth shaped like a sucker, and they are found in thick woods hanging on low plants, and ready to attach themselves to the coats of horses, cows, dogs, and other animals which approach them. They bury their sucker deep in the skins of the animals they attack, and work their way down into the flesh, preying upon the blood. They attach themselves so firmly to the victims, and multiply so fast, that many horses and cattle often perish from exhaustion, on account of the blood of which they have been deprived. The Ox-tick, *Ixiodes reticulatus,* when inflated with blood, is about half an inch long. The Water-ticks, *Hydrachnidæ,* form another variety of the species, and always live in the water; but in habits and mode of life resemble the others in nearly every particular.

—The cover or case of a bed, which contains the feathers, wool, or other material. — The audible quick beat, as of a watch or clock.

—A check, or any small mark intended to direct attention to something. — Trust; credit. (Colloq.)

—*v. n.* To beat; to pat; or, to make a small noise by beating or otherwise, as a watch. — To strike gently. — To go on trust or credit; to run on score. (Colloq.)

—To trust; to give tick or credit. (Colloq.)

—*v. a.* To score; to check off by means of a tick or small mark; as, to *tick* off the items of a bill.

Tick'et, *n.* [Fr *etiquette,* a ticket fastened within the mouth of a lawyer's book-bag, containing the titles of the books, and the names of those to whom they belong.] A piece or slip of paper; a piece of paper, or card-board, which gives the holder a right of admission to some place; a piece of paper or writing acknowledging some debt, or a certificate that something is due to the holder; a piece of paper bearing some number in a lottery, which entitles the holder to receive such prize as may be drawn against that number; a marked card or slip of paper put upon goods to indicate the price, &c.; a label.

T. of leave. (*Eng. Law.*) During the continuance of the English system of transportation as an ordinary punishment, the practice was to release convicts, of good behavior, before the regular expiration of their sentence, with a ticket of leave, *i. e.*, a license to be at large, forfeitable on misconduct. When transportation was superseded by penal servitude, a similar system was introduced into convict prisons in England.

—*v. a.* To designate or distinguish by a ticket.—To place a ticket on; as, to *ticket* goods.—To supply with a ticket; as, to *ticket* a through-passenger by railroad.

Tick'faw, in *Louisiana,* a post-village of Tangipahoa parish.

Tick'faw River, in *Louisiana,* rises in St. Helena parish, and flowing S., enters Lake Maurepas in Livingston parish.

Tick'ing, *n.* A closely woven cloth, used to contain the feathers or other material of beds.

Tickle, (*tik'l,*) *v. a.* [Probably from A. S. *citelan,* to tickle, by transposition of letters.] To touch or rub lightly, and cause a peculiar thrilling sensation in, which excites laughter. — To please by slight gratification; as, to be *tickled* with a pun.

—*v. n.* To feel titillation. — To excite the sensation of titillation.

Tick'ler, *n.* One who, or that which, tickles or pleases. —Something that puzzles or perplexes; as, your question is a *tickler.* (Colloq.)

—In American commercial phraseology, a book containing a memorandum of notes and debts, arranged in the order of their maturity.

Tick'ling, *n.* Act of affecting with the sense of titillation.

Tick'lish, *a.* Easily tickled; sensible to slight touches; as, the sole of the foot is a *ticklish* part. — Tottering; unfixed; easily moved or affected; as, things are in a *ticklish* state. — Nice; critical; difficult; dangerous; as, "these *ticklish* times." — *Swift.*

Tick'lishly, *adv.* In a ticklish manner.

Tick'lishness, *n.* State or quality of being ticklish or very susceptible of the sense of touch. — State of being tottering or liable to fall. — Criticalness of condition or state.

Tick'nor, GEORGE, an American writer and philologist, B. in Boston, 1791. After completing his education at Dartmouth College, N. H., he devoted himself to the study of the law, which, however, he subsequently relinquished to follow a literary career. In order to perfect himself in the modern languages, he spent some years in the cities of Paris, Rome, Madrid, Lisbon, London, and Edinburgh. At the last-mentioned place he made the acquaintance of Sir Walter Scott, who, in a letter to Southey, spoke of him as a "wondrous fellow for romantic lore and antiquarian research." In 1819 he returned to his native country, and accepted the professorship of modern languages at Harvard University, the duties of which office he fulfilled during fifteen years. Although his lectures upon European literature were greatly admired, he published nothing until 1849, having, in the meanwhile, paid a second visit to Europe. At the last-named date he produced his *History of Spanish Literature; with Criticisms on the Particular Works, and Biographical Notices of Prominent Writers,* an exhaustive and admirable work, which has been translated into Spanish and German. Mr. *T.* also edited *The Remains of Nathaniel Appleton Haven,* and wrote a *Life of Lafayette,* first published in 1825 in the *North American Review.* His last work (1864) was the biography of his friend, W. H. Prescott. Died in 1871.

Tick'-seed Sun'flower, *n.* (*Bot.*) See COREOPSIS.

Tick'-tack, *n.* A continuous beat or noise like that made by a time-piece.

—*adv.* With a ticking sound, like that of a watch.

Ticondero'ga, in *New York,* a post-village and township of Essex co., 95 m. N. E. of Albany; *pop.* about 2,591. This place is chiefly remarkable for the prominent place its fortifications have held in American history. The fortress of Ticonderoga was built by the French in 1755. The English, under Abercrombie, as-

Fig. 2501. — TICONDEROGA.

sailed it unsuccessfully, July 8, 1758. It was taken by them, under Amherst, July 26, 1759. The Americans surprised it May 10, 1775, and they evacuated it on the approach of the English, under Burgoyne, July 6, 1777. Gen. Lincoln made a vain attempt to recover it, September 13, 1777, and soon after the garrison destroyed their cannon and withdrew into Canada. The English occupied it again for some time in 1780. The old importance of Fort *T.* is still attested by the extent of its ruins (Fig. 2501).

Tid'al, *a.* Pertaining, or relating to tides; periodically rising and falling, or flowing and ebbing; as, a *tidal* stream.

Tidal basin, a dock that is filled upon the rising of the tide.

Tid'bit, Tit'bit, *n.* A delicate bit; a rarity; a bonne-bouche.

Tide, *n.* [A. S.] The alternate rising and falling of the waters of the ocean, which is to be observed on all its coast and æstuaries. The rising is designated as the *flood*, and the highest elevation as *high water;* the falling is termed the *ebb*, and the lowest depression *low water*. The duration of high and low water, without apparent change of level, is known as the *stand;* and the cessation of the ebb and flood streams, or tidal currents, is called *slack water*. The popular explanation of the *T.*, as depending on the law of gravitation, is sufficiently simple. If the earth be conceived to be wholly or in a great degree covered with water, and subject to the attraction of the sun, the force of which is inversely as the square of the distance, it will be obvious that, while the whole earth will fall towards the sun with a velocity proportioned to the aggregate attraction upon its solid portions, the water nearest to the sun, being accelerated with a greater force, will approach the sun more rapidly than the solid core; it will thus run from all sides into a protuberance beyond the form of equilibrium of the earth's attraction and rotation, until the pressure of the elevated mass equals the difference in the attraction of the sun. Moreover, a similar protuberance will be formed on the side opposite to the sun, since the particles of water, being solicited by a less force than the solid core, will fall more slowly towards the sun, and, as it were, remain behind. The same considerations hold good in regard to the attraction of the moon upon the earth, and the waters surrounding it; for although we are in the habit of considering the moon as simply revolving round the earth, it must be remembered that the attraction is mutual; that both bodies describe orbits about their common centre of gravity, and that while the moon obeys the attractive forces of the earth, the latter equally follows that of the former, by which it is at every instant of time drawn from the path it would pursue if that influence did not exist. As a consequence of the elevation of the water in the regions nearest to and most remote from the attracting body, there must be a corresponding depression below the mean level of the sea at points distant 90° from the vertices of the protuberances, or at the sides of the earth, as seen from the sun or moon. It will be seen, therefore, that, taking the whole earth into view, there are always two high *T.* diametrically opposite to each other, and two low *T.* also, midway between the high ones. The high *T.* are two great waves or swells, of small height, but extending each way through half a right angle; these waves follow the moon in its monthly motion round the earth, while the earth, turning on its axis, causes any given place to pass through each of these swells and the intervening depressions in a lunar day, or 24 hours 50 minutes. At new and full moon, when the sun's and moon's actions conspire, the *T.* are highest, and are called *spring T.;* but at the first and last quarters of the moon the action on one body tends to counteract that of the other, and the *T.*, both at ebb and flow, are smallest, and are called *neap T.*

Tide'-gate, *n.* (*Naut.*) A place in which the tide runs with great velocity.

Tide'-gauge, (*-gāj,*) *n.* A mechanical contrivance for registering the state of the tide continuously at every instant of time.

Tide'-mill, *n.* A mill which has the ebb and flow of the tide for its first mover.

Tide'-rips, *n. pl.* An agitation or commotion of the water of the ocean, resembling that produced by a conflict of tides or of other powerful currents.

Tide'-rode, *n.* (*Naut.*) The situation of a vessel at anchor, when she swings by the force of the tide; — opposed to *wind-rode.*

Tide'-tables, *n. pl.* Tables shewing the time of the tides, or of high-water at any place, or at different places, for each day throughout the year.

Tide'-walter, *n.* An officer who watches the landing of goods, to secure the payment of duties.

Tide'-way, *n.* The channel in which the tide sets.

Tide'-wheel, *n.* An undershot wheel.

Ti'dily, *adv.* Neatly; with neat simplicity.

Ti'diness, *n.* Quality or state of being tidy; neat simplicity; neatness.

Ti'dings, *n. pl.* [A. S. *tidan*, to happen.] Account of things which have happened, and which were unknown before; news; advice; information; intelligence.

Tidioute, in *Pennsylvania*, a post-borough of Warren co., on the Allegheny river, 20 m. S.W. of Warren.

Tidol'ogy, *n.* [Eng. *tide*, and Gr. *logos*, a discourse.] That branch of science which treats of tides.

Tidor, or **Tidore,** (*tee-dor',*) one of the Moluccа Islands, lying to the W. of Gilolo, and 9 m. S. of Ternate; Lat. 0° 45′ N., Lon. 127° 25′ E.

Ti'dy, *a.* [Ger. *zeitig.*] Neat; dressed with becoming simplicity; being in good order.

—*v. a.* To make neat; to put in good order.

—*n.* A piece of fancy knitwork or a cloth, to throw over the back of an arm-chair or a sofa to keep it clean; a light outer covering for a child; a pinafore; a work-bag.

Tie, *v. a.* [A. S. *tian, getian*, to bind.] To bind; to fasten with a rope, a hand, or cord and knot. — To feld and make fast; to knit; to complicate; to fasten; to held. — To unite so as not to be easily parted. — To oblige; to constrain; to restrain; to confine.

—*n.* That which binds, unites, or fastens together; a knot; a fastening. — Bond; obligation, moral or legal. — A knot of hair. — An equality in numbers, as of votes, &c., which prevents either party from being victorious. — A sort of neckcloth.

(*Arch.*) A piece of timber or metal placed in any direction, for the purpose of binding two bodies together which have a tendency to separate or diverge.

(*Mus.*) A character ‿ used to connect notes which are divided by a bar, and which are nevertheless intended to be joined together and sounded without any break.

Tieck, (*teek,*) Ludwig, a German poet, novelist, and translator, one of the reputed founders of the so-called Romantic School of German literature, was b. in Berlin, 1773. During his youth he was chiefly attracted by the poetic side of nature and literature, and he ranged himself on the side of the critical principles set forth by Goethe and Schiller in the "Horen" and "Xenien." After completing his studies he travelled, married at Hamburg, and after several changes of residence, settled, in 1819, in Dresden, which appears to have been his home from that period for about twenty years, and where his literary activity was almost incessant. In 1840 he removed to Berlin on the invitation of the king, who honored him with the title of privy-councillor. There he spent the remaining thirteen years of his laborious and fruitful life. His works are of very varied character, and far too numerous to be named here; they fill 20 volumes. Among these which brought him the highest reputation are his tales and plays embodying in new forms some of the old familiar *Märchen*. The publication of these, under the title of *Peter Leberecht's Volksmärchen*, in 1797, first brought him into general notice. They were republished in 1812, retouched and combined into a whole by a tissue of conversations, under the title of *Phantasies*. They are full of mirth and genial laughter and good-natured satire on the literary world of his time. *Franz Sternebald's Wanderungen*, the fictitious history of an art student, and *Kaiser Octavianus*, are perhaps his highest achievements as a novelist, and *Genoveva*, his best play. His *Dichtersleben* is a novel in which he attempts to depict Shakspeare and his times. Among his other works are, *Minnelieder aus dem Schwäbischen Zeitalter; Alt-Englisches Theater; Alt-Deutsches Theater;* and *Dramaturgische Blätter*. D. at Berlin, 1853.

Tiedemann, Dietrich, (*tee'dai-man,*) a German philosopher and opponent of Kant, famous for his researches in the history of philosophy, anthropology, the origin of languages, and similar subjects, 1745–1803.

Tien-Tsin, a large city and river-port of China, prov. of Chih-le, on the river Pei-ho, 34 m. from the mouth of that river. It is the port of the city of Pekin, from which it is distant 80 m. S.E. Estimated *pop.* 1,000,000.

Ti'er, *n.* [A. S., series, heap, attire.] A row; a rank; particularly when two or more rows are placed one above another.

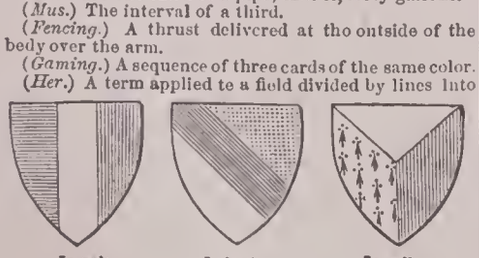
Tierce, (*tērs,*) *n.* [Fr.; Lat. *tertius*, third.] A cask whose contents are one-third of a pipe, that is, forty gallons.

(*Mus.*) The interval of a third.

(*Fencing.*) A thrust delivered at the outside of the body over the arm.

(*Gaming.*) A sequence of three cards of the same color.

(*Her.*) A term applied to a field divided by lines into



In pale. In bent. In pall.

Fig. 2502.

three equal parts. The most common arrangements in tierce are represented in Fig. 2502.

Tierce'-major, *n.* (*Gaming.*) A sequence of the three best cards.

Tiercet, (*tēr's-t.*) *n.* A triplet; three lines of poetry, rhyming together.

Tier'ra Bom'ba, an island of the Caribbean Sea, off the N.W. coast of the Republic of Colombia, 10 m. W. of Carthagena.

Tierra del Fuego, (*te-er'ra-del-fwa'go,*) "the land of fire," a group of islands at the S. extremity of S. America, bet. Lat. 52° 40′ and 56° S., Lon. 63° 40′ and 75° W., separated from the mainland by the Strait of Magellan, and having E. the Atlantic Ocean, S. the Antarctic, and W. the Pacific. The principal islands are the E. Tierra del Fuego, or King Charles' South Land, 385 m. long, and about 200 m. broad, Navarino, Hoste, Clarence, and the Land of Desolation. *Surface*, mountainous, many of the peaks being covered with perpetual ice and snow, and Mount Sarmiento attaining an elevation of 6,800 ft; *soil*, generally unfertile. *Climate*. Raw and cold, being a succession of snow, rain, and mist, with frequent storms. The inhabitants (Fig. 1375) are of a dark copper color, low in stature, and ill-looking, coarse, and of filthy habits, and live in huts made of branches of trees. *T.* was discovered by Magellan in 1520, and received its name from fires seen on its coast during the night, supposed to be caused by volcanic eruption.

Tiers Etat, (*tē-arz ă-tā'.*) [Fr., third estate.] The name given in France, under the ancient monarchy, to the third order of the estates, consisting of representatives of the trading inhabitants of the towns, and of the peasantry in the country, in distinction from the *nobility* and *clergy*.

Tiete, Anhembi, or Anhembi, (*te-a'ta,*) a river of Brazil, prov. of São Paulo, joins the Parana, about Lat. 20° 45′ S., Lon. 52° W., after a W. course of 500 m.

Tiff, *n.* Slight anger; a pet; a miff. — A drink; a small draught of liquor.

—*v. n.* To be in a pet; to quarrel. (R.)

—*v. a.* To dress; to deck.

Tiffany, *n.* A kind of very thin silk gauze.

Tiffin, *n.* In Hindostan, a luncheon.

Tiffin, in *Ohio*, a township of Adams co. *Pop.* (1897) 2,680. — A township of Defiance co. *Pop.* about 1,300. — A manufacturing city, cap. of Seneca co., 33 m. S.W. of Sandusky city. Heidelberg College and Theological Seminary, under the supervision of the German Reformed Church, is at this place. *Pop.* (1897) 11,500.

Tiffin's River, rises in Lenawee co., Michigan, and flowing S., enters the Maumee River in Defiance co., Ohio. It is sometimes called *Bean Creek*.

Tiff'ish, *a.* Inclined to anger; pettish.

Tiflis. See Teflis.

Tige, (*tēj,*) *n.* [Fr.] (*Arch.*) The shaft of a column from the astragal to the capital.

Ti'ger, *n.* [Fr. *tigre;* Lat. *tigris.*] (*Zoöl.*) A species of the genus *Felis* (Fig. 997), as large as the lion, but with a rounder head and longer body: of a bright-reddish fawn color above, a pure white below, irregularly crossed with black stripes. It is clothed with short hair, and has no mane. The tiger is the most formidable and cruel of all quadrupeds, and the scourge of the less inhabited parts of India. It is limited to the Asiatic continent. The so-called American Tiger is the Jaguar, *q. v.*

T. cat, a name of no very definite signification, often given to some of the *Felidæ* of middle size, which resemble the tiger in their form or markings. The *T.-C.* (*Felis eyra*) of Texas to Guiana, is about the size of the common domestic cat, with large fawn-colored spots, bordered with black, forming oblique bands on the flank.

Ti'ger-beetle, *n.* (*Zoöl.*) See Cicindela.

Ti'ger-flower, *n.* (*Bot.*) See Tigridia.

Ti'ger-moth, *n.* (*Zoöl.*) See Arctia.

Ti'ger River, in *S. Carolina*, rises in Greenville dist., and flowing S.E., enters Broad River in Union dist.

Ti'gerville, in *Louisiana*, a post-village of Terre Bonne parish.

Ti'ger-wood, *n.* The heart-wood of *Machærium Schomburgkii*, a valuable cabinet wood obtained from Guiana.

Tight, (*tīt,*) *a.* [A. S. *tian*, to tie.] Tense; tied; not loose or not open; having the joints so close that no fluid can enter or escape; not leaky; not admitting much air. — Sitting close to the body, as clothes. — Not having holes or crevices; not loose; closely pressed. — Not ragged; not slack or loose, applied to a rope extended or stretched out. — Parsimonious; stingy. (Colloq. U. S.) — Inebriated. (Colloq.)

—*v. a.* To make tight; to tighten.

Tight'en, *v. a.* To draw tight or tighter; to straighten; to make more close in any manner.

Tightly, (*tīt'ly,*) *adv.* In a tight manner; closely.

Tight'ness, *n.* State or quality of being tight.

Tights, (*tīts,*) *n. pl.* Pantaloons or drawers which fit close to the legs. (Vulgar.)

Tigré, (*tee'grai,*) an extensive and mountainous prov. of Abyssinia, which has now communicated its name to almost all the N.E. districts of that great country. The chief outlet for its produce is Arkike, on the Red Sea. Lat. between 11° and 17° 30′ N., Lon. between 37° and 41° E.

Tigre, or Pequena, (*tee'gra,*) a river of Ecuador, flows into the Amazon, 40 m. W. of the mouth of the Ucayale after a S.E. course of 350 m.

Ti'gress, *n.* The female of the tiger.

Tigri'dia, *n.* (*Bot.*) The Tiger-flower, a genus of plants, order *Iridaceæ*, containing only one species, *T. pavonia*, distinguished by the three outer segments of the perianth being larger, and by the filaments being united into a long cylinder. It is a native of Mexico, and much cultivated in flower-gardens for the singularity and great beauty of its flowers, which are, however, evanescent. The root is a scaly bulb.

Ti'grine, *a.* Like a tiger.

Ti'gris, a river of Western Asia, flowing along the boundaries of the Turkish and Persian empires, and rising in the mountains of Armenia, about 50 m. to the north of Diarbekr, and 15 to the east of the source of the Euphrates. At Kurnah it joins the Euphrates; and the united stream falls into the Persian Gulf. This river rises twice in the year, first and most remarkably in April, in consequence of the melting of the snows in the mountains of Armenia; afterwards in November, through the accession of the periodical rains. Its total course is estimated at 1,150 miles.

Ti'grish, *a.* Resembling a tiger.

Til'burg, a manufacturing town of Holland, prov. of N. Brabant, 14 m. E.S.E. of Breda. *Pop.* 18,785.

Til'bury, *n.* A two-wheeled open pleasure carriage; a sort of chaise without a top.

Tile, *n.* [A. S. *tigel, tigle;* Lat. *tegula.*] A plate or piece of baked clay or earthenware, used for covering the roofs of buildings; a piece of baked clay used in drains. — The finer kinds of paving tile are known as *Encaustic tiles*. See Encaustic. — A cant term for a man's hat. See Tiles, Roofing, in Section II.

Tile, *v. a.* To cover with tiles, as a roof; to cover, as tiles.
Tiled, *a.* Covered with tiles.
Tile'-drain, *n* A drain of tiles.
—*v. a.* To drain by means of tiles.
Tile'-kiln, Til'ery, *n.* A kiln in which tiles are burnt.
Tile'-ore, *n.* (*Min.*) An impure oxide of copper, of a brick-red or reddish-brown color.
Til'er, *n.* One who covers buildings with tiles. — The door-keeper of a Masonic lodge.
Tile'-stone, *n.* (*Geol.*) The uppermost group of the Silurian period, consisting of a reddish, thin-bedded, slightly micaceous sandstone, which in some places attains a thickness of 1,000 feet.
Til'ia, *n.* (*Bot.*) A genus of plants, order *Tiliaceæ*. *T. Americana*, the Linden, Lime-tree, Bass-wood, or Pumpkin-wood, is a common forest-tree in the Northern and Middle States. It often grows to the height of 80 feet, the trunk straight and naked more than half this height, and 2–3 ft in diameter. Leaves 4–5′ by 3–4′; those of the young shoots often twice these dimensions. Bract yellowish, linear-oblong (Fig. 2503). Petals yellowish-white, larger than the scales at their base. Fruit woody, greenish, of the size of peas. Jn. — The inner bark is very strong, and is manufactured into ropes. The wood is white, soft, and clear, much used in cabinet-work and in the panelling of carriages.

Fig. 2503. — LINDEN OR LIME-TREE.

Tiliaceæ, (*til-e-ai'se-e,*) *n.* (*Bot.*) The Lime or Linden family, an order of plants, alliance *Malvales*. It resembles in many respects the *Malvaceæ*, *Sterculiaceæ*, and *Bytneriaceæ*, but may be at once distinguished from them by having a glandular disc, by the stamens not being monadelphous, and by the anthers being 2-celled. From all other thalamifloral orders it may be known by its alternate, entire, stipulate leaves, valvate æstivation of calyx, floral envelopes in four or five divisions, hypogynous stamens, 2-celled anthers, hypogynous glandular disc, and many-celled fruit with axile placentas. There are 33 genera and 350 species. A few are found in the northern parts of the world, where they form large trees; but the majority are tropical herbs, shrubs, or trees.
Til'ing, *n.* A roof covered with tiles; tiles in general; the operation of covering roofs with tiles.
Till, *n.* [Etymol. uncertain.] A money-box in a shop; a drawer.
(*Geol.*) A term used in Scotland for the BOULDER-CLAY, *q. v.*
—*prep.* or *adv.* [A. S. *til, tille.*] To the time or time of; as, *till* to-day; — used before verbs and sentences in a like sense, denoting the time specified in the sentence or clause following; as, I will wait *till* you arrive. — To the degree that; until.
—*v. a.* [A. S. *til-an*, to labor, take care of, plough, cultivate.] To labor; to cultivate; to plough and prepare for seed, and to dress crops.
Till'able, *a.* Capable of being tilled; arable; fit for the plough, as land.
Tillæ'a, *n.* (*Bot.*) A genus of the order *Crassulaceæ*, consisting of very minute aquatic herbs, with opposite leaves. The Pigmy-weed (*T. simplex*), occasionally found in some parts of the U. States in muddy brooks, has a stem 1–3 feet high, and flowers as large as a pin's head.
Tillage, (*til'lāj,*) *n.* [A. S.] (*Agric.*) The art or practice of tilling or cultivating the soil. Lands kept under the plough, that is, cropped with annual or biennial plants, which require a continual change of the surface-soil by stirring and turning with the plough, are called *tillage lands*.
Till'amook, in *Oregon*, a N.W. co., bordering on the Pacific, and drained by the Tillamook River. It is densely wooded. *Cap.* Tillamook.
Tillandsia, (*til-lănd'se-a,*) *n.* (*Bot.*) A genus of plants, order *Bromeliaceæ*. *T. usneoides*, the Three-beard, or Old-man's-beard, appears as a mass of dark-colored fibres hanging from the tree on which it grows. It is a common plant in S. American forests. These hanging fibres form the article known in commerce as Spanish moss, and are employed for stuffing cushions, bird-skins, &c.
Till'er, *n.* [A. S. *tilia.*] One who tills; a husbandman; a cultivator; a ploughman. — The bar or lever employed to turn the rudder of a ship. — The shoot of a plant springing from the root or bottom of the original stalk; also, the sprout or young tree that springs from the root or stump. — A small drawer; a till.
—*v. n.* To send forth stems from the roots, as a culmiferous plant.
Til'mus, *n.* [Gr. *tilmos*, from *tillo*, I pluck.] (*Med.*) Picking of the bed-clothes, or floccitation, a symptom of the fatal termination of some disorders.
Til'sit, a town of Prussian Lithuania, on the Tilse and the Niemen, 58 m. from Königsberg. *Manuf.* Woollens, hosiery, arms, leather, and hardware. Its chief title to historical notice is from the treaty of peace concluded here on July 1, 1807, between France on the one hand, and Prussia on the other.
Tilt, *n.* [A. S. *telt.*] A covering stretched overhead; a tent; the cloth covering of a cart or wagon; the cover of a boat; a small canopy or awning of canvas or other cloth, extended over the stern-sheets of a boat.
—*v. a.* To cover with a cloth or awning.
—*v. n.* [A. S. *tealtian.*] To run or ride and thrust with a lance; to fight with rapiers; to rush, as in combat; to lean; to fall, as on one side.
—*v. a.* To set in a sloping position, as a barrel.
—*n.* A shock; inclination forward. — A military game, at which combatants run against each other with lances on horseback. — A large hammer, raised by machinery, used in manufactories.
Tilt'er, *n.* One who tilts.
Tilth, *n.* [A. S., from *tilian*, to till.] (*Agric.*) That which is tilled; the state of the soil in respect to ploughing, manuring, &c.
Tilt'-hammer, *n.* A large hammer worked by machinery, impelled either by a water-wheel or a steam-engine. See HAMMER.
Tilting, *n.* A tilt. — The operation of condensing and reudering uniform blistered steel by subjecting it to the blows of a tilt-hammer.
Til'ton, in *New Hampshire*, a post-town of Belknap co. *Pop.* (1897) 1,550.
Ti'man Mountains. See OURAL.
Timbalier Bay, (*tim-ba-lēr',*) in *Louisiana*, an inlet of the Gulf of Mexico, at the mouth of Bayou La Fourche.
Tim'ber, *n.* [A. S.] (*Carp.*) That sort of wood which is suitable for buildings, or for ships, furniture, utensils, tools, carriages, fences, &c. The term is applied to standing trees which are suitable for any of these purposes, or to the beams, scantlings, rafters, boards, &c., which are hewn or sawn from such trees. The timber-trade is one of very great extent and importance.
(*Ship-building.*) A rib or curving piece of wood, branching outward from the keel of a ship in a vertical direction.
—*v. a.* To furnish with timber.
Tim'ber, in *Illinois*, a post-village and township of Peoria co., 15 m. W.S.W. of Peoria.
Tim'ber Cove, in *California*, a post-village of Sonoma co., on the Pacific, 45 m. N.W. of Santa Rosa.
Tim'ber Creek, in *Iowa*, a post-village of Marshall co., 80 m. W.N.W. of Iowa City.
Timber Creek, in *New Jersey*, enters the Delaware River from Gloucester co.
Tim'bering, *n.* Timber materials.
Tim'ber-scribe, *n.* A pointed instrument for marking logs, &c.
Tim'ber-tree, *n.* A tree valuable for its timber.
Timbre, (*tim'ber,*) *n.* [Fr., a stamp.] (*Her.*) The crest which in any achievement stands on the top of the helmet.
(*Mus.*) The distinctive quality of a voice or of an instrument.
Tim'brel, *n.* [Sp. *tamboril.*] (*Mus.*) A name of the Hebrew drum (I, Fig. 676).
Timbuctoo'. See TOMBUCTOO.
Time, *n.* [A. S. *tima;* Dan. *time*, an hour; Fr. *temps;* Lat. *tempus.*] The general relation in which all things perceptible stand to each other in regard to their origin, continuance, and dissolution. It is a form necessary to enable the mind to unite successive periods of existence. It is not an external object, nor a mere relation of individual things to each other, but is infinite, like the phenomena which are submitted to this form in our perceptions. Accordingly, we also distinguish the past, present, and future as its component parts, which pass continually into the succeeding. In order to measure the succession and duration of particular things and events, the great motions of the heavenly bodies, which always remain the same, particularly of those bodies which are most closely connected with the earth, have been taken as standards; hence, the physical or astronomical time. Such a measure of time is afforded by nature herself in the rotation of the earth on its axis. This gives rise to the sidereal time. But as the sidereal time will not serve for the purposes of common life, it was necessary to resort to the solar time. The latter, indeed, is unequal, and neither agrees with the sidereal time, nor with that indicated by a clock; but this evil is remedied by the equation of time, through which the true solar time is changed into mean time.
(*Mus.*) The measure of sounds with regard to their duration, which is of the greatest importance. It may be divided into two principal divisions, — *common* and *triple;* these may be again divided into *simple* and *compound*. Simple common *T.* is expressed by the letter C, either plain or with a line drawn through it, and generally contains four crotchets in a bar. Sometimes, however, there are only two; in which case it is marked thus, $\frac{2}{4}$, the 4 showing the measure note to be a crotchet, and the 2 indicating that there are two crotchets in a bar. Compound common *T.* takes place when two triple bars are joined in one, and is divided into four kinds, marked thus, $\frac{6}{4}$ $\frac{6}{8}$ $\frac{12}{4}$ $\frac{12}{8}$. Simple triple *T.* is of three kinds, marked by the figures $\frac{3}{2}$ $\frac{3}{4}$ and $\frac{3}{8}$; while of compound triple *T.* there are only two species, viz. $\frac{9}{4}$ and $\frac{9}{8}$. The speed of a movement is also regulated by certain Italian words placed at the beginning; as, for example, *presto*, quickly; or *andante*, slowly. See METRONOME.
—*v. a.* To adapt to the time or occasion; to bring, begin, or perform at the proper season or time. — To regulate as to time. — To measure, as in music or harmony.
—To ascertain the time or duration of.
—*v. n.* To keep time; to move in time.
Time'-honored, *a.* Honored for a long time.
Time'-keeper, *n.* A clock, watch, or other chronometer. — A person appointed to keep the workmen's time, or to mark time in any occupation.
Time'less, *a.* Done at an improper time; untimely. (R.)
Time'lessly, *adv.* Unseasonably.
Time'liness, *n.* The state or quality of being timely; seasonableness; a being in good time.
Time'ly, *a.* Being in good time; seasonable; opportune.
—*adv.* Early; soon; in good season.
Tim'eous, *a.* Early; in good season. (R.)
Tim'eously, *adv.* Seasonably. (R.)
Time'piece, *n.* A clock, watch, or chronometer.
Time'-pleaser, *n.* One who complies with the prevailing opinions, whatever they may be.
Time'-server, *n.* One who adapts his opinions and manners to the times; one who obsequiously complies with the ruling power.
Time'-serving, *a.* Obsequiously complying with the opinions and manners of the times.
—*n.* The act of obsequiously acquiescing with the spirit of the times.
Time'-table, *n.* A table of the times of starting, arrival, &c., of railroad trains, packets, &c.
(*Mus.*) A representation or table of the several notes, and their relative lengths and duration.
Tim'id, *a.* [Fr. *timide;* Lat. *timidus*, from *timeo*, to fear.] Wanting courage to meet danger; not bold; timorous; — opposed to *intrepid*.
Timid'ity, Tim'idness, *n.* [Fr. *timidité.*] Want of courage or boldness to face danger; timorousness.
Tim'idly, *adv.* In a timid manner.
Tim'ing, *n.* Adaptation to the time.
Tim'ist, *n.* A time-server.
(*Mus.*) One who keeps time in playing or in singing.
Timoleon, a Corinthian general and statesman. His elder brother Timophanes, aiming at the sovereign power, was slain by *T.*, assisted by his brother Satyrus. He went afterwards to relieve the Syracusans from the tyranny of Dionysius, whom he compelled to fly. *T.* spent the rest of his life at Syracuse, whose laws he amended, and whose popular liberties he established. D. 337 B. C.
Ti'mon, THE MISANTHROPE, was B. near Athens, and lived during the Peloponnesian war. The faithlessness of his friends and successive disappointments soured his nature, and drove him into solitude; where he is said, however, to have welcomed Alcibiades. His name has become proverbial, and his story is familiar through the tragedy of Shakspeare.
Timoneer', *n.* [Fr. *timonnier*, from Lat. *temo, temonis*, a pole.] A helmsman. (R.)
Ti'mor, the southernmost and most important of the Malacca islands, in the Malay archipelago, in 8° 16′–10° 25′ S. Lat., and 123° 25′–127° 10′ E. Lon., has an area of 8,820 sq. m. A chain of wood-clad mountains runs throughout its entire length; Alas, on the S.E., being 11,800 feet in height. The rivers are numerous, but small, and most of them yield gold. Near the sea are very fertile lands, on which are grown rice, maize, beans, tobacco, sugar-cane, cotton, potatoes, and all sorts of tropical fruits. Three-fourths of *T.* on the S.W. is subject to the Dutch, whose chief settlement is Koepang (Kūpang); the remaining part in the N.E. belongs to the Portuguese, who have a town, called Dilly, on the N. coast. *T.* is divided into small kingdoms, ruled by rajahs under Dutch or Portuguese control. The exports are, sandal-wood, horses, wax, tortoise-shell, edible nests, &c.; imports, cotton, woollen, and silk fabrics, provisions, and general supplies. Pearls are found on a bank 30 m. S.E. from Koepang. The natives are partly Oceanic negroes, and partly of Malay race. Estimated *pop.* 400,000. — About 300 m. N.E. of Timor is *Timor Laut*, an island 70 m. in length by abt. 25 m. average breadth.
Tim'orous, *a.* [L. Lat. *timorosus*, from *timere*, to fear.] Fearful of danger; timid; destitute of courage. — Indicating fear; full of scruples.
Tim'orously, *adv.* Fearfully; timidly; without boldness.
Tim'orousness, *n.* Fearfulness; timidity.
Tim'orsome, *a.* Timorous. (Colloq.)
Timo'theus, an Athenian general who took a distinguished part in the social wars, and was condemned for avoiding a naval conflict, B. C. 358.
Tim'othy, a disciple of St. Paul, was a native of Lystra, in Asia Minor. His father was a pagan, but his mother a Jewess. He became bishop of Ephesus, where, it is believed, he was stoned to death, in 97.
Tim'othy, (EPISTLES OF ST. PAUL TO.) (*Script*) The name of two books of the New Testament, of whose authenticity there has never been any reasonable cause to doubt, and it has only been called in question by the hypercriticism of modern Germany. The dates of these epistles are uncertain and much disputed, but probably the first may be referred to about the year A. D. 64, the second to 65. The design of the first epistle is partly to instruct *T.* in the duties of that office with which he had been intrusted; partly to supply him with credentials to the churches which he might visit; and partly

to furnish through him guidance and direction to the churches themselves. The second epistle was written when the Apostle was a prisoner at Rome; and its design is partly to inform *T.* of his circumstances, and partly to utter his last warning voice against the errors and delusions which were corrupting and disturbing the churches.

Tim'othy-grass, *n.* (*Bot.*) See PHLEUM.

Tim'pano, *n.*; *pl.* TIMPANI. [It.] (*Mus.*) A kettle-drum.

Timur, Timour, (*tee-moor'*,) or **Tam'erlane,** an Oriental conqueror, B. in the village of Sebz, near Samarcand, 1335, was of Mongol origin, and a descendant of Genghis Khan. Having become chief of the tribe of the Berlas in 1361, he made himself master of Balkh, the capital of Khorasan, after which he made an easy conquest of the province of Candahar. In this war he was wounded in the thigh, and became lame for life, being called, in consequence, Timur-lenk, "lame Timur," which term has been corrupted by the Europeans into Tamerlane. He next subdued the whole of ancient Persia, and then took Bagdad. Flushed with his success, he marched into India, where he took Delhi, the capital, and thus gained possession of immense treasures. But while he was engaged in this expedition, Bagdad revolted; upon which he hastened back, delivered the city up to pillage, and put to death 90,000 persons. He also invaded Syria, and took Damascus. During this splendid career the Greek emperor and some inferior princes implored his assistance against Bajazet, emperor of the Turks. *T.* sent to him to withdraw from before Constantinople, and to replace the princes whom he had deposed. Bajazet returned a fierce answer; upon which *T.* marched against him, and, after a battle of three days, the Turkish emperor was defeated and taken prisoner. Different and very irreconcilable accounts are given of the conqueror's treatment of his captive. Some assert that he was confined in an iron cage, and exposed to scorn and contempt; while others relate that *T.* behaved to him and his family with the greatest liberality. *T.* fixed the seat of his vast empire at Samarcand, where he received the envoys of numerous sovereigns, and, among the rest, the ambassadors of the Emperor Manuel Palæologus and Henry III., King of Castile. Having resolved to make the conquest of China, he set out with his army, but died on the march, 1405.

Tin, *n.* [A. S.; Lat. *stannum.*] A white, malleable, easily fusible metal, not much affected by exposure to dry or moist air at ordinary temperatures, but becoming oxidized superficially when heated, burning with a brilliant flame if the temperature be raised sufficiently high. It occurs chiefly as *tin oxide*, being very rarely found native. The ore is commonly known as *tin-stone*, and technically as cassiterite, which is a dioxide of adamantine luster, crystallizing in the tetragonal system. It dissolves in hydrochloric acid, with the evolution of hydrogen, forming hydrated chloride of *T.* Strong nitric acid acts on it violently, producing an insoluble hydrated binoxide of the metal, a considerable amount of ammonia being formed at the same time by the decomposition of the water and nitric acid present. Cold dilute sulphuric acid has no action on it, but if the concentrated acid be used, the metal is converted into the sulphate, while sulphurous acid escapes. Hot dilute sulphuric acid also converts it into sulphate of *T.*, hydrogen being evolved. *T.* is one of the chemical elements, bearing the symbol Sn. Its atomic weight is 119, and specific gravity 7·25. It fuses at 551° F., and in valence it is both dyadic and tetradic. Its chemical combinations are numerous and important, and its resistance to oxidation and to the action of vegetable acid renders it extremely useful for domestic purposes.

It is wanting in tenacity, but is extremely malleable at a temperature of 212°. It has a great tendency to crystallize, and its crystalline form may be easily shown by rubbing a piece with a little dilute nitric or hydrochloric acid, when it assumes the appearance known as *moire métallique*. By slow cooling it may be procured in octohedral crystals, and on bending a piece of *T.* backwards and forwards a peculiar crackling or grating sound is heard, arising from the friction of the internal crystals, and known as the *cry of tin*. Extensive *T.* mines are in Cornwall, England, the British Isles being known to the ancients as the Tin Islands. Still greater are those in the island of Banca, in the Dutch East Indies. Within recent years large deposits have been found in the Malay Peninsula, and at several places in Australia. The *T.* production of the world in 1894 was estimated by the U. S. Geological Survey at 83,387 tons of 2,240 pounds, of which more than half was produced in the Straits Settlements of the Malay Peninsula. Deposits have been located in the U. S. at South Riverside, Cal.; in the Black Hills, South Dakota; the Cash Mine, Rockbridge co., Va.; and at King's Mansion, N. C. In none of these has mining proved profitable, and all were abandoned prior to 1893. English *T.* generally contains small quantities of arsenic, copper, iron, and lead. That obtained from the Banca mines is nearly pure. To extract the metal, the ore is first stamped and washed, to get rid of the lighter particles of sand or earth adhering to it. It is then roasted, to free it from arsenic and sulphur, and again washed to carry off the sulphate of copper and oxide of iron. The washed ore is mixed with from one-fifth to one-eighth its weight of powdered anthracite or charcoal, and a small portion of lime to form a fusible slag with any of the remaining gangue. The charge is placed on the hearth of a low-crowned, reverberatory furnace, and the doors are closed up. Heat is applied very gradually for five or six hours, care being taken to raise the temperature high enough to cause the carbon to reduce the *T.* without melting the silicione gangue, which would form with the binoxide an enamel troublesome to remove. When nearly all the *T.* is reduced, the heat is raised considerably, the slags being thus rendered fluid and capable of floating on the top of the melted metal. The *T.* is then run off into cast-iron pans, from which it is ladled off into molds to form ingots. The *T.* thus procured is far from being pure; it is therefore submitted to the process of ligation, which consists in heating the ingots to incipient fusion. By this means the purer *T.*, which fuses at a comparatively low heat, separates, running down, and leaving the impure portions behind. The less fusible portion, when re-melted, forms *block T.*, and the part which has run out is again melted, agitated, and skimmed for purification. The finest quality of *T.*, when heated to a temperature just short of its melting-point, becomes brittle, and is broken up into masses, showing the crystals of the metal, and forming what is known as *grain T.* The formation of crystals is to some extent a guarantee of its purity, since impure *T.* does not become brittle in this way.

The alloys of *T.* are numerous and important. Tin and iron make a perfect alloy; tin and lead may also be alloyed in almost any proportions. Other alloys are Britannia metal, consisting of equal parts of brass, *T.*, antimony, and bismuth; pewter, 4 *T.* and 1 lead; Queen's metal, 9 *T.*, and 1 each of antimony, bismuth, and lead; the various solders; bell-metal, 78 copper, 22 *T.*; bronze, copper, with 4 to 6 per cent. of *T.*; gun-metal, 78 copper and 22 *T.* Speculum metal, used for the mirrors of reflecting telescopes, is a steel-white, hard, brittle alloy, of 1 part of *T.* and 2 of copper. An amalgam of *T.* and mercury is used for silvering looking-glasses.

Chlorides of T. There are two chlorides of *T.*, — the protochloride and the per- or bichloride. The protochloride, SnCl, may be prepared in the anhydrous state by the action of dry hydrochloric acid on *T.* at a gentle heat. The hydrated chloride is obtained by dissolving the metal in hydrochloric acid diluted with an equal bulk of water. It crystallizes in transparent needles, containing two equivalents of water. It is a powerful reducing agent, and is much used by dyers for altering reducible coloring matters, such as sesquioxide of iron and peroxide of manganese. It is also used as an antichlore. It forms crystallizable double salts with the alkaline chlorides. The bichloride, perchloride, or fuming liquor of Libavius, $SnCl_2$, is made by passing chlorine over an inclined tube, fitted to a receiver, and containing pieces of tin-foil rolled up. When pure, it is a colorless liquid, evolving suffocating white fumes in the air. Dropped into water, it forms a hydrate, crystallizing with five equivalents of water. It forms salts with the alkaline chlorides. It is used to a considerable extent in solution in dyeing. It absorbs sulphuretted and phosphuretted hydrogen, and forms a compound with ammonia. In some respects it plays the part of an acid — chlorostannic acid.

Oxides of T. There are two oxides of *T.*, — the protoxide and the binoxide. The protoxide is prepared in a variety of ways, too prolix for description here, and is only interesting in a chemical point of view. When heated in air, it burns like tinder, and is converted into the binoxide, which is described under the head of STANNIC ACID. The only ore of *T.*, *T.*-stone, is a form of the binoxide.

Sulphides of T. There are two sulphides of *T.*, — the protosulphide, formed by fusing together metallic *T.*, and sulphur. The bisulphide, when prepared in the dry way, is known by the name of *aurum musivum*, or mosaic gold, and is used as bronze-powder in coarse decorative works. It is prepared by fusing together seven parts of flowers of sulphur and six of sal-ammoniac, with an amalgam of twelve parts of tin and six of mercury. The ingredients are kept in a melted condition until no more white fumes issue from the flask, and the bisulphide is found as a yellow crystalline layer at the top. A second sublimation is necessary to give it its greatest degree of brilliancy.

For further information, see article on TIN-PLATE, In SECTION II.

Tinfoil.—*T.* or an alloy of lead and *T.* beaten to extreme thinness, for use in wrapping up small articles, and excluding the air. The thickness, or rather the thinness, of the foil runs from one-half of one one-thousandth of an inch upward, the thinnest being the most expensive, as representing the most labor. It is rolled in sheets which on the average are 50 inches long and 5½ inches wide (some also being rolled as wide as 12 inches), and is then cut into the lengths desired.

The modern process of manufacture was invented about 1852, by John J. Crooke, of New York, who opened a factory on Stanton Street. Besides the Crooke concern, there are now 4 tinfoil factories in the U. S., 2 being in New York, 1 in Philadelphia, and 1 in St. Louis. These 4 were started after the expiration of the original Crooke patent. The foil is also made in England, France, and Germany, its production being especially large in the last-named country. Owing to the impossibility of competing with foreign labor in its manufacture, the U. S. have no export trade in the article, except a little with Havana, where it is used in the packing of cigars.

For wrapping up articles of food, where such come in contact with the foil, only pure tin is admissible, the alloy with lead being restricted in use to wrapping of articles not designed for food, or which receive an interior wrapping of paper to keep them from contact with the lead. Tinfoil is valued for wrapping tobacco, yeast-cakes, Limburger cheese, &c., because it keeps them moist. In many cases its use as a wrapper is valued only because of its tendency to remain tightly folded, and for its sightly appearance. This latter is further enhanced by embossing and ornamenting. The embossing of the foil in various ornamental designs is a branch of the business which has gradually developed, until highly artistic results are obtained. In the fancy patterns, the silvery surface is diversified, in bright and dead effects, by stars, plaids, flowers, bars, diagonal lines, &c. Many samples are printed in colors, such as pink, blue, and red, both the colors and the patterns being produced by putting the sheets of foil through a process of printing. Other specimens are lacquered with gold and embossed in various forms, presenting a beautiful appearance, and still others are brilliantly lacquered in colors. The output of tinfoil in the U. S. amounts to millions of pounds a year. The market price of the most expensive embossed and lacquered foils runs as high as 75 cents a pound, and from that it goes down almost to the value of the metals employed, the average price having been reduced one-half within the last 15 or 20 years, being lower now than ever before, owing to increased facilities of manufacture, increased production, and keen competition, particularly in the lower grades.

Tin, *v. a.* To cover with tin, or overlay with tin-foil.

Tin'amon, *n.* (*Zoöl.*) The common name of the *Tinamidæ*, a family of Rasorial birds peculiar to S. America. They are remarkable for a long and slender neck, covered with feathers, the tips of the barbs of which are slender and slightly curled, which imparts a peculiar air to that part of their plumage. The beak is long, slender, and blunt at the end; somewhat vaulted, with a small groove at each side. Their wings are short, and they have scarcely any tail. Their size varies from that of a pheasant down to that of a quail.

Tincto'rial, *a.* [Fr.] Relating to tincture or dyeing; coloring.

Tincture, (*tinkt'yur,*) *n.* [Lat. *tinctura*; Fr. *teinture.*] A tinge or shade of color.—A slight taste superadded to any substance, or to another taste; flavor. — A slight quality added to anything. — The finer and more volatile part of a substance, separated by a solvent.

(*Med.*) A spirituous solution of such of the active principles of vegetables and animals as are soluble in pure alcohol or proof spirit; a spirit containing medicinal substances in solution.

(*Her.*) See HERALDRY.

—*v. a.* To tinge; to communicate a slight foreign color to; to impregnate with some extraneous matter. — To imbue, as the mind; to communicate a portion of anything foreign.

Tin'der, *n.* [A. S. *tynder, tyndre*, from *tendan*, to set on fire.] Something very inflammable used for kindling fire from a spark, as scorched linen.

Tin'der-box, *n.* The box for holding tinder.

Tine, *n.* [A. S. *tindas*, the teeth of harrows.] The tooth or spike of a fork; a prong; also, the tooth of a harrow or drag.

Tin'ea, *n.* [Lat., a worm.] (*Med.*) The SCALD-HEAD, *q. v.*

Tinea, *n.*; **Tineidæ,** *n. pl.* (*Zoöl.*) A gen. and fam. of Lepidoptera, comprising an extensive series of minute insects, distinguished by their narrow wings and the slenderness of their palpi; the head is often densely clothed with scales in front, the body generally long and slender; the antennæ are of moderate length. In the larva state the species called cloth-moth are notoriously destructive to woollen materials of every description, feathers, furs, skins, &c., upon which they feed; using the material also for the construction of their cases; in which, when full grown, they become chrysalides. Some species inhabit the nests of bees, the larvæ feeding upon honey, and forming galleries in the honeycomb. Others make great havoc in granaries and malt-houses; and one, *Diatræa sacchari*, is a most destructive pest of the sugar-cane, the larva burrowing into the centre of the stems, and often destroying whole acres.

Fig. 2504.
CLOTH-MOTH.

Tin'-foil, *n.* Tin reduced to a thin leaf.

Ting, *n.* A sharp, clear sound, as of a bell.

Tinge, (*tinj,*) *v. a.* [Fr. *teindre*; Lat. *tingo*; Gr. *teggo.* to wet, to dye.] To imbue or impregnate with a color; to dye. — To communicate, as the qualities of one substance, in some degree to another.

—*n.* Color; dye; taste; a slight degree of some color, taste, or something foreign, infused into another substance or mixture, or added to it; tincture.

Tinger, *n.* The person who, or thing which, tinges.

Ting-hae, (*ting'hai.*) The capital city of the island of Chusan, off the east coast of China, 70 m. from Ningpo.

Tin'-glass, *n.* A name of bismuth.

Tin'gle, *v. n.* [Lat. *tinneo.*] To feel a kind of thrilling sensation, as in hearing the sound of metallic bodies when struck. — To feel a sharp, thrilling pain. — To experience a thrilling sensation, or a sharp, slight, penetrating sensation.

Tin'icum, in *Pennsylvania*, a post-township of Bucks co. *Pop.* (1897) 2,120.—A township of Delaware co., 11 m. S.W. of Philadelphia. *Pop.* about 250.—An island in the Delaware river, belonging to Delaware co.

Tink, *v. n.* To make a sharp shrill noise.

—A sharp, shrill noise.

Tink'er, *n.* A mender of brass kettles, pans, and the like,—so called from the noise he makes when at work.

—*v. a.* To mend, as old vessels of brass, copper, &c.

—*v. n.* To be occupied in mending old vessels, &c.

Tink'ering, *n.* The act or employment of a tinker.

Tink'erly, *adv.* In the manner of a tinker.

Tinkle, (*tin'kl,*) *v. n.* To make small, quick, sharp

sounds, as by striking metal; to tingle; to clink. — To hear a small, sharp sound.

Tin'kle, *v. a.* To cause to clink, or make sharp, quick sounds.
—*n.* A clink; a quick, sharp noise.

Tin-liquor, (*-lik'ur,*) *n.* A solution used by dyers, prepared by digesting tin filings in hydrochloric and nitric acids, and adding a small quantity of common salt.

Tin'man, *n.*; *pl.* TINMEN. A manufacturer of tin vessels; a dealer in tin-ware.

Tin'month, in *Vermont*, a post-township of Rutland co., 70 m. S.S.W. of Montpelier.

Tin'ner, *n.* One who works in tin mines. — A tinman; one who works in tin-ware.

Tinnevel'ly, a town in India, presidency of Madras, cap. of a maritime district of same name. It is surrounded by extensive rice-fields, and is unhealthy for Europeans. *Pop.* 20,000. Lat. 8° 48′ N., Lon. 71° 1′ E.

Tin'ning, *n.* The act, art, or process of covering plates of iron, the inner surfaces of iron or copper vessels, &c., with a thin coat or layer of tin. — The covering or layer thus put on.

Tin'ny, *a.* Abounding with tin.

Tinos, (*te'nos,*) an island of the Grecian Archipelago, 10 m. from Syra; *area*, 87 sq. m.; *pop.* 18,000.

Tin'-plate, *n.* Thin sheet-iron coated with tin, in order to protect it from oxidation or rust.

Tin-pyri'tes, *n.* (*Min.*) Native sulphide of tin, copper, and iron.

Tin'sel, *n.* [Fr. *étincelle*, from Lat. *scintilla.*] Something sparkling or very shining and gaudy; something superficially shining and showy, or having a false lustre, and more gay than valuable.
—A kind of shining cloth; a kind of lace.
—*a.* Gaudy; showy to excess; specious; superficial.
—*v. a.* To adorn with something glittering and showy, without much value; to make gaudy.

Tin'selly, *a.* Like tinsel; gaudy.
—*adv.* Gaudily.

Tin'smith, *n.* A tinner.

Tin'stone, *n.* (*Min.*) The ore of tin.

Tint, *n.* [It. *tinta*, a dye; from Lat. *tingo*, to dip.] A slight coloring or tincture distinct from the ground or principal color.
—*v. a.* To tinge; to give a slight coloring to.

Tintinnab'ulary, Tintinnab'ulous, *a.* [From Lat. *tintinabulum*, a little bell.] Having the sound of a bell.

Tin'to, *n.* [Sp.] A red Madeira wine wanting the high aroma of the white sorts, and, when old, resembling tawny port.

Tin'ton Falls, in *New Jersey*, a post-village of Monmouth co., 48 m. E. of Trenton.

Tintoretto, (It.,) (*tin'to-ret'to*,) one of the most celebrated Italian painters, B. in Venice, 1512. His name was JACOPO ROBUSTI, and he acquired that by which he is usually called from the fact of his being the son of a dyer (*Tintore*). He was placed in the school of Titian, but only remained there a few days — Titian dismissing him on seeing some of his clever drawings. *T.* eventually became the acknowledged rival of Titian in Venice itself. His Miracle of St. Mark, the *Miracolo dello Schiavo*, his masterpiece, is in the academy of Venice, and is generally admitted to be one of the finest pictures in Italy. *T.* is sometimes called *Il Furioso*, from the extraordinary vigor and rapidity with which he painted. D. 1594.

Tint'-tool, *n.* (*Engraving.*) A kind of graver having its point of different degrees of width, to cut lines in copper or wood of certain breadths.

Tin'-ware, *n. pl.* Articles made of tin, or tinned iron.

Tiny, *a.* [Gr. *tynos*, small, little.] Very small; little; puny.

Tioga, in *New York*, a S. co., bordering on Pennsylvania; *area*, 480 sq. m. *Rivers.* The N. branch of the Susquehanna River, and Cayuta and Owego creeks. *Surface*, hilly; *soil*, generally fertile. *Cap.* Owego. *Pop.* (1897) 32,750.
—A village and township of the above co.

Tioga, in *Pennsylvania*, a N. co., bordering on New York; *area*, 1,120 sq. m. *Rivers.* Tioga river, and Cowanesque and Pine creeks. *Surface*, hilly; *soil*, adapted for pasturage. *Min.* Bituminous coal. *Cap.* Wellsborough. *Pop.* (1897) 55,515.—A post-borough and twp of the above co., 15 m. S. of Corning.

Tioga Center, in *New York*, a post-village of Tioga co., 5 m. S.W. of Owego.

Tioga River, rises in Tioga co., Pennsylvania, and flowing N., unites with the Conhoctou to form the Chemung in Steuben co., New York.

Tiones'ta, or **Teonis'ta,** in *Pennsylvania*, a creek which rises in Crawford co., and flowing S., enters the Allegheny river in Forest co.—A post-borough and twp., cap. of Forest co., 29 m. N. E. of Franklin.

Tionghnioga River, (*te-oh-ne-aw'ga,*) in *New York*, rises in Madison co., and flowing S. enters the Chenango River in Broome co.

Tip, *n.* [Du. *tip*, end; Ger. *zipfel*, tip, point.] The point or extremity of anything small. — A douceur. — A gentle stroke; a tap. (R.)
—*v. a.* To form a point upon with something. — To give a douceur to. — To strike slightly, or with the end of anything small; to tap.
To tip off, to pour off or out, as liquor. — *To tip over*, to upset; to overturn. — *To tip the wink*, to call the attention of another by a wink. — *To tip up*, to partly raise one end of anything.
—*v. n.* To fall on one side; to throw off.

Tip'-cat, *n.* A boy's game.

Tip'pah, in *Mississippi*, a N. co., bordering on Tennessee; *area*, 490 sq. m. *Rivers.* Wolf, Tallahatchie, and Hatchie rivers, and Tippah creek. *Surface*, diversified; *soil*, fertile. *Cap.* Ripley. *Pop.* (1897) 14,250.—A creek which rises in Tippah co., and flowing S.W. enters the Tallahatchie river in Lafayette co.

Tippecanoe (*tip-pe-ka-noo'*), in *Indiana*, a W.N.W. co.; *area*, 500 sq. m. *Rivers.* Wabash and Tippecanoe. *Surface*, level; *soil*, very fertile. *Cap.* Lafayette. *Pop.* (1897) 38,050.—A river which rises in Kosciusko co., and enters the Wabash River in Tippecanoe co., 9 m. N.E. of Lafayette, after a S.W. course of 200 m. It is famous for the battle fought on its banks, Nov. 5, 1811, in which the Americans under Gen. Harrison defeated the Indians under Tecumseh's brother, the prophet. —A township of Carroll county.—A township of Kosciusko county.—A post-village and township of Marshall county, 15 m. S.E. of Plymouth—A township of Pulaski county. — A township of Tippecanoe county

Tippecanoe, in *Iowa*, a township of Henry county.

Tippecanoe, in *Ohio*, a post-village of Harrison co., 17 m. W. of Cadiz. — A post-village of Miami co., 14 m. N. of Dayton.

Tippera'ry, a town of Ireland, cap. of a co. of same name, 100 m. from Dublin. It is a beautiful town, finely situated in a romantic country, and is both well built and a place of considerable industry and trade. *Pop.* 8,900.

Tip'pet, *n.* [A. S. *tæppet.*] A narrow garment or covering, of fur or cloth, for the neck and shoulders, worn by females.

Tip'ple, *v. n.* To drink spirituous or strong liquors habitually; to indulge in the frequent and improper use of spirituous liquors.
—*v. a.* To drink, as strong liquors in luxury or excess.
—*n.* Drink; liquor taken in tippling.

Tip'pled, *a.* Intoxicated; inebriated; tipsy.

Tip'pler, *n.* One who tipples, or who habitually indulges in the excessive use of spirituous liquors.

Tip'pling-house, *n.* A house in which liquors are sold in small quantities.

Tip'poo Saib, sultan of Mysore, the son of Hyder Ally, was B. in 1749, and succeeded to the throne in 1782. He continued the war in which his father was engaged with the English, until the peace of Paris (1783), which deprived him of the assistance of the French. In 1790 he engaged in a new war with the English, and was defeated in a number of actions. In 1792 Lord Cornwallis obliged him to sue for peace, when Tippoo delivered his two sons as hostages. The war was resumed in 1799, and terminated with the entire conquest of Mysore and the death of Tippoo, who fell bravely fighting on the ramparts of his capital.

Tip'sily, *adv.* In a tipsy manner.

Tip'siness, *n.* State of being tipsy.

Tip'staff, *n.* (*Amer. Law.*) An officer, sometimes appointed by a court, whose duty it is to wait on the court and serve its process.

Tip'sy, *a.* Overpowered with strong drink; intoxicated.

Tip'toe, *n.* The end of the toe. — To be, or to stand a tiptoe, or on tiptoe; to be in a state of high expectation.

Tip'ton, in *Indiana*, a N. central co.; *area*, 260 sq. m. It is drained by Buck and Cicero creeks. *Surface*, level; *soil*, fertile. *Cap.* Tipton. *Pop.* (1897) 20,200.
—A city, capital of Tipton co., 40 m. N. of Indianapolis. *Pop.* (1897) 3,150.

Tipton, in *Iowa*, a post-town, cap. of Cedar county, in Cedar township.

Tipton, in *Missouri*, a post-village of Moniteau co., 38 m. N. W. of Jefferson City.

Tipton, in *Pennsylvania*, a post-village of Blair co., 10 m. N.N.E. of Altoona.

Tipton, in *Tennessee*, a W.S.W co., bordering on the Mississippi river; *area*, 404 sq. m. The Hatchie river forms its N. border. *Surface*, level; *soil*, fertile. *Cap.* Covington. *Pop.* (1897) 25,650.

Tipula'riæ, *n. pl.* (*Zoöl.*) The Crane-fly family, embracing dipterous insects, of which the most important species, the Hessian-fly, popularly called, in England, Daddy Long-legs, has been described under the name of its genus, CECIDOMYIA, *q. v.*

Tirade', *n.* [Fr., from *tirer*, Lat. *trahere*, to draw.] A strain or flight. — A series of violent invectives; a declamatory flight of censure or reproof.

Tirailleur, (*te-ral-yur',*) *n.* [Fr., from *tirailler*, to skirmish.] (*Mil.*) A French skirmishing soldier, often put in front of the line to annoy the enemy.

Tira'no, a town of N. Italy, in the Valteline, on the Adda, 15 m. from Sondrio; *pop.* 11,196.

Tiras'pol, a town of European Russia, on the Dniester, 8 m. from Bender; *pop.* 5,800.

Tire, *n.* A row or rank. — A head-dress. — Attire; apparel. — A band or hoop of iron, used to tie or bind the tellies of wheels, to secure them from wearing and breaking.
—*v. a.* [A. S. *teorian*, to fail.] To exhaust the strength of by toil or labor; to weary; to fatigue.
To tire out, to harass; to weary to excess.
—*v. n.* To become weary; to be fatigued; to fail with weariness; to have the patience exhausted.

Tired'ness, *n.* The state of being weary; weariness.

Tire'some, *a.* Wearisome; fatiguing; tedious.

Tire'somely, *adv.* In a tiresome manner.

Tire'someness, *n.* The act or quality of tiring or exhausting strength or patience; wearisomeness; tediousness.

Tire'-woman, *n.* A milliner; a dresser in a theatre.

Tir'ing-house, Tir'ing-room, *n.* The room or place where actors dress for the stage.

Tirlemont, (*teerl'mawn(g,)*) a t. of Belgium, on the Geete. *Man.* Woolens, paper, &c. *Pop.* 13,296.

Tirnova, a t., cap. of Bulgaria.

Tir'ra-lir'ra, *n.* An imitation of the voice of the lark, or of the sound of a horn or other musical instrument.

Tir'yns, or TIRYNTHUS. (*Anc. Geog.*) One of the oldest cities of Greece, in Argolis, 2 m. from Nauplia. It was celebrated for its massive walls, which were popularly attributed to the Cyclops, and are the finest existing specimens of the military architecture of the heroic age

Fig. 2505. — WALLS OF TIRYNS.

of Greece. The ruins at present occupy the lowest hill of several which rise out of the plain, the S.E. part of the wall having a remarkable covered gallery (Fig. 2505), 36 feet in length, and 5 in breadth. The origin of *T.* belongs to the mythical period, and in 468 B. C. it was entirely destroyed by the Argives.

'Tis, a contraction of *it is*, often used in poetry.

Ti'sane, *n.* [Fr.] (*Med.*) An infusion made of certain herbs, leaves, or flowers, used as tea for medicinal purposes. It is a very favorite form of remedy in France.

Tis'bury, in *Massachusetts*, a township of Duke co., 70 m. S.S.E. of Boston.

Tishomin'go, in *Mississippi*, a N.E. co., bordering on Tennessee and Alabama; *area*, 435 sq. m. *Rivers.* Tennessee and Tombigbee rivers, and Tuscumbia creek. *Surface*, diversified; *soil*, fertile. *Products.* Corn, cotton, vegetables, live stock, &c. *Cap.* Iuka. *Pop.* (1897) 9,750.

Tis'ic, *n.* See PHTHISIS (*q. v.*).

Tisiphone (*ti-sif'o-ne*). (*Myth.*) One of the Furies, daughter of Nox and Acheron, was the minister of the vengeance of the gods upon mankind, and punished the wicked in Tartarus. She was represented with a whip in her hand; serpents hung from her head, and were wreathed round her arms.

Tiskil'wa, or TISKILVA, in *Illinois*, a post-town of Bureau co., 23 m. W. of La Salle. *Pop.* (1897) 950.

Tis'ri, or TISHRI. The first month of the Jewish civil year, and the seventh of the ecclesiastic, corresponding to part of September and October. On the first day of *T* the Feast of Trumpets occurred; on the tenth, the great day of Expiation; and on the fifteenth, the Feast of Tabernacles commenced.

Tissue, (*tish'shu,*) *n.* [Fr. *tissu*, from *tisser*, Lat. *texere*, to weave.] Any woven stuff; — particularly, cloth interwoven with gold or silver, or with figured colors. — A connected series or combination; as, "a *tissue* of epigrams."—*Addison.*
(*Anat.*) The substance of which systems of organs are composed, as, *e. g.*, bone, or *osseous T.*, in the osseous system; flesh, or *muscular T.*, in the muscular system; *neurine*, or nervous *T.*, in the nervous system; *dentine*, or tooth-bone, in the dental system. The branch of anatomy which treats of the tissues is termed *Histology.*
(*Bot.*) A compound structure formed by the combination of different kinds of cells. The principal *T.* may be classed under two heads; namely, *Parenchyma*, or *cellular T.*, and *Prosenchyma.* or *woody T.* *T.* of the former class constitute the entire structure of the lower plants, as *Algæ*, *Fungi*, and *Lichens.* The higher plants are made up of *T.* of both classes.
—*v. a.* To variegate; to interweave.

Tit, *n.* Anything small; a small horse. — A woman, in contempt. — A small bird; a titmouse or tom-tit.

Ti'tan, *n.* (*Myth.*) One of the *Titanes*, or *Titanidæ*, the sons of Cœlus and Terra. They were forty-five in number, according to the Egyptians. The most celebrated of the *T.* are Saturn, Hyperion, Oceanus, Japetus, Cottus, and Briareus. They were all of gigantic stature, and with proportionable strength. They were confined in the bowels of the earth by Cœlus, till Terra, sympathizing with their misfortunes, armed them against their father. The wars of the *T.* against the gods are very celebrated in mythology. They are often confounded with that of the giants; but it is to be observed that the war of the Titans was against Saturn, and that of the giants against Jupiter.

Titan'ic, *a.* Relating to, or resembling, the Titans; gigantic.
T. acid. (*Chem.*) See TITANIUM.

Ti'tanite, *n.* (*Min.*) Native oxide of titanium.

Tita'nium, *n.* (*Chem.*) A metal occurring in the somewhat rare minerals, rutile, anaton, brookite, and titanic iron. The first three consist almost entirely of

the binoxide of *T.*, or *titanic acid* (TiO_2). Riley and others have found this metal largely diffused throughout nature in most clays. It forms a protoxide, a sesquioxide, and a binoxide, the latter acting as an acid. In many of its reactions it closely resembles tin. The metal, as yet, has only been obtained as a greenish-gray powder. In many respects it is a very singular metal. Its affinity for nitrogen is extraordinary. The red, copper-colored, cubical crystals found in the hearths of blast-furnaces were at one time supposed to be the metal, but are now found to be a compound of the cyanide and nitride of the metal. At the highest temperature of the blast-furnaces, this compound volatilizes without decomposition. Mr Mushet has assumed that *T.* alloys with iron, producing steel of a superior quality; but from the experiments of Deville, Riley, Percy, and others, it appears that no such alloy exists. It is, however, certain that ores containing titanic iron produce steel of excellent quality, but it is very possibly on account of their freedom from other impurities, and not from their containing *T.* Titanic acid is employed in the manufacture of artificial teeth, and for imparting a straw-yellow tint to the glaze of porcelain. *Equiv. of T.*, 48. *Symbol*, Ti.

Tit'bit, *n.* A nice piece; a tidbit.

Tithe, *n.* [A.S. *teotha.*] The tenth part of anything; but appropriately, the tenth part of the increase annually arising from the profits of land and stock, which, in England, is allotted to the clergy for their support.

—*v. a.* To levy a tenth part on; to tax to the amount of a tenth.

(*Jewish Hist.*) Under the Mosaic economy, the tenth part of the yearly increase of their goods was due by the children of Israel to their priests; but the system has evidently an earlier and more extended origin, for we read of Abraham, on his return from his expedition against the five kings, giving the tenth part of his spoils to Melchisedec, king of Salem; and traces of the same custom are to be found among several of the nations of antiquity.

—*v. a.* To tax to the amount of the tenth part; to levy a tithe of.

Tith'ing, *n.* Act of levying tithes.

(*Eng. Hist.*) A number or company of ten householders, with their families, who, dwelling near each other, were sureties or free pledges to the king for the good behavior of each other.

Titian, (Tiziano Vercelli,) (*tish'yan.*) One of the greatest of Italian painters, and the prince of colorists and portrait-painters, b. in Cadore, Friuli, 1477. He studied in the school of the Bellini, and first appeared as a great painter at the court of Alfonso I., duke of Ferrara, in 1514, when he painted the *Bacchus and Ariadne.* Two years later he had attained to the full vigor of his extraordinary powers; in that year he executed his celebrated *Assumption of the Virgin*, now in the academy of Venice. In 1528 *T.* painted his *St. Peter Martyr*, in

Fig. 2506. —TITIAN.

which he has shown himself one of the first of landscape painters, especially of landscape as an accessory to figures. In 1545 he visited Rome, where he saw Michael Angelo; he returned to Venice in the following year. He is supposed also to have visited Spain. This great painter died at Venice of the plague, in 1576, having lived to the extraordinary age of ninety-nine years. To describe fully his masterpieces alone would occupy a volume; of his scholars, Paris Bordone, Bonifazio Veneziano, Girolamo di Tiziano, and his own son Orazio Vercelli, were able painters.

Titicaca Lake, (*te-te-ka'ka,*) the most elevated, and one of the largest lakes of S. America, on the border of Bolivia and Peru, between Lat. 15° 15′ and 16° 35′ S., Lon. 68° 40′ and 70° W. It is 160 m. long, and about 65 wide. Its surface is abt. 12,800 ft. above the sea. It contains several islands, and its surplus waters are discharged by the Desaguadero River.

Tit'illate, *v. n.* [Lat *titillo, titillatum.*] To tickle.

Titillation, (*-lā'shun.*) *n.* [Fr.] The act of tickling, or the state of being tickled; any slight pleasure.

Tit'lark, *n.* (*Zoöl.*) See Anthus.

Title, *n.* [Fr. *titre;* It. *titolo;* Lat. *titulus,* a superscription, inscription.] An inscription put over anything, as the name by which it is known. — The inscription in the beginning of a book, containing the subject of the work, and commonly the author's and publisher's names. — A general head, containing particulars. — An appellation of dignity, distinction, or pre-eminence given to persons, as prince, count, colonel, &c. — A name; an appellation. — Right; a claim of right, or that which constitutes a just cause of exclusive possession; that which is the foundation of ownership; the instrument which is evidence of a right.

—*v. a.* To entitle; to name; to call.

Ti'tled, *a.* Having a title.

Title-deeds, *n. pl.* The writings evidencing a man's right or title to property.

Tit'ler, *n.* A conical mass of refined sugar, a little larger than the ordinary loaf.

Tit'ling, *n.* [From *tit.*] A small bird, called also moor-titling, stone-chat, &c.

Tit'mouse, *n.*; *pl.* Titmice. (*Zoöl.*) The common name of the *Paridæ*, a family of Insessorial birds, distinguished by short conical bills, which have their tips entire, and their base covered with a few short stiff bristles. The wings are short and the tail long; the tarsi rather long and thick; the inner toe the shortest; and all the toes furnished with strong curved claws. The titmice are active little birds, and are commonly known under the names of tits, titmice, and tomtits, and many are distinguished for the beautiful color of their plumage. They inhabit principally countries abundant in wood, and they feed on the insects and larvæ which they find on the bark and leaves of trees and shrubs. In this pursuit they exhibit their gracefulness and activity to great advantage, and may be seen clinging round the branches and twigs of trees in the most sprightly manner. One of the most common American species is the Black-cap *T.*, or Chickadee (*Parus atricapilus*) of E. Mississippi, which is five inches long, the wings 2½ inches; the back brownish ashy, under parts whitish, top of the head and throat black, and the sides of the head between white. The nest is generally made in a hole in a stump; the eggs rarely exceed eight in number, the color white, slightly dotted and marked with light reddish. The Blue *T.* or Blue-bonnet (*Parus cæruleus*) is an inhabitant of Europe, but it is said to have been found lately in Texas.

Fig. 2507.
TITMOUSE, (*Parus atricapilus.*)

Tit'ter, *v. n.* To laugh with the tongue striking against the root of the upper teeth; to laugh with restraint; to twitter; to giggle.

—*n.* A restrained laugh. See Twitter.

Tit'tering, *n.* Restrained laughter.

Tittibawas'see, a river of Michigan, rises in Ogemaw co., and flowing S.E. joins the Saginaw River about 3 m. W. of Saginaw City. It is navigable for boats about 80 m. — A township of Saginaw co.

Tit'tle, *n.* [From *tit*, small.] A small particle; a minute part; a jot; an iota.

Tit'tle-tat'tle, *n.* Idle, trifling talk; empty prattle; gossip; scandal.

—*v. n.* To talk idly; to prate.

Tit'tle-tat'tling, *n.* The act of prating idly.

Tit'ular, *a.* [Fr. *titulaire;* Lat. *titulus,* a title.] Existing in title or name only; nominal; having or conferring the title only; having the title to an office or dignity without discharging the duties of it. See Title.

—*n.* Titulary.

Tit'ularly, *adv.* Nominally; by title only.

Tit'ulary, *a.* Consisting in a title; pertaining to a title.

—*n.* A person invested with a title, in virtue of which he holds an office or benefice.

Titus, a disciple of St. Paul, was a Greek and a Gentile; but, on his conversion, he became amanuensis to the apostle, who consecrated him bishop of Crete, where, according to tradition, he died at an advanced age. The epistle of St. Paul to *T.* is similar in its contents to the first epistle to Timothy, and was probably written not long after it, A. D. 65.

Titus, Flavius Vespasianus, a Roman emperor, b. 40 A. D. He accompanied his father Vespasian to Syria, where he distinguished himself greatly in the Jewish War. When Vespasian was summoned to Italy to assume the purple, *T.* was left in command of the Roman army at the memorable siege of Jerusalem. In A. D. 70, the city was taken, and in spite of the exertions of *T.* to preserve it, the Temple was burnt. Though his youth was tainted with the vice of dissipation, he happily disappointed the gloomy predictions of the people when he came to the throne, A. D. 79, by the wisdom and beneficence of his government. The Romans, however, did not long enjoy his administration, *T.* having been seized with a violent fever, which carried him off in the 41st year of his age, after a reign of a little more than two years, A. D. 81.

Ti'tus, in *Texas*, a N.E. co.; *area*, 400 sq. m. *Rivers*, Sulphur Fork of Red river, and Big Cypress and White Oak Bayous. *Surface*, diversified; *soil*, very fertile. *Cap.* Mount Pleasant. *Pop.* (1897) 9,350.

Ti'tusville, in *New Jersey*, a post-village of Mercer co., 10 m. N.W. of Trenton.

Titusville, in *Pennsylvania*, a city of Crawford co., 28 m. E. of Meadville. *Pop.* (1897) 8,350.

Tiumen, (*te-oo'men,*) a town of Siberia, 120 m. from Tobolsk, on the Toura, an affluent of the Ob. *Manuf.* Leather, carpets, soap, &c. *Pop.* 12,000.

Tiv'erton, a town of England, in Devonshire, at the confluence of the Exe and Loman, 14 m. from Exeter. *Manuf.* Lace and woollens. *Pop.* 11,800.

Tiv'erton, in *Ohio*, a township of Coshocton county.

Tiverton, in *Rhode Island*, a post-village and township of Newport co., 28 m. S.S.E. of Providence. *Pop.* (1895) 2,964.

Tiverton Four Corners, in *Rhode Island*, a post-village of Newport co., 18 m. S.E. of Providence.

Tivoli, (*tiv'o-le,*) (anc. *Tibur,*) a town of central Italy, 18 m. from Rome. It is delightfully situate on an eminence covered with olives and fruit-trees; but its greatest attraction now, as in former ages, consists in the falls of the Teverone (the anc. *Anio*), which glides gently through the town till reaching the brink of a rock, over which it precipitates itself nearly 80 feet. On the summit of the steep bank stands a beautiful temple of the Corinthian order (Fig. 2145), built in the Augustan age. *Pop.* 6,554.

Tiv'oli, in *Iowa*, a post-village of Dubuque co., 20 m. N. W. of Dubuque.

Tivoli, in *Minnesota*, a post-village of Blue Earth co., abt. 6 m. S.E. of Mankato.

Tivoli, in *New York*, a post-village of Dutchess co., 100 m. N. of New York.

Tivoli, in *Pennsylvania*, a post-village of Lycoming co., abt. 20 m. N.E. of Williamsport.

Tiv'y, *adv.* [See Tantivy.] With great speed;—a huntsman's word or sound.

Tixco'co, in Mexico, an Indian town of Yucatan, 20 m. S.E. of Merida.

Tjet'tek, *n.* The Japanese name for the virulent poison prepared from *Strychnos Ticuté.*

Tla'pa, in Mexico, a town of La Puebla, on the Yopes River, 60 m. N.N.E. of its mouth in the Pacific.

Tlapujahua, or Tlapuxahla, (*tal-poo-ha'wa.*) in Mexico, a town of Michoacan, 50 m. E. of Valladolid.

Tlasca'la, in Mexico, a town of the state of La Puebla, 10 m. N. of La Puebla; *pop.* abt. 4,500.

Tlem'sen, a town of Algeria, cap. of the prov. of same name, 65 m. from Oran.

Tme'sis, *n.* [Gr., from *temno*, I cut.] (*Gram.*) A figure by which a compound word is separated into two parts by the intervention of one or more words; as, "The Lord . . . is long-suffering *to us-ward.*" 2 *Pet.* iii. 9.

Tmutarakan, a fortified maritime town of S. Russia, on the Strait of Yenikale, 13 m. from Yenikale; *pop.* unknown.

To, (pron. *tōō*, when emphasized; otherwise, *tŏŏ.*) *prep.* [A. S. *tō.*] Noting motion toward a place or thing, or in the direction of;—also, approach and arrival;—opposed to *from*, or placed after another word expressing movement toward; — also, in the majority of its senses, interchangeable with *into;* as, he has gone *to* New York, they came *to* the house.

—Hence, expressing motion, course, or tendency toward anything that may be looked upon as limiting action or motion; as, to be on the high road *to* fame, he is going *to* marry an heiress.

—Hence, also, generally, and with a wide scope of application, causing the junction of transitive verbs with their ultimate object, and with neuter verbs, nouns, and adjectives preceding a substantive which confines their action; in this respect it bears a modified analogy to *for;* as, we will have the fun *to* ourselves, this wine is suited *to* my palate, he has taken an antipathy *to* a certain individual, many persons were burnt *to* death, &c.

—As the common prefix to the infinitive, and in cases where it has no prepositional signification, *to* is employed where the infinitive is direct object or subject; as, *to* slander another is a base act, *i. e.* the slandering of another. Formerly, where the infinitive pointed to the intent or purpose, *for* was allowably used as a prefix to *to;* as, I went *for to* get my dinner. Modern grammarians have, however, condemned such usage as antiquated and vulgar. Colloquially, particularly in the U. States, *to* still obtains and reinforces a preceding infinitive; as, he asked me *to* read it, but I do not mean *to.* — In a variety of phrases, and in combination with many other terms, *to* is employed elliptically; as, (1.) Noting apposition; affinity; opposition; antithesis; as, hand *to* hand, face *to* face, man *to* man (2.) Comparison; as, the odds are ten *to* one. (3.) Extent or inclusion as far as; limit or degree of comprehension; as, his friends mustered *to* the number of fifty. (4.) Sympathy; accord; fitness; adaptation; conformity; as, I have not met with a wife *to* my taste. (5.) Result; end; effect; issue; consequence; as, his folly will lead him *to* beggary. (6.) Addition; combination; alliance; union; as, he has children *to* complete his happiness. (7.) Accompaniment; as, she sings *to* music. — *To and fro*, backward and forward; as, to walk *to and fro.* — *To-and-fro*, a moving backward and forward; as, a *to-and-fro* journey. — *To the face*, in presence of. — *To wit*, namely; to know; — largely used in legal and official phraseology.

Toad, (*tōd,*) *n.* (*Zoöl.*) The common name of the *Bufon*

dæ, a family of tailless Batrachians, having half-webbed toes the glandular swelling called *parotoid* between the eye and ear, and the sacral diapophyses expanded (Fig. 2508). The genus *Bufo* has no teeth, tongue elliptical, skin more or less warty. Toads exist in almost every part

Fig. 2508. — TOAD.

of the globe. The parotoids exude a fetid and rather acrid milky secretion, which is the sole foundation for the vulgar error of the poison of the toad. The animal is useful to man by destroying insects, ants, &c., and in no way noxious. It attains a considerable age. Several species are found in the U States.

Toad'-eater, *n.* A fawning, obsequious parasite; a mean sycophant. (Coll. q.)

Toad'-fish, *n.* (*Zoöl.*) Same as Frog-fish. See BATRACHUS.

Toad'-stool. See AGARICUS.

Toad'y, *n.* Same as TOAD-EATER, *q. v.* Also a person in contempt. (Vulgar.) [maoner.]

—*v. a.* To fawn upon in a mean, obsequious, sycophantic

Toad'yism, (*-izm,*) *n.* Servile imitation; the practice of obsequiously fawning on another, as for patronage or favors; base sycophancy.

Toast, *v. a.* [Sp. *tostar.*] To dry and scorch by the heat of a fire; as, to *toast* bread or bacon. — To warm thoroughly; as, to *toast* one's feet.

—*n.* Bread dried and scorched by the fire. — Also, a kind of food prepared by soaking scorched bread into milk or other liquor; as, a *toast* in sack.

Toast, *n.* [Perhaps from Fr. *tasse,* a drinking-cup, *tassé,* heaped, piled; implying a person to whose health a *full cup* is drank.] Originally, a celebrated woman whose health was often drank by a company of gentlemen; as, Lady Coventry was the reigning *toast* of her day. — Now generally applied also to public characters or private friends of either sex, whose health we propose to drink; as, "Let the *toast* pass, we'll drink to the lass."—*Sher.*

—*v. a.* To name or propose, as any one whose health, success, &c., is to be drank; to propose any sentiment or subject, to the honor, success, &c., of which a bumper is to be devoted; to drink in honor or celebration of anything, or to its prosperity, success, &c.; as, to *toast* one's native land.

Toast'er, *n.* One who toasts or pledges another in a bumper — An instrument or fork for toasting anything; as, a cheese-*toaster.*

Toast'ing, *n.* Act of scorching by fire; act of drinking a bumper to the honor of.

Toasting-fork, *n.* A long-handled fork, often with sliding joints, employed for toasting bread, &c., before the fire.

Toast'-master, *n.* An officer appointed to announce toasts at great public banquets.

Toast'-rack, *n.* A stand for a table having partitions for slices of dry toast.

Tobac'co, *n.* [Sp. *tabaco;* Fr. *tabac.*] The common name of the plants comprised in the monopetalous genus *Nicotiana,* q. v. According to Humboldt, the term tobacco was used by the Caribbees to designate the pipe in which they smoked; which term having been transferred by the Spaniards from the pipe to the herb itself, it has been adopted by other countries. Other accounts say that the name is derived from the province of Tabaco in St. Domingo, whence it was introduced into Europe, in 1559, by a Spanish grandee. Afterwards, through the agency of Jean Nicot, French ambassador at Lisbon, it was taken to Paris, where, in the form of a powder, it was used by Catharine de' Medici. It was some time after the use of tobacco as snuff that the smoking of it began. Very shortly after its appearance, the herb was prohibited in many parts of Europe. The physicians declared it hurtful to health, the priests denounced its use as sinful. Pope Urban VIII. issued a bull excommunicating all persons found taking snuff whilst in church. Sultan Amurath made smoking a capital offence; whilst the penalty paid for smoking in Russia was to have the nose cut off. The strenuous way in which it was opposed by James I. of England is a curious matter of history. Without the consent of his parliament, he raised the duty on the weed from 2*d.* to 6*s.* 10*d.* per pound; and his famous *Counterblaste to Tobacco* declared smoking "loathsome to the eye, hurtful to the nose, harmful to the brain, dangerous to the lungs, and in the black stinking fume thereof nearest resembling the horrible Stygian smoke of the pit that is bottomless." But kingly and priestly wrath were futile against the far and wide extension of the use of the herb, and at the present day it has become perhaps the most generally diffused luxury in existence; for, according to statistics, the average consumption of tobacco by the whole human race, of 1,000 millions, is seventy ounces a head per annum. The largest growers of tobacco are the Southern States of America. It is also an important item of production in many of the U. States, chiefly Virginia, Kentucky, Maryland, N. Carolina, Tennessee, Ohio, and Missouri. *T.* is raised early in spring on beds, and when the plants have acquired four leaves, they are set in the fields, a distance every way of three ft. being preserved between the plants. It is very sensible to frost, and in consequence of the destructive invasion of a certain worm which infests it, the plant has to be examined every morning and evening. When the plant has put forth eight or nine leaves and is prepared to have a stalk, the top is nipped off, so that the leaves may grow larger and thicker. When the leaves become brittle, they are considered fit for cutting. After being cut, they are allowed to lie for some time, afterwards being conveyed to a shed, where they are hung up to sweat and dry. When perfectly dry, the leaves are stripped from the stalks, and made up into small bundles. These are laid in heaps in the open air, and covered with blankets. After being allowed to carefully heat for some time, they are stowed in casks for exportation. The herb is manufactured into three different forms, usually by three distinct classes of traders. It is cut into shreds for smoking in pipes; its leaves are rolled up into compact cylindrical bundles to be smoked as cigars; and a compound, partly of the leaves and partly of the stalks of the leaves, is ground into a state of powder to be taken as snuff. In manufacturing the different varieties of tobacco to be smoked in a pipe, the stalks are stripped from the leaves, and the leaves are pressed in large quantities into the form of a cake, being often moistened during the process, and finally they are cut into shreds with knives moved by machinery. In the case of that variety of cut-*T.* known as *bird's-eye,* a portion of the stalks is cut up with the leaf. *Shag T.* is manufactured from the darkest colored leaves; *pig-tail T.* is spun into long cords. Snuff is made sometimes from the stalks alone, or from the leaves only, or from a mixture of both stalk and leaf. Scotch snuff is either entirely of stalk, or with a very slight admixture of the leaf. The peculiar qualities of "high-dried" snuffs are owing to the degree of drying, which imparts a scorched flavor to them. In making snuff, various matters are added for giving it an agreeable scent. The French manufacturers give the following characters to the tobaccoes they employ: — the Virginian (Fig. 2509), strong, very aromatic, and much esteemed for snuff; the Kentucky, strong, large-leaved, very choice; the Maryland, light odoriferous, large-leaved, used exclusively for smoking in pipes; the Havana, unequalled for cigars; the Java, used for the same purpose, its odor like pepper. The tobaccoes from the Levant are little esteemed. The Holland product has much strength, and is excellent for snuff mixed with weaker sorts. The Hungarian varieties are used for cigars and smoking tobaccoes. Some of the French departments produce *T.* used exclusively for cigars, and other varieties used only for pipes — superior flavor. The cigar is composed of two distinct parts, — the inside and the cover, the leaf for the latter being of a finer texture than that made use of for the inside. The leaves are damped the night previous to their being made up. The cigars are rolled into shape by enveloping the inner leaves within an outer covering. One end is then screwed up to a point, while the other is cut off to a particular gauge of length. Of the best common cigars a workman, with one or two assistants, can make a thousand a day; of finest Regalias, six hundred. The best cheroots come from Manilla, and women only are employed in making them. — The total production of *T.* in the United States, for the year 1902, amounted to 821,823,963 pounds. A very large quantity is annually imported, chiefly from Cuba and Manila, the former of the finest flavor.

Fig. 2509. — VIRGINIAN TOBACCO. (*Nicotiana tabacum.*)

Tobac'conist, *n.* A dealer in tobacco; also, a manufacturer of tobacco.

Tobac'co-pipe, *n.* A pipe used for smoking tobacco. They are made of various materials, as wood, meerschaum, &c. The commonest imported from Europe are made of a fine white clay, called *pipe-clay.* Their usual form is too well known to need description.

(*Bot.*) The Indian pipe. See MONOTROPA.

Tobacco-pipe fish. (*Zoöl.*) Same as PIPE-FISH, *q. v.*

Tobac'co Port, in *Tennessee,* a village of Stewart co., 85 m. W.N.W. of Nashville.

Tobac'co River, in *Michigan,* rises in Clare co., and flowing S.E., enters the Tittibawassee Riv. in Gladwyn co.

Tobac'co Root, *n.* (*Bot.*) See LEWISIA.

Toba'go, in the British W. Indies, an island of the Windward group, 24 m. N.E. of Trinidad, 32 m. long and 12 m. broad; Lat. of N. point, 11° 25′ N., Lon. 60° 32′ W.; *area,* 97 sq. m. *Surface,* mountainous, with fertile valleys intervening. It has several excellent harbors. *Chief town,* Scarborough. *Pop.* abt. 15,400.

To'bine, *n.* Same as TALINET, *q. v.*

To'binsport, in *Indiana,* a post-village and township of Perry co.

To'bit, (BOOK OF.) (*Script.*) A book of the Old Testament in the canon of the Roman Catholic Church, but regarded as apocryphal by Jews and Protestants. It contains the private history of a venerable and pious old man of this name, who was carried captive into Assyria by Shalmaneser. Nothing is known with certainty respecting either the author or the age of the book. All ancient writers looked upon the narrative as historical and authentic. But the question has been raised in modern times, whether the book is to be regarded as a true history or a moral fiction. Luther was the first who adopted the latter view; others have maintained that the book is partly historical, partly mythical. Gutmann, a modern Jewish rabbi, adopts the opinion that it is a fiction founded on facts. Its authority in the early Christian church is beyond question.

Tobol', a river of Asiatic Russia, rising in the S. part of the Ural Mountains, and, after a course of 450 m., joining the Irtisch, near Tobolsk.

To'bolsk, a city of Western Siberia, cap. of the govt. of same name and of Siberia in general, on the river Irtisch, near its confluence with the Tobol, 976 m. E. of St. Petersburg; Lat. 58° 12′ N., Lon. 68° 15′ E. It is well built with timber houses and wide and regular streets, and its position is picturesque (Fig. 2510). Its situation, considerably north of the great commercial highway between Russia and Siberia, and at a distance from the

Fig. 2510. — TOBOLSK.

more productive regions of the country, is unfavorable for the development of commerce. *T.* contains a large prison, capable of accommodating 3,000 prisoners; and the convicts condemned to exile in Siberia are first assembled at this town, and thence deported to various parts of the country. Several regiments are stationed here. *Pop.* 16,9-6.

Tobos'co, or TOBOSO, in *Ohio,* a post-village of Licking co., abt. 10 m. E. of Newark.

Toboyne, (*to-boin',*) in *Pennsylvania,* a township of Perry co.

To'by, in *Pennsylvania,* a township of Clarion county.

Tobyhan'na, in *Pennsylvania,* a post township of Monroe co.; *pop.* abt. 650. — A creek which enters Lehigh River from Monroe co.

Tocantins, (*to-kan-tens',*) a large river of Brazil, prov. of Goyaz, formed by the junction of the Almas and Maranhão, near Lat. 14° S., and falls into the Para abt. 70 m. S.W. of the town of Para, after a N. course of 1,000 m. — A town of the prov. of Goyaz, 210 m. N.E. of Goyaz.

Tocat', or **Tokat,** a commercial city of Turkey, in Natolia, 36 m. to m Sivas; Lat. 39° 25′ N., Lon. 36° 30′ E. It rises in the form of an amphitheatre, in a deep valley on the banks of the Yezil-Irmak, the ancient Isis. *Pop.* abt. 2,500.

Tocca'ta, *n.* [It., from *toccare,* to touch.] (*Mus.*) An old form of instrumental music, adopted to the organ or harpsichord, and partaking of the characteristics of the modern *fantasia* or *capriccio.*

Toco'a River, rises in Union co., Georgia, and flowing N.W. enters the Hiawassee river from Polk co., Tennessee. It is sometimes called *Ocoee.*

Tocqueville, ALEXIS C. H. CLEREL DE, (*tōk'vil,*) a French historian and statesman, b. at Verneuil, 1805; studied law, and was admitted a member of the French bar in 1825. In 1832, he was sent on a joint mission with M. G. de Beaumont to the U. States, to inquire into our penitentiary system, with a view to its introduction into France. Here he spent 2 years, visiting the different States, and inquiring assiduously into the institutions of the country. As the results of his researches and reflections, he published in 1845 his *Démocratie en Amerique,* which has been pronounced to be the best work that has appeared in Europe on the political institutions of the U. States. In 1839, he became a member of the Chamber of Deputies. In 1847 appeared his *Histoire Philosophique du Règne de Louis XV.,* to which

he afterwards added the *Coup d'œil sur le Règne de Louis XVI.* After the revolution of 1848, he was returned both to the national and legislative assemblies; and in June, 1849, he was appointed minister of foreign affairs, but resigned his portfolio in October, in consequence of the president's message appearing to deviate from the system of moderation to which he was attached; and two years afterwards he was one of those who protested against the *coup d'état* of Dec. 2, 1851. From this period, he devoted himself entirely to literary pursuits; and in 1856 he published his elaborate work, *L'Ancien Régime et la Revolution*, which for profound and original views and beauty of style has rarely been surpassed. D. 1859.

Toc'sin, *n.* [Fr.; O. Fr. *toque-seing*, an alarum-bell — *toquer*, to clap, knock, or hit against = It. *toccare.*] An alarm-bell, or the ringing of a bell for the purpose of giving an alarm. The use of the tocsin, during the troubles of the French Revolution, to assemble the multitudes, has rendered the word almost proverbial.

Tocu'yo, a river of Venezuela, dept. of Caracas, rises E. of Truxillo, and enters the Caribbean Sea N. of the Gulf of Triste, after a N.N.E. course of 200 m. — A town on the above river, 34 m. E.N.E. of Truxillo; *pop.* 11,000.

Tod, *n.* [Icel. *toddi*, a piece of a thing.] A bush; a thick shrub; as, an ivied *tod.* (R.) — A weight used in weighing wool. It contains 28 pounds avoirdupois. — An old term for a fox; — still used in Scotland.

To'dars, Tod'awars, Tu'das, the name of a singular race of people found in the upper part of the Neilgherries, in S. India. They are a fine, muscular race, of pastoral habits of life; possess a peculiar, unwritten language of their own; worship the sun; practise polyandry; assert that their ancestors were the aboriginal inhabitants of Hindostan; levy a *goodoo*, or tithe, of 1-6th of the crops of various agricultural tribes, they themselves holding aloof from the culture of the soil. (See Capt. Burton's *Goa and the Blue Mountains*, Lond. 1861).

To-day', *n.* [A. S. *to dæg.*] The present day. —*adv.* On this day; on the present day; as, he is expected to return *to-day.*

Todd, in *Kentucky*, a S.W. co., bordering on Tennessee; *area*, 360 sq. m. *Rivers.* Pond river, and Clifty, Elk, and Whippoorwill creeks. *Surface*, undulating; *soil*, fertile. *Min.* Coal. *Cap.* Elkton. *Pop.* (1897) 17,500.

Todd, in *Minnesota*, a central co.; *area*, 972 sq. m. *Rivers.* Mississippi, Crow Wing, and Long Prairie. *Surface*, undulating; *soil*, fertile. *Cap.* Long Prairie. *Pop.* (1895) 17,674.

Todd, in *Ohio*, a twp of Crawford co.

Todd, in *Pennsylvania*, a post-township of Huntingdon county, 22 miles S.W. of Huntingdon. — A township of Fulton co.

Toddle, (*tŏd'dl,*) *v. n.* [Allied to *totter* and *topple.*] To walk with short, tottering steps, as a child.

Tod'dler, *n.* One who toddles; specifically, a young child just commencing to walk.

Todd's Creek, in *Ohio*, rises in Clinton co., and flows into the Little Miami in Warren co.

Todd's Valley, in *California*, a post-village of Placer co., 20 m. N.E. of Auburn.

Tod'dy, *n.* [Hind. *târi.*] Another name for ARRACK, *q. v.* —A mixture of spirits and water sweetened, and, generally, drank hot; — it differs from grog in having a less quantity of spirit, and in being sweetened; as, a glass of whisky *toddy.*

Todleben, FRANCIS EDWARD (*tot-lai'ben,*) a Russian general of engineers, B. at Mittau, 1818. When the Russian war broke out, in 1854, he was second captain in the corps of engineers destined for service in the field, and having distinguished himself under Gen. Schilders, in the campaign of the Danube, proceeded to the Crimea. Although Sebastopol was comparatively an open city, he succeeded, under the continuous fire of the enemy, in converting it into a fortress, which resisted for more than a year the efforts of the allied armies. Within twelve months he passed successively through the grades of captain, lieutenant-colonel, adjutant-colonel, major-general, and adjutant-general. During this memorable siege he was wounded in the foot, and was compelled to retire. He was intrusted by the emperor with the defence of Nicolaieff, threatened by the Allies; and afterwards sent to protect Cronstadt. After the peace of 1856 he devoted himself to scientific and literary studies. In 1877, he directed the operations against Osman Pacha before Plevna. He wrote a *History of the Defence of Sebastopol.* D. 1884.

Todmor'den-with-Wafsden, a town of England, in Lancashire, 8 m. from Rochdale, *Man.* Cotton goods.

To-do, (*to-doo',*) *n.* Ado; fuss; commotion; bustle; hurry; stir; racket; — used colloquially, as, what means this *to-do?*

To'dos San'tos Bay. See ALL SAINTS' BAY.

Tody, *n.* (*Zoöl.*) The common name of the genus *Todus*, comprising Insessorial birds, principally natives of the warmer parts of America, and nearly similar to the Kingfishers in their general form. They are characterized by a peculiar flatness or depression of the beak, which is blunt at the end, and has a gape extending as far back as the eyes. They are birds of gaudy plumage and rapid flight; and feed on insects, worms, &c.

Toe, *n.* [A. S. and Icel. *tâ*; Dan. *tæa.*] (*Anat.*) One of the small members which form the extremity of the foot, corresponding to a finger on the hand. — The fore-part of the hoof of a horse, and of other hoofed animals. — The member of a beast's foot corresponding to the toe in man.

(*Mach.*) In a steam-engine, an arm fastened to a lifting rod to raise it.

—*v. a.* To touch or reach with the toes; as, to *toe* a mark.

Toed, (*tōd.*) *a.* Having toes; as, narrow-*toed.*

Toffee, Toffy, *n.* A kind of candy made of molasses, or sugar and butter, boiled down, and allowed to cool into hard, thin, flat cakes.

Toft, *n.* [A. S., Icel., and Dan.] A grove or thicket of trees, sheltering a homestead, and sometimes surrounding it. In old deeds it is commonly joined to *croft*, another Anglo-Saxon word meaning an inclosed field.

To'ga, *n.* [Lat.] (*Rom. Antiq.*) The name given to the principal outer garment worn by the Romans. As only freeborn citizens were allowed to wear the *T.*, it was considered an honorary garment, and at the same time distinguished the Romans from other nations. For this reason the Roman people were called *Gens togata* and *Togati.* The *T.* was thrown over the left shoulder, and passed under the right arm, which thus remained free. It was sewed together from the breast downwards, and as the Romans wore no pockets, the hollow in the folds of the breast, called *sinus*, was used to put small articles in. The rank of a citizen was indicated by the color, the fineness of the wool, and the ornaments attached to his *T.* It was generally white. Rich persons wore wide, and poor persons narrow *T.* A pure white *T.* was always worn by the candidates for an office; a black *T.* was worn for mourning. The *T. prætexta* was worn by all superior magistrates and priests; it was ornamented with a purple stripe. This *T.* was also worn by boys and girls; by the former till they were 17 years of age, and by the latter till their 14th year; after which periods the former changed it for the *T. virilis*, which was the simple white *T.* A conqueror, or other distinguished person celebrating a triumph, wore a *T.* with gold and purple. The material of which the *T.* was generally made was woollen cloth. Under the Empire, persons of rank had their *T.* made of silk.

Fig. 2511.
ROMAN TOGA.

Tog'ated, To'ged, *a.* [Lat. *togatus*, from *toga*, a gown.] Gowned; dressed in, or wearing, a gown.

Together, (*-gĕth'er,*) *adv.* [A. S. *togædere* — *to*, and *gaderian*, to gather.] Gathered in one body or place; in the same place; as, they all live *together* in the same house. — In company; not apart; not in separation; as, those two friends are always seen *together.* — Contemporaneously; coexistently; in the same time; as, Shakspeare and Raleigh flourished *together.* — In or into union; into junction or a state of union; as, to mix things *together.* — In concert; in combination; as, the Allies made war upon Russia *together.* — *Together with*, in union with; in a state of mixture or association with; as, take the bad *together with* the good.

Tog'gel, Tog'gle, *n.* [From L. Ger. *stöckel*, a little stick.] (*Naut.*) A double coue of wood, firmly fixed in a loop at the end of a rope. By passing the toggel through another small loop in another rope, a strong junction is easily formed, which can be cancelled in a moment. Toggels are very useful in bending flags for signals.

Tog'gery, *n.* [From Lat. *toga*, a gown.] A humorous colloquialism for clothes; garniture; articles of dress, or accoutrements; as, a swell got up in first-class *toggery.*

Tog'gle-joint, *n.* A knee-joint formed of two connecting bars brought into a straight line, in such a manner as to produce great end-wise pressure, when any force is applied to bring them into such a position.

Tohick'on Creek, in *Pennsylvania*, enters the Delaware from Bucks co.

Toil, *v. n.* [A. S. *tiolan, tilian*, to toil, labor, endeavor, take care of.] To labor; to work; to endeavor; to exert strength and forcible application with pain and fatigue of body or mind, particularly of the former, with efforts of some continuance and duration.

—*n.* Labor with pain and fatigue; labor or exertion that oppresses the body or mind; drudgery. (NOTE. *Toil* sometimes forms a prefix to certain self-explanatory compounds; as, *toil*-wasted, *toil*-worn, and the like.)

—*n.* [Fr. *toiles*, toils, nets, from *toile*, cloth, from Lat. *tela*, a web.] Any net or snare woven or meshed; any thread, web, or string spread for taking prey; as, a fly falls into the *toil* of a spider.

Toil'er, *n.* One who toils or labors with pain or arduous exertion.

Toil'et, Toil'ette, *n.* [Fr. *toilette*, from *toile*, cloth, from Lat. *tela*, a web.] A covering of cloth, or of linen, silk, or tapestry, spread over a table in a chamber or dressing-room. — Hence, a dressing-table. — Also, mode of dressing, or that which is formed or arranged by the operation of dressing; attire; costume; as, her *toilet* is elegant. — A bag or case for night-clothes.

Toilette-glass, a long mirror or looking-glass used in the arrangement of the toilet. — *Toilet-service, toilet-set*, the lavatory fittings or appointments of a dressing-room. — *Toilet-table*, a dressing-table.

To make one's toilet, to arrange or adjust one's dress with study or care.

Toil'ful, *a.* Involving much labor; toilsome; wearisome.

Toil'less, *a.* Free from toil.

Toil'some, (*-sŭm,*) *a.* Necessitating or involving toil; attended with fatigue or pain; laborious; wearisome; as, *toilsome* work, a *toilsome* journey.

Toil'somely, *adv.* In a toilsome manner; laboriously.

Toil'someness, *n.* State of being toilsome; laboriousness.

Toiros, (*tō'e-roce,*) a seaport-town of Brazil, prov. of Rio Grande do Norte, on the Bay of Tolros, 15 m. N. of Natal; *pop.* abt. 5,000.

Toise, (*toiz,*) *n.* [Fr.] A French measure of length, containing six French feet, or 1·949040 mètres, equivalent to 6·3945925 English feet.

Tokay', a town of Hungary, co. Zemplin, at the confluence of the Bodrog with the Theiss, 113 m. N.E. by E. of Pesth; *pop.* 4,548. *T.* derives its celebrity from its being the entrepot for the sale of the famous sweet wine of the same name, made in the hilly tract called the Heyaltya, extending 25 or 30 m. N.W. from the town. When new, *T.* wines are of a brownish-yellow muddy color, which, when very old, changes to a greenish tint. The best qualities are extremely rich and luscious, but cloying. The finest and oldest varieties of *T.* fetch immense prices.

Token, (*tō'kn,*) *n.* [A. S. *tacen, tacn*; Du. *teeken*; Icel. *tákn.*] A sign; something to represent or indicate another thing or event; a mark; an indication; as, "They have not the least *token* or show of the arts and industry of China." (*Heylyn.*) — A souvenir; a keepsake; a memorial of friendship; some memento by which the regard of another person is to be borne in mind; as, keep this ring as a *token* of my esteem. — A piece of money current by sufferance, and not coined by authority; as, a penny *token.*

(*Print.*) Ten quires of 25 sheets of *perfect* paper, or 250 impressions.

Toklo, in Japan. See YEDDO.

Tol'biac, a plain of Germany, near Cologne, where Clovis I., king of the Franks, defeated the Alemanni, in 496.

Told, *imp.* and *pp.* of TELL, *q. v.*

Tole, *v. a.* To draw, entice, or allure, as by means of a bait.

Toledo, (*to-lai'do,*) a city of Spain, in New Castile, cap. of the prov. of same name, 41 m. from Madrid. It is situated on the sides and top of a steep hill, washed by the Tagus. The principal attraction in *T.* are its public edifices, the most celebrated of which is the Alcazar, or palace, a large structure at the top of a hill, built with solidity, and decorated with statues. *Manuf.* Woollens, linens, and silks; and the Toledo swords, so noted throughout Spain, and now made in a large building on the banks of the Tagus. The secret of tempering them is said to have been recovered, and they fetch a very high price. *T.* is a place of great antiquity, and was successively the seat of government under the Goths, the Moors, and the kings of Castile. *Pop.* 28,342.

Toledo, in *Iowa*, a post-village and township, cap. of Tama county, about sixty-five miles E.N.E. of Des Moines.

Toledo, in *Kansas*, a post-village and township of Chase co., about 12 m. W. of Emporia.

Toledo, in *Ohio*, a thriving city, cap. of Lucas co., on the Maumee River, near its mouth at the W. extremity of Lake Erie, 112 m. W. of Cleveland; Lat. 41° 39′ 30″ N., Lon. 83° 32′ W. It is one of the most important entrepots in the commerce of the Great Lakes. *Pop.* in 1840, 1,322; in 1850, 3,829; in 1860, 13,768; in 1870, 31,693; in 1880, 50,143; in 1890, 81,434; in 1900, 131,822.

Tolenti'no, a town of Italy, in the former States of the Church, 12 m. from Macerata; *pop.* 10,642.

Tolerable, (*tŏl'ẽr-a-bl,*) *a.* [Fr., from Lat. *tolerabilis.*] That may be borne or endured; supportable, either bodily or mentally. — That may be tolerated; sufferable; allowable; as, a *tolerable* excuse. — Passable; moderately good or agreeable of its kind; not absolutely pleasing or excellent, but such as can be permitted or accepted without opposition, resentment, or repugnance; not mean or contemptible; as, a *tolerable* performance, a *tolerable* administration.

Tol'erableness, *n.* State or quality of being tolerable.

Tol'erably, *adv.* In a tolerable manner. — Passably; moderately well; not excellently or perfectly.

Tol'erance, *n.* [Fr.; Lat. *tolerantia.*] Toleration; a feeling or habit which disposes a person to be patient and indulgent towards those whose opinions or practices differ from his own; — opposed to *intolerance.*

Tol'erant, *a.* Indulgent; forbearing; favoring or exercising toleration; as, a *tolerant* theologian.

Tol'erate, *v. a.* [Fr. *tolérer*; Lat. *tolero, toleratum.*] To support; to endure; to bear with; to suffer to be or to be done without prohibition or hindrance; to allow or permit negatively, by not preventing; not to restrain or suppress; as, such conduct must not be for one moment *tolerated.*

Tolera'tion, *n.* [Fr.; Lat. *toleratio.*] Act of tolerating; allowance given to that which is not wholly approved. — Appropriately, the allowance of religious opinions and modes of worship in a state, when contrary to or different from those of the established church or belief.

—Hence, freedom from bigotry or intolerance in judging of the opinions or doctrines of others, especially as expressed in religious matters.

To'lersville, in *Virginia*, a village of Louisa co., 45 m. W.N.W. of Richmond.

Toles'ton, in *Indiana*, a post-village of Lake co., about 30 m. S.E. of Chicago.

Tolima (*to-tee'ma*), a volcano of the Republic of Colombia, 18,270 feet high; Lat. 4° 46′ N., Lon. 75° 37′ W.

Toll, (*tōl,*) *n.* [A. S.; Du. *tol*, duty, custom; Ger. *zoll*, excise, custom.] A portion of goods, money, &c., taken or exacted as a tax, impost, or duty; a tax paid or duty imposed for some liberty or privilege; — especially, a duty imposed on travellers and goods passing along public roads, bridges, over ferries, &c. It is also used to indicate the payment to the corporation of a town, or to the owner of a market or fair, upon sale of things tollable. — A certain quantity of grain taken by a miller as compensation for the grinding of the remainder.

Toll is sometimes taken by a man for every beast driven across his ground, and is then called *toll-traverse;* also, by a town for beasts going through it, or over a bridge or ferry maintained at its cost, and is then called *toll-thorough.* — *Toll-turn* signifies a toll paid at the return of beasts from market, as being unsold.

Toll, *v. a.* To take from, as a part of a general contribution or tax; to exact, as an impost or tribute.

—*v. n.* To pay toll; —also, to take toll, as a miller.

Toll, (*tōl,*) *v. n.* [Probably formed from the sound.] To sound or ring, as a bell, with strokes uniformly repeated at intervals, as at funerals, or in summoning assemblies, or to announce the death of a person.

—*v. a.* To cause to sound, as a bell, with strokes slowly and uniformly repeated, as for summoning public bodies or religious congregations to their meetings, or for announcing the death of a person, or to give solemnity to a funeral; as, to *toll* the passing bell. —To strike, or to denote by striking; as, the clocks *tolled* the hour of midnight.

—*n.* A particular sounding of a bell, with strokes slowly and measuredly repeated.

Toll'able, *a.* Liable to the payment of toll; as, *tollable* merchandise.

Tol'land, in *Connecticut,* a N.N.E. co., bordering on Massachusetts; *area,* 403 sq. m. *Rivers.* Hop and Willimantic. *Surface.* hilly in the E. and level in the W. *Cap.* Tolland. *Pop.* (1897) 25,960.

—A post-village and township, capital of the above co., 20 m E.N.E. of Hartford.

Tolland, in *Massachusetts,* a post-township of Hampden co., 112 m. W.S.W. of Boston.

Toll'er, *n.* A tax-collector; a toll-gatherer; one who tolls a bell.

Tol'men, *n.* (*Archæol.*) Same as CROMLECH. *q. v.*

Tol'na, or TOLNAN, a town of Hungary, to the W. of the Danube, 12 m. from Koloesa; *pop.* 7,200.

Toloar, (*to'lore,*) the largest of the Salibabo islands, in the Malay Archipelago, between Gilolo and Mindanao. It has a circuit of abt. 80 m. *Desc.* Diversified and well cultivated. Lat. 4° 28′ N., Lon. 126° 55′ E. *Pop.* unascertained, but considerable.

To'lono, or TOLONA, in *Illinois,* a post-village of Champaign co., 137 m. S.W. of Chicago.

Tolo'sa, a town of Spain, in Biscay, at the confluence of the rivers Orio and Araxes, 42 m. from Bilboa. It stands in a narrow defile, and is inclosed by a wall entered by several gates. *Manuf.* Earthenware, woollens, hats, and leather. *Pop.* 7,300.

Tolu, (*to-loo',*) *n.* The concrete balsam of *Myrospermum toluiferum.* This substance is pale-brown; brittle in cold, but tenacious in hot weather; fragrant when heated; and entirely soluble in alcohol. It contains *cinnamic acid.* See MYROSPERMUM.

Toln', Santiago de, a seaport town of the Republic of Colombia, department of Magdalena, on the Gulf of Morrisquillo, 65 m. S. of Cartagena.

Tolu'ca, a town of Mexico, 40 m. S.W. of the city of Mexico; Lat. 19° 16′ N., Lon. 99° 21′ W.; *pop.* abt. 14,000.

To'mah, in *Wisconsin,* a city and township of Monroe co., 40 m. N.E. of La Crosse. *Pop.* (1895) 2,458.

Tom'ahawk, *n.* [N. American Indian, *tomehagen.*] An Indian hatchet; a weapon of war used by the North American Indians. Those made by the natives are headed with stone; but they also use heads of metal, made in civilized countries, with the hammer-head hollowed out to suit the purposes of a smoking-pipe, the mouth-piece being in the end of the shaft.

—*v. a.* To cut or kill with a tomahawk; to scalp.

Tom'ahawk, in *Arkansas,* a township of Searcy county.

To'males, in *California,* a post-village and township of Marin co., 15 m. W. of Petaluma.

To'males Bay, in *California,* an inlet of the Pacific in Marin co., 14 m. long and 2 m. wide.

Tomaszow, (*tom-as'yo,*) a town of Russian Poland, 20 m. from Rana; *pop.* 5,500.

Tomato, (*-mā'to* or *mah-to,*) *n.* (*Bot.*) See LYCOPERSICUM.

Tomb. (*toom,*) *n.* [Fr. *tombe;* It. *tomba,* from Gr. *tumbos,* the place where a dead body is burned.] A heap or mound of earth raised over the dead; a grave; a pit in which the dead body of a human being is deposited. — Especially, a house or vault formed wholly or partly in the earth, with walls and a roof for the reception of the dead. —A tombstone; a monument erected to the memory of the departed.

—*v. a.* Same as ENTOMB or INTOMB, *q. v.*

Tom'bac, *n.* (*Metall.*) An alloy of copper and zinc, or a species of brass with excess of zinc; when arsenic is added, it forms *white* tombac.

Tombig'bee, or TOMBECKBEE, a river which rises in Tishemingo co., Mississippi, and unites with the Alabama to form the Mobile River, 45 m. N. of Mobile, after a S.S.E. course of 450 m. It is navigable for large steamboats to Columbus, 366 m.

Tombless, (*tōom'les,*) *a.* Without a tomb.

Tom'boy, *n.* [From *Tom,* dim. of *Thomas,* and *boy.*] A rough, rude, boisterous boy; also, and more generally, a hoiden; a romp; a skittish girl.

Tomb'stone, *n.* A monument; a slab or stone erected over a grave, to preserve record of the memory of the dead lying beneath.

Tom'buctoo, more commonly TIMBUCTOO, a famous city of the Soudan, on the southern border of the desert of Sahara, and about 8 m. N. of the main stream of the Jobila or Upper Niger. Its site is elevated only a few feet above the river level, and is at present about 3 miles in circumference and without walls, though formerly it was a walled city covering a much larger area. The houses are principally mud hovels of one story, though one of its mosques is a large and imposing building, built in 1325. *T.* enjoys a large trade, it being a principal station for the caravans which cross the Sahara, and for the trade from the west and south. The extension of French influence toward it has increased its importance. The exports comprise gold-dust, salt, kola-nuts, ivory, gums, dates, tobacco, and ostrich feathers; the imports, Manchester goods, mirrors, knives, tea, coral, &c. *T.* stands on the border of several tribal territories, as those of the Fulahs, Tuaregs, Berbers, Mandingoes, &c. All these tribes are represented in its population of some 20,000, together with Jews, Arabs, and Arabized Africans.—*Hist. T.* is said to have been founded 1213 A. D., and first became known to Europeans in the 14th century, Ibn Batuta visiting it about 1350. It soon became the capital of an important Moorish monarchy, its inhabitants becoming zealous Mohammedans. After the overthrow of this government and the demolition of the walls of the city, it long remained a center of discord, being placed under tribute by the successively dominant tribes. Since 1884 the advance of the French in Senegambia has brought it under European influence, and it is included within the boundaries of the West African French territory.

Tom'-cod, or **Frost'-fish,** *n.* (*Zoöl.*) A species of cod (*Morrhua pruinosa*) of the North Atlantic, usually abundant in the mouths of the rivers after the first frosts of autumn. It is from 4 to 12 inches long, olive-green above, and silvery below.

Tome, *n.* [Fr., from Gr. *tomos — temno,* to cut off.] A book; a volume; as many writings as are bound in a volume, forming the part of a larger work. It is usually applied to a single bulky volume.

To'mentose, Tomen'tous, *a.* [Lat. *tomentum,* a stuffing of wool, hair, or feathers.] (*Bot.*) Downy; nappy; covered with flocculence; as, a *tomentose* stem.

Tom'fool, *n.* A ninny; a great fool; a silly trifler.

Tom'foolery, *n.* Gross absurdity; silly, foolish trifling. (Low.)

Tomhan'nock, in *New York,* a post-village of Rensselaer co., 15 m. N.N.E. of Troy.

Tomi'na, a town of Bolivia, dept. of Chuquisaca, 50 m. E. of Chuquisaca.

Tom'-noddy, *n.* A fool; a dunce; a simpleton; a noddy. (*Zoöl.*) The PUFFIN, *q. v.*

To-morrow, (*-mōr'rō,*) *n.* The day after the present.

—*adv.* On the morrow; on the day after the present.

Tom'pion, *n.* (*Ordn.*) A conical plug or stopper, placed in the muzzle of a gun to keep out the wet. — Also, the iron bottom to which grape-shot are fixed.

Tomp'kins, in *Illinois,* a township of Warren county.

Tomp'kins, in *Michigan,* a post-village and township of Jackson co., 90 m. W. of Detroit.

Tomp'kins, in *New York,* a central co.; *area,* 494 sq. m. Cayuga Lake penetrates S. almost to the center, and it is drained by Fall creek. *Surface,* undulating; *soil,* fertile. *Cap.* Ithaca. *Pop.* (1890) 32,923.

—A township of Delaware co.

Tomp'kinsville, in *Kentucky,* a post-village, cap. of Monroe co., 140 m. S.S.W. of Frankfort.

Tomp'kinsville, in *New York,* a post-village of Richmond co., on the N.E. of Staten Island, 6 m. S.W. of New York.

Tomsk, a town of Asiatic Russia, cap. of a district of same name, on the Tom, 25 m. from its junction with the Obi; Lat. 56° 30′ N., Lon. 84° 10′ E. It is the centre of a large trade; *pop.* of district, 838,756; *area,* 330 sq. m.; *pop.* of town, 25,000.

Tom's River, in *New Jersey,* rises in Monmouth co., and flowing S.E. enters Barnegat Bay from Ocean co.— A post-village, cap. of Ocean county, 40 m. S.E. of Trenton.

Toms'town, in *Pennsylvania,* a village of Franklin co., 15 m. S.S.E. of Chambersburg.

Tomtit', *n.* (*Zoöl.*) The TITMOUSE, *q. v.*

Ton, (*tŏn(g,*) *n.* [Fr., from Lat. *tonus,* tone.] The tone of society; the air of fashion; the prevailing mode; vogue; style. See BON-TON.

Ton, (*tŭn.*) *n.* [A. S. *tunne,* a butt, a large vessel. See TUN.] (*Com.*) A denomination of weight equal to 20 cwt. or 2,240 lbs. avoirdupois. The *long ton* often used in wholesale dealings is equal to 21 cwt., or 2,352 lbs. avoirdupois. In the U. States the ton is commonly measured at 2,000 lbs., this being often called the *short ton.* — Also, an English measure of capacity, more usually written TUN, *q. v.*

(*Naut.*) Forty cubic feet; — by which the burden or carrying capacity of a ship is estimated; as, a steamer of 1,000 tons, or, in other words, a steamer that will carry 1,000 tons.

—The quantity of 10 bushels of potatoes. — The quantity of 8 sacks, or 10 barrels, of flour. — A certain quantity of timber, comprising, if round, 40 solid feet; if square, 54 feet.

Tonal'ity, *n.* (*Mus.*) A term used generally to denote that peculiarity which modern music possesses, in consequence of its being written in definite keys, thereby conforming to certain defined arrangements of tones and semitones in the diatonic scale.

Tonawan'da, in *New York,* a post-town and township of Erie co., 12 m. N. of Buffalo. *Pop.* (1897) 8,650.—A creek which rises in Wyoming co., and flowing N.W., falls into Niagara river 12 m. N. of Buffalo.

Ton'dern, a town of Prussia, in the former duchy of Schleswig, 37 m. from Schleswig. *Manuf.* Woollens, lace, and linen fabrics. *Pop.* 7,340.

Tone, (*tōn,*) *n.* [Fr. *ton;* Sp. *tono;* Gr. *tonos.*] A sound or the character of a particular sound; as, a high or low *tone,* a sweet or harsh *tone,* a grave or acute *tone.* — A whine or whining sound; a kind of mournful strain of voice; an affected sound in speaking; an artificial inflection of the voice. — In Rhetoric, accent, or rather a particular inflection of the voice, adapted to express emotion or passion; as, she spoke in a *loud* tone. — Mood; temper; disposition or state of mind; as, a person of a philosophical *tone.* — Tenor; drift; animus; spirit; ruling characteristic; as, the *tone* of your remarks is quite irrelevant to the subject. — Mode or prevailing features or style, as of manners, morals, and the like, in relation to a scale of merit or inferiority; as, an elevated *tone* of sentiments; he exhibited the *tone* of gentle breeding in his deportment, &c.

(*Mus.*) Literally, a fixed sound of a certain pitch; but the term is often used incorrectly to signify the distance between two sounds; as in the *major* and *minor T.* In speaking of the sound or voice of any instrument, with reference to its quality, the word *T.* is also used; as, a rich *T.*, a full *T.*, or a mellow *T.*

(*Med.*) That state of a body in which the animal functions are healthy, and possess full powers of performance.

(*Paint.*) The prevailing color of a picture, or its general effect, denominated *dull tone, bright tone,* &c., as the case may be. It depends *first,* upon the right relation of objects in shadow to the principal light; *second,* upon the quality of color, by which it is felt to owe part of its brightness from the hue of the light upon it.

—*v. a.* To intone; to utter in an affected tone. — To tune.

To tone down. To depress the tone or character of; to soften, diminish, or weaken the prevailing features of; to moderate or relax; as, *to tone down* exuberant spirits. — (*Paint.*) To bring the chiar-oscuro into harmonious blending of colors; — said of a picture. — *To tone up,* to heighten or make more intense in tone; to cause to give a higher tone or sound.

Tone, THEOBALD WOLFE, an Irish revolutionist, B. in Dublin, 1763, was the founder of the first club of "United Irishmen." Compelled to fly from Ireland, he came to the U. States, 1795. The following year, urgent letters from Ireland, stating that the country was ripe for a revolt, induced him to sail for France, where he induced the Directory to dispatch an expedition to Ireland, of which he was appointed adjutant-general. He was taken prisoner, and being sentenced to be hanged on Nov. 12, 1798, on the 11th he cut his throat with a penknife, and died in consequence a few days afterwards.

Toned, *a.* Possessing a tone; — mainly used in composition; as, high-*toned,* sweet-*toned,* and the like.

Tone'less, *a.* Without tone; hence, inharmonious.

Tone'-syllable, *n.* An accented syllable.

Tonga Islands. See FRIENDLY ISLANDS.

Tongay', a town of Chili, on the Bay of Tongay, and abt. 200 m. N. of Valparaiso.

Tongres, (*to'gur,*) a town of Belgium, on the Jaar, 9 m. from Liege. *Manuf.* Hats and chicory. *Pop.* 7,044.

Tongs, *n. pl.* [A. S. *tang; pl. tangan.*] An instrument of metal, consisting of two parts or long legs or shafts, joined at one end, by which tight hold is taken of anything, as of coals in the fire, heated metals, &c.; as, a pair of *tongs,* a smith's *tongs.*

Tongue, (*tung,*) *n.* [A. S. *tung.*] (*Anat.*) An organ found in most animals. The human *T.* is a soft fleshy viscus, situated interiorly in the cavity of the mouth, very movable in every direction, and constituting the organ of taste, (*q. v.*) Its movements are chiefly subservient to speech and the prehension and swallowing of food; and besides taste, it is also highly endowed with the sensation of touch. The sensitive power of the *T.* resides in the membrane which covers it, the motor power in the interior. Indeed almost the entire substance of the *T.* is composed of muscular fibres running in different but determinate directions, many of which belong to muscles which enter at its base and under surface, and attach it to other parts. Hence the great variety and regularity of its movements, and its numerous changes of form. Between the several layers and bundles of muscular fibres, there is always found a considerable quantity of soft fatty tissue, and also a very fine areolar web. It is abundantly supplied with arteries, veins, and nerves, the last being, 1. The lingual or gustatory branch of the fifth pair; 2. The sublingual branch of the glosso-pharyngeal; and 3. The hypo-glossal nerve. The upper surface of the *T.* is covered all over with numerous projections or eminences named papillæ. Towards the tip and free borders they gradually become smaller, and disappear on the under surface. These are doubtless chiefly concerned in the spe-

Fig. 2512.

THE UPPER SURFACE OF THE TONGUE, SHOWING THE PAPILLÆ.

1, the raphé or mesial line; 2, 2, the lateral parts; 3, the tip; 4, 4, the sides or edges; 5, 5, the V-shaped mass of circumvallate papillæ; 6, the foramen cæcum; 7, the mucous glands at the root of the tongue; 8, the epiglottis; 9, 9, the frænæ epiglottides; 10, 10, the greater horns of the hyoid bone.

cial sense of taste, but they also possess in a very high degree that of touch.

—Hence, speech; discourse; sometimes fluency of speech. — Power of articulate utterance; speech, as well or ill used; mode of speaking; as, a parrot imitates the human *tongue*. — A language; the whole vocabulary of words used by a particular nation or nations; as, he speaks various *tongues*. — Speech; words, declamations, or declarations only; — as opposed to *thoughts* or *actions*; as, "Give thy thoughts no *tongue*." (*Shaks.*)—A nation, as distinguished by language; as, "all nations and *tongues*." —*Isa.* lxvi. 18.

—That which resembles a tongue in position or form; as, (1.) A point or projection; or a projecting, slender appendage or fixture; as, the *tongue* of a buckle or of a balance. —(2.) A point or long narrow strip of land, projecting from the main into a sea or lake. —(3.) The taper part of a thing.

(*Naut.*) The upper main-piece of a mast composed of several pieces.

(*Arch.*) Same as GROOVE, *q. v.*

To hold the tongue, to be silent; to refrain from speaking.

Tongue, *v. a.* To chide; to scold.—To connect by means of a tongue and groove; as, to *tongue* shingles together.

(*Mus.*) To modulate with the tongue, as notes, in playing the flute or other wind instrument.

—*v. n.* To talk; to prate; to chatter; as, such stuff as madmen *tongue*. — *Shaks.*

Tongued, (*tŭngd,*) *a.* Having a tongue; as, *tongued* like a loquacious woman.

Tongueless, (*tŭng'lĕs,*) *a.* Lacking a tongue;—hence, mute; speechless.

Tongue River (*tung*), rises in Wyoming, about Lat. 44° N., Lon. 107° W., and falls into the Yellowstone, after a N.N.E. course of 300 miles.

Tongue-tie, (*tŭng'tī,*) *n.* (*Med.*) Impeded motion of the tongue in consequence of the shortness of the frænum, or of the fixed adhesion of its margins to the gums.

—*v. a.* [*Tongue* and *tie*.] To deprive of speech or the power of speech, or of distinct articulation.

Tonguy, (*tŭng'ĭ.*) *a.* Over-ready with the tongue; voluble of speech; as, a *tonguy* boy. (Colloq. and vulgar.)

Ton'ic, *a.* [Fr. *tonique*.] Relating to tones or sounds; as, the *tonic* sol-fa system.—Increasing tension;—hence, imparting an accession of strength; as, *tonic* force.

(*Med.*) Improving the tone of the bodily system; imparting new strength; neutralizing functional debility, and restoring healthy and vigorous action; as, a *tonic* medicine.

—*n.* [Lat. *tonicum*.] (*Med.*) One of a class of medicines which gradually and permanently increase the tonicity of the system, strengthening and invigorating it when in a debilitated condition; they increase the appetite, assist digestion, and thus, by increasing nutrition, give firmness to the muscular and circulating system. The principal tonics are to be found among the vegetable astringents and bitters, the mineral acids, and the preparations of iron.

(*Mus.*) The principal or key-note of the scale. It is the chief sound upon which all regular melodies depend, and in which they, or at least the base accompanying them, should usually terminate.

Ton'ica, in *Ill.*, a p.-v. of La Salle co., 9 m. S. of La Salle.

Tonic Sol-Fa. See MUSIC.

Ton'ical, *a.* Tonic; as, a medicine possessing *tonical* properties.

Tonicity, (*-nĭs'ĭ-tē,*) *n.* (*Physiol.*) A condition of healthy tension of muscular fibres in the human body while at rest.

To-night, (*-nīt'.*) *n.* [*To* and *night*.] The present night, or the night after the present day.

—*adv.* On this night.

Ton'ish, *a.* In the ton; modish; stylish; fashionable.

Ton'ishness, *n.* Quality of being in the ton or reigning mode; fashionableness.

Ton'ka-bean, TONOA-BEAN, TONQUIN-BEAN, *n.* See DIPTERYX.

Tonnage, (*tŭn'naj.*) *n.* [From *ton*.] (*Naut.*) The number of tons' weight which a ship can carry: the weight of goods carried in a ship or vessel; the cubical content or burden of a ship in tons; as, a line of packet-ships of an average *tonnage* of 3,000. — A duty or impost on ships, proportioned to the registered size of the vessels. — The aggregate amount of shipping belonging to a country estimated by tons; as, the *tonnage* of the U. States.

Tonneins, (*ton'nain'g,*) a town of France, dept. of Lot-and-Garonne, on the Garonne, 55 m. from Bordeaux. *Manuf.* Woollens, cigars, &c. *Pop.* 8,176.

Tonnerre, (*ton-nair',*) a town of France, dept. of the Yonne, on the Armençon, 18 m. from Auxerre. *Manuf.* Glass, hats, &c. *Pop.* 5,314.

Tonom'eter, *n.* [Gr *tonos*, a stretching, a tone, and *metron*, measure.] An instrument whereby tones or sounds are measured.

Ton'ous, *a.* Full of tone or sound.

Ton'quin, the most northerly prov. of COCHIN-CHINA, *q. v.*

Ton'quin, (Gulf of.) an inlet of the China Sea, 150 m. in width, and 300 m. in length. It is bounded by Cochin China on the W., by China on the N., and by the Chinese prov. of Quang-Tung and the island of Hainan on the E.

Ton'sil, *n.* [Lat. *tonsillæ*, tonsils.] (*Anat.*) One of the two complex glands, situated one on each side of the fauces, between the anterior and posterior arches of the soft palate. In relation to the surface of the neck, the *T.* corresponds to the angle of the lower jaw, where it may be felt beneath the skin when it is enlarged. They are of an elongated oval form, usually about six lines in length, and four in width and thickness, but they vary much in size in different individuals. Each is composed of a number of smaller glands, and presents a number of orifices opening on the surface of the mucous membrane. The nature of the secreted fluid is not certainly known, but it bears a general resemblance to saliva, and doubtless serves a similar purpose. The *T.* are largely supplied with blood-vessels and nerves.

Tonsile, (*ton'sĭl,*) *a.* [Lat. *tonsilis*.] That may be clipped or shorn.

Ton'silar, Tonsilit'ic, *a.* (*Med.*) Relating to the tonsils.

Tonsil'itis, *n.* (*Med.*) Same as QUINSY, *q. v.*

Tonsor'ial, *a.* [From Lat. *tonsor*, a barber, a shearer.] Pertaining, or relating, to a barber, or to the operation of shaving.

Tonsure, (*tŏn'shoor,*) *n.* [Fr., from Lat. *tonsura*, from *tondeo*, *tonsus*, to shear.] The act of clipping the hair, or of shaving the head; or the state of being shorn.

(*Eccl.*) The *crown* or space on the top of the head kept shaven by persons in orders, or belonging to religious bodies in the Roman and other churches. *T.* is said to be of two kinds: one denominated after St Paul, across the whole front of the head from ear to ear, in use in the Eastern churches (and those of Britain and Ireland); the other from St. Peter, the ordinary Roman Catholic. *T.* was first rendered obligatory by the Fourth Council of Toledo, A. D. 633. The *T.* is larger in proportion to the rank of the person in the church. It is supposed to represent the crown of thorns placed on the head of Christ when before Pilate.

Tonsured, (*tŏn'shoord,*) *a.* Having the tonsure; shaven; shorn; — hence, bald; as, a *tonsured* head.

Tonti, in *Illinois*, a post-village of Marion co., 14 m. N. E. of Centralia.

Tontine, (*ton-tēn',*) *n.* [Fr.; said to be from its inventor *Tonti*, an Italian.] A partnership composed of creditors or recipients of perpetual or life-rents or annuities, formed on the condition that the rents of those who may die shall accrue to the survivor, either in whole or in part.

Too, *adv.* [A. S. *tó*. See To.] More than enough; over; — noting addition or excess; as, *too* many, *too* much, *too* long, one *too* many. — Also; moreover; likewise; in addition; as, let him come *too*.

Tooboual Island, (*to-bo'lai,*) one of the Society Islands, in the S. Pacific Ocean; Lat. 23° 25' S., Lon. 149° 37' E.

Too'ele, in *Utah*, a W. co., bordering on Nevada; *area*, 6,240 sq. m. It is traversed by the Humboldt or St. Mary's river. *Lakes.* Great Salt Lake on the N.E. border, and Pyramid Lake. *Surface*, diversified by mountains and deserts. *Cap.* Tooele. *Pop.* (1895) 4,428.

—A post-village, cap. of the above co., 30 m. S.W. of Salt Lake City.

Took, *imp.* of TAKE, *q. v.*

Tool, *n.* [A. S. *tol, tool, tohl.*] An instrument of manual operation, particularly such as are used by artisans, mechanics, craftsmen, &c.; an implement of labor, as a hammer, saw, plane, chisel, and the like; —also, a cutter or other part of an instrument or machine that dresses or finishes off work; as, a set of carpenter's *tools*, a planing *tool*, &c.— Hence, any instrument of use or service; —especially, a pistol employed in duelling; as, each second carried the respective *tools*. — A person employed as an instrument or agent by another person; — used in an ill sense; as, he found him to be the most suitable *tool* for the purpose.

—*v. a.* To shape, form, dress, or finish with a tool; as, the *tooled* binding of a book.

Toon, Toona, *n.* (*Bot.*) A tree of the order *Cedrelaceæ*. It is one of the largest trees in the East Indies.

Toot, *v. a.* [D. *toeten, tuiten.*] To make a particular sound, by bringing the tip of the tongue in contact with the root of the upper teeth; also, to sound a horn in a like manner.

Toot, Tootle, (*toot'l,*) *v. n.* To cause to sound, as a horn; — hence, to blow; to wind; to sound; as, to *toot*, or *tootle*, the horn or bugle.

Toot'er, *n.* One who toots or plays upon a horn or bugle.

Tooth, *n*; *pl.* TEETH. [A. S. *toth*, pl. *teth*; Lat. *dens*; Gr. *odous, o-dontos*.] (*Anat.*) One of the hard bodies attached to parts of the mouth or beginning of the alimentary canal, and peculiar to vertebrated classes of animals. They are principally adapted for seizing, tearing, dividing, pounding, or grinding the food; but in some they are modified to serve as weapons of offence and defence; in others, as aids to locomotion, means of anchorage, instruments for uprooting or cutting down trees, or for the transport and working of building materials. They are characteristic of age and sex, and in man they are also subservient to beauty and speech. In man, every tooth consists of two hard parts, — one external, white, uniform, somewhat like ivory; the other internal, somewhat like the compact structure of bone. The former, which is a covering of enamel, is very close in texture, perfectly uniform and homogeneous, yet presenting a fibrous arrangement. It is seen only at the crown of the tooth, the upper and outer part of which consists of this substance. The internal portion of the tooth and the root consists of close-grained bony matter, as dense as the compact walls of the long bones. In the interior of the bony part of each tooth is a cavity, which descends into the root and communicates at its extremity with the outer surface by openings corresponding to the number of branches into which the tooth is divided. This cavity, which is large in young or newly formed teeth, and small in those which are old, contains a delicate vascular membrane. It presents two surfaces, — an exterior, adhering to the bony surface of the dental cavity by minute vessels, and an interior, free, and, so far as can be determined, of a body as minute, resembling a closed sac. In the child, the teeth usually begin to cut through the gum about the sixth or seventh month after birth; and the temporary or deciduous set of teeth, 20 in number, are generally

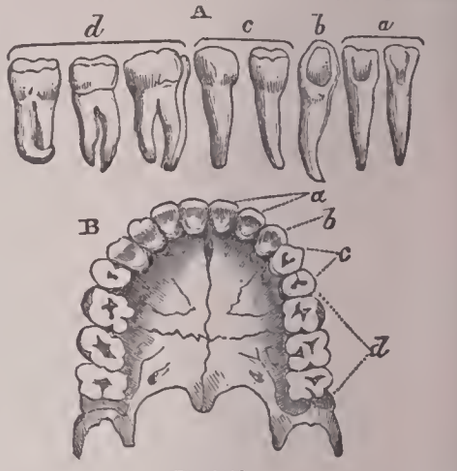


Fig. 2513.

A, the separate human teeth as they occur in the half jaw of the adult; B, the human teeth *in situ* in the upper jaw; *a, a*, incisors; *b, b*, canine; *c, c*, premolars; *d, d*, true molars.

completed by the end of the third year. The period of dentition is usually a time of disordered health to children, especially if anything occurs to prevent the ready yielding of the gum to the pressure of the tooth below. The deciduous teeth begin to fall out about the age of seven or eight, and are replaced by the adult or permanent set. These are 32 in number, or 16 in each jaw; namely, 4 incisors or front teeth, 2 cuspidati or canine teeth, 4 bicuspidati, and 6 molars. The last two molars are called *dentes sapientiæ*, or wisdom-teeth, on account of their not making their appearance till about the age of eighteen or twenty, or later, when one is supposed to have reached the years of discretion. The teeth are subject to decay, and require to be kept clean by frequent brushing. See TOOTHACHE.

—Hence, taste; palate; gustatory sense; as, to have a dainty *tooth*. — A tine; a prong; a cog; something pointed or resembling an animal tooth, and corresponding to such in shape, position, or office; as, the *tooth*, or *teeth*, of a comb, saw, file, rake, wheel, and the like.

In spite of one's teeth. In defiance of objection or opposition; in the face of all antagonistic efforts; as, I will have my way *in spite of your teeth*. — *In the teeth.* Face to face; in direct front or opposition; as, we sailed right *in the* wind's *teeth*.—*To show the teeth.* To threaten; to menace; as, she *shows her teeth*, but dare not bite.—*To cast in the teeth.* To insult by open reviling; to retort reproachfully; as, *to cast* a stigma *in one's teeth*.—*With the skin of the teeth.* A metaphorical expression, having a but vague definition. It is generally understood to imply the *enamel of the teeth*, and occurs in *Job* xix. 20: "I am escaped *with the skin of my teeth*."—*Tooth and nail.* By biting and scratching; by all available means; by one's whole efforts; as, to fight *tooth and nail*.—*Tooth-ornament.* (*Arch.*) Same as DOG TOOTH, *q. v.*—*To one's teeth.* Directly to one's face; in open antagonism or defiance; as, I told him *to his teeth* my opinion of him.

—*v. a.* To furnish with teeth: as, to *tooth* a rake.—To indent; to jag; to cut into teeth; as, to *tooth* a saw or comb.—To interlock.

Tooth'ache, (*-āk.*) *n.* (*Dentistry.*) A well-known and very painful disease, situated in the teeth,—most frequently in the molars, and more rarely in the incisors. The pain sometimes reaches up to the eyes, and sometimes backwards to the cavity of the ear. It may arise from various causes; but most frequently it is owing to some decayed tooth. Often, however, it is a mere rheumatic affection arising from cold. It attacks persons in all periods of life, but is most frequent in the young and plethoric. When the pain takes place in a decayed tooth, it is owing to the admission of cold air irritating the exposed nervous fibrils in the hollow or carious part; hence, a frequent cure of *T.* is by destroying the nerve. The application of opium, chloroform, or oil of cloves to the part often affords relief. When there is much inflammation, bleeding the gums, blisters behind the ears, and purgatives are necessary. When the disorder proceeds from rheumatism, which will be known by the pain being more diffused and affecting the muscles about the jaw, fomentations, blisters behind the ears, and the other remedies for rheumatism, are to be employed. Frequently, however, every means fails, and the only remedy left is to draw the tooth. Filling the tooth with gold is very serviceable in protecting the nerve from injury and preventing further decay; but this should never be had recourse to when there is any pain or inflammation present, as its tendency, by pressing upon the nerve is to aggravate them.

Tooth'-drawing, *n.* Same as DENTISTRY, *q. v.*

Toothed, *p. a* Having teeth or jagged projections.

(*Bot.*) Dentate.

Tooth'-edge, (*-ĕj,*) *n.* The disagreeable sensation excited by rasping or grating sounds, and by contact with certain acidulous or noxious substances.

Tooth'ing, *n.* (*Arch.*) Bricks alternately projecting at the end of a wall, in order that they may be bonded into a communication of it when the remainder is carried up.

Tooth'ing-plane, *n.* A plane whose tool is serrated, for the purpose of raising asperities on surfaces.

Tooth'-key, *n.* An instrument used to extract teeth, by a motion resembling that of the turning of a key.

Tooth'-pick, Tooth'-picker, *n.* [*Tooth* and *pick.*] An instrument for clearing the teeth of substances between them.

Tooth'-powder, *n.* A DENTIFRICE, *q. v.*

Tooth'-rush, *n.* (*Med.*) Same as RED-GUM.

Tooth'some, *a.* Grateful or agreeable to the taste; palatable; as, *toothsome* viands.

Tooth'-wort, (*-wurt,*) *n.* (*Bot.*) See LATHRÆA and DENTARIA.

Top, *n.* [A. S., Dan., Fris., and D.; Swed. *topp.*] The highest part of anything; the upper end, edge, or extremity; the apex; the summit; the upper side or surface; as, the *top* of a hill, the *top* of a mountain, the *top* of a tower, the *top* of a tree, &c. — The utmost or most elevated degree: as, fame is the *top* of some men's desires. — The chief; the highest person; the most prominent individual among many; as, "the *top* of zealots." (*Milt.*) — Highest rank; most elevated position or condition; utmost attainable place; as, a man at the *top* of his profession, a student at the *top* of his class. — The crown or upper surface of the head; the hair on the crown of the head; the forelock; as, he is a brave fellow from *top* to toe. — The head of a plant; as, the *top* of a cabbage.

(*Woollen Manuf.*) The combed wool ready for the spinner, from which the shorts and dust have been taken out.

—[Fr. *toupie*, probably from Belg. *toppen*, to turn.] A pear-shaped toy, which children play with by whirling it on its point or axis, continuing the motion with a whip; — also called a *spinning-top.*

—[Icel. *toppr.*] (*Naut.*) A sort of platform surrounding the head of the lower mast of a ship, and projecting on all sides (*f, f*, Fig. 2514).

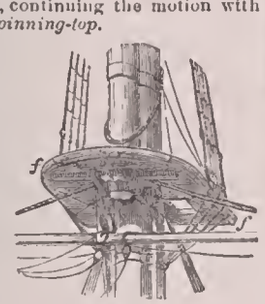


Fig. 2514. — TOP.

—*a.* Being on the top or summit, highest; most elevated; as, the *top* stone of a building.

—*v. n.* (*imp.* and *pp.* TOPPED.) (*tŏpt.*) To rise aloft; to be eminent; as, some letters *top* it over their fellows. — To predominate: as, *topping* uneasiness. — To rise above others; to surpass; to excel.

—*v. a.* To cap: to tip; to cover on the top; as, a building *topped* with a cupola. — To rise over or above; as, he *topped* my thought. — To outgo, to surpass; as, some persons *top* others in assurance. — To crop, to lop the head or upper part of: as, to *top* a rose-tree. — To perform eminently; as, he *tops* his part. — To raise, as one end of a yard, in such a manner as to make it higher than the other.

To top off. To finish or perfect by putting on the top or uppermost part of; as, to *top off* a building; — hence, to complete.

Topa'lias, or COPAIS, a celebrated lake in Bœotia, the largest in Greece, 47 m. in circumference. It is formed by the Cephissus and other streams, which descend from the surrounding hills.

To parchy, *n.* [Lat. and Gr. *toparchia*; Fr. *toparchie.*] (*Anc. Hist.*) A small state or lordship, consisting only of a few cities or towns; or a petty country under the sway of a ruler called a *toparch.* Thus, Judea was anciently divided into ten toparchies.

Top'-armor, *n.* (*Naut.*) On shipboard, a railing on the top, sustained by stanchions, and supporting netting.

To pan, *n.* (*Zoöl.*) The Horn-bill. See B. CERIDÆ.

To paz, *n.* [Fr. *topaze*; Gr. *topazos*, the yellow or oriental topaz; Ar. and Hind. *topaz.*] (*Min.*) A silicate of alumina, containing fluorine. It occurs crystallized and in water-worn pebbles, and is harder than quartz, but less hard than ruby. It is limpid and transparent, colorless or yellow, or of a wine-color, blue, green, &c. When heated, the Brazilian topaz becomes rose-red, and is sometimes passed off in this state as a ruby. The Saxon topaz loses its color by heat. When without flaws, and of a good color, it is much employed in jewelry. The Saxon is usually paler than the Brazilian, which often has a pinkish hue. The Siberian topaz is usually colorless, and the Scotch has a blue tinge.

(*Her.*) The color *or* (gold). See Fig. 1274.

Topaz'olite, *n.* [Fr., from Gr. *topazos*, and *lithos*, stone.] (*Min.*) A honey-yellow variety of lime-garnet.

Top'-boots, *n. pl.* A pair of riding-boots, having upper bands of light-colored leather

Top'-cloth, *n.* (*Naut.*) On ships of war, a piece of canvas which serves to cover the hammocks lashed to the top, in time of action.

Top-draining, *n.* (*Agric.*) Act, art, or practice of draining the surface of land.

Top'-dress, *v. a.* (*Agric.*) To apply a dressing of manure or compost to, as the surface of soil.

Top'-dressing, *n.* (*Agric.*) A dressing of manure applied to the surface of land.

Tope, *v. n.* [Probably from Ger. *topf*, a pot, in L. Ger. *topp.*] To drink to excess; to indulge in a debauch of strong liquors.

To'per, *n.* One who topes; a tippler.

Tope'ka, in *Illinois*, a post-village of Mason co., 17 m. N.E. of Havana.

Topeka, in *Kansas*, a city, cap. of the State, and seat of justice of Shawnee co., on the Kansas river, about 50 m. S.W. of Leavenworth. *Pop.* (1897) 35,500.

Top'ful, *a.* [*top* and *full.*] Full to the top or brim; as, a person *topful* of self-conceit.

Top'-gallant, *n.* (*Naut.*) Designating that mast of a ship which is above the topmast, and also the sail, yards, braces, &c., upon it.

Tophaceous, (*to-fā'shus,*) *a.* [Lat. *tophaceus*, from *tophus.*] Gritty; stony; rough; sandy; as, a *tophaceous* soil.

(*Med.*) Relating or belonging to tophus; as, a *tophaceous* concretion.

Tophet, Topheth, (*tō'fet,*) *n.* [Heb., an unclean place.] (*Script.*) Originally, a garden or pleasance of the Jewish kings, which some among them defiled by the worship of Baal, and by human sacrifices offered to Moloch. The name was thenceforward used to denote any polluted or unclean place; as, "*Tophet*, the type of hell." — *Milton.*

Tophus, Tofus, Toph, (*tō'fus,*) *n.* [Gr. *tophos*, sandstone.] (*Med.*) A small tumor upon a bone; also, a gouty deposit in the smaller joints.

(*Min.*) A name given to a porous deposit of calcareous matter from water; tufa.

Top'ic, *n.* [Fr. *topique*; Lat. *topicus*, from Gr. *topos*, a place.] Any subject of discourse or argument; a probable argument drawn from the several circumstances and positions of a fact; also, a matter treated of; a subject, as of conversation or meditation; a general head; a point or matter of discussion; as, they spoke on desultory *topics.* — An argument or reason; as, "*topics* brought from Scripture and reason." — *Swift.*

(*Rhet.*) A commonplace of argument or oratory.

—*pl.* A system or scheme of argumentative or oratorical forms or commonplaces; as, Aristotle's *Topics.*

(*Med.*) A remedy to be applied outwardly to a particular part of the body, as a plaster, a blister, a poultice, and the like.

Top'ic, Top'ical, *a.* Pertaining or having reference to a place or part; local; limited; as, a *topical* application. — Pertaining or relating to a topic or subject of discourse, or to a general head; consisting of a topic or topics; as, *topical* matters. — Not demonstrative or conclusive, but simply probable; as, *topical* or probable arguments.

Top'ically, *adv.* Locally; with limitation to a place; with application to a particular part.

Top'less, *a.* Having no top; as, a *topless* height.

Top'litz, or TŒPLITZ, a town and watering-place of Bohemia, and next to Carlsbad the most popular place of its kind in Germany. It is pleasantly situated on the Sanbach, a small stream in the valley between the Erzgebirge and Mittelgebirge mountains, 47 m. N.W. of Prague. *Pop.* 3,000, increasing to 15,000 or 17,000 in the height of the season, in July and August.

Top'man, *n.*; *pl.* TOPMEN. Among sawyers, the man who stands above the saw-frame.

(*Naut.*) A sailor on shipboard on duty in the top.

Top'mast, *n.* (*Naut.*) On shipboard, the second mast, or that which is next above the lower mast, and below the top-gallant mast.

Top'most, *a.* Highest; uppermost; of greatest elevation; as, the *topmost* branch of a tree.

Topog'rapher, Topog'raphist, *n.* One who is versed or skilled in topography.

Topographic, (*-grăf'ik,*) **Topographical,** (*grăf'ik-kl,*) *a.* [Fr. *topographique.*] Pertaining or having reference to topography.

Topographical surveying. That department of the art of surveying which has reference to the process of determining and delineating upon a plane surface the contour or figure of any portion of the earth's superficies.

Topograph'ically, *adv.* In a topographical manner; by way of topography.

Topog'raphy, (*-ra-fe,*) *n.* [Fr. *topographie*; Gr. *topos*, a place, and *graphē*, description.] Strictly, the description of a place or locality, or the science of describing places, as distinguished from *chorography*, or the description of a district, and from *geography*, the description of the earth.

Topol'ogy, (*je,*) *n.* [Gr. *topos*, place, and *logos*, treatise.] Art of, or scheme devised for, aiding the memory by association of the subject with something analogous thereto (R.)

Top'ping, *p. a.* Surpassing; being of superior elevation. — Hence, conveying an assumption of loftiness or superiority. — Fine; gay; gallant; showy. (Low.)

—*n.* Act of cutting off the top. — (*pl.*) That which is parted from the hemp in the process of hatchelling.

(*Naut.*) The act of hauling one end of a yard higher than the other.

Top ping-lift, *n.* (*Naut.*) A tackle for raising the outer end of a gaff or boom.

Top'pingly, *adv.* In a proud or lofty manner.

Topple, (*tŏp'pl,*) *v. n.* [*dim.* of *top.*] To fall, as from a top or height; to fall forward or prone; to pitch or tumble down; as, a high stool *topples* over.

Top'-proud, *a.* Proud to the superlative degree; as, a *top-proud* fellow.

Top'-sail, *n.* (*Naut.*) A sail extended across a ship's topmast, and next below the top-gallant sail.

Top'-sawyer, *n.* The uppermost sawyer in a pit; hence, one eminent in a line of business.

Tops-and-bottoms, *n. pl.* Small rolls of dough, baked, cut in halves, and then browned in an oven, used for infants' food.

Tops'field, in *Maine*, a post-township of Washington co., 132 m. N.E. of Augusta.

Topsfield, in *Massachusetts*, a post-vill. and township of Essex co., 20 m. N.N.E. of Boston.

Tops'ham, in *Maine*, a post-village and township of Sagadahoc co., 32 m. S.W. of Augusta.

Topsham, in *Vermont*, a post-township of Orange co., 20 m. S.E. of Montpelier.

Top'-shaped, *a.* Having the form of a child's top.

(*Bot.*) Turbinate.

Tops'man, *n.*; *pl.* TOPSMEN. The chief driver of a herd of cattle. — A topman, or top-sawyer.

Top'-soil, *n.* The upper surface of the soil.

Top'-stone, *n.* The upper stone, as of a building, or a pile of stones, &c.

Top'sy-tarvy, *adv.* [From *top*, and A. S. *torfian*, to torow, meaning to throw over.] With the top or head in an inverted position; upside-down; as, in the confusion, everything was turned *topsy-tarvy.*

Top'ton, in *Pennsylvania*, a post-borough of Berks co., 19 m. N.N.E. of Reading.

Toque, (*tōk.*) **Toquet,** (*to-kā',*) *n.* [Fr.] A kind of bonnet or covering for the head.

Torch, *n.* [Fr. *torche*; Ir. *torcia.*] A large candle; a flambeau; a light or luminous agent formed of some combustible substance, as of resinous wood, or of twisted flax, hemp, &c., soaked with tallow, naphtha, or other inflammable substance; a link.

Torch'-bearer, *n.* [From *torch* and *bear.*] One who carries a torch; a link-boy or link-man.

Torch'-light, (*-līt,*) *n.* The light of a torch or flambeau, or of torches. — A light kindled to supply artificial illumination, as at night; as, we buried our dead by *torch light.*

Torch'-thistle, (*-this'l,*) *n.* (*Bot.*) A plant of the genus *Cereus*, order *Cactaceæ.*

Tor da, a town of Austria, in Transylvania, 20 m. from Klausenburg; *pop.* 8,192.

Tordesil las, a town of Spain, on the Douro, 18 m. from Valladolid; *pop.* 4,456.

Tore, *imp.* of TEAR, *q. v.*

Toren'tic, *a.* [Gr. *torentikos*, belonging to work in relief.] (*Sculp.*) A term applied to such objects as are executed with high finish, delicacy, and polish, but properly to all figures in hard wood, ivory, &c., and often restricted to metallic carvings or castings in bas-relievo. But in its widest sense it signifies sculpture in any style, or in any material, whether modelled, carved, or cast

Torgau, (*tor-gow',*) a town of Prussian Saxony, on the Elbe, 46 m. from Dresden. Here, Nov. 11, 1760, Frederick II. of Prussia obtained a victory over the Austrians.

Torinese, (*tō-reen-ēēz',*) *n.* (*Geog.*) A native or inhabitant of Turin; — plurally, the people of Turin.

Tor'ment, *n.* [Fr. *tourment*; Lat. *tormentum*, from *torqueo*, to twist.] The utmost degree of misery, either of body or mind; acute pain; anguish; torture; excruciating distress or agitation. — That which produces pain, anguish, vexation, or misery.

—*v. a.* To subject to torment; to put to acute pain or anguish; to inflict intolerable misery upon, whether mentally or physically; as, to *torment* a prisoner by the torture. — To afflict; to distress; to cause pain to; as, a person *tormented* with the toothache. — To harass; to tease; to vex, as by petty annoyances, importunity, and the like; as, one is quite *tormented* by the printer's devil wanting copy. — To throw into great perturbation or agitation.

Tormenter, *n.* One who torments; that which torments.

Tor'mentil, *n.* (*Bot.*) A popular name for the genus *Potentilla*, q. v.

Tormentingly, *adv.* In a tormenting manner.

Tormentor, *n.* One who, or that which, torments; one who applies penal tortures; as, "Let his *tormentor*, conscience, find him out." — *Milton.*

(*Cookery.*) An instrument used in broiling steaks or bones, devilling kidneys, fowls, &c.

Tormen'tress, *n.* A female who inflicts torment, as the tormagant wife of a quiet man.

Tor'mes, a river of Spain, rising in the prov. of Salamanca, and, after a course of 150 m., falling into the Douro on the border of Portugal.

Tor'mina, *n. pl.* [From Lat. *tormen.*] (*Med.*) Same as GRIPES, *q. v.*

Torn, *pp.* of TEAR, *q. v.*

Tornado, *n.* [Sp. *tornada*, return from a journey, from *tornar*, to turn or return.] A hurricane; a tempest; a violent gust of wind; — more especially applied to destructive, whirling storms, of very narrow width and brief duration, which are most prevalent on the plains of the Mississippi Valley region. They are closely related to the sand storm of the desert, the water-spout at sea, and apparently to the little dust whirls seen in our streets in windy weather. Originating in the clouds, they send down a funnel-shaped cloud to the ground, its lower portion long and thin — caused by an immensely rapid vertical whirl in the air, which destroys whatever it touches, even twisting off the stems of great trees. The tornado is a traveling storm, passing occasionally over a track of narrow width but several hundred miles in length.

Toro, a small island in the Mediterranean, off the S.W. coast of the island of Sardinia.

Toro, a city of Spain, prov. of Leon, on the Douro, 19 m. from Zamora; *pop.* 7,608.

Toro, Bo'ca Del, "Bull's Mouth," in Cen. America, a strait connecting Chiriqui lagoon with Caribbean sea.

Torok-Betze, or TURKISH-BETSCHE, (*tor-ok-bets,*) a town of Hungary, on the Theiss. *Pop.* 5,400.

Toron to, a city, and since 1867 the cap. prov. Ontario and York co., on the N. shore of Lake Ontario, and the cap. of Upper Canada from 1794 to 1841, and of the

united provinces, with Quebec, alternately, until 1858. *T.* contains many superior public and private buildings; among the former are the university, government house, custom house, and post-office, opera-house, city hall, St. Lawrence hall, several colleges, free schools, and the legislative building. *T.* has an excellent harbor, is prettily situated and carries on an extensive trade; manufactures annually over $15,000,000. *Pop.* (1897) 205,200.

Toron'to, in *Iowa*, a post-town of Clinton co.

Toropez', a town of Russia, on the Toropa; *pop.* 9,200.

Torose', To'rous, *a.* [Lat. *torosus*, from *torus*.] (*Bot.*) Protuberant; as, a *torose* petiole.

Torped'inous, *a.* Pertaining to, or presenting the characteristics of, a torpedo; stupefying; exercising a benumbing or repellent influence.

Torpe'do, *n.*; *pl.* TORPEDOES. [Lat., from *torpeo*, to benumb.] (*Zoöl.*) A genus of fishes, family *Raiidæ*. The *T.*, so called in consequence of the electric shock which the fish diffuses through any one who touches it, inhabits the European seas, is flat, and of a nearly cylindrical form; the skin is smooth, and of a dark-brown color above and light beneath; and the tail is short, with the dorsal fins placed in close proximity (Fig. 2515). The electrical apparatus with which this creature is endowed is formed of two organs lodged on either side of the head, and encompassed by the gills and the anterior border of the pectoral fins.

Fig. 2515. — COMMON TORPEDO.

(*Navy.*) An explosive agent arranged with mechanism especially for blowing up ships, invented by Mr. D. Bushnell, of Connecticut, in 1776; first efficiently devised by Fulton, 1805; subsequently perfected by Colt, and used by the Russians in the Crimean War, 1854; very largely used by the Confederates during the U. S. Civil War, and now employed by all maritime nations as a weapon of defence and offence. Those employed for defence are mostly of the submarine-mine type, for use in harbors and waterchannels, where they may be exploded either by direct contact or by electric connection from the shore, upon the intrusion of a hostile vessel. Those employed for offence are usually dirigible (that is, steerable) or locomotive, and are either directed from the shore or launched from vessels known as torpedo boats. (For a complete description of these, see TORPEDO and TORPEDO BOAT, in SECTION II.) The submarine-mine class of torpedoes may be divided into (1) those that explode by direct contact of superposed rods or feelers; (2) those fired by electricity, on contact; (3) those fired by electricity by observation from the shore. In a common form of the first class, when a ship impinges on the feelers a rod is deflected from the perpendicular; a ring at its lower end breaks a glass tube, and an acid acting chemically on lime generates great heat, and explodes the powder. In the second class of submarine-mine torpedoes, a covered wire is laid from a battery on shore to the inside of a metal cylinder in the middle of the torpedo. The other pole of the battery is connected by a wire with the water. An iron rod rises from the center of the torpedo, with attached feelers. Its lower end has a certain play within the metallic cylinder. When an enemy's ship approaches, the shore communication is made complete by attendants on the land; if the ship strike the feel-rod, the lower end is brought against the side of the cylinder, and from the strong conductivity of the water the entire circuit is immediately formed, when the apparatus explodes. These are best adapted for rivers or ports near the shore. In the third class of submarine mine there are two observers at separate points in the wire circuit connecting the torpedo with the electric battery, who look along lines intersecting at the machine. Each maintains the electric connection at his station so long as an enemy's ship is over his line of view, and when both observers simultaneously connect, the electric circuit becomes complete, and the powder is blown up, the ship being of necessity where the lines of sight cross.

Fig. 2516.

Simple forms of torpedoes are also made for the development of flow in oil wells. (See OIL WELLS.) They serve both to start a successful flow, and to revive the flow after it ceases, by breaking up the oil-sand about the lower part of the well, and creating numerous fissures leading to the central point. The most common way of exploding such torpedoes is to lower them into place, and drop a plunger from above, but they have also been exploded by time-fuses, and by electrical action from a wire. Nitro-glycerine is the usual explosive employed in torpedoing oil-wells. A yet smaller form of torpedo is made in the form of a cartridge, designed to be placed on the rail in advance of an approaching train to warn the engineer of some danger, as that a drawbridge is open beyond. The smallest form of torpedo is a toy, consisting of a small quantity of fine gravel and some fulminate wrapped in paper, and designed to be exploded by concussion as a toy. Fig. 2516 shows a form of torpedo much employed in blasting oil-wells.

Torpedo-boat-destroyer, *n.* (*Navy.*) The name given to a class of small vessels, ranging from 200 to 1,000 tons displacement, and having engines of high power with a correspondingly high rate of speed. These vessels are not armored, nor do they carry a battery, one or two 6-pounder or larger rapid-fire guns being their usual armament. They are designed to repel the attacks of torpedo-boats, their superior speed enabling them to overtake and perhaps destroy the former before they can inflict damage upon the larger vessels of a fleet. The English navy is well supplied with vessels of this type, as are several other European powers. The United States has a considerable number under construction. See TORPEDO-BOAT, section 11.

Torpescence, (*-pĕs'sens.*) *n.* State or quality of being torpescent; torpidness; numbness; stolidity; stupidity.

Torpescent, (*-pĕs'sent,*) *a.* [Lat. *torpescens.*] Becoming torpid or numb, or incapable of motion.

Tor'pid, *a.* [Lat. *torpidus*, from *torpeo*, to be motionless.] Stiff; benumbed; stupefied; having lost motion, or the power of exertion or feeling; as, a *torpid* animal. — Hence, dull; stupid; stolid; lazy; sluggish; inactive; as, a *torpid* nature.

Torpid'ity, Tor'pidness, Tor'pitude, *n.* State of being torpid; numbness. — Hence, sluggishness; dullness; laziness; stupidity.

Tor'pify, *v. a.* (*imp.* and *pp.* TORPIFIED.) [Lat. *torpidus*, and *facio*, to make.] To numb or benumb; to make torpid.

Tor'por, *n.* [Lat., from *torpeo.*] State of being torpid; numbness; inactivity; loss of motion, or of the power of motion. — Hence, dullness; sluggishness; stupidity.

Torporific, *a.* Having a tendency to stupefy or to produce torpor.

Torquay, (*tor-ke.*) a watering-place of England, on the S.W. coast of Devon, 18 m. S. of Exeter; *pop.* 17,000.

Torque, Torc, (*tork,*) *n.* [Lat. *torqueo.*] (*Archæol.*) Among the ancient Celtic, Gallic, and Teutonic races, a collar or neck-chain of thick gold wires twisted together.

Torqued, (*torkt,*) *a.* [From Lat. *torquere*, to twist.] Wreathed; twisted; intertwined.

(*Her.*) Bent; twisted; — as a dolphin haurient, represented in the form of the letter S.

Torre del Greco, (*tor del grā'ko,*) a town of S. Italy, at the foot of Vesuvius, 7 m. from Naples. It was totally destroyed in the eruption of 1795. *Pop.* 10,411.

Torre dell' Annunziata, (*-a-noon-che-a'ta,*) a town of S. Italy, on the S. base of Vesuvius, 13 m. S.E. of Naples; *pop.* 15,247.

Torre don Gimeno, (*je-mā'no,*) a town of Spain, on the Solado, 10 m. from Jaen; *pop.* 6,700.

Torrefaction, (*-fak'shun,*) *n.* [Fr., from Lat. *torrefacio.*] Act of torrefying; operation of drying by a fire; the operation of roasting ores; also, the drying or roasting of drugs on a metallic plate, placed over or before coals of fire, till they become friable to the fingers, or till some other desired effect is produced. — State of being torrefied.

Tor'refy, *v. a.* [Fr. *torréfier.*] To make dry by heat or fire.

(*Metall.*) To roast or scorch, as metallic ores.

(*Pharm.*) To dry or parch, as drugs.

Tor'rent, *n.* [Fr., from Lat. *torrens* — *torreo*, to burn.] A violent, rushing stream of water falling suddenly from high lands or mountains, where there have been heavy rains, or an extraordinary dissolution of snow; a violent, rushing stream of any other fluid, as of lava; a stream suddenly raised, and running rapidly, as down a precipice; as, a roaring *torrent.* — Metaphorically, any violent or rapid flow, or strong current; as, a *torrent* of words.

—*a.* Rushing or rolling in a rapid stream; as, "waves of *torrent* fire." — *Milton.*

Torrente, (*tor-ent'e,*) a town of Spain, 5 m. from Valencia; *pop.* 5,626.

Torrential, (*-rĕn'shal,*) *a.* Caused by, or exhibiting the characteristics of, a torrent. (R.)

Torren'tine, *a.* Pertaining to, or resembling, or rushing like a torrent.

Tor'resdale, in *Pennsylvania*, a village within the limits of Philadelphia City, on the Delaware, 14 m. N. of the State House.

Tor'res Nō'vas, a walled town of Portugal, 20 m. from Santarem; *pop.* 4,632.

Tor'res Strait, a channel about 18 m. in width, lying between N. Australia and Papua or New Guinea, in Lat. 9° 20′ and 10° 40′ N., Lon. 142° 30′ E.

Tor'res Ve'dras, a small town of Portugal, in Estremadura, 28 m. from Lisbon; *pop.* 2,500. — It is celebrated for the lines of defence established by the Duke of Wellington, to repel the approach of the French.

Tor'rey, in *New York*, a township of Yates co., on Seneca Lake.

Torreya, *n.* [After Dr. Torrey, an American botanist, B. in the city of New York, 1798.] (*Bot.*) A genus of plants, order *Taxaceæ*, to which the name of Stinking-Yews has been given, from the disagreeable smell given off by the leaves and wood when bruised or burnt. They are small evergreen trees of N. America, China, or Japan, and grow from 20 to 50 feet high, with two-ranked linear or lanceolate leaves and dioecious flowers.

Torricelli, EVANGELISTA, a celebrated Italian mathematician and philosopher, B. 1608, at Faenza; began his education under the Jesuits there, and completed it at Rome; was invited to Florence by Galileo, whom he succeeded as professor of mathematics at the academy of Florence. He is celebrated as the discoverer of the barometer, and for his improvements in microscopes and telescopes. D. 1647.

Torricellian Tube and Vacuum. See BAROMETER.

Tor'rid, *a.* [Fr. *torride*; Lat. *torridus*, from *torreo*, to parch.] Dried with heat; parched; as, a *torrid* desert. — Burning; parching; intensely hot; as, a *torrid* climate.

Torrid zone. (*Phys. Geog.*) The zone of the earth included between the tropics of Cancer and Capricorn. It extends from the equator, on both sides, to the parallel corresponding to the sun's greatest declination, about 23½ degrees.

Tor'ridness, *n.* State of being torrid.

Tor'ringford, in *Connecticut*, a post-village of Litchfield co., 25 m. N.W. of Hartford.

Tor'rington, in *Connecticut*, a post-township of Litchfield co., 22 m. W.N.W. of Hartford.

Torse, *n.* [Fr., from Lat. *tortus* — *torquere*, to twist.] (*Her.*) A wreath or chaplet.

Tor'sel, *n.* (*Arch.*) Anything in a twisted form.

Torshok', or **Torjok,** a town of European Russia, govt. of Tver, on the Tverza, 35 m. from Tver. *Manuf.* Colored Russian leather shoes and gloves. *Pop.* 18,000.

Torsibil'ity, *n.* The tendency to untwist after being twisted; as, the *torsibility* of a cord.

Torsion, (*tor'shun,*) *n.* [Fr.; Lat. *torsio*, from *torqueo*, to twist.] Act of turning, twining, or twisting; the twisting or wrenching of a body by the exertion of a lateral force.

(*Mech.*) That force by which a thread, as of wire, returns to a state of rest after it has been twisted by being turned round on its axis.

(*Geom.*) The departure of a curve from the plane containing three consecutive elements.

Torsion balance, (*Phys.*) See ELECTROMETER.

Torsional, (*-tor'shun-al.*) *a.* Pertaining or relating to, or resulting from, torsion; as, *torsional* force.

Torsk, TUSK, CUSK, *n.* (*Zoöl.*) *Brosmius vulgaris*, a fish of the family *Gadidæ*, abundant in the northern parts of the Atlantic Ocean. It is about 2 feet long, and is caught in the same manner as cod.

Tor'so, *n.* [It.] (*Sculp.*) The trunk of the human body; — a term usually applied to mutilated statues from which the head and limbs are broken.

Tors'var, or TORZBURG, a town of Transylvania, 20 m. from Kronstadt. *Pop.* 7,000.

Tort, *n.* [Fr., from Lat. *tortus*, twisted.] (*Law.*) A wrongful act, for which an action will lie; a form of action brought for the redress of wrongs not arising from breaches of contract.

Torticol'lis, *n.* [From Lat. *tortus*, twisted, and *collum*, neck.] (*Med.*) Same as WRY-NECK, *q. v.*

Tortilla, (*-tcel'yā.*) *n.* [Sp.] A kind of unleavened pancake or maize meal, baked on a heated hearth; — a favorite comestible among the Mexicans.

Tortions, (*tor'shus,*) *a.* [From *tort.*] Injurious; done by wrong.

(*Law.*) Implying tort.

Tor'tiously, *adv.* In a tortious manner; wrongfully.

Tor'tive, *a.* [From Lat. *tortus.*] Twisted; wreathed; as, the pine's *tortive* grain.

Tortoise, (*tor'tois,* or *tor'tis,*) *n* [Fr. *tortue*, from Lat. *torqueo*, *tortus*, to wind, to twist.] (*Zoöl.*) The popular name of a group of Chelonian reptiles, which once included the whole order, but is now much restricted. The popular name *T.* is never given to the marine Chelonians, which are called *Turtles*, and although it is sometimes given — generally with a prefix, as Marsh *T.*, River *T.*, Fresh-water *T.* — to the kinds which inhabit fresh water, yet when used by itself, it is commonly the designation of what are distinctively called Land Tortoises, which belong to the genus *Testudo* as now restricted, and the genera most nearly allied to it. See CHELONIA, TERRAPIN, TESTUDO, TURTLE, &c.

(*Mil.*) Same as TESTUDO, *q. v.*

Tor'toise-beetle, *n.* (*Zoöl.*) See CASSIDA.

Tor'toise-shell, *n.* (*Com.*) The shell of the *Testudo imbricata*, separated into thin plates, and used for a great variety of decorative purposes. It softens in hot water, and if then placed in metal moulds, may be impressed with any ornamental figures; the horn being afterwards immersed in cold water, the figures become permanent. Razor- and knife-handles, combs, and a variety of ornamental articles are produced by this means. *T. S.* is so called because formerly all the *chelonia* were confounded under the general name of Tortoises.

Torto'la, one of the Virgin Islands, in the West Indies, Lat. 18° 24′ N., Lon. 64° 32′ W. It is 12 m. long, with a breadth of 4 m.

Torto'na, a town of N. Italy, on the Scrivia, 12 m. from Alessandria. *Manuf.* Silk, &c. *Pop.* 12,876.

Torto'sa, a town of Spain, in Catalonia, on the Ebro, 42 m. from Tarragona. *Manuf.* Paper, glass, &c. *Pop.* 21,000.

Torts'burg. See TORSVAR.

Tor'trix, or **Tortric'idæ,** *n. pl.* [From Lat. *tortus*, twisted.] (*Zoöl.*) A genus and family of nocturnal lepidopterous insects, comprising an extensive group of minute, generally dull-colored moths, distinguished by their broad, entire fore-wings, which form a triangle with the body when at rest. The larvæ are naked fleshy grubs,

Fig. 2517. — NEST OF THE TORTRIX.

which, for the most part, take up their abode in a leaf, curled up by the insect itself (Fig. 2517) and fastened with silken threads, forming a cylindrical tube, open at each end, which thus serves them for abode and food; others frequent the young buds and shoots of various plants, fastening several of the leaves together so firmly as to impede its growth; others, again, find their home in the pulpy substance of various fruits, particularly the apple and plum.

Tortu'ga, [Sp. *Tortorse,*] an island of the W. Indies, belonging to Venezuela, in the Caribbean Sea, 55 m. W. of Margarita, 15 long, and 8 wide.

Tortuga, an island in the Gulf of California, 85 m. S. of Tiburon.

Tortuga, an island off the N.W. coast of Hayti, 22 m. long, and 5 m. broad; Lat. 20° N., Lon. 72° 36′ W.

Tortugas, an island of the W. Indies, off the N.E. coast of Cuba, opposite the entrance of the harbor of Nuevitas, 26 m. long, and 6 broad.

Tortu'gas, a group of islands belonging to the U. States, at the entrance of the Gulf of Mexico, 120 m. W.S.W. of Cape Fancha, the S. extremity of Florida; Lat. 24° 37′ N., Lon. 83° W. They are 10 in number, on one of which, called Bush or Garden Key, is a lighthouse.

Tortulous, (*tort'ū-lŭs,*) *a.* (*Nat. Hist.*) Bulged out at intervals, like a knotted cord.

Tortuose', *a.* Same as TORTUOUS, *q. v.*

Tortuos'ity, *n.* Same as TORTUOUSNESS, *q. v.*

Tor'tuous, Tortuose', *a.* [Fr. *tortueux;* Lat. *tortuosus,* full of crooks or turns.] Wreathed; twisted; winding; deflected; bent in different ways; as, a *tortuous* road.—Deviating from right or straightforwardness; wrong; erroneous; mischievous; as, a *tortuous* policy.

Tor'tuously, *adv.* In a tortuous manner.

Tor'tuousness, Tortuos'ity, *n.* State of being tortuous, twisted, or deflected; wreath; flexure.

Tor'turable, *a.* That may be tortured.

Torture, (*tôrt'chŭr,*) *n.* [Fr., from L. Lat. *tortura,* from *tortus,* to twist.] Acute pain; mental or bodily anguish or suffering; torment; pang; agony; as, the *torture* of a guilty conscience.

—In a legal sense, *T.* designates the application of bodily pain in order to extort confession from a suspected person or condemned criminal. Sometimes, however, although improperly, the term has been used to signify the torments to which condemned criminals have submitted, as part of their punishment. With the ancient Romans, it was only practised upon the bodies of slaves. Judicial *T.* formed part of all the legal systems of Europe wherein the Roman law was adopted; still, it does not appear to have been generally had recourse to until the 13th century. But when this severe form of punishment received the ecclesiastical sanction, its employment became painfully general. By the Inquisition it was resorted to upon every occasion, and under its most terrible forms. The last instance of *T.* in England took place in 1640, and was abolished in Scotland in 1708. In France it was partially abolished by a decree of Louis XVI., in 1780; but it was not until the Revolution that it was finally swept away. Human ingenuity seems to have been boundless in the invention of instruments capable of inflicting the most exquisite and prolonged sufferings by means of *T.* One of the most fearful and most commonly resorted to was the RACK, *q. v.*

—*v. a.* To put to mental torture; to pain to extremity; to torment; to vex; to harass; to worry: as, to *torture* one's mind with jealous doubts.—To punish judicially with torture; to put to the rack; as, to *torture* a suspected traitor.

Tor'turer, *n.* One who, in former times, administered the punishment of torture;—hence, a tormentor.

Tor'turingly, *adv.* So as to torture, torment, or harass.

Torturous, (*tort'yoor-ŭs,*) *a.* Pertaining or relating to, involving, or characterized by torture; as, *torturous* punishment.

Tor'ulous, Tor'ulose, *a.* [From Lat. *torus.*] (*Bot.*) Resembling a knotted cord; tortulous.

To'rus, *n.* [Lat., a protuberance.] (*Arch.*) The semicircular moulding at the base of a column (Fig. 650).

(*Bot.*) Same as THALAMUS, *q. v.*

To'ry, *n.* [According to Archbishop French, a name derived from the Irish Rapparees, who robbed and plundered while professing to be in arms for the maintenance of the royal cause, and from them transferred, about the year 1680, to those who sought to maintain the extreme prerogative of the crown.] (*Eng. Pol.*) The name originally given to an adherent to the ancient constitution of the English monarchy, and to the apostolical hierarchy;—opposed to WHIG, *q. v.;*—in a more modern sense, one who, in political bias and principles, always leans to Church and State, supports the regal, ecclesiastical, and aristocratical institutions, as by law established, and is jealous of the extension of democratic power and radical constitutional changes;—the term is now to a certain degree extinct, the party-name now assumed being that of *Conservatives,* as opposed to the *Liberals.*

(*Amer. Hist.*) One who, in the Revolutionary epoch, upheld the rights of the British crown, and favored its claims against the American colonies; a Royalist;—opposed to *Whig.*

—*a.* Pertaining or relating to the Tories, or to conservative principles in politics or religion.

To'ryism, (*-izm,*) *n.* The political faith and principles professed by the Tories.—In the more modern sense, CONSERVATISM, as opposed to LIBERALISM.

Toss, *v. a.* (*imp.* and *pp.* TOSSED, or TOST.) [Ger. *stossen;* W. *tosiaw.*] To fling or throw with the hand;—particularly, to throw with the palm of the hand upward, or to fling upward; as, to *toss* a ball, to *toss* a penny in the air.—To lift or throw up with a sudden jerk or violent motion; as, to *toss* up the head, to *toss* a person in a blanket.—To cause to rise and fall; or to move one way and the other; to make to upheave and to subside alternately; as, a boat is *tossed* on the waves.—To agitate, disturb, harass, or make restless; as, adversity *tosses* the temper.—To tumble over; to keep in play; as, he *tossed* over the books, volume by volume.—*To toss off,* to drink promptly or rapidly: as, he *tossed off* his maguum of claret.—*To toss the oars.* (*Naut.*) To salute, by throwing the oars, blades up, in a perpendicular direction.

—*v. n.* To be tossed.—To roll and tumble; to writhe; to be in violent commotion; as, *tossing* and tumbling from one side to the other.

To toss for, to gamble for; to throw dice for; as, *to toss for* drinks.—*To toss up,* to throw a coin into the air, and wager on which side it will drop; as, *to toss up* for choice of grouud.

—*n.* Act of tossing; a throwing upward or with a jerk; as, the *toss* of a pancake.—A throwing up of the head with a jerk.

Tos'ser, *n.* One who tosses.

Tos'sily, *adv.* Scornfully; contemptuously.

Tos'sing, *n.* Act of throwing upward; a violent commotion; a sudden rising and falling; a rolling and tumbling.

Toss'pot, *n.* An habitual toper; a drunkard.

Tos'sy, *a.* Tossing the head, as in scorn or pride;—heuce, supercilions; proud; contemptnous.

Tost, *imp.* and *pp.* of Toss, *q. v.*

Tot, *n.* Anything wee or small;—used as a term of fondness.

To'tal, *a.* [Fr.; L. Lat. *totalis,* from Lat. *totus,* all, the whole.] Whole; full; complete; as, the *total* amount, a *total* loss.

—Integral; not divided; entire; as, *total* responsibility.

—*n.* The whole; the whole sum or amount; as, to form a *total.*

Total'ity, *n.* [Fr. *totalité;* L. Lat. *totalitas.*] The whole sum, quantity, or amount.

To'talize, *v. a.* To make total, entire, or complete.

To'tally, *adv.* In a total manner; wholly; fully; entirely; completely; thoroughly; as, the thing is *totally* impossible.

To'talness, *n.* State or quality of being total.

Tota'un, a town of Spain, in Murcia, 12 m. from Lorca; *pop.* 9,437.

Tote, *v. a.* [Etymol. unknown.] To carry; to bear; to convey. (Colloq. U. S.)

—*n.* [From Lat. *totus,* whole.] All; the complete or entire body or amount. (Colloq.)

To'tem, *n.* A rude diagram as of a bird, beast, reptile, &c.;—used by the N. American Indians as a symbolic appellation of a family.

T'oth'er. A colloquial and vulgar contraction of *the other.*

Toties quoties, (*tō'shē-ēz kwō'shē-ēz.*) [Lat.] As often as.

To'tila, king of the Ostrogoths, who conquered the kingdom of Italy from Justinian. In 545–47 he was defeated in several engagements by Belisarius; but after the departure of that general he regained possession of all the countries he had formerly taken. Slain in battle, 552.

Tot'nes, a town of England, in Devonshire, on the Dart, 22 m. from Exeter; *pop.* 5,000.

Totonicapan', in *Mexico,* a town of Guatemala, 100 m. N.W. of Guatemala; *pop.* abt. 12,000.

Tottenville, in *New York,* a post-village of Richmond co., abt. 20 m. S.W. of New York.

Tot'ter, *v. a.* [A.S. *tealtian, tealtrian.*] To vacillate; to shake so as to threaten a fall; to stagger; as, a *tottering* old man.—To shake; to reel; as, "Troy *totters* to her fall."—*Dryden.*

Tot'terer, *n.* One who, or that which, totters.

Tottle, (*tŏt'tl,*) *v. a.* Same as TODDLE, *q. v.*

To'ty, *n.* A Polynesian term for a sailor or fisherman.

Toucan, (*tōō'kan,*) *n.* (*Zoöl.*) See RAMPHASTIDÆ.

(*Astron.*) A small modern constellation of the S. hemisphere.

Touch, (*tŭch,*) *v. a.* [Fr. *toucher;* It. *toccare;* Lat. *tango,* from Gr. *thinggănō.*] To come close to, so that no space interveues; to come or be in contact with; to be in conjunction with; to put the hand, finger, foot, or anything else on or against; to hit or strike against; to meet; to be a tangent to; as, to *touch* one's hat in saluting.—To perceive by the sense of feeling.—To arrive at; to reach; to come or attain to; as, "I have *touched* the highest point of all my greatness." (*Shaks.*)—To concern; to relate to; to have reference or regard to; as, your remarks do not *touch* the point at issue.—To handle slightly; to deal with gently or superficially.—To meddle or interfere with; as, *touch* not anything without my permission.—To move, as the sensibility; to melt; to mollify; to soften; to affect, as the mind or sympathies; as, a *touching* incident.—To make an impression on; to have a tangible effect on; as, this chisel will not *touch* so hard a wood.—To mark or delineate with slight strokes; as, to *touch* a sketch in crayons.—To infect; to seize upon in some slight degree; as, a person *touched* with the small-pox.—To afflict, distress, or provoke; to treat with slight or contempt; as, he was *touched* to the quick.—To strike or play on, as a musical instrument; as, "With fairy hands she *touched* the strings." (*Davies.*)—To perform, as a musical or concerted piece; to play; as, the minstrels *touched* a lively tune.—To influence by impulse; to impel forcibly; to sway; as, do not think to *touch* the bent of his disposition.—To affect with partial insanity;—seldom used except participially; as, he appears, at times, somewhat *touched* in his head.

To touch up, to renovate, or improve by adding slight touches, emendations, or corrections; to repair; to restore; as, *to touch up* a picture, *to touch up* a faded complexion by means of cosmetics.

—*v. n.* To come or be in contact; to be in a state of junction or connection, so that no space intervenes; as, two spheres *touch* only at points. (*Johnson.*)—To fasten; to attach to; to take effect on.—To treat anything slightly or desultorily in discourse or argument; to pass comment gently;—frequently before *on* or *upon;* as, to *touch* incidentally *on* a certain topic.

(*Naut.*) To have the sails so set that they shiver when the wind comes edgeways upon them.

To touch and go. (*Naut.*) To keep the ship as much in the wind's eye as possible.—*To touch at,* to call at or pay a brief visit to; as, the ship *touched at* the Azores to take in water.—*To touch on* or *upon,* to come or go to for a short time; as, *to touch upon* the enchanted coast.

—*n.* [Fr. *touche.*] Act of touching; contact; state of being touched; the junction of two bodies at the surface, without intervening space; as, a razor wounds with a *touch* that is scarcely felt.

—Particular relation; personal reference or application; as, speech of *touch* to others. (*Bacon.*)—Power of exciting or enlisting the affections or sensibilities.—An emotion, affection, or passion; as, "One *touch* of nature makes the whole world kin." (*Shaks.*)—Test; that by which anything is examined; tried quality; proof; criterion; as, "He dares not put it to the *touch.*" (*Montrose.*)—A stroke; as, a *touch* of sarcasm;—hence, raillery; animadversion; reproof; censure; rebuke; as, a *touch* of conscience.—Single act or stroke of a brush or pencil on a drawing or picture; as, to apply the finishing *touch.*—Feature; lineament; portraiture; as, "A son . . . the very same in every *touch.*" (*Dryden.*)—A hint; a slight notice; a suggestion; an insinuation; as, to give a *touch* to the memory.—Act of the hand on an instrument of music;—and hence, musical notes; as, a crisp *touch* on the violin.—A slight essay; a brief sketch; a literary bagatelle; as, a sixpeuny *touch.* (*Swift.*)—A little; a modicum; a slight quantity intermixed; as, a *touch* of the Irish brogue.

(*Physiol.*) One of the five senses. It is not confined to any particular part of the body, like the other senses, but, on the contrary, exists in all parts capable of perceiving the presence of a stimulus by ordinary sensation. It is, in fact, a modification or exaltation of common sensation or sensibility. It properly belongs to the outward covering of the body, the skin, but is also shared in a minor and modified degree by parts of the mucous membranes, which are, indeed, continuous prolongations of the same substance. In no essential particular, however, is it to be distinguished from the common sensibility which resides in the deeper organs of the body. The nerves on which it depends are the same as those which confer ordinary sensation on the different parts of the body. There are certain parts in which the sense of *T.* is much more acute than in others; as the tongue, lips, hands, soles of the feet, &c. These are more abundantly than other parts studded with numerous papillæ, on which this sense mainly depends. Each papilla is abundantly supplied with blood, and also contains one or more terminal nerve-fibres, on which its exquisite sensibility depends. The papillæ do not come into direct contact with external objects, but, like the rest of the surfaces of the skin, are covered with one or more layers of epithelium forming the cuticle or epidermis. By the sense of touch the mind is made acquainted with the size, form, and other external characters of bodies. The distinctness and intensity of a sensation in the nerves of *T.* depend in great measure on the degree in which the mind coöperates with the feeling; for if the mind does not thus coöperate, the sensation remains unperceived, and on the other hand, a painful sensation becomes more intolerable the more the attention is directed to it.

(*Paint.*) The peculiar handling of a picture common to a painter, and by which his works may be known.

(*Mus.*) Characteristic method of action; style of resistance of the keys of an instrument to the fingers; as, a light *touch;* also the manner of fingering the keys of a pianoforte.

(*Surg.*) In obstetrics, the examination of the mouth of the uterus by manipulation.

(*Ship-building.*) The middle of a plank worked top and butt, or in anchor-stock mode; also, the angular parts of the stern-timbers.

Touch and go, just enough and no more; within a hair's breadth; critically close or near; as, it was *touch and go* whether he lived or died. (Colloq.)

Touch'able, *a.* Tangible; that may be touched.

Touch'ableness, *n.* State or quality of being touchable.

Touch'-hole, *n.* The vent of a piece of ordnance, and of smaller fire-arms.

Touchily, (*tŭch'-,*) *adv.* In a touchy manner; techily; with irritation; peevishly; with morbid susceptibility.

Touch'iness, *n.* State or quality of being touchy.

Touch'ing, *a.* Affecting the sensibilities; pathetic; moving; as, a *touching* scene.

—*prep.* Concerning; with respect, regard, or relation to; as, *touching* your remarks I have no reply to make.

—*n.* Touch; the sense of feeling.

Touch'ingly, *adv.* In a manner to touch the feelings or move the passions; pathetically.

Touch'-me-not, *n.* (*Bot.*) See IMPATIENS.

Touch'-needle, *n.* Among assayers, a small bar consisting of gold and silver alloyed with various definite proportions of copper; whereby, by comparing their color and streak upon a piece of hard black stone, such

as basalt, with that of alloys of the precious metals, the relative quantity of gold and silver is determined.

Touch'-paper, *n.* Paper steeped in saltpetre, which burns slowly, and is used as a match for firing gunpowder and the like.

Touch'-stone, *n.* Any test or criterion by which the qualities and merits of a thing are tested; as, "Calamity is man's true *touchstone*." — *Beau. and Fl.*

(*Min.*) Same as BASANITE, *q. v.*

Irish touch-stone. (*Min.*) Same as BASALT, *q. v.*

Touch'-wood, *n.* Decayed wood used as tinder for catching fire from a spark.

Touch'y, *a.* Unduly or morbidly sensitive, especially to reproach or ridicule; petulant; peevish; irritable; apt to take fire upon trifling provocation.

Tough, (*tŭf*,) *a.* (*comp.* TOUGHER; *superl.* TOUGHEST.) [A. S. *toh*; D. *taai*.] That does not easily or readily break, yield, or undergo separation of its parts, by drawing, extending, or bending; possessing the quality of ductility or flexibility without brittleness; yielding to force without warping or breaking; as, *tough* timber, a *tough* metal. — Firm; strong; compact; not easily injured or broken; capable of enduring hardship or rough usage.

"He's *tough*, ma'am, *tough* is J. B. *Tough* and de-villish sly." *Dickens.*

—Stiff; rigid; fibrous; not pliant or flexible; not tender; as, a *tough* beef-steak, a *tough* constitution of body. — Viscous; inspissated; tenacious; ropy; not readily attenuated or separated; tenacious; as, *tough* glue or gelatine. — Characterized by violence, severity, or impressive force of action; as, a *tough* struggle, a *tough* debate. (Colloq.)

Toughen, (*tŭf'n*,) *v. n.* To grow tough, or more tough; as, steel *toughens* by hammering.

—*v. a.* To make tough, or tougher.

Tough'ish, *a.* Somewhat tough; as, *toughish* meat.

Toughly, (*tŭf'le*,) *adv.* In a tough manner.

Toughness, (*tŭf'-*,) *n.* State or quality of being tough.

Toul, (*tool*,) a town of France, dept. Meurthe, on the Moselle, 13 m. W. of Nancy. It has a fine Gothic cathedral. *Manuf.* Calicoes, muslins, &c. *Pop.* 8,147.

Toulon, (*too'lawng*,) a seaport of France, being the second naval port in the kingdom; dept. Var, at the bottom of one of the finest harbors of the Mediterranean, 32 miles E.S.E. of Marseilles, and 190 miles S.S.E. of Lyons. The town is strongly fortified, being surrounded by a double rampart, and a large and deep ditch, defended to the E., W., and N., by hills covered with redoubts. Both the old and new harbors are artificial. The latter, formed by hollow and bomb-proof jetties running off from the E. and W. sides of the town, is sufficiently extensive to accommodate 30 sail of the line, as many frigates, and an equal proportion of small craft. The entrance is shut by a boom, and it is never ruffled by any wind to occasion damage. The arsenal of *T.* is one of the finest in Europe. The *Bagne*, instituted in 1682, is, from want of room on shore, established on board some hulks; it is occupied by criminals condemned to hard labor for ten years and under. The trade of the port was formerly inconsiderable, but it has been yearly increasing since the conquest of Algiers. *T.* was unsuccessfully besieged by Prince Eugène in 1707. Having, in 1793, been delivered up by the Royalists to the English and Spaniards, it was retaken by the Republicans, after a siege in which Napoleon I. gave the first decided proofs of his extraordinary military talents. *Pop.* 79,612.

Toulon, (*too'lon*,) in *Illinois*, a post-village, cap. of Stark co., 35 m. N.N.W. of Peoria.

Toulouse, (*too looz'*,) a city of France, cap. of the dept. of Haute-Garonne, on the Garonne; Lat. 43° 36' N., Lon. 1° 27' 37" E. It is large and well built, and has many fine public buildings, among which the most remarkable are the cathedral, the archbishop's palace, and the town-house, called *Capitole* (Fig. 1122). *Manuf.* Silks, woollens, leather, potteries, iron foundries, &c. The last battle before the abdication of Napoleon I. was fought here, April 10, 1814, between the French, under Marshal Soult, and the British, under the Duke of Wellington. *Pop.* 130,423.

Toupee, Toupet, (*tōō-pā'*,) *n.* [Fr. *toupet.*] A curl, or artificial tuft or lock of hair; — also, a small wig.

Tour, (*toor*, vulgarly pron. *tawr*,) *n.* [Fr., a turn; Heb. *tur*, to go round.] A going round; — hence, a circuitous journey; an excursion; a ramble; as, the *tour* of Europe. — A circular border or fillet of hair, worn on the head, especially by females.

(*Mil.*) A turn; anything done in the order of routine; as, a *tour* of inspection.

Tour de force. [Fr.] A feat of strength, skill, or dexterity.

—*v. n.* To make a tour; to go on a tour.

Touraine, (*too'rain*,) a former prov. of France, with Tours for its capital. It now corresponds to the dept. of Indre-et-Loire.

Tourbillion, (*tōōr-bĭl'yun*,) *n.* [Fr. *tourbillon*, a whirlwind.] (*Pyrotechny.*) A kind of ornamental firework, which, when lighted, undulates in the air, and presents the appearance of a fiery scroll.

Tourcoing (*toor-gwăng*), a town of France, dept. of the Nord, 8 m. fr. m Lille. *Manuf.* Cotton and worsted thread, camlets, plushes, cloths, and muslins. *Pop.* (1897) 69,250.

Tourist, (*tōōr'ist*,) *n.* One who makes a circuitous journey; a rambler abroad for health or pleasure.

Tour'maline, (*-lin*,) *n.* [Fr.] (*Min.*) A name for the more perfect forms of Schorl. It is chiefly composed of silica, alumina, boracic acid, &c., and has been divided by Rammelsberg into five subgroups, viz.: 1, *Magnesia T.*; 2, *Iron-magnesia T.*; 3, *Iron* or *Black T.*; 4, *Iron manganese-lithia T.*; 5, *Lithia T.* The transparent colored varieties are sometimes cut into ring-stones &c., and when reduced to thin slices, are much valued for making experiments on the polarization of light, and for analyzing the optical properties of other minerals. The Red *T.*, or *Rubellite*, possesses considerable beauty. The finest kinds of *T.* are brought from Brazil, Ceylon, Ava, and Siberia.

Tour'nament, Tour'ney, *n.* [O. Fr. *tournor*, from *tourner*, to turn, to wheel round.] (*Chivalry.*) A martial sport or species of combat performed in former times by a company of knights and cavaliers on horseback, for the purpose of exercising and exhibiting their prowess, courage, and skill in arms. A *T.* differed from a *joust*, in that the latter was confined to the encounter of two persons only. As chivalry declined, and as gunpowder revolutionized the art of war, *T.* gradually died out.

Tournay, (*toor'nai*,) a fortified town of Belgium, prov. of Hainault, 28 m. from Mons, on the Scheldt. *Manuf.* Carpets, stockings, caps, with woollen and cotton stuffs generally. *Pop.* 44,778.

Tourney, (*tur'ny*,) *n.* Same as TOURNAMENT, *q. v.*

—*v. n.* [O. Fr. *tournoyer*.] To tilt; to encounter in tournament.

Tourniquet, (*tur'nĭ-kĕt*,) *n.* [Fr., from Lat. *tornare*, to turn.] (*Surg.*) A bandage which may be tightened to any extent by means of a screw, so as to exert pressure upon a cushion and compress the arterial trunks to which it is applied; it is chiefly used to prevent hæmorrhage in the operation of amputation.

Tournois, (*toor'nwah*,) *n.* [Fr., from the city of *Tours*.] A former French money of account, worth one franc, or twenty cents American; as, a livre *tournois*.

Tournon, (*toor'nawng*,) a town of France, dept. of Ardèche, near the Rhone, 48 m. from Lyon. *Manuf.* Woollen and silk fabrics. *Pop.* 5,648.

Tournure, (*toor-noor'*,) *n.* [Fr., from *tourner*, to turn.] Contour; figure; shape. — A lady's bustle.

Tournus, (*toor'noos*,) a town of France, dept. of Saone-et-Loire, on the Saone, 19 m. from Mâcon. *Manuf.* Silks, beet-root sugar, &c. *Pop.* 5,596.

Touroukhansk, a town of Russia, in E. Siberia, govt. of Yeneseisk, on the Yenese, 4,172 m. E. of St. Petersburg, and only 50 S. of the Arctic circle; *pop.* 9,178.

Tours, (*toors*,) a city of France, cap. of the dept. of Indre-et-Loire, on the Loire and the Cher, 65 m. from Orleans. It has a cathedral remarkable for its lofty spires, an episcopal palace, hotel-de-ville, exchange, prefecture, and numerous schools and learned societies. *Manuf.* Silk stuffs, woollens, hosiery, and leather. Tours was the scene of the repulse of the Saracens by Charles Martel, in 732; and, in subsequent ages, its castle, built on a rock, served more than once as a place of refuge for the royal family in times of commotion. At the beginning of the siege of Paris, 1870, a part of the government of the Défence Nationale took refuge here, but on the approach of the Prussians, the seat of the government was transferred to Bordeaux. *Pop.* 41,260.

Tour'ville, ANNE-HILARION DE COTTENTIN, COUNT DE, a French naval commander, born in Normandy, 1647, became captain in 1667, and distinguished himself under D'Estrées and Duquesne at the battles of Solebay and Agosta. In 1682–83 he participated in the expeditions to Tripoli and Algiers, and became vice-admiral in the Levant in 1689. In the following year he held a command, under D'Estrées, in the flotilla dispatched to Ireland to aid the cause of James II. In 1692 he was totally defeated by the English fleet, at La Hogue; but he subsequently inflicted considerable damage upon British shipping in Portugal. D. 1701.

Touse, *n.* A hauling; a pulling; a rumpus; a shindy.

—*v. a.* and *n.* [Probably from *tease*.] To pull; to haul; to drag; — hence, to make a disturbance.

Tousle, (*tow'zl*,) *v. a.* [Dim. of *touse*.] To pull, haul, or drag about; to tumble; to throw into entanglement or disorder. (Colloq. and vulgar.)

Tous-les-mois, *n.* See CANNA.

Toussaint L'Ouverture. See L'OUVERTURE (TOUSSAINT).

Tow, (*tō*,) *v. a.* [A. S. *teogan*, *teon*; Fr. *touer*.] To draw or drag, as a boat or ship, through the water by means of a rope, either from another vessel or from the shore.

—*n.* [Icel. *togo*, to pull.] The coarse and broken part of flax and hemp, separated from the finer part by the process of hatchelling. — Act of towing, or state of being towed; — principally used in the expression *to take in tow*, in other words, to tow, as a ship.

Towage, (*tō'aj*,) *n.* [Fr. *touage*.] Act of towing. — Fees paid for towing.

Towamen'sing, in *Pennsylvania*, a township of Montgomery co.

Towan'da, in *Illinois*, a post-village and township of McLean co., 7 m. N.E. of Bloomington. *Pop.* (1897) 1,720.

Towanda, in *Kansas*, a post-village of Butler co.

Towanda, in *Pennsylvania*, a post-borough and township, cap. of Bradford co., 120 m. N.E. of Harrisburg; *pop.* abt. 2,000. — A creek which flows into the N. branch of the Susquehanna River near Towanda in Bradford co.

Toward, Towards, *prep.* [A. S. *toweard*, *toward*, coming.] In the direction of or to; as, he went *towards* home.—Regarding; with respect or direction to; touching; — in a moral sense; as, if I feel no love *toward* him, I bear no enmity. — Nearly; about; little more or less than; as, he is *toward* fifty years of age. — With ideal tendency to; as, he looks forward *towards* better days. (NOTE. Both forms of too word are in good use by elegant writers.)

—*adv.* Near; at hand; nigh approach; in a state of preparation.

To'ward, *a.* [A. S. *toweard*.] Apt; docile; ready to do or learn; — opposed to *froward*; as, a *toward* scholar.

To'wardliness, To'wardness, *n.* Quality of being towardly.

To'wardly, *a.* Apt; docile; tractable; ready to do or learn; compliant with duty; as, a *towardly* youth.

Tow'-boat, *n.* A boat which is towed, or drawn by a tow-line.

—A steam-tug used for towing other vessels.

Tow'el, *n.* [Fr. *touaille*; Sp. *toalla*, from Icel. *thvo*, to wash.] A napkin; a cloth used for wiping the hands, and other parts of the body, after washing, and for other purposes.

Tow'elling, *n.* Cloth for making towels.

Tow'er, *n.* [A. S. *tor*, *torr*, *tur*; Fr. *tour*.] A lofty building, of a square, circular, or polygonal form, and often consisting of several stories; or, a building raised above the main edifice; a turret; as, the *Tower* of Pisa.—A citadel; a fortress; as, the *Tower* of London; —hence, by analogy, a defender: as, "the King's name is a *tower* of strength."—(*Shaks.*)

—A sort of high head-dress, worn by females about the end of the 17th century; as, "*towers*, curls, and periwigs."—*Hudibras.*

Round tower. See ROUND.—*Tower bastion.* (*Fortif.*) See BASTION.

Tower of London. (*Eng. Hist.*) In feudal days, a powerful fortress; then, and for long after, a state prison of gloomy memories; now, a government storehouse and armory, and still, in some senses, a stronghold. is an irregular quadrilateral collection of buildings on rising ground adjoining the Thames, and immediately to the east of the city of London. The space occupied is between 12 and 13 acres, and the whole is surrounded by a moat of fair width, but no great depth. Usually, the moat is dry, but the garrison have the power of flooding it. Seen from without, the moat is bordered within by a lofty castellated wall, broken by massive flanking-towers at frequent intervals. Within this wall rises a second of similar construction, but greater height; and within this, again, are the several barracks, armories, &c.; and in the centre of all, the lofty keep or donjon known as the White Tower (A, Fig. 848), once the court of the Plantagenet kings.

Tower, *v. n.* To rise above other objects; to be very high or lofty; — hence, to rise or fly high; to soar; as, he *towers* above his fellows.

Tow'ered, Tow'ery, *a.* Having towers; adorned or defended by towers.

Tow'ering, *p. a.* Very high; elevated; as, a *towering* height, a man of *towering* stature. — Extreme; violent; excessive; surpassing; as, he flew into a *towering* rage.

Tower Hill, in *Illinois*, a post-village and township of Shelby county, about 12 miles south-west of Shelbyville.

Tower Hill, in *Rhode Island*, a post-village of Washington co., 25 m. S.W. of Providence.

Tow'erville, in *Wisconsin*, a post-village of Crawford co., abt. 12 m. S. of Viroqua.

Tow'hee, Ground'-robin, Che'wink, *n.* (*Zoöl.*) Names commonly applied to the birds composing the genus *Pipilo*, family *Fringillidæ*, distinguished by their bill rather stout, feet large, the claws stout and curved, tail considerably longer than the wings; the upper parts generally black or brown, under parts white or brown.

Tow'ing, *n.* The act of drawing or hauling a vessel forward in the water by means of a rope attached to another vessel, or, if on a canal, to a horse or horses.

Tow'-line, Tow'-rope, *n.* (*Naut.*) A small hawser, employed in towing a ship, barge, &c.

Town, *n.* [A. S. *tún*, from *tynan*, to inclose; Icel. *tún*, a pleasure-garden; W. *din*, a camp; Gael. *dun*, a fortress.] Originally, a collection of huts or houses inclosed with walls, palisades, or hedges for safety. — Hence, specifically, any collection of houses larger than a village, and not incorporated as a city. — In England, any collection of houses to which belongs a market, and which is not an episcopal city: in a general sense, a borough. — The collective number of inhabitants resident in a town; as, the *town* raised three regiments during the war. — A township. (Local U. S.) — In England, the court-end of London, or the people who originate and give currency to the fashions, tastes, and opinions of the day; as, *town* begins to fill about the beginning of February. — The metropolis or any large city or its inhabitants, as opposed to the *country*, or the people in it; as, the pleasures of the *town*, to go to *town*.

Man about town, a fashionable idler; a man of pleasure.

Town'-clerk, *n.* An officer who acts as custodian of civic or municipal records, and enters all the official proceedings of a city, town, or borough.

Town'er's, in *New York*, a post-village of Putnam co., abt. 90 m. S. of Albany.

Town'-hall, *n.* [*town* and *hall*.] A town-house; a guild-hall; a public building, or a large room in a building, used for transacting official business.

Town'-house, *n.* A dwelling house in town, in distinction from a *country-house*. — A town-hall. (U. S.)

Town'ish, *a.* Resembling, or partaking of the characteristics of, a town; having reference to the inhabitants of a town.

Town Line, in *New York*, a post-village of Erie co., 15 m. E. of Buffalo.

Towns, in *Georgia*, a N.E. co., bordering on N. Carolina; *area*, 180 sq. m. It is drained by the Hiawassee river. *Surface*, partly mountainous. *Cap.* Hiawassee. *Pop.* (1897) 4,250.

Town'send, in *Delaware*, a post-town of Newcastle co., 29 m. S.W. of Wilmington.

Townsend, in *Massachusetts*, a post-village and township of Middlesex county, 40 miles W. N. W. of Boston.

Townsend, in *Ohio*, a township of Huron county, 7 miles from Norwalk.—A post-township of Sandusky county.

Town'send Harbor, in *Massachusetts*, a post-village of Middlesex co., 42 m. N.W. of Boston.

Town'sendville, in *New York*, a post-village of Seneca co.

Towns'folk, (*-fōk.*) *n.* People of a town or city.

Town'shend, in *Vermont*, a post-village and township of Windham co., 90 m. S. of Montpelier.

Town'ship, *n.* The district or territory belonging to a town.—The public lands of the U. States are surveyed first into tracts called *townships*, being in extent 6 m. square. The subdivisions of the *T.* are called *sections*, each 1 m. square and containing 640 acres; those are subdivided into *quarter-sections*, and from that into lots of 40 acres each.

Towns'man, *n.*; *pl.* TOWNSMEN. An inhabitant of a town; a fellow-citizen.—In New England, a SELECTMAN, *q. v.*

Town'-talk, (*-tawk.*) *n.* The common talk of a place, or the object of public conversation; as, her conduct was the *town-talk*.

Town'ward, Town'wards, *adv.* Toward a town; in the direction of a town.

Tow'-path, Tow'ing-path, *n.* A path alongside a canal, &c., used by men and horses that tow boats.

Tow'-rope, *n* See TOW-LINE.

Tow'ser, Tow'zer, Tou'zer, *n.* [From *touse.*] A common name for a watch-dog.

Tow'sontown, or TOWSON, in *Maryland*, a post-town, cap. of Baltimore co., 7 m. N. of Baltimore.

Towy, (*tō'e,*) *a.* Composed of, or resembling tow.

Tox'away River, in *S. Carolina*, flows into the Savanna River from Pickens dist.

Toxic, Toxical, (*tŏks'ik-l,*) *a.* [From Lat. *toxicum*; Gr. *toxikon.*] Poisonous; having reference to poison.

Toxicological, (*-lŏj'ik-,*) *a.* Pertaining or relating to toxicology.

Toxicologist, (*-kŏl'o-jist,*) *n.* One skilled in the science of toxicology; the writer of a treatise on poisons.

Toxicology, *n.* [Gr. *toxikon*, pertaining to a bow and arrow (and as arrows were frequently poisoned, hence a *poison*), and *logos*, doctrine.] That branch of medico-chemical science which treats of poisons and their antidotes, or of the morbid and deleterious effects of excessive and inordinate doses and quantities of drugs and medicines, commonly called *poisoning*.

Tox'odon, (*tŏks-,*) *n.* [Gr. *toxon*, a bow, and *odous, odontos*, a tooth.] (*Pal.*) An extinct genus of quadrupeds connecting the pachydermal with the rodent order, and distinguished by the curved form of the teeth. The only species known (*T. platensis*) was as large as the hippopotamus, and appears to have been restricted to the warmer parts of S. America.

Toy, *n.* [Sansk. *tor*, to play; W. *tegan*, a bauble.] A child's plaything; a bauble.—A thing that affords diversion, but which is of no real worth; a bagatelle; a trifle; a knick-knack.—A trivial matter.—A quaint fancy; an odd conceit; a whimsey.—Amorous dalliance; play; sport; pastime.

—*v. n.* To wanton; to dally in an amorous manner; to trifle; as, to *toy* with a woman.

Toy'er, *n.* One who toys or trifles.

Toy'ingly, *adv.* In a playful or toying manner.

Toy'ishly, *adv.* In a toyish manner.

Toy'ishness, *n.* State or quality of being toyish.

Toy'man, *n.*; *pl.* TOYMEN. A dealer in toys.

To'ziness, *n.* State or quality of being tozy. (R.)

To'zy, *a.* Soft, like wool that has been teased. (R.)

Tracadie, (*trak'a-dee,*) in Nova Scotia, a seaport-town of Sydney co., on St. George's Bay, 115 m. N.E. of Halifax

Trace, (*trās,*) *n.* [Fr.; It. *traccia*; L. Lat. *tracca*, from Lat. *tractus*, a drawing.] A delineation; a mark left by anything passing; a footprint; a track; a vestige; as, the *trace* of a deer.—A mark, impression, or visible appearance of anything left when the thing itself no longer exists; remains; token; as, a people without any *traces* of laws or religion.

(*Fort.*) The plan of a work.

—*pl.* In a harness, the straps, chains, or ropes by which a carriage, sleigh, wagon, &c., is drawn by horses.

Trace, *v. a.* [Fr. *tracer*, from Lat. *tractare.*] To pass through; to walk over; as, to *trace* a street.—To mark out; to draw or delineate with marks; particularly, to copy, as a drawing or engraving, by taking a duplicate of the lines on a thin sheet of paper.—To follow by tracks or footsteps; to follow by some mark that has been left by something which has gone before; as, to *trace* an Indian by his trail.—To follow with exactitude; as, "*tracing* word by word."—*Denham.*

Traceable, (*trās'a-bl.*) *a.* That may be traced.

Trace'ably, *adv.* In a traceable manner.

Tracer, (*trā'ser,*) *n.* One who, or that which, traces, or follows by marks.

Trachea, (*trā'ke-ah,*) *n.*; *pl.* TRACHEÆ. [L. Lat., from Gr. *trachys*, rough.] (*Anat.*) The cartilaginous and membranous canal (Fig. 425) through which the air passes into the lungs, commonly known as the windpipe. Its upper part is called the larynx, the uppermost and smallest part of which is called the epiglottis, being over the glottis or mouth of the larynx, and serving to close the passage to the lungs in the act of swallowing. (See LARYNX.) From the lower end of the larynx the canal takes the name of *T.*, or *aspera arteria*, and extends so far down as the fourth or fifth vertebra of the back, where it divides into two branches, which are the right and left bronchial tubes. Like the larynx, it is formed of cartilages, united to each other by means of very elastic ligamentous fibres. It is also furnished with fleshy or muscular fibres, some of which pass through its whole extent longitudinally, while others are carried round it in a circular direction; and hence it may shorten or lengthen itself, or contract or dilate its passage. Thus a passage for the air is constantly kept open, and we are enabled to receive and expel it in greater or less quantity, or with more or less velocity; as in singing or declamation. It is supplied with a great number of small glands, which discharge a mucous fluid on its inner surface.

(*Bot.*) A spiral vessel.

Tracery, (*trā'ser-y,*) *n.* (*Arch.*) The ornamental stonework in the upper part of Gothic windows, formed by the ramifications of the mullions, (Fig. 2518); also the decorations of corresponding character which are abundantly used in Gothic architecture on panellings, ceilings, &c. These beautiful forms vary with every variety of Gothic architecture. In the *Renaissance* styles no attempt has been made to develop any new forms

Fig. 2518.—TRACERY. A. D. 1260.

of tracery, and for the most part they have not employed this feature at all, the windows being again reduced to mere apertures, which not unfrequently disfigure the whole design.

Tra'cheal, *a.* Pertaining or having reference to the trachea.

Tra'chocele, *n.* [Fr., from Gr. *tracheia*, the windpipe, and *kēlē*, a tumor.] (*Med.*) An enlargement of the thyroid gland.

Trachcotomy, (*trak-ke-ot'o-me.*) *n.* [Gr. *tracheia*, and *temno*, I cut.] (*Surg.*) The operation of cutting into the trachea, for the purpose of admitting air into the lungs when the upper part of the air-passages is obstructed, or for the extraction of foreign bodies from the trachea. It is necessary in many diseases, and, though not without danger, it is often the means of affording instant relief. After the opening is effected, a small silver tube is introduced, through which the operation of breathing is carried on.

Trachi'tis, *n.* [Lat.] (*Med.*) Inflammation of the trachea.

Trachyte, (*trā'kīt.*) *n.* [Fr., from Gr. *trachys*, rugged.] (*Min.*) A variety of lava which is often porphyritic, and when containing hornblende and augite passes into varieties of trap, as basalt, greenstone, dolerite, &c.

Tra'cing, *n.* [From *trace.*] Act of one who traces; especially, the act of copying the line of a drawing superimposed on thin paper.—A course; a regular track or path.—A mechanical copy of an original, produced by following its lines, through the aid of a transparent medium.

Tra'cing-paper, *n.* A transparent paper, which enables a print or drawing to be clearly seen when it is passed over it, and will allow the pencil or pen to be used in producing a fac-simile, by following the lines of the original.

Track, *n.* [Fr. *trace*, from Lat. *tractus—traho*, to draw.] A mark left by something that has passed along; as, the *track* of a carriage, the *track* (or wake) of a ship.—A mark or impression left by the foot, either of man or beast; footprint; trace; as, the blood-hounds were set on his *track*.—A road; a beaten path or passage; as, he pursued the straight *track*.—Way; course; as, the *track* of a comet.

(*Civ. Engin.*) The permanent way of a railroad; as, the engine got off the *track*.—*Track-master*, one who has charge of a railroad track.

—*v. a.* To follow the guidance of a trace, or of footprints; to pursue a trail; as, to *track* an Indian.

(*Naut.*) To tow; to draw a vessel or boat, by a line reaching from her to the shore or bank.

Trackage, (*trŏk'aj.*) *n.* A drawing or towing.

Track'er, *n.* One who, or that which, tracks.

Track'less, *a.* Having no track.

Track'-road, *n.* A towing-path.

Track'-scout, *n.* Same as TRECKSCHUYT, *q. v.*

Tract, *n.* [Lat. *tractus*, from *traho, tractum*, to drag along.] Anything drawn out or extended.—A region; a quantity of land and water, of indefinite extent; as, a *tract* of ground.—A composition shorter than a treatise, in which some particular object is treated, generally in the form of a pamphlet; as, a religious *tract*.—Continuity; length; extent; as, a *tract* of time.

Tract Society, a society for printing and promoting the sale of religious books. The first English society of the kind was established in 1701. The first in America was the *Methodist Book Concern*, originally established in Philadelphia, and which issued its first publication in 1789. At the present day almost every religious denomination has its Tract or Publication Society, and many of them issue a large number of publications.

Tractabil'ity, Tract'ableness, *n.* [L. Lat. *tractabilitas.*] State or quality of being tractable, docile, or manageable; docility.

Tract'able, *a.* [Lat. *tractabilis*, from *tracto*, to lead or handle.] That may be easily led, managed, or taught; governable; teachable; docile; as, a *tractable* child, a *tractable* beast.—That may be handled; tangible; tensible; practicable; as, *tractable* ideas.

Tract'ably, *adv.* In a tractable or docile manner.

Tractarianism, *n.* (*Theol.*) Same as Puseyism. See PUSEY.

Tractile, (*trăkt'il.*) *a.* [From Lat. *tractum*, to draw.] Ductile; that may be drawn or spun out in length; as, a *tractile* substance.

Tractil'ity, *n.* Quality of being tractile; ductility.

Traction, (*trăk'shun,*) *n.* [Fr., from Lat. *tractus*, a drawing.] Act of drawing, or state of being drawn.—A drawing toward; attraction; gravitation.

Angle of T. (*Mech.*) The angle which the plane of the traces makes with the ground upon which any body is moving.—*T. engine*, a kind of locomotive engine for drawing heavy vehicles upon common roads.

Tract'ive, *a.* That pulls or draws along; attracting.

Tract'or, *n.* [L. Lat.] That which draws, or is used for drawing.

—*pl.* (*Med.*) Small bars of metal which were, formerly, supposed to possess certain metallic powers, and to cure painful affections and tumors by being drawn over the part.

Tract'rix, Tract'ory, *n.* [From Lat. *tractum.*] (*Geom.*) A transcendental curve generated mechanically by a small weight attached to a string, the other extremity of which is drawn along a fixed line.

Tra'cy, in *Indiana*, a village of Huntington co., 10 m. S.E. of Huntington.

Tracy City, in *Tennessee*, a post-village of Grundy co. *Pop.* (1897) 2,120.

Tra'cyville, in *Pennsylvania*, a village of Wayne co., 1 m. E. of Honesdale.

Trade, *n.* [Sp. *trato*, traffic, from L. Lat. *tractare*, to bargain.] Commerce; traffic; barter: act or calling of exchanging commodities by barter, or the business of buying and selling for money; especially, the barter or purchase and sale of goods, wares, and merchandise, either by wholesale or retail.—The business which a person has learned, and which he carries on, for obtaining a subsistence, or for the acquisition of profit; occupation; particular employment, whether manual or mercantile, as distinguished from the liberal arts and learned professions, and from agriculture; as, the *trade* of a carpenter.—Business carried on; occupation;—in a somewhat contemptuous sense; as, to cheat people is his *trade*.—Instruments of any occupation.—Habitual exercise; custom; habit; standing practice; as, "Thy sin's not accidental, but a *trade*." (*Shaks.*) (R.)—A company or firm of persons associated in the same business or occupation; as, no credit is the rule of the *trade*.

Domestic, home, or *inland trade*, the exchange, or buying and selling, of goods within the country in which they were produced or manufactured.—*Carrying trade*, that branch of commerce which has reference to the carriage or transportation of goods by water.—*Foreign trade*, the exportation and importation of commodities, or the exchange of the products of different countries.—*Retail trade*, the buying and selling, or exchange, of goods in small parcels.—*Wholesale trade*, commercial transactions in which commodities are bought and sold or exchanged, by the package, or in large quantities.—*Board of Trade*, in England, a department of the govt. having jurisdiction over all matters pertaining to trade or commerce.—*Free trade*, an exchange of commodities between nations, free from fiscal restrictions.

—*v. n.* To be engaged in trade or traffic; to barter, or to buy and sell; to deal in the exchange, purchase, or sale of goods, wares, and merchandise, or anything else; to bargain; to carry on commerce as a business.—To buy and sell or exchange property, in a single instance.—To act merely for money.

—*v. a.* To buy and sell, or exchange in commerce; as, to *trade* products.—To barter; to exchange; to swap; as to *trade* hats.

Trade'-mark, *n.* (*Law.*) A symbol, emblem, or mark, which a tradesman puts upon, or wraps or attaches in some way to, the goods he manufactures or has caused to be manufactured. It may be in any form of letters, words, vignettes, or ornamental design. Newly-recognized words may form a trade-mark. A common name of an article and of a place may, by combination, become a trade-mark. Alien merchants and traders have the same right of protection, in regard to their trade-mark as citizens. No property can be acquired in words, marks, or devices which denote the mere nature, kind, and quality of articles. Mere variations of arrangement of a trade-mark, with secondary additions and omissions, will justify an injunction. While there may be striking differences in trade-marks, yet if in the last-made there is an ingenuity which would deceive the court will interfere. By decision of Nov. 18, 1879, the Supreme Court declared the U. S. trade-mark statute void, for the reason that Congress had no constitutional authority to pass it. There is nothing in this decision to prevent congressional legislation in the matter of foreign *T.-M.*, but it practically renders impossible any federal statutory protection for domestic *T.-M.* The only statutory protection that the merchants and manufacturers of the country can look forward to for what has been called their commercial signatures, must be in the form of state legislation. Acts of this kind now exist in some of the States, and will doubtless be passed in others. But, independently of federal or state legislation, property

in *T.-M.* is recognized and protected by the common law, which affords a remedy by injunction and action for damages arising out of any case of infringement.

Trade'-price, *n.* A lower price allowed to members of the same trade, or by wholesale dealers to retailers.

Trad'er, *n.* (*Law.*) One who makes it his business to buy merchandise, or goods and chattels, and to sell the same for the purpose of making a profit. The *quantum* of dealing is immaterial, when an intention to deal generally exists. Questions as to who is a trader most frequently arise under the bankrupt laws; and the most difficult among them are those cases where the party follows a business which is not that of buying and selling principally, but in which he is occasionally engaged in purchases and sales. A farmer, who bought a large quantity of potatoes, not to be used on his farm, but merely to sell again for a profit, was also declared to be a trader. A butcher who kills only such cattle as he has reared himself is not a trader, but if he buy them and kill and sell them with a view to profit, he is a trader.

Tra'dersville, in *Ohio*, a post-village of Madison co., abt. 3 m. N. of London.

Tradescan'tia, *n.* (*Bot.*) A genus of plants, order *Commelynaceæ*, characterized by flowers in terminal, close umbels, subtended by 2 or 3 long, leafy bracts. *T. virginia*, the Spider-Wort, common in moist prairies, meadows, &c., in the Middle and Western States, is 2–3 feet high, flowers of a deep, rich blue, soon fading. The juice of the plant is viscid and spins into thread; hence the common name.

Trade'-sale, *n.* A bookseller's or publisher's sale, by auction, of new books.

Trades'man, *n.*; *pl.* TRADESMEN. [From *trade* and *man.*] A trader; a shopkeeper; especially, one who retails goods.

—Any mechanic or artificer whose livelihood depends upon the labor of his hands.

Trades'people, Trades'folk, *n.* People employed in various trades, particularly shopkeeping, &c.

Trades'-union, *n.* (*Com.*) An arrangement or combination entered into by the workmen of particular trades, or manufactures, in order to regulate the prices of labor, the hours during which labor is employed, and not unfrequently the number of workmen engaged by an employer, the number of apprentices bound to the employer or his foreman, and the number of journeymen. The purpose of a trades-union is, therefore, the settlement of the proportion which wages should bear to profits. The effectiveness of a trades-union depends on: (1,) the esprit de corps of the workmen themselves; (2,) moral restraint; and (3), unfortunately, when men's passions are heated, coercion exercised on those who are unwilling to join the trades-union or are indifferent to its real or supposed advantages; and (4,) failing the consent of the employer or general body of employers to the demands made by workmen, the last remedy is a STRIKE, *q. v.*

Trade'water Creek, in *Kentucky*, rises in Christian co., and flowing N.W., enters the Ohio River between Crittenden and Union cos.

Trade'-winds, *n. pl.* [So called because they are favorable to navigation and the interests of trade.] (*Meteorol.*) Winds which in the torrid zone, and often a little beyond it, blow generally from the same quarter, varying, according to circumstances, from N.E. to S.E. The cause of this wind is to be ascribed principally to the high comparative temperature of the torrid zone, combined with the rotation of the earth from W. to E. As the heated air at the surface ascends into the higher regions of the atmosphere, its place is supplied by the colder air rushing from the poles. This colder air, also becoming rarefied, ascends in its turn, and is carried in the upper regions towards the poles to supply the stream of the under current; and these under polar currents moving progressively towards the equator from the zones where the earth's motion is slower to others where it is more rapid, acquire an apparent relative motion in a westerly direction. As the currents from the two hemispheres meet near the equator, their meridional motions are there destroyed, and they therefore advance together with the remaining motion from the eastward round the globe. The regularity of the *T. W.* is disturbed in some places by local causes, and chiefly by the superior rarefaction of the air over land heated by the sun's rays. They extend farther to the northward or southward according as the sun's declination is N. or S.; and in some places they become periodical, blowing one half of the year in one direction, and the other half in the opposite one. (See MONSOON.) In the great Pacific ocean, however, the trade-wind blows with a uniform and gentle breeze all the year round.

Trad'ing, *n.* The act or business of carrying on commerce.

Tradition, (*tra-dish'un,*) *n.* [Fr., from Lat. *traditio*, from *trado*, I give or deliver.] In its widest signification, whatever is handed down to us concerning the past; and in this sense, all history is *T.* In its more limited sense, any knowledge handed down from one generation to another by oral communication. In the early ages of mankind, before the art of writing was introduced or practised, all history was thus handed down by oral communication. When these came to be written down long after the events had occurred, they partook more or less of the opinions and judgments of those who had handed them down, as well as of those who had written them out. They differ materially, therefore, from events recorded by eye-witnesses, or written down at or soon after the time when they occurred. Historians, therefore, distinguish between the two, calling the former *T.*, the latter history. Those who have observed how much facts are distorted even in the present day, in passing from mouth to mouth, will understand how carefully the historian has to criticise the accounts that are founded on *T.* The Jews believed that, besides the written law contained in the Old Testament, Moses had delivered an oral law, which had been handed down from father to son, and constituted their *T.*, and is contained in the *Talmud* (q. v.). In the Roman Catholic Church, the term *T.* is applied to the doctrines supposed to have been communicated by Christ to his apostles, and handed down by them orally to their successors. The writings of the Fathers are regarded as containing these *T.*; and hence they are considered as equally binding with the doctrines of the New Testament.

Tradi'tional, Tradi'tionary, *a.* Pertaining or relating to, or derived from, tradition.

Tradi'tionalism, Tradi'tionism, *n.* A system of faith based on tradition.

Tradi'tionalist, Tradi'tionist, *n.* One who adheres to tradition.

Tradi'tionally, Tradi'tionarily, *adv.* By tradition.

Traditionary, (*-dĭsh'un-,*) *a.* Traditional; pertaining or having reference to tradition; as, a *traditionary* account of the Deluge.

Trad'itive, *a.* [O. Fr. *traditif.*] Transmitted by tradition; traditional.

Trad'itor, *n.* [Lat.] (*Eccl. Hist.*) A deliverer; — a name of infamy given to those early Christians who delivered the Scriptures or the goods of the Church to their persecutors to save their lives.

Traduce', *v. a.* [Fr. *traduire*, to arraign; Lat. *traduco* — *trans*, and *duco*, to lead, bring.] To expose to public contempt; to defame; to vilify; to calumniate; wilfully to misrepresent; to assert as blamable.

Tradu'cer, *n.* One who slanders, vilifies, or calumniates.

Tradu'cianism (*-shizm*), *n.* (*Theol.* and *Eccles. Hist.*) See SECTION II.

Traducible, (*-dū'si-bl,*) *a.* That may be traduced.

Tradu'cingly, *adv.* Slanderously; by way of defamation.

Traduction, (*-dŭk'shun,*) *n.* [Fr.; Lat. *traductio.*] Propagation; derivation from the same kind or species. — Tradition; transmission from one to another. — Conveyance; act of transmitting or transferring; as, the *traduction* of animals from one place to another.

Traduct'ive, *a.* That may be deduced or derived.

Trafal'gar, a cape of Spain, on the coast of Andalusia, at the entrance of the Strait of Gibraltar; Lat. 36° 10′ N., Lon. 6° 1′ W. It is noted for the naval victory gained, Oct. 21, 1805, by Lord Nelson, who fell in the action, over the combined fleets of France and Spain. See NELSON.

Trafal'gar, *n.* (*Printing.*) A large type used in printing hand-bills or posting-bills.

Traffic, *n.* [Fr. *trafic.*] Originally, business done or trade carried on beyond the seas; — specifically, trade; commerce, either by barter or by buying and selling; — appropriately, foreign trade; as, a *traffic* in slaves. — Goods or commodities for market. (R.) — The business transacted by a railroad with respect to the number of passengers, or the amount of freight carried.

Traffic-return, the periodical statement of the receipts for goods and passengers on a line of railroad.

—*v. n.* (*imp.* and *pp.* TRAFFICKED, (*trăf'fikt.*) [Fr. *trafiquer.*] To trade; to pass goods and commodities from one person or persons to another, or others for an equivalent in goods or money; to barter; to buy and sell wares. — To trade meanly or mercenarily; as, "to *traffic* with thee for a prince's ruin." — *Rowe.*

—*v. a.* To exchange in traffic.

Traffic'ker, *n.* One who carries on traffic or commerce; a trader; a merchant.

Trag'acanth, *n.* [Lat. *tragacanthum*, from Gr. *tragos*, a he-goat, and *acantha*, a thorn.] (*Bot.*) See ASTRAGALUS and GUM.

Tragedian, (*-jē',*) *n.* [Fr. *tragedien*; Lat *tragœdus.*] A performer of tragedy on the stage; a tragic actor.

Tragedienne, (*trah-zhā-de-ĕn',*) *n.* [Fr.] A tragic actress.

Trag'edy, *n.* [Fr. *tragédie*; Gr. *tragēdia*, from the ancient Greek adjective *tragos*, melancholy, lamentable.] (*Lit.*) A species of drama in which the diction is elevated and the catastrophe melancholy; or, a dramatic poem representing some signal action or series of actions, performed by eminent persons, and being pregnant with some great moral truth, generally having a fatal issue. — A fatal and mournful event; any occurrence in which human lives are sacrificed by violence, more particularly by illegal or unauthorized violence; as, murder is a terrible *tragedy.*

Tragetto, (*tra-jet'to,*) a town of S. Italy, 8 m. from Gaeta; *pop.* 6,194.

Tragic, Trag'ical, (*trăj'ĭk,*) *a.* [Fr. *tragique*] Pertaining, or relating to tragedy; of the nature or character of tragedy; as, the *tragic* Muse. — Fatal to human life; calamitous; sorrowful; mournful; as, the affair had a *tragical* ending.

—Expressive of tragedy, the loss of life, or of sorrow; sad; as, he spoke in *tragic* tones.

Trag'ically, *adv.* In a tragical manner.

Trag'icalness, *n.* Quality of being tragical or lamentable.

Tragi-com'edy, *n.* [Fr. *tragicomédie.*] (*Lit.*) A dramatic composition partaking of the nature both of tragedy and comedy.

Tragi-com'ic, Tragi-com'ical, *a.* Pertaining, or having reference to tragi-comedy; partaking of a mixture of grave and comic scenes.

Tragi-com'ically, *adv.* In a tragi-comical manner.

Tragop'ogon, *n.* [Gr., goat's-beard.] (*Bot.*) A genus of plants, order *Asteraceæ*. The salsafy, salsify, or vegetable oyster, *T. porrifolius*, is 3–4 feet high, and leaves terminal, solitary, large, bluish-purple. This exotic is cultivated in gardens for the root, which is long, tapering, and nutritious. When properly prepared it has a mild, sweetish taste, which has been compared to that of the oyster.

Fig. 2519. — SALSIFY. (*Tragopogon porrifolius.*)

Tra'gus, *n.* [Gr. *tragos.*] (*Anat.*) The small cartilaginous eminence at the entrance of the external ear; in the adult it is beset with small hairs.

Trahiras, (*tra-ee'ras,*) in Brazil, a town of the prov. of Goyaz, on the river Trahiras, 15 miles from its mouth in the Maranhao; *pop.* abt. 2,500.

Trail, *v. a.* [D. *treilen*, to tow; O. Fr. *trailer.*] To haul by the track. — To draw along the ground; as, he *trailed* his legs. — To lay flat, or tread down, as grass, by walking through.

(*Mil.*) To lower, as arms.

—*v. n.* To be drawn out in length; as, *trailing* smoke. — To run or climb, as a plant.

Trailing arbutus. (*Bot.*) See EPIGÆA.

—*n.* Track pursued by the hunter; scent or footprints left on the ground by the man or beast pursued; as, they followed up the *trail.* — Anything drawn to length; as, the *trail* of smoke. — Entrails, as of a bird or sheep.

(*Mil.*) In artillery, that part of a gun-carriage which, in travelling, is hooked up to the limber, but when the gun is unlimbered for action, rests on the ground, forming a third point of support, the wheels being the two other points.

Trail-boards. (*Ship-building.*) The curved work between the cheeks of the bow.

Trail'ing-springs. *n. pl.* (*Mach.*) The springs fixed on the axle-boxes of the trailing-wheels of a locomotive-engine, which bear slightly against the side-frames, so as to leave as much weight as possible upon the thriving springs, and to assist in deadening any shock which may take place.

Trail'ing-wheels. *n. pl.* (*Mach.*) The wheels placed behind the driving wheels of a locomotive engine.

Trail'-net, *n.* A net trailed or drawn behind a boat.

Train, (*trān,*) *v. a.* [Fr. *traîner*, from Lat. *trahere*, to draw.] To draw along; to trail. — To draw or allure by artifice or stratagem; to draw from act to act by persuasion or promise; to entice. — To exercise; to discipline; to instruct and form by practice; as, to *train* a people to the use of arms. — To break, tame, and accustom to draw, as oxen. — To teach; to educate; to bring up; to form by instruction or practice; — often preceding *up*; as, he was *trained up* at Cambridge.

(*Gardening.*) To lead or direct and shape to a wall or espalier; to adapt to a proper form by growth, lopping, or pruning; as, to *train* a vine.

(*Mining.*) To trace, as a lode of mineral, to its head.

To train a gun. (*Mil.*) To point the gun at some object either toward or else abaft the beam, that is, not directly on the side.

—*v. n.* To perform military drill or duty.

—*n.* [Fr.] That which allures, entices, or draws along; — particularly, stratagem or persuasive artifice; as, "others lay *trains* and pursue a game." (*Temple.*) — Hence, a lure or trap. — That which is drawn along in the rear of some other thing; as, (1.) That part of a lady's gown or robe which trails behind the wearer; as, pages carried her *train.* (2.) The tail of a bird. — A retinue; an escort; a number of followers or attendants; as, the king was accompanied by a *train* of nobles. — A series; a consecution or succession of connected things; as, a *train* of events or of ideas. — Process; regular method; course of procedure; as, everything is in *train* for the purpose. — A line of gunpowder laid to ignite a charge, or a mine. — The number of beats which a watch or clock makes in any specified time. — A continuous line of cars or carriages on a railroad; as, an express *train.* — The series of wheels, &c., forming a movement in a clock or watch.

Train of artillery. (*Mil.*) Any number of cannon, mortars, &c., with the attendants and carriages which follow them into the field.

Traina, (*trī'na,*) a town of Sicily, in the Val di Demona, on the Traina, 30 m. from Catania; *pop.* 8,215.

Train'able, *a.* That may be trained.

Train'-band, *n.*; *pl.* TRAIN-BANDS. A band or company of militia.

Train'er, *n.* One who trains up; an instructor; a preceptor; especially one who prepares men for athletic exercises, or horses for the race, &c.

—In the U. States, a militia-man when called out for exercise or discipline.

Train'ing, *n.* Act or process of bringing up or educat-

ing; education; act of preparing men for athletic exercises, or horses for the race; also, the discipliuing of troops.

Train'-oil, *n.* The oil drawn from the blubber or fat of whales, and from the fat of various other fishes, by boiling.

Train'-road, *n.* (*Mining.*) A short tram-way for wagons.

Traipse, *v. n.* [Gsr. *trapsen.*] To lounge about in an idle, careless manner; to dawdls. (Colloq. and vulgar.)

Trait, (*trāt,*) *n.* [Fr., from Lat. *tractus—traho, tractum,* to draw.] A stroke; a touch.—A distinguishing feature or marked peculiarity or idiosyncrasy; as, a *trait* of character.

Traiteur, (*trā'toor,*) *n.* [Fr.] Same as RESTAURATEUR, *q.v.*

Traitor, (*trā'tor,*) *n.* [Fr. *traitre;* Sp. *traidor;* Lat. *traditor.*] One who betrays his trust; a treacherous or perfidious person; a deceiver; one guilty of breach of faith.—Especially, one who betrays his sovereign or country; a person guilty of treason; one who commits a breach of trust in surrendering a post, or any body of men placed under his charge, into an enemy's hands, except when vanquished; one who intrigues, or takes up arms, against his country.

Trai'torous, *a.* Acting the part of a traitor; treacherous; guilty of treason; faithless; perfidious; as, a *traitorous* subject.—Consisting in treason or breach of allegiance; characterized by treacherousness; as, a *traitorous* plot.

Trai'torously, *adv.* In a traitorous manner.

Trai'torousness, *n.* Quality of being traitorous; treachery.

Trai'tress, *n.* [Fr. *traitresse.*] A female betrayer; a female who is guilty of treason or breach of trust.

Trajan, (*trā'jăn,*) MARCUS ULPIUS TRAJANUS, a Roman emperor, was B. in Spain, A. D. 52. He served with his father in the Parthian and Jewish wars, and was consul in 91. He next served in Germany, and his moral and military virtues not only endeared him to the army, but recommended him to the emperor Nerva, who in 97 adopted him, and created him Cæsar. Early in 98 he succeeded to the empire, and soon justified by his wise and vigorous administration the hopes of Nerva. A war with the Dacians began in 100, and occupied him three years. On the defeat of Decebalus, their king, *T.* had a triumph at Rome, and received the surname of Dacicus. In 104 the second Dacian war broke out, which ended in 106 with the defeat and death of Decebalus, and the reduction of Dacia to a Roman province. *T.* then celebrated a second triumph, and the games exhibited lasted 123 days. For the next eight years the empire enjoyed peace, and *T.* applied himself to the duties of government and the execution of many important works for the improvement of Rome. In 114 he set out for the East, carried on war with the Parthians, took Ctesiphon, Edessa, and other towns, subdued great part of Western Asia, and passed down the Tigris to the Persian Gulf, but being soon after seized with illness, he set out to return to Italy. D. at Selinus, in Cilicia, 117. His ashes were carried to Rome. *T.* was deservedly named "Optimus" by the senate, for he was one of the wisest and best of emperors. Among his benefactions may be mentioned the humane and legal mode of dealing with the Christians which he enjoined in his rescript to Pliny, appointed by him proconsul of Bithynia and Pontus. By his direction, Apollodorus, the architect, erected the famous column at Rome, which still bears his name (Fig. 651)—one of the noblest structures of this kind ever erected.

Traject', *v. a.* [Fr. *trajet,* from Lat. *trajectus, trajicere.*] To throw or cast through. (R.)

Trajection, (*jĕk'shun,*) *n.* [Lat. *trajectio—trans,* over, and *jacio, jactum,* to throw.] Act of trajecting; a throwing or casting over; transportation; also, emission.

Trajec'tory, *n.* That curve which a body describes in space when projected. When applied to rifle-shooting, it indicates the course of the bullet, which instead of being straight, forms a complete curve, which increases more and more in proportion as the distance from the muzzle increases.

Tralatition, (*trăl-a-tĭsh'un,*) *n.* A metaphor.

Tralee, (*tra-le',*) a town of Ireland, co. of Kerry, 60 m. from Cork; *pop.* 10,000. The town was destroyed in the rebellion of 1641.

Tram, *n.* [Sp. *trama,* weft.] A silk thread formed of two or more threads twisted together, used especially for the weft or cross-threads of the best quality of velvet and silk goods.

Tram'ble, *v. a.* To wash, as tin-ore, with a shovel in a frame fitted for the purpose.

Tram'mel, *n.* [Fr. *tramail,* a drag-net—*trois,* three, and *maille,* Lat. *macula,* a mesh.] A net; particularly, a kind of loose net for catching birds or fishes.—An iron hook, of variable forms and sizes, used for hanging kettles and other utensils over the fire.—A kind of shackles used for regulating the motions of a horse or mule, and making him amble.—Hence, analogically, that which obstructs freedom, progress, or activity;—generally in the plural; as, the *trammels* of servitude.

(*Mech.*) An Instrument (Fig. 2520) for drawing ovals, much in use among joiners and other artificers. It consists of a cross, C D E F, in which are cut two grooves at right angles to each other; and a beam, A B, carrying two pins, G H (which are clamped to A B, and slide in their grooves), as well as a pencil, P; these parts are called the *cross* and the *beam.* By turning A B round, the pins G H slide along the groves, and the pencil P describes an elliptic curve.

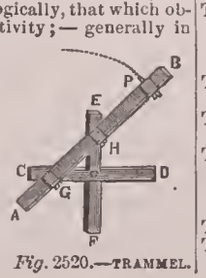


Fig. 2520.—TRAMMEL.

—*v. a.* To catch; to intercept. (R.)—To obstruct; to hamper; to confine; to shackle; to encumber.

Tram'melled, *a.* (*Man.*) Having blazes on the fore and hind foot of one side, as if marked by trammels;—said of a horse.

Tram'mel's Creek, in *Tennessee,* rises in Sumner co., and flowing N.W. enters Big Barren River in Warren co., in Kentucky, abt. 5 m. E. of Bowling Green.

Tramontane', *a.* and *n.* Same as ULTRAMONTANE, *q. v.*

Tramore, (*tra-mor',*) a neat, regular, well-built town of Ireland, co. of Waterford, on a broad, open, and dangerous bay in St. George's Channel; *pop.* 2,000.

Tramp, *v. a.* [Icel. *trampa.*] To trample; to tread under foot.—To cleanse, as clothes, by treading upon them in water.

—*v. n.* To travel on foot; to wander; to stroll; to ramble.

—*n.* A travel or journey on foot; as, he had a long *tramp.*—A vagrant.—An instrument used or designed for trimming hedges.

—In Scotland, a plate of iron worn by ditchers below the centre of the foot, for working their spades.

Tramp'er, *n.* One who tramps; a vagrant; a stroller.

Tram'-plate, *n.* A flat piece of iron laid down as a rail on a tram-road.

Tram'ple, *v. a.* [Ger. *trampeln.*] To tread under foot; particularly, to tread upon with contempt, scorn, or triumph.—To treat with arrogance, contempt, or insult.—To tread down; as, to *trample* grass.

Tram'pler, *n.* One who, or that which, tramples.

Trampoose', *v. n.* To tramp; to walk in a toilsome manner. (Vulgar, U. S.)

Tram'-road, Tram'-way, *n.* A road laid down with smooth beams of timber, blocks of stone, or plates of iron, for the easy transit of trains or wagons.

Tramutola, (*tra-moo-to'la,*) a town of S. Italy, 28 m. from Policastro; *pop.* 4,517.

Trance, *n.* [Fr. *transe,* from Lat. *transitus—transeo.*] An ecstasy; a state in which the soul appears to have passed out of the body into celestial regions, or to be rapt into visions.

"Abstract as in a *trance,* methought I saw."—*Milton.*

(*Med.*) Same as CATALEPSY, *q. v.*

Tranced, (*transt,*) *a.* Lying in a trance.

Tranco'so, a seaport-town of Brazil, 20 m. S. of Porto Seguro; *pop.* abt. 2,000.

Tra'ni, a town of S. Italy, on the Adriatic, 35 m. from Bari. *T.* has a handsome cathedral, a court, a theatre, and a strong castle. The streets are wide, well-built, and paved with flagstones. A considerable trade in oil, wine, corn, and cotton, which last is also manufactured here, is carried on. *Pop.* 24,220.

Tranque, (*tran'ka,*) in Chili, an island off the E. coast of the island of Chiloe.

Tranquebar', a fortified seaport-town of India, in the Carnatic, at one of the mouths of the Cauvery, 140 m. from Madras. *T.* was originally a settlement of the Danes. It was purchased by Great Britain in 1846. *Pop.* (1897) 6,640.

Tranquil, (*trăngk'wil,*) *a.* [Fr. *tranquille:* Lat. *tranquillus.*] Free from strife, agitation, or disturbance; quiet; calm; peaceful.

Tranquil'lity, Tran'quilness, *n.* [Fr. *tranquillité.*] Freedom from strife, disturbance, or agitation; a calm state; quietness; repose; as, the *tranquillity* of a contented mind.

Tranquillization, (*-zā'shun,*) *n.* Act of tranquillizing; state of being tranquillized.

Tranquillize, (*trăngk'wil-īz,*) *v. a.* [Fr. *tranquilliser.*] To render tranquil; to quiet; to compose; to allay when agitated or disturbed; to make calm and peaceful; as, to *tranquillize* the mind.

Tran'quillizer, *n.* One who, or that which, tranquillizes.

Tran'quillizingly, *adv.* So as to tranquillize.

Tran'quilly, *adv.* In a tranquil manner.

Trans. A Latin preposition employed as an English prefix, having the signification of *beyond, over, through, on the other side;* as in *transatlantic,* on the other side of the Atlantic.—In a moral sense, it implies a thorough change; as, to undergo *transformation.*

Transact', *v. a.* [Lat. *transigo, transactum,* to drive through.] To carry through; to complete; to do; to perform; to dispatch; to manage: as, to *transact* business.

—*v. n.* To conduct matters; to treat; to manage.

Transaction, (*-ăk'shun,*) *n.* [Fr.; Lat. *transactio.*] The doing or performing of any business; management of any affair.—That which is performed or transacted: a matter; an affair; as, I had nothing to do with the *transaction.*

(*Civ. Law.*) An adjustment of a dispute between parties by mutual agreement.

Transact'or, *n.* [Lat.] One who performs or conducts any business.

Transalp'ine, *a.* [Lat. *trans,* beyond, and *Alpinus,* of the Alps.] Lying, or being beyond the Alps, in regard to Rome—that is, on the N. or W. of the Alps;—opposed to *cisalpine.*

Transan'imate, *v. a.* [Lat. *trans,* across, and *animare, animatum,* to animate.] To transmigrate. (R.)

Transanima'tion, *n.* [Fr.] Same as TRANSMIGRATION, *q. v.*

Transatlan'tic, *a.* [Lat. prefix *trans,* beyond, and Eng. *Atlantic.*] Lying, or being beyond the Atlantic;—when used by a person in America, it has direct reference to Europe or Africa.

Transca'lency, *n.* State of being transcalent.

Transca'lent, *a.* [Lat. *trans,* through, and *calere,* to grow warm.] Allowing the passage of heat.

Transcaucasia, (*trans-kau-kai'se-a,*) a tract of territory belonging to Russia, and extending between the Caucasus on the N., and Turkey in Asia and Persia on the S. This name, however, has no practical geographical significance, as the Russians include the territory which it denotes in what they call the *Caucasus,* which, nominally included in European Russia, comprises the governments of Shemakha, Tiflis, Erivan, Derbend, and Kutais. The area of the Caucasus is 118,396 sq. m. *Pop.* 3,543,710.

Transcend, (*tran-sĕnd',*) *v. a.* [Lat. *transcendo—trans,* and *scendo,* to climb.] To climb, step, or pass over; to rise above; to surmount; as, meteorological observations not *transcending* the upper regions.—To go beyond; to pass over.

"To judge herself, she must herself *transcend.*"—*Sir J. Davies.*

—To surpass; to excel; to exceed; to outdo; as, Shakspeare's genius *transcended* all the intellects of his time.

Transcend'ence, Transcend'ency, *n.* [Lat. *transcendentia.*] A transcending; state of being transcendent; supereminence; super-excellence.

Transcend'ent, *a.* [Fr. *transcendant.*] Supsrior or supreme in excellence; above others in merit; very superior; as, a man of *transcendent* probity.

(*Philos.*) See TRANSCENDENTAL.

Transcendent'al, *a.* [Fr., from Lat. *transcendo.*] Supereminent; highly excellent; surpassing others; as, *transcendental* qualities.

(*Philos.*) Noting that which transcends or goes beyond actual experience. This meaning is somewhat restricted by Kant, who further draws a distinction between *transcendent* and *transcendental.* By the former he seeks "to denote what is wholly beyond experience, being neither given as an *a posteriori* nor *a priori* element of cognition—what, therefore, transcends every category of thought." Transcendental he applied to signify the *a priori,* or necessary cognitions, which, though manifested in consciousness, as affording the conditions of experience, transcend the sphere of that contingent or adventitious knowledge which we acquire by experience.

T. anatomy, that branch of the science which treats of the essential nature and homologies of the parts of the body, and the results of which study seem to be different from, or beyond, what would be suggested by the ideas of the parts derived from the outward senses.—*T. quantity.* (*Math.*) A quantity not admitting of representation by an algebraic expression of a finite number of terms, with determinate indices.

Transcendent'alism, *n.* (*Philos.*) The philosophy indoctrinated by Kant. See KANT.

Transcendent'alist, *n.* A believer in the philosophical doctrine of transcendentalism

Transcendental'ity, Transcend'entness, *n.* State or quality of being transcendental.

Transcendent'ally, *adv.* In a transcendent manner.

Transcend'ently, *adv.* Supereminently; with a superior degree of excellence; by way of eminence or superiority.

Transcrib'bler, *n.* A contemptuous epithet for a transcriber.

Transcribe', *v. a.* [Lat. *transcribo—trans,* over, and *scribo,* to write.] To write over from one book into another; to write over again, or in the same words; to write, as a duplicate of anything; to copy; as, to *transcribe* a manuscript.

Transcrib'er, *n.* One who transcribes; a copyist.

Tran'script, *n.* [Lat. *transcriptum,* from *transcribo.*] That which is transcribed, or has been transcribed; a writing made from and according to an original; a writing or composition consisting of the same words with the original; a written copy.

Transcription, (*-skrĭp'shun,*) *n.* [Fr.; Lat. *transcriptio.*] Act of transcribing or of copying; also, state of being transcribed; a copy; a transcript.

Transduction, (*-dŭk'shun,*) *n.* The act of conveying over.

Transelementa'tion, *n.* (*Eccl.*) Same as TRANSUBSTANTIATION, *q. v.*

Tran'sept, *n.* [Lat. *trans,* and *septum,* a hedge.] (*Arch.*) The cruciform part of a cathedral, or the two arms, as it were, of the cross upon which the plan is laid out, extending on the north and south sides of the area between the nave and the choir.

Transfer', *v. a.* (*imp.* and *pp.* TRANSFERRED (*-fard.*) [Fr. *transférer;* Lat. *transfero—trans,* and *fero,* to carry, bear.] To carry or convey from one place or person to another; to transport or remove to another place or person.

"The war being now *transferred* into Munster."—*Camden.*

—To make or pass over; to convey, as a property or right.

—*n.* The act of transferring; the removal or conveyance of a thing from one place or person to another.—Something transferred; a copy.

(*Civil Law.*) The conveyance of right, title, or property, either real or personal, from one person to another.—Something transferred.

Transferabil'ity, *n.* The quality of being transferable.

Transfer'able, Transfer'rible, *a.* [Fr.] That may be transferred or conveyed from one place or person to another.—Negotiable, as a note, bill of exchange, or other evidence of property that may be conveyed from one person to another by indorsement or other writing.

Trans'fer-book, *n.* A record of changes of ownership in stocks, bonds, &c.

Transferee', *n.* The person to whom a transfer is made.

Transferog'raphy, *n.* [Eng. *transfer,* and Gr. *graphō,* to write.] The art, practice, or act of copying inscriptions from ancient tombs, &c.

Trans'fer-paper, *n.* A thin, unsized kind of paper, prepared for taking copies of letters or writings with a copying-press.

Transfer'rence, *n.* The act of transferring, or the state of being transferred.

Transfer'rer, *n.* One who makes a transfer or conveyance.

Transfig'urate, *v. a.* Same as TRANSFIGURE, *q. v.*

Transfiguration, *n.* [Fr.; Lat. *transfiguratio.*] The act of transfiguring, or the state of being transfigured; change of form.

(*Script.*) A miraculous event in the life of our Saviour, when he took Peter, James, and John up into a high mountain, supposed to be Mount Tabor, and was transfigured before them, appearing in his glory in company with Moses and Elias, (*Matt.* xvii. 1-9; *Mark* ix. 2-9, &c., &c.)

Transfigure, (*-fig'yur.*) *v. a.* [Lat. *transfiguro*, from *trans*, and *figura*, form, shape.] To transform; to change the outward form or appearance of.

Transfix', *v. a.* [Lat. *transfigo, transfixum*, from *trans*, across, through, and *figo*, to fix, to fasten.] To pierce through, as with a pointed weapon.

Transfixion, (*-fik'shun,*) *n.* Act of transfixing. — The state of being transfixed.

Trans'flux, *n.* [Lat. *transfluxus*, from *transfluere*, to flow through.] The flowing or running through or across. (R.)

Transform', *v. a.* [Fr. *transformer*, from Lat. *trans*, and *forma*, form.] To change the form of; to change the shape or appearance of; to metamorphose.

—To change, as one substance into another; to transmute.

(*Theol.*) To change, as the natural disposition and temper of man from a state of enmity to God and his law, into a disposition and temper conformed to the will of God.

(*Rom. Cath. Church.*) To change, as the sacramental elements, bread and wine, into the flesh and blood of Christ.

—*v. n.* To be changed in form; to be metamorphosed. (R.)

Transform'able, *a.* That may be transformed.

Transformation, *n.* [Fr.; L. Lat. *transformatio.*] The act of transforming, or the state of being transformed; change of form. — Metamorphosis; change of form in insects, as from a caterpillar to a butterfly. — — The change of one metal into another, as of copper or tin into gold. — Transubstantiation. — A change of heart in man, by which his disposition and temper are conformed to the divine image; a change from eternity to God, to holiness and love.

(*Algebra.*) The operation of replacing the variables or factors of a given expression by functions of another set of variables. When these functions are of the first degree in the new variables, the *T.* is said to be *linear.*

(*Geom.*) The act of changing the form of a geometrical figure, or solid, without changing its area or solidity.

Transform'ative, *a.* Having power or tendency to transform.

Transform'ing, *a.* Effecting, or able to effect a change of form or state.

Trans'fuge, *n.* [Fr.] One who abandons his party in time of war, and goes over to the enemy; a turn-coat; a deserter; a runaway; a transfugitive.

Transfu'gitive, *n.* A person who turns or flees from one side to another; a deserter; an apostate; a transfuge. (R.)

Transfuse', *v. a.* [Lat. *transfundere, transfusum*, to pour out from one vessel into another.] To pour, as liquor out of one vessel into another. — To cause to pass from one to another; to cause to be instilled or imbibed.

(*Med.*) To transfer, as blood from one animal to another.

Transfus'ible, *a.* That may be transfused, &c.

Transfusion, (*-fū'zhun,*) *n.* [Fr., from Lat. *transfusio.*] Act of transfusing.

(*Med.*) The injection of blood from one living animal into another. It was at one time supposed that this operation might be resorted to, to sustain life in cases of great loss of blood from accidental hæmorrhages and other causes, and that in certain cases of mental and bodily disease a cure might be effected by abstracting a large quantity of blood, and supplying its place by transfusion from another person, or from an animal, such as a calf or sheep. Some experiments, that were followed with sad consequences after having appeared at first to be attended with success, caused the practice to fall quite into disuse, except in cases of extreme exhaustion from hæmorrhage during or after labor. Several cases, however, lately reported in this and in foreign countries, in which the process proved entirely successful in cases of coma from the fumes of carbonic oxide, amputation, &c., make it probable that *T.* may again come into more general medical use.

Transfu'sive, *a.* Tending to transfuse, or possessing the power to transfuse.

Transgress', *v. a.* [Lat. *transgredi-r*, from *trans*, and *gradior*, to step, to pass.] To pass over or beyond, as any limit. (R.) — To overpass, as any rule prescribed as the limit of duty; to break or violate, as a law, civil or moral.

—*v. n.* To offend by violating a law; to sin.

Transgression, (*-gresh'un.*) *n.* [Lat. *transgressio.*] Act of passing over or beyond any law or rule of moral duty; the violation of a law or known principle of rectitude; breach of command. — Fault; offence; crime.

Transgres'sional, *a.* Relating to, or involving a transgression

Transgres'sive, *a.* Faulty; culpable; apt to break laws.

Transgres'sively, *adv.* In a transgressive manner.

Transgres'sor, *n.* One who breaks a law or violates a command; one who infringes any known rule or principle of rectitude; a sinner.

Tran'ship, Tran'shipment, see TRANS-SHIP.

Tran'siency, *n.* The quality of being transient.

Transient, (*tran'shent,*) *a.* [Lat. *transiens*, from *trans*, over, across, and *eo*, to go.] Passing over or by; passing; not stationary; — hence, of short duration; not permanent; not lasting or durable. — Hasty; momentary; imperfect.

Tran'siently, (*-shent-,*) *adv.* In a transient manner.

Tran'sientness, *n.* The state or quality of being transient.

Transi're, *n.* [Lat., to pass through or across.] (*Eng. Law.*) A warrant for the custom-house to let goods pass; a permit.

Transit, *n.* [Lat. *transitus*, from *transire*, to go over.] A passage over or through. — A passing; conveyance; — An established line of conveyance or passage through a country.

(*Astron.*) The culmination or passage of any celestial body across the meridian of an observer. The determination of the exact times of such *T.* is one of the most important operations of practical astronomy. (See TRANSIT INSTRUMENT.) The term *T.* is also applied when Venus or Mercury, in their revolution round the sun, pass between the sun and the eye of the observer on the earth, and appear to move like black spots over the sun's disc. If this phenomenon be noted by different observers at points considerably distant from one another, it will not be of equal duration at all these points; and since the difference of time depends on the parallax of the planet, as well as of the sun, the latter can be estimated by means of the former. On June 3, 1769, a *T.* of Venus occurred, and was carefully observed. By the Royal Society of London it was observed at Hudson's Bay and Otaheite, by the French in California, by the Danish government in Lapland, and by the Swedish in Finland. The sun's parallax was determined with great exactness by these five observations. During the *T.* which took place in 1874, the fact that there is water in Venus was demonstrated.

—*v. a.* To pass or cross, as the meridian of the sun's disc.

Tran'sit, in *New York,* a village of Genesee co.

Tran'sit Circle, *n.* (*Astron.*) See TRANSIT INSTRUMENT.

Tran'sit Instrument, *n.* (*Astron.*) An instrument which serves to determine the instant of the passage of the celestial bodies across the plane of the meridian. It consists essentially of a telescope, the horizontal axis of which rests upon two pivots, supported by vertical pillars. The telescope is so placed that its optical axis may assume all possible directions in the plane of the meridian of the place where it is established. In the focus of the eye-piece is placed a system of three, five, or sometimes even seven vertical and equidistant wires or threads, generally crossed by two horizontal ones, between which it is convenient that the passage of objects over the vertical wires should be observed. The diaphragm to which the wires are attached is brought by means of adjusting screws to such a position that the middle vertical wire intersects the optical axis of the telescope, in which position it is permanently fixed. The middle wire thus becomes a visible representation of that part of the meridian to which the telescope is directed; and when a star is seen to cross this wire, it is in the act of culminating or passing the celestial meridian. The exact instant of the transit noted is on a clock or chronometer, which is an indispensable accompaniment of the instrument. — A *Transit circle* is a transit instrument to which a large circle is added for the purpose of noting primarily the *altitude of the star* with the greatest accuracy, as well as the time of its passage.

Tran'sit-duty, *n.* A duty on merchandise passing through a country.

Transition, (*-sizh'un,*) *n.* [Fr.; Lat. *transitio.*] Passage from one place or state to another; change.

(*Mus.*) A change of key from major to minor, or the contrary; a change from one key to another.

(*Rhet.*) A passing from one subject to another.

(*Geol.*) A term formerly used to designate a series of rocks now referred to the Palæozoic period.

Transitional, (*-sizh'un-al,*) *a.* Containing or denoting transition.

Transi'tionary, *a.* Transitional.

Tran'sitive, *a.* [Fr. *transitif;* Lat. *transitivus*, from *transire*, to pass over.] Having the power of passing. (R.)

T. verb. (*Gram.*) The same as an active verb. See ACTIVE, and VERB.

Tran'sitively, *adv.* In a transitive manner.

Tran'sitiveness, *n.* The state or quality of being transitive.

Tran'sitorily, *adv.* With short continuance.

Tran'sitoriness, *n.* The state or quality of being transitory.

Tran'sitory, *a.* [Fr. *transitoire;* Lat. *transitorius*, from *transire*, to pass over.] Continuing a short time; fleeting; speedily vanishing.

Transitory action. (*Law.*) An action, the cause of which might have arisen in one place or county as well as another. In general, all personal actions, whether *ex contractu*, or *ex delicto.* Such an action may, at common law, be brought in any county which the plaintiff elects; but, by statute, in many States of the U. States, provision is made limiting the right of the plaintiff in this respect to a county in which some one or more of the parties has his domicil.

Tran'situ. (In.) [Lat., in the act of passage.] (*Law.*) Goods are said to be liable to *stoppage in transitu* when detained by one having a right to do so in their way to their destination; as by an unpaid vendor, in case of the vendee's insolvency. In international law, it is held that the property of belligerent parties cannot change its national character during the voyage from port to port, i. e. *in transitu.*

Translat'able, *a.* Capable of being translated.

Translate', *v. a.* [It. *translatare;* Lat. *transferre, translatus*, from *trans*, and *ferre*, to bear.] To bear, carry, or remove from one place to another. — To transfer from one to another, as a disease.

—To change, as position, office, or condition; — hence, to remove, as by death. — To interpret; to render into another language; to express, as the sense of one language, in the words of another.

—To remove or convey to heaven, as a human being, without death. The patriarch Enoch was translated to heaven for his piety (*Gen.* v. 24), B. C. 3017; and the prophet Elijah was translated to heaven in a chariot of fire (*2 Kings* ii. 11), 895.

—*v. n.* To make a translation.

Translation, *n.* [Fr.] The act of removing or conveying from one place to another. — The removal of a bishop from one see to another. — The removal of a person to heaven without subjecting him to death. — The act of turning into another language; interpretation. — That which is produced by turning into another language; a version.

(*Mech.*) The motion in virtue of which the several particles of a body describe equal and parallel right lines.

(*Med.*) A change in the seat of a disease: metastasis.

Translat'ive, *a.* Taken from others. (R.)

Translator, *n.* One who translates; one who renders into another language; one who expresses the sense of words in one language by equivalent words in another.

Translat'orship, *n.* The position or office of a translator.

Translat'ory, *a.* Serving to translate; transferring.

Translat'ress, *n.* A female translator.

Translocation, *n.* [Lat. *trans*, across, and *locatio*, a placing.] Removing of things reciprocally to each other's places.

Translu'cence, Translu'cency, *n.* The state or quality of being translucent.

Translu'cent, *a.* [Lat. *translucens*, from *translucere*, to shine through.] Semi transparent. The term is chiefly used in descriptive mineralogy as applied to minerals which admit of a passage of the rays of light, but through which objects cannot be definitely distinguished.

Translu'cently, *adv.* In a translucent manner.

Translu'cid, *a.* [Lat. *translucidus.*] Transparent; clear; translucent. (R.)

Transmarine', (*-ma-reen'.*) *a.* [Lat. *transmarinus, trans*, and *marinus*, marine, from *mare*, the sea.] Lying or being beyond the sea.

Trans'migrant, *n.* A person who transmigrates.

Trans'migrate, *v. n.* [Lat. *transmigrare*, from *trans*, and *migro*, to migrate.] To remove or pass from one country or jurisdiction to another for the purpose of residing in it, as men or families. — To pass from one body into another:

Transmigration, *n.* [Fr.; L. Lat. *transmigratio.*] The act of transmigrating.

(*Philos.*) The passing of the soul into another body; metempsychosis. This idea belongs to the oldest religions of India and Egypt. Pythagoras, who is said to have borrowed his notion from the Egyptians, held that after death men's souls passed into other bodies, of this or that kind, according to the life they had led. This is also a prominent feature in the systems of Brahminism and Buddhism, which represent the soul as passing after death into the body of a higher or lower animal, as a reward of virtue or a penalty for vice. Human life is regarded only as a link in a chain of conditions through which the soul passes in a long career or procession from God and return to him. A period of 12,000 divine years, each embracing 360 human years, is assigned as the period for transformation and purification, after which the soul receives its reward of being absorbed in the divine nature. Plato maintained the pre-existence of the soul before its appearance in man, and that of this prior state it retained some dim reminiscences. After death, according to its peculiar qualities, it seeks a new body suitable to it. Every soul, according to him, returns to its original source in 10,000 years. The idea of metempsychosis subsequently appears in the speculations of the Neo-Platonists, in the Cabala of the Jews, and even in the writings of Origen. In recent times, the theory was revived by Fourier.

Trans'migrator, *n.* One who transmigrates.

Transmi'gratory, *a.* Passing from one place, body, or state to another.

Transmissibil'ity, *n.* The quality of being transmissible.

Transmis'sible, *a.* That may be transmitted.

Transmission, (*-mish'un,*) *n.* [Fr. See TRANSMIT.] Act of transmitting; the state of being transmitted; act of sending from one place or person to another.

Transmis'sive, *a.* Transmitted; derived from one to another.

Transmit', *v. a.* [Lat. *transmittere*, from *trans*, over, across, and *mittere*, to send.] To send or convey across or over; to send from one person or place to another. — To suffer to pass through.

Transmit'tal, *n.* Transmission. (R.)

Transmit'tance, *n.* Transmission.

Transmit'ter, *n.* One who transmits.

Transmit'tible, *a.* That may be transmitted; transmissible.

Transmogrifica'tion, *n.* Transformation. (Colloq. and low.)

Transmog'rify, *v. a.* To transform; to change into a different shape. (Colloq.)

Transmutabil'ity, *n.* The quality of being transmutable.

Transmut'able, *a.* [Fr.] Capable of being trans-

muted or changed into a different substance, or into something of a different form or nature.

Transmut'ableness, *n.* Transmutability.

Transmut'ably, *adv.* In a transmutable manner.

Transmuta'tion, *n.* [Fr.; Lat. *transmutatio.*] The act of transmuting, or the state of being transmuted.

(*Alchemy.*) The pretended operation of changing the imperfect metals (as they were termed) into the two precious metals, gold and silver. See ALCHEMY.

(*Geom.*) TRANSFORMATION, *q. v.*

Transmute', *v. a.* [Lat. *transmutare*, from *trans*, over, across, and *mutare*, to change.] To change from one natnre or substauce into another.

Transmut'er, *n.* One who transmutes.

Transmut'ual, *a.* Reciprocally mutual. (R.)

Trau'som, *n.* (Written also *transummer*, and *transumpt.*) [Lat. *transumere.*] (*Arch.*) An horizontal mullion or bar framed across a double-light window, door, &c., chiefly used in late Gothic architecture (Fig 2521).

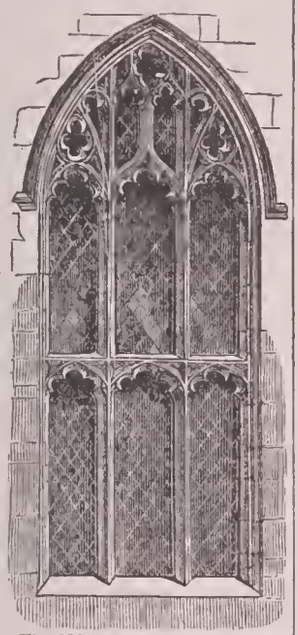


Fig. 2521. — TRANSOM-WINDOW.

(*Naut.*) One of the beams bolted across the stern-post, to receive the after ends of the several decks, and to give form to the stern.

(*Gun.*) A piece of wood joining the cheeks of a gun-carriage.

(*Surveying.*) A piece of wood made to slide upon a surveyor's cross.

Transpadane', *a.* [Lat. *transpadanus*, from *trans*, across, and *Padus*, the Po.] Beyond the river Po.

Transpar'encee, *n.* [Fr.] Transparency.

Transpar'ency, *n.* Tho state or quality of being transparent; clearness.

—That state or property of a body by which it suffers rays of light to pass through it, so that the objects can be distiuctly seen through it, as glass, water, or air. It is generally supposed to be a consequence of the homogeneity of the matter of which they are composed.

—A picture painted on semi-transparent materials, such as very thin cloth, silver, or tissuo paper, &c., and illuminated by light placed at tho back, so that it may be exhibited at night.

Transpar'ent, *a.* [Fr.; Lat. *trans*, and *pareo*, to appear.] Having the property of transmitting rays of light distinctly; pervious to light; pellucid; admitting the passage of light.

Transpar'ent Lake, in *New York*, between Hamilton and Herkimer cos., 7 m. long and 3 broad.

Transpar'ently, *adv.* Clearly; so as to be seen through.

Transpar'entness, *n.* Quality of being transparent.

Transpass'able, *a.* That may be crossed over. (R.)

Transpieree', *v. a.* [Fr. *transpercer.*] To pierce through; to penetrate; to permeatc; to pass through.

Transpir'able, *a.* [Fr.] Capable of being transpired, or of transpiring.

Transpira'tion, *n.* [Fr.; L. Lat. *transpiratio.*] The act or process of transpiring or passing off through the pores of the skin in the form of vapor; cutaneous exhalation. —The exhalation of watery vapor from the surface of the leaves of plants.

(*Chem.*) The diffusion of liquids, vapors, and gases through a capillary tube. The *T.* of liquids was first examined by Loiseville, but littlo was discovered beyond the fact that when different liquids were pressed through tubes of equal size, with identical forces, the times of the passago of similar quantities differed considerably, but no connection could be traced between these differences. Graham, however, subsequently made a series of experiments on the *T.* times of certain acids, salts, and other substances, in different stages of dilution. Thus nitric acid, with three equivalents of water, is found to have a lower rate of *T.* than when diluted more or less, and a certain steadiness was observed on each side of the maximum of retardation. With sulphuric acid the maximum of retardation occurred when one equivalent of water had been added, or, in other words, when the crystallizable hydrate had been formed. Acetic acid gradually rose until the bihydrate was formed, which is the characteristic hydrate of that acid. With hydrochloric acid the retardation seemed to take place when the dodecahydrate was reached. Tho *T.* time of ordinary alcohol reached its maximum at the hexahydrate. The different alcohols and ethers were also tried against each other, and their *T.* times were found to increase with their boiling-points. From these facts a distinct rotation appears to exist between tho transpirability of liquids and their chemical compositions. Temperature has a great influence on the transpirability of fluids: for example, water at 113° Fahr. escapes through the same tube with 2½ times tho rapidity that it does at 41° Fahr. The ra[illegible] of *T.* are entirely independent of their rates of diffusion. No connection has as yet been found between these differences or similaritics. Thus the velocities of nitrogen, binoxide of nitrogen, and carbonic oxide, are equal. Equal weights of oxygen, air, nitrogen, and carbonic oxide, are transpired in given times. The velocity of hydrogen, a light gas, and the heavy vapors of ether are equal. The laws regulating tho transmission of gases and vapors through capillaries have yet to be investigated.

Transpir'atory, *a.* Relating to transpiration.

Transpire', *v. a.* [Fr. *transpirer*; L. Lat. *trans*, through, *spirare*, to breathe.] To emit through the porcs of the skin; to send off in vapor.

—*v. n.* To be emitted through the pores of the skin; to exhale; to pass off in insensible perspiration. —To escape from secrecy; to become public. —To happeu or come to pass.

Transplace', *v. a.* To remove; to put in a new place. (R.)

Transplant', *v. a.* [Fr. *transplanter*; Lat. *trans*, and *planto*, to plant.] To remove and plant in another place. —To remove and settle or establish for residence iu another place; to remove.

Transplanta'tion, *n.* [Fr.] Act of transplanting, or state of being transplanted.—Act of removing to another soil, as plants; conveyance from one to another.

Transplant'er, *n.* A person who transplants.

Transplant'ing, *n.* (*Hort. and Arboriculture.*) The act of removing a plant or tree from one situation to another in such a manner that it may continue to grow. The operation is commonly performed in the winter season, or in autumn and spring, when plants are generally in a dormant state; and the great object of the transplanter is to lift as many of the roots as possible without injuring them, and to replace them in a new situation to which the treo is transplanted in such a manner as to facilitate their growth. With herbaceous plants and youug trees this is comparatively a simple operation; but with large trees it is an operation of skill, care, and labor. When a large tree is to be transplanted, it should bo considerably under the normal age of the species; and to prepare it for tho change which it is to undergo, other trees, or objects of its own height with which it is surrounded, should be taken away a year or two previous to removal, in order to accustom it to the direct action of the light and air on every portion which is above ground. The next part of the operation is to dig a trench round tho tree equidistant from the truuk, at the distance of 3, 6, 9, or 12 feet, according to its height, and to such a depth as to cut through all the horizontal roots. The tree may then be removed to its new situation, with or without the earth attached to that part of the roots which remain. The proper season for *T.* all ligneous deciduous plants, whether small or large, is early in autumn, after the leaves have dropped. In the cases of kitchen-garden plants and others of herbaceous habit, where it is done at any season, *T.* is most successful if carried out in showery weather. Evergreen trees may also be transplanted in the autumn, but with equal success in early summer after growth has commenced.

Transplen'dency, *n.* Supereminent or transcendent splendor.

Transplen'dent, *a.* Supereminently splendid.

Transplen'dently, *adv.* In a resplendent manner.

Transport', *v. a.* [Lat. *transportare*, from *trans*, and *portare*, to carry.] To carry or convey from one place to another; to remove from one place to another. —To carry into banishment, as a criminal. —To hurry or carry away by violence of passion; to ravish with pleasure; to bear away, as tho soul in ecstasy.

—*n.* Transportation; carriago; conveyauce. —A ship or vessel employed by governmeut to carry soldiers, warliko stores, or provisions from one place to another. —A convict transported or sentenced to exile.—Rapture; ecstasy; ravishment. —Violence; violent manifestation, as of anger, rage, or fury.

Transportabil'ity, *n.* The stato or quality of being transportable.

Transport'able, *a.* [Fr.] That may be transported.

Transporta'tion, *n.* [Fr.; L. Lat. *transportatio.*] Act of carrying or conveying from ono place to another; conveyance.

(*Eng. Law.*) The act of sending a convicted criminal to another country, as a punishment. By statutes 4 and 6 of Geo. I. (1717–1719), the courts were allowed a discretionary power to order felons to bc transported to America. The system of *T.* to the American colonies lasted till the commencement of tho War of Independence, in 1775. Australia was afterwards determined upon as a place for *T.* At length, the reception of convicts becoming distasteful to the colonists, *T.* was abolished in 1853, and penal servitude substituted in its place.

Transport'edly, *adv.* In a transported manner.

Transport'edness, *n.* The state or condition of being transported.

Transport'er, *n.* One who transports or removes.

Transport'ing, *a.* Ravishing with delight; bearing away tho soul in rapture; ecstatic.

Transport'ingly, *adv.* Ravishingly.

Transport-ship, Transport-vessel, *n.* A vessel used to convey soldiers, convicts, &c.; a transport.

Transpos'al, *n.* Transposition.

Transpose', *v. a.* [Fr. *transposer*; Lat. *transponere*, from *trans*, and *ponere*, to place, set.] To change, as the place or order of things, by putting each in the place of the other.

(*Algebra.*) To remove a term from one side of an equation to tho other, without destroying tho equality of the two members.

(*Gram.*) To change, as the natural order of words.

(*Mus.*) To change, as the key in music.

Transposi'tion, *n.* [Fr., from L. Lat. *transpositio.*] The act of transposing, or the state of being transposed.

(*Algebra.*) The transposing of a term from one side of an equation to the other. It is in effect the adding of equal quantities to or subtracting equal quantities from each side of the equation, the *sign* of the quantity being changed from + to —, or from — to +. For example, if $a + x = c - d$, by transposing a we have $x = c - d - a$; or if $a + b = c - x$, by transposing x and $a + b$ we get $x = c - a - b$. The object of transposition generally is to bring all the unknown terms to one side of the equation for more conveniently finding their value with respect to the known terms.

(*Gram.*) A change in the natural ordor of words in a sentenco.

(*Mus.*) A change in the composition either in the transcript or the performance by which the whole is removed into a higher or lower key or pitch.

Transposi'tional, *a.* Pertaining to transposition.

Transpos'itive, *a.* Belonging to, or consisting of transposition. —That may be transposed.

Transprint', *v. a.* To print in the wrong place.

Transshape', *v. a.* To change the shape of. (R.)

Trans-ship', *v. a.* To convey from one ship or vessel to another.

Trans-ship'ment, *n.* The act of trans-shipping.

Transubstan'tiate, *v. a.* [Lat. *transubstantiare.*] To change to another substance.

Transubstantiation, (*străn-shi-ă'shun,*) *n.* Change of substance.

(*Theol.*) The doctrine held by the Roman Catholic Church that in the Eucharist the bread and wine are annihilated and replaced by the body aud blood of Christ. See REAL PRESENCE.

Transuda'tion, *n.* [It. *transudazione.*] Act of transuding; act or process of oozing through membranes, or of passing off through the pores of a substance.

Transu'datory, *a.* Passing by transudation.

Transude', *v. n.* [Lat. *trans*, through, across, and *sudo*, to sweat.] To emit sweat or moisture through the pores or interstices; to pass or ooze through the pores or interstices of texture, as water or other fluid.

Transvaal. See SOUTH AFRICAN REPUBLIC.

Transvec'tion, *n.* The act of carrying over.

Transver'sal, *a.* [Fr., from Lat. *trans*, and *verto*, to turn.] Running or lying across.

—*n.* (*Geom.*) A line (whether straight or curved) which traverses or intersects the three sides of a triangle.

Transver'sally, *adv.* Transversely.

Transverse', *a.* [Fr.; Lat. *transversus.*] Turned or directed across or athwart; lying or being across, or in a cross direction.

—*n.* That which crosses, or lies in a cross direction; a transverse axis.

—*v. a.* To change; to overturn. (R.)

Transverse'ly, *adv.* In a cross direction.

Transylvania, (*tran-sil-va'ni-a.*) [Ger. *Siebenbürgen*; anc. *Dacia Mediterranea.*] The most E. prov. of the Austrian empire, comprised between the 45th and 48th degs. N. Lat., and chiefly between the 22d and 26th degs. E. Lon.; having Hungary on the N. and W., and on the E. and S. Moldavia and Wallachia; *area*, 20,041 sq. m. *Desc.* The Carpathian Mountains surround it on the E., the S., and partly on the N., and as lateral chains, branching off from this, range across the country in every direction; the greatest part of it consists of al-

Fig. 2522. — COSTUME OF SZEKLERS, (*Transylvania.*)

ternate mountains and valleys, with few extensive plains. *Rivers.* The principal are the Maros, the Samos, and tho Aluta; the Aranyos, the Lapos, the Sajo, and the two Kockels, are of inferior size. The banks of these rivers are densely wooded; and from this circumstance the proviuce derives its name, which signifies a

forest region. *Prod.* Wheat, oats, barley, buckwheat, rye, pulse, potatoes, fruits, tobacco, flax, hemp, saffron, and wine. The rearing of horses and live-stock occupies a large share of attention, and buffaloes are employed for field labor. In the woods, great numbers of swine are fed, and game is abundant. *Min.* In the mountains are found marble, jasper, porphyry, slate, limestone, coal, sulphur, and petroleum. Rock-salt is found in many spots. There are, besides, mines of iron, copper, lead, silver, and even gold. In the mountains are also dug up precious stones, such as topazes, chrysolites, garnets, opals, &c. Mineral springs are numerous. *Manuf.* Woollen and cotton stuffs. The exports are timber, salt, metals, and a few manufactures. The imports are wool, cotton, skins, and a variety of manufactured articles from Vienna. The trade is mostly in the hands of Greeks and Armenians. The roads are almost impassable. *Rel.* The followers of the Greek Church, comprising the Wallachians, Greeks, and Bulgarians, are by far the most numerous; next come the Catholics, among whom are ranked the Hungarians and most of the Szeklers. Education has, as yet, made little progress in the country. There has been established, at Klausenburg, the cap. of *T.*, an academy, on a plan somewhat similar to the German universities. *T.* was colonized by German emigrants in 1143. John Zapolya, with the assistance of the Turks, made it an independent principality in 1540. The Turks made it tributary to them in 1552, and Leopold I. conquered it in 1687. The Porte was compelled to renounce its supremacy over it by the peace of Carlowitz, Jan. 26, 1699, when it was united to Austria. It was erected into a grand principality by the Empress Maria Theresa in 1765. *T.* sends deputies to the Hungarian diet, but has also a diet of her own.

Trap, *n.* [A. S *treppe, trappe;* Fr. *trappe.*] Something that catches and retains. — An engine that shuts suddenly or with a spring, used for taking game or vermin. — An engine for catching trespassers on property. — An ambush; a stratagem; any device by which men or animals may be caught unawares. — A kind of play.

—A contrivance applied to drains and soil pipes to prevent effluvia from passing the place where they are situated.

(*Geol.*) When Geology was first studied, a number of rocks were found to be similar in general appearance and composition, while all were remarkable for being spread out in tabular or flat masses, one such flat mass extending beyond another, so that there was a rough resemblance to stairs. These rocks were hence called by a Swedish author *trappa*, the Swedish word for steps or stairs, and the name *trap* has ever since been received in reference to these. They have long been recognized as belonging to the class seen in volcanic countries, and generally called *lava*, being, in fact, the melted material poured out from an active volcano in the state of a thick paste, and spreading itself over the surface adjacent. A succession of eruptions produces a series of steps; and where no volcano now exists, the old erupted lavas often remain. Of the various tabular erupted rocks thus named, *basalt* is the most distinctly an ancient lava, and is the most important. *Greenstone, whinstone, toadstone* (todtstein), and others, are names of varieties of basalt, and are also trap rocks.

—*a.* (*Geol.*) Belonging to trap rock.

—*v. a.* [A. S. *treppan.*] To catch in a trap; to insnare; to take by stratagem.—To adorn; to dress with ornaments. (R.) See TRAPPINGS.

—*v. n.* To set a trap or traps; as, to *trap* beaver.

Trap, in *New Jersey*, a village of Monmouth co., 42 m. E. of Trenton.

Trap'a, *n.* (*Bot.*) A genus of floating aquatic plants, order *Halorageæ*, remarkable for their horned fruit and large amygdaloid edible seeds. *T. natans* is the *Marron d'eau*, or Water-chestnut, also called Jesuit's nut; *T. bicornis* is the Chinese *ling; T. bispinosa* is the *Singhara nut* of Cashmere.

Trapan', *n.* A stratagem; a snare.

Trapani, (*tra-pa'ne,*) (anc. *Drepanum,*) a fortified town of Sicily, in the Val di Mazzara, situate on a tongue of land projecting into the sea, 45 m. from Palermo. It is of importance as a naval and military position, and is one of the most important commercial towns in Sicily. *Pop.* 32,878.

Trapan'ner, *n.* One who insnares.

Trap'-ball, *n.* A game played with a trap, a ball, and a small bat.

Trap'-door, *n.* A door in a floor, which shuts close like a valve.

Trapes, *n. sing.* An idle, slatternly woman.

Trap'ezate, *a.* Quadrilateral; with the four sides unequal, and none of them perfectly parallel.

Trapeze', *n.* [Fr.] A trapezium.

Trape'zian, *a.* (*Crystallography.*) Applied to crystals whose lateral planes are composed of trapeziums situated in two ranges between the bases.

Trape'ziform, *a.* That has the form of a trapezium.

Trape'zium, *n.*; *pl.* TRAPEZIA, or T. APEZIUMS. [Lat., from Gr. *trapezion*, a small table or counter, from *trapeza*, a table.] (*Geom.*) A plane figure contained under four right lines, no two of which are parallel.

(*Anat.*) A bone of the wrist, so named from its shape.

Trapezohe'dral, *a.* Belonging to, or shaped as a trapezohedron.

Trapezohe'dron, *n.* (*Crystallography.*) A solid bounded by 24 equal or similar trapezoidal planes.

Trap'ezoid, *n.* [Gr. *trapezion*, and *eidos*, form.] (*Geom.*) A plane four-sided figure having two of its opposite sides parallel.

Trapezoid'al, *a.* Having the form of a trapezoid.

Trappe', in *Maryland*, a post-village of Talbot co., 9 m. S. of Easton; *pop.* abt. 300.

Trappe', in *Pennsylvania*, a post-village of Montgomery co., 10 m. W.N.W. of Norristown.

Trap'per, *n.* One employed in entrapping animals of any sort; — particularly, one who catches wild animals in traps, for their skins or fur.

Trap'ping, *p. a.* Setting traps for wild animals; ensnaring.

Trap'pings, *n. pl.* Ornaments of horse furniture.—Ornaments; dress; external and superficial decorations.

Trap'pists, *n. pl.* (*Eccl. Hist.*) The name of the most rigorous among the religious orders of the Roman Catholic Church. The first abbey of *La Trappe* in Normandy was founded by Rotron, count of Perche, in 1640. It was bestowed in 1636 on Armand Jean le Bouthillier de Rancé, who, after leading a most luxurious life, suddenly, in 1662, renounced the world, gave up his rich benefices, and retired to La Trappe. He established a new rule, which bound the community to strict silence, hard labor, and total abstinence from wine, eggs, fish, and all seasoning to their simple diet of bread and vegetables. Rancé died Oct. 27, 1700, and the abbey continued to flourish till the revolution of 1789, when it was suppressed. Some of the Trappists sought refuge in Switzerland, but returned to their dilapidated monastery on the restoration of the Bourbons in 1815. A new church and monastery were built, and consecrated with great pomp, Aug. 30, 1833. They have 3 houses in North America: *New Haven*, in the diocese of Louisville; *New Melleray*i, in the diocese of Dubuque; and *Tracadie*, in the diocese of Arichat, Canada. There is also an order of Trappist nuns in France, founded in 1692.

Trap'py, Trap'pean, Trap'pous, *a.* Belonging to, or containing trap; of the nature of trap.

Trap'-rock, *n.* (*Geol.*) See TRAP.

Trap'-stair, *n.* A narrow staircase, or encased ladder, surmounted by a trap-door.

Trap-tufa, Trap-tuff, *n.* (*Geol.*) Volcanic tufa; volcanic grit.

Trash, *v. a.* To lop; to crop; to strip of leaves.

—*n.* Loppings of trees; any waste or worthless matter; unripe fruit or other matter improper for food, but eaten by children, &c. — The name given in the W. Indies to the waste leaves of the sugar-cane, and the stalks after the juice has been expressed.

Trash'ily, *adv.* In a trashy manner.

Trash'iness, *n.* The state or quality of being trashy.

Trash'y, *a.* Waste; rejected; worthless; useless.

Trasimenus Lacus. See PERUGIA, (LAKE OF).

Tras-os-Montes, (*-mone'tais,*) a prov. of Portugal, having Spain on its N. and E., the prov. of Minho on the W., and Beira on the S.; *area*, 4,028 sq. m. It is generally mountainous, but the soil is fertile in the valleys. Cattle-rearing is an important branch of industry. *Cap.* Bragança. *Pop.* 379,779.

Trau, (*trou,*) a town of Austrian Dalmatia, on the coast of the Adriatic, 10 m. from Spalatro; *pop.* 4,865.

Traumat'ic, *a.* [From Gr. *trauma*, a wound.] (*Med.*) Relating to wounds; hence, the *traumatic* balsams and ointments of old pharmacy.

Trav'ail, *v. n.* [Fr. *travailler;* It. *travagliare*, to strain, endeavor.] To exert one's self beyond or above one's strength; to work or labor excessively; to labor with pain; to toil. — To suffer the pangs of childbirth; to be in parturition.

—*n.* Parturition.

Travancore, (*trav-an-kor',*) the most S.W. prov. of British India, between Lat. 8° 10′ and 10° 30′ N., Lon. 76° 11′ and 77° 35′ E.; *area*, 4,722 sq. m. From the mountains that shut it in on the east, the country falls in a succession of terraces to the shore on the Indian Ocean. The principal products are timber, grain, sugar, salt, spices, drugs, and resins. *Pop.* 1,012,000.

Trave, TRA'VIS, *n.* [Sp. *traba;* Fr. *entraves*, from Lat. *trabs, trabis*, a beam.] A beam; a log or joist; a traverse; a cross-beam; a wooden frame to confine an unruly horse while shoeing.

Trav'el, *v. n.* [A different orthography and application of *travail.*] To make a toilsome or wearisome journey; to walk; to go or march on foot; to journey; to ride to a distant place in the same country, or to visit foreign states or kingdoms, either by sea or land. — To pass; to go; to move; to move, walk, or pass, as a beast, a horse, ox, or camel.

—*v. a.* To pass; to journey over.

—*n.* Act of travelling; labor; toil; travail; a passing on foot; a walking; journey; a passing or riding from place to place; a journeying to a distant country or countries; a tour, (often in the plural.)

—*pl.* An account of occurrences and observations made during a journey.

Trav'elled, *a.* Having made journeys; instructed by travels.

Trav'eller, (sometimes written TRAVELER,) *n.* One who travels in any way; one who visits foreign countries.—In ships, a ring fitted so as to slip up or down a rope.—A person who travels for a merchant or mercantile company, to receive payment of goods, wares, &c., sold by his employer, or employers, to other merchants, and to take orders.

Traveller's Tree, *n.* (*Bot.*) *Ravenala speciosa.* See RAVENALA.

Trav'elling, *a.* Pertaining to travel.

—*n.* The act of one who travels; travel.

Trav'el-stained, *a.* Having the clothes soiled, &c., with the marks of travelling.

Trav'ersable, *a.* That may be traversed or crossed. That may be traversed or denied. See TRAVERSE.

Trav'erse, *adv.* [Fr. *à travers.*] Athwart; crosswise.

—*a.* [Lat. *traversus.*] Transverse; turned or directed across; lying across; being in a direction across something else.

—*n.* Anything laid or built across or in a transverse direction; something that thwarts, crosses, or obstructs; a cross accident.

(*Fort.*) A trench with a little parapet for protecting men on the flank; also, a wall raised across a work.

(*Naut.*) The variation or alteration of a ship's course, occasioned by the shifting of the winds, currents, &c.; or it is a compound course consisting of several courses and distances.

(*Arch.*) The transverse piece in a timber roof; also, a gallery or loft of communication in a church or other large building.

(*Law.*) A plea contradicting some matter of fact alleged by the opposite party. In any stage of the pleadings, when either side traverses or denies the facts pleaded by his antagonist, he usually tenders an *issue*, as it is called, and puts himself upon the country, or refers the matter to the decision of a jury. A *T.* to a material point cannot be waived and another *T.* tendered by the other party. In criminal proceedings, *not guilty* is a general *T.*, which throws on the prosecutor the necessity of proving the material facts.

—*v. a.* To turn, lay, or place in a cross direction; to cross; to cross by way of opposition; to thwart; to obstruct. — To wander over; to cross in travelling; to pass over and view; to survey carefully. — To turn and point in any direction, as a cannon. — To plane in a direction across the grain of the wood. — To deny what the opposite party has alleged.

—*v. n.* (*Man.*) To step or make the tread crosswise, as a horse, throwing the croup to one side and the head to another.

(*Fencing.*) To take an opposing posture, or to oppose a movement.

—To turn as on a pivot; to move round.

Trav'erse, in *Michigan*, a post-village, cap. of Grand Traverse co. *Pop.* (1897) 9,000.

Traverse, in *Minnesota*, a W. co., bordering on the Dakotas; *area*, 552 sq. m. Sioux Wood river and Lake Traverse bound it on the W. *Surface*, level; *soil*, fertile. *Products.* Wheat, oats, barley, hay, live stock, &c. *Cap.* Wheaton. *Pop.* (1895) 6,064.

Trav'erser, *n.* One who traverses or opposes a plea in law.

Trav'erse-sail'ing, *n.* (*Naut.*) Sailing on different courses in succession. The method of reducing such compound courses and distances into an equivalent single course and distance is called *resolving a traverse.* The reduction may be effected either by geometrical projection or trigonometrical computation; but it is generally performed with inspection by the aid of a traverse-table.

Trav'erse-ta'ble, *n.* (*Naut.*) The tabulated form in which the northing, southing, easting, and westing are made on each individual course and distance in a traverse, for the purpose of finding readily the difference of latitude and departure made upon the whole — the difference between the sums of the northings and southings being the difference of latitude, and between the sums of the eastings and westings the *departure.*

Trav'ertine, *n.* [It. *travertino.*] (*Min.*) A white concretionary limestone, usually hard and semi-crystalline, deposited from the water of springs holding carbonate of lime in solution.

Trav'esty, *a.* [See the verb.] Having an unusual dress; disguised by dress so as to be ridiculous. — Denoting a book or composition translated in a manner to make it burlesque.

—*n.* That which is disguised by dress. — A parody; a burlesque translation of a work.

—*v. a.* [Fr. *travestir* — *tra*, and O. Fr. *vestir* = Fr. *vêtir.*] To change the dress or garb of; to disguise. — To translate into such language as to make ridiculous or ludicrous; to burlesque; to parody.

Trav'is, *n.* A TRAVE, *q. v.*

Trav'is, in *Texas*, a central co.; *area*, 1,040 sq. m. *River.* It is traversed by the Colorado river. *Surface*, hilly; *soil*, fertile. *Cap.* Austin. *Pop.* (1897) 37,350.

Trav'nik, a town of European Turkey, cap. of the prov. of Bosnia, on the Sasva river, 45 m. W.N.W. of Bosna-Serai. *Manuf.* Sword-blades.

Trawl, *n.* A trawl-net; a trail-net.—A line, sometimes a mile or more in length, with short lines and baited hooks suspended from it at frequent intervals, much used in fishing for cod, haddock, and mackerel.

—*v. n.* To fish with a trawl or drag-net.

Trawl'er, *n.* A fishing-vessel which trails or drags a net behind it.—A fisherman who fishes with a drag-net.

Trawl'ing, *n.* A mode of fishing by a net called *trawl-net*, dragged along the bottom of the sea, behind a boat.

Tray, *n.* [Same as TROUGH, *q. v.*] A small trough or wooden vessel, sometimes scooped out of a piece of timber and made hollow, used for various domestic purposes; a sort of waiter, of wood or metal.

Tray'lorsville, in *Virginia*, a village of Henry co., 200 m. W.S.W. of Richmond.

Treacherous, (*trĕch'er-ŭs,*) *a.* Guilty of treachery; violating allegiance or faith pledged; faithless; traitorous to the state or sovereign; perfidious in private life; betraying a trust.

Treach'erously, *adv.* Faithlessly; perfidiously.

Treach'erousness, *n.* Quality of being treacherous.

Treach'ery, *n.* [Fr. *tricherie;* Lat. *tricæ*, hindrances, subterfuges, quirks, tricks.] Trickery; fraud; deception; violation of allegiance or of faith and confidence; perfidy; faithlessness.

Treacle, (*trē'kl,*) *n.* [Fr. *thériaque;* Lat. *theriaca;* Gr. *thēriaka* — *thērion*, a wild beast.] (*Med.*) The same as theriaca or THERIAC, *q. v.*

—The spume of sugar in sugar refineries. — Also the uncrystallized sirup which drains from sugar as first prepared from cane-juice; molasses.

Tread, (*trĕd,*) *v. n.* [A. S. *tredan, getredan, betredan.*] To set or plant the foot; to walk or go; to walk with form or state. — To copulate, as fowls.
—*v. a.* To plant the foot on; to step or walk on; to press under the feet; to beat or press with the feet. — To walk upon in a formal or stately manner. — To crush under the foot; to trample in contempt or hatred, or to subdue. — To put in action by the feet, as a wheel.
—*n.* Act of treading; a step or stepping; footing; pressure with the foot; manner of stepping; gait. — The horizontal part of a step in a stair on which the foot is placed.

Tread'er, *n.* One who treads.

Treadha'ven Creek, in *Maryland*, flows into the estuary of Choptank River from Talbot co.

Tread'ing, *n.* Act of one who treads; act of pressing with the foot; a stepping; a walking.

Tread'le, Tred'dle, *n.* [From *tread.*] The part of a loom or other machine which is moved by the tread or foot.

Tread'-mill, *n.* A mill worked by persons treading on steps fixed on the periphery of an horizontal wheel. It was chiefly used as a means of prison discipline, but is now generally abandoned in the U. States, from its injurious and depressing effect.

Tread'-wheel, *n.* A wheel with steps placed horizontally on the exterior surface, by treading on which the wheel is turned.

Treason, (*trē'zn,*) *n.* [Fr. *trahison*; Lat. *trado* — *trans*, over, and *do*, to give.] A betrayal or betraying; breach of fidelity or allegiance; treachery; disloyalty; an offence which immediately affects the safety of the state or of the sovereign.
(*Amer. Law.*) The Constitution of the U. States, art. 3, § 3, defines *T.* to consist only in levying war against the U. States, or in adhering to their enemies, giving them aid or comfort. This offence is punished with death.

Trea'sonable, *a.* Pertaining to treason; consisting of treason; involving the crime of treason, or partaking of its guilt.

Trea'sonableness, *n.* Quality of being treasonable.

Trea'sonably, *adv.* In a treasonable manner.

Treasure, (*trĕzh'yur,*) *n.* [Fr. *trésor*; Lat. *thesaurus*; Gr. *thēsauros*, from *tithēmi*, to put, set, or place, to deposit.] That which is deposited, laid up, or stored up; wealth accumulated; riches hoarded; particularly, a stock or store of money in reserve; a great quantity of anything collected for future use. — Something very much valued. — Great abundance.
—*v. a.* To deposit, lay up, hoard, or collect, as money or other things, for future use; to lay up, (usually with *up;*) as, to *treasure up* memories.

Treas'ure-house, *n.* A house or building where treasures and stores are kept.

Treas'urer, *n.* [Fr. *trésorier.*] One who has the care of a treasure or treasury; one who has the charge of the money, funds, or revenues of a society, corporation, state, &c.

Treasuress, (*trezh'ur-ess,*) *n.* A female who has charge of a treasure.

Treas'ure-trove, *n.* Any money, treasure, &c., found in the earth or otherwise hidden, the owner of which is unknown. By the common law, he who finds such things hidden in the earth is not entitled to them, but they belong to the state. There is an exception to the general rule, that he who first finds a thing, whose owner is unknown, is entitled to keep it; and accordingly the exception is construed strictly, so that if the coin, &c., is not hidden in and covered by the earth, the finder, and not the state, is entitled to it.

Treasury, (*trĕzh'ur-y,*) *n.* [Fr. *trésorerie.*] A place or building in which stores of wealth are deposited; — particularly, a place where the public revenues are deposited and kept, and where money is disbursed to defray the expenses of government.
—In the U. States, a department of government which has control over the management, collection, and expenditure of the public revenue. The officers consist of a secretary, who is the head of the department, two comptrollers, six auditors, a treasurer, a registrar, a commissioner of customs, a solicitor, an assistant secretary, and numerous subordinate clerks.

Treat, *v. a.* [Fr. *traiter*, to treat; Lat. *tractare*, to touch, from *truhere*, to draw.] To handle; to manage; to use. — To discourse on; to handle in a particular manner, in writing or speaking. — To entertain without expense to the guest; to give food or drink to, as a compliment or expression of regard. — To manage in the application of remedies, as a patient or a disease. — To subject to the action of.
—*v. n.* To handle in writing or speaking; to discourse; to make discussions. — To come to terms of accommodation. — To give gratuitous entertainment; to give food or drink as a compliment or expression of regard.
To treat with, to enter into negotiations with.
—*n.* An entertainment given as a compliment or expression of regard. — Something given for entertainment; as, a rich *treat.*

Treat'er, *n.* A person who treats; one who discourses on a subject; one who entertains.

Trea'tise, *n.* [Lat. *tractatus*, from *tractare*, to manage.] A written composition on a particular subject, in which the principles of it are discussed or explained; a formal essay; a dissertation; a tract.

Treat'ment, *n.* [Fr. *traitement.*] Act or manner of treating; management; manipulation; manner of mixing or combining, of decomposing and the like. — Usage; manner of using; entertainment; good or bad usage towards. — Manner of prescribing remedies to cure, as a disease; the manner of applying remedies to; as, the *treatment* of a patient. — Entertainment; treat. (R.)

Trea'ty (or **Petty's**) **Island,** vulgarly called Paddy's Island, belonging to New Jersey, in the Delaware, opposite Philadelphia, 2 m. long.

Trea'ty, *n.* [Fr. *traité*: It. *trattato.*] Negotiation; act of treating for the adjustment of differences, or for forming an agreement.
(*International Law.*) An agreement of friendship, alliance, commerce, or navigation, entered into between two or more independent nations.

Treb'izond, (anc. *Trapezus,*) a city and seaport of Asia Minor, cap. of a Turkish eyalet, on the S.E. coast of the Black Sea, 120 m. N.W. of Erzeroum; Lat. 40° 1′ N., Lon. 39° 44′ 52″ E. The town is built on the slope of a hill declining to the sea, and backed by steep eminences rising behind. The walled city is solely inhabited by Mohammedans; the Christians live outside the walls, where are also most of the bazaars and khans. *T.* is the natural emporium of all the countries to the S.E. of the Black Sea, from Kherson on the E., to Amasia on the W. It was a flourishing city when it was reached by Xenophon and the Ten Thousand at the close of their memorable retreat. Alexis Comnenus made it the capital of an independent principality in 1204, known as the Empire of Trebizond; and it remained in the hands of his descendants till it was taken by the Turks in 1460. *Pop.* abt. 25,000.

Treble, (*trĕb'l,*) *a.* [Fr. *triple*; Lat. *triplex*, from *tres*, three, and *plexus*, from *plico*, to fold.] Threefold; triple.
(*Mus.*) Acute; sharp in a threefold degree; pertaining to the highest or most acute of the parts of music.
—*n.* (*Mus.*) The highest or most acute of the parts in music; the part usually sung by women and boys, and played by violins, hautboys, flutes, and other acute instruments.
—*v. a.* To make threefold; to make thrice as much; to multiply by three.
—*v. n.* To become threefold.

Treb'leness, *n.* The state or quality of being treble.

Treb'ly, *adv.* In a threefold manner or quantity.

Treb'uchet, *n.* [Fr.] (*Mil.*) A warlike engine of the middle ages, used to throw stones, fiery material, and other projectiles employed in the attack and defence of fortified places, by means of counterpoise. At the long end of a lever was fixed a sling to hold the projectile; at the short end a heavy weight, which furnished the necessary moving force.

Tre-cen'to, *n.* [It.] A flourishing period of Italian art and literature, which dates from the birth of Dante, in 1265, to the death of Boccaccio, in 1375. These two authors, with Petrarch, are termed "the Triumvirate of the Tre-cento."

Treck'schuyt, *n.* [Du., from *trekken*, to draw, and *schuit*, a boat.] A covered boat drawn by horses or cattle, and used for the conveyance of goods and passengers on the Dutch and Flemish canals, before the introduction of railways.

Tred'egar, a town of England, in Monmouthshire, 16 m. from Newport, known for its iron-works and coal-mines.

Tredille', *n.* A game at cards played by three persons.

Tredyffryn, in *Pennsylvania*, a township of Chester co., 18 m. W.N.W. of Philadelphia.

Tree, *n.* [A. S. *treow, treu.*] (*Bot.*) Any woody plant of perennial duration which rises from the ground with a trunk. To form a tree, the plant must acquire some considerable size, and be furnished with a trunk or single stem by which its branches or limbs may be supported. It differs from a shrub, which is a woody plant of smaller stature, in having a trunk; and it is the presence of this solid mass of wood which gives their especial utilitarian value to trees, furnishing, as many of them do, the timber which is applied to so many useful purposes. See Age of Trees, Botany, &c.
—Something resembling a tree, consisting of a stem or stalk and branches; as, a genealogical *tree.*
—*v. a.* To cause to ascend a tree.

Tree'-fern, *n.* (*Bot.*) The name applied to those ferns which form erect trunks like the stem of a tree (Fig. 28). They chiefly belong to the genera *Cyathea*, *Alsophila*, and *Dicksonia.*

Tree'-frog, Tree'-toad, *n.* (*Zoöl.*) See Hyloidæ.

Tree'less, *a.* Without trees.

Tree'-like, *a.* (*Bot.*) Applied to plants which resemble a tree, but are very small.

Tree'nail, (usually pron. *trun'nel,*) *n.* (*Naut.*) A long cylindrical wooden pin, employed to fasten the planks of a ship's side and bottom to corresponding timbers.

Tree-of-Heaven, *n.* (*Bot.*) See Ailantus.

Tree-of-Life, *n.* (*Bot.*) *Arbor vitæ.* See Thuja.

Tree-pœony, *n.* (*Bot.*) See Ranunculaceæ.

Tree'ship, *n.* The state or condition of a tree.

Trefle, *n.* [Fr., trefoil.] (*Fort.*) A form of mine, so termed from the similarity of its figure to that of trefoil. The simple *trefle* has only two lodgments; the double *trefle*, four; and the triple one, six.

Tre'foil, *n.* [Fr. *trèfle*; Lat. *trifolium*, from *tres*, three, and *folium*, leaf.] (*Bot.*) See Trifolium.
(*Arch.*) An ornament consisting of three cusps, resembling the three-leaved clover (1, Fig. 2523.)
(*Her.*) A frequent charge, representing the clover-leaf, and always depicted as *slipped* or furnished with a stalk (2, Fig. 2523).

Fig.—2523. Trefoil. 1, architecture; 2, heraldry.

Treichlersville, (*trik'lers-vill,*) in *Pennsylvania*, a village of Lehigh co.

Treillage, (*trĕl'aj,*) *n.* [Fr.] Same as Trellis.

Treille', *a.* (*Her.*) See Latticed.

Treja, (*trui'ya,*) a town of Central Italy, 8 m. from Mucerata; *pop.* 8,616.

Trel'lis, *n.* [Fr. *treillis*, lattice-work, from Lat. *trichila*, a bower, arbor.] A structure or frame of cross-barred work, or lattice-work, used for supporting plants.

Trel'lised, (*-list,*) *a.* Having a trellis or trellises.

Tremando, Trem'olo. [It., trembling.] (*Mus.*) A direction for one of the graces of harmony, which consists in a reiteration of one note of the chord; this, however, applies more directly to the word *tremolo*, whilst the *tremando* is a general shake of the whole chord.

Tremandra'ceæ, *n. pl.* (*Bot.*) A small order of plants, alliance *Sapindales.* Diag. Partially complete, symmetrical flowers, a valvate calyx, and 2–4-celled anthers, opening by pores. — They are slender, heath-like shrubs, natives of New Holland. Their properties are unknown; 3 genera, 16 species.

Tremble, (*trĕm'bl,*) *v. n.* [Fr. *trembler*, from Lat. *tremo*, to tremble, quake.] To shake involuntarily, as with fear, cold, or weakness; to quake; to quiver; to shiver; to shudder. — To shake; to totter; — said of a thing. — To quaver; to shake, as sound.
—*n.* An involuntary quavering or shaking.

Trem'bler, *n.* One who trembles.

Trem'blingly, *adv.* In a trembling manner; with shivering or quaking.

Trem'bling-pop'lar, *n.* (*Bot.*) See Populus.

Tremel'la, *n.* [N. Lat. and It., from Lat. *tremere*, to tremble.] (*Bot.*) A genus of fungi, of the division *Hymenomycetes*, soft and gelatinous, of no very determinate form, mostly growing on decaying wood.

Tremen'dous, *a.* [Lat. *tremendus*, from *tremo*, to tremble.] Such as may excite fear or terror; terrible; dreadful; violent; such as may astonish by its force and violence.

Tremen'dously, *adv.* In a manner to terrify or astonish.

Tremen'dousness, *n.* State or quality of being tremendous.

Trem'olite, *n.* (*Min.*) A variety of Hornblende, first found in the Tremola Valley, Switzerland.

Trem'olo, *n.* [It.] (*Mus.*) See Tremando.

Tre'mont, in *Illinois*, a post-village and township of Tazewell co., 57 m. N.E. of Springfield; *pop.* abt. 2,000.

Tremont, in *Maine*, a post-township of Hancock co.; *pop.* abt. 2,100.

Tremont, in *Pennsylvania*, a post-borough and township of Schuylkill co., 15 m. W.S.W. of Pottsville. *Pop.* (1897) 2,120.

Trem'or, *n.* [Lat., from *tremere*, to tremble.] An involuntary trembling; a shivering or shaking; a quivering or vibratory motion.

Trempealeau, (*trem-pa-lo',*) a river of *Wisconsin*, rises in Jackson co., and flows S.W. into the Mississippi, from Trempealeau co. — A W. co., bordering on Minnesota; *area*, 738 sq. m. *Rivers.* Mississippi, Black, Buffalo, and Trempealeau rivers, and Beaver Creek. *Surface*, undulating; *soil*, fertile. *Cap.* Whitehall. *Pop.* (1897) 21,963. — A post-village and township of the above county, on the Mississippi, 20 miles north-west of La Crosse.

Trem'ulous, *a.* [Lat. *tremulus*, from *tremere*, to tremble.] Trembling; affected with fear or timidity. (R.) — Shaking; shivering; quivering.

Trem'ulously, *adv.* In a tremulous manner.

Trem'ulousness, *n.* State of being tremulous.

Trench, *v. a.* [Fr. *trancher*, to cut, from Lat. *trans*, across, and *secare*, to cut.] To cut or dig, as a ditch, a channel for water, or a long hollow in the earth. — To intrench; to fortify by earth thrown up. — To cut or dig into pits or ditches; to furrow; to form with deep furrows by ploughing.
—*v. n.* To encroach; (with *on* or *upon.*)
—*n.* A long, narrow cut in the earth; a ditch.
(*Fort.*) [Fr. *tranchée.*] In the attack of a fortress, an excavation made for the purpose of covering the advance of the besiegers. They are from 6 to 10 feet wide, and abt. 3 feet deep, the earth taken out forming the parapet.
To open the trenches. (*Mil.*) To break ground for the purpose of carrying on approaches towards a besieged place.

Tren'chant, *a.* [Fr. *tranchant*, from *trancher*, to cut.] Cutting; sharp. — Severe; unsparing.

Trench-cavalier', *n.* (*Fort.*) In the attack of a fortress, the high parapets of the single saps, which are pushed along the slope of the glacis; they should be raised high enough to command the salient places of arms.

Trench'er, *n.* [Fr. *tranchoir*, from *trancher*, to cut.] A wooden plate or platter. — The table; food; the pleasures of the table.

Trench'er-fly, *n.* One who haunts the tables of others; a parasite. (R.)

Trench'er-friend, *n.* A person who frequents the tables of others; a sponger.

Trench'er-man, *n.*; *pl.* Trencher-men. A feeder; a great eater.

Trench'er-mate, *n.* A table companion; a parasite.

Trench'-plow, Trench'-plough, *n.* A kind of plow for opening land to a greater depth than that of common furrows.
—*v. a.* To plow with deep furrows.

Trenck, Friedrich von der, Baron, a Prussian officer, celebrated for his adventures and misfortunes, was b. in 1726, at Königsberg, and made such rapid progress in his studies, that, at the age of 17, he was presented to

the king, Frederick II., as a student who was well worthy the royal patronage. Frederick rapidly advanced him in the army, and manifested much regard for him; but the accomplishments of *T.* having won the heart of the Princess Amelia, the king's sister, his enemies took advantage of some letters that fell into their hands, and had him accused and arrested. He was imprisoned in the fortress of Glatz, but contrived to effect his escape. He then visited the north of Europe, Austria, and Italy. In 1758, he was seized at Dantzic, and was conveyed to Magdeburg, where, loaded with irons, he was for years incarcerated. On procuring his liberation, in 1763, he withdrew to Vienna, after which he went to Aix-la-Chapelle, where literature, politics, and commerce alternately occupied his attention. He next went to reside at his castle of Zwerbeek, in Hungary, and while there he published his own *Memoirs*, a book which was greedily read all over Europe. In 1791, he settled in France, joined the Jacobins, and in 1794 was charged with being a secret emissary of the King of Prussia, and n. by the guillotine.

Trend, *v. n.* To tend; to lie in any particular direction.
—*v. a.* To bend; to cause to turn in any particular direction. (R.)
—*n.* Tendency; direction.
(*Naut.*) See ANCHOR.

Tren'del, *n.* A weight, or post, in a mill.

Trend'er, *n.* One whose business is to cleanse wool.

Tren'dle, *n.* Anything turned round; a little wheel; a trundle.

Trent, a river of England, which, rising in the west of Staffordshire, flows north-east through Derbyshire and Nottinghamshire, and, parting Lincolnshire from the south of Yorkshire, joins the Ouse where it opens into the æstuary of the Humber, after a course of 180 miles.

Trent, a city of Austria, in the Tyrol, on the Adige, not far from the border of Italy, 12 m. from Roveredo. It stands in a small but delightful valley among the Alps, and is enclosed by high walls. Its public buildings are the palace of the archbishop, and the cathedral, a Gothic structure, not remarkable for its vigor or beauty. *Pop.* 14,847. Here took place a celebrated council convoked by Pope Paul III., for the purpose of defining and illustrating the doctrines of the Church, condemning heresies, and reforming abuses that had crept into the Church, both in doctrine and discipline. It met in 1545, and was continued during twenty-five sessions to the year 1563, under the pontificates of Julius III. and Pius IV. It was intended to serve as a foil to Protestantism, by reforming the abuses of the Church, determining and establishing its doctrines, and conforming them to the spirit of the times. Hence the decrees of this council, together with the creed of Pope Pius IV., contain a complete summary of the doctrines of the Church. The decrees were subscribed by 255 of the clergy, including four legates, two cardinals, three patriarchs, twenty-five archbishops, and 168 bishops, and were confirmed by a Papal bull, dated 26th January, 1564. All the Roman Catholic states accepted the decrees of the council, and promulgated them in their territories, with the exception of France, which persisted in asserting its independence.

Trent, a river of prov. of Ontario, rises in Trent Lake, Northumberland co., Lat. 45° N., Lon. 78° W., and enters the Bay of Quinte, Lake Ontario, 10 m. N.E. of Newcastle, after a S.E. course of 100 m.

Trent, a river of *N. Carolina*, rises in Lenoir co., and flowing E., falls into the Neuse at Newbern.

Tren'tal, *n.*; *pl.* TRENTALS. [Fr. *trente*, thirty; It. *trenta*; Lat. *triginta*.] An office for the dead in the Roman Catholic service, consisting of thirty masses rehearsed for thirty days successively after the party's death.—A dirge; an elegy.

Tren'ton, in prov. of Ontario, a town of Northumberland county, on the Bay of Quinte, 62 miles west of Kingston.

Tren'ton, in *Alabama*, a post-vill. of Jackson co., 177 m. N.E. of Tuscaloosa.

Trenton, in *Georgia*, a post-village, cap. of Dade co., 230 m. N.W. of Milledgeville.

Trenton, in *Illinois*, a village of Bureau co., 26 m. W. of Ottawa.—A post-town of Clinton co., 30 m. E. of St. Louis.—A village of Knox co., 90 m. N.N.W. of Springfield.

Trenton, in *Indiana*, a village of Blackford co., about 33 m. N. W. of Union City.

Trenton, in *Iowa*, a post-village and township of Henry co., 45 m. S.W. of Iowa City.

Trenton, in *Kentucky*, a post-village and township of Todd co., 190 m. S.W. of Frankfort.

Trenton, in *Louisiana*, a post-village of Ouachita parish, 2 m. N. of Monroe.

Trenton, in *Maine*, a village of Hancock co., 75 m. E. of Augusta.

Trenton, in *Michigan*, a post-village of Wayne co., 17 m. S. of Detroit.

Trenton, in *Minnesota*, a village of Carleton co., abt. 120 m. N.E. of St. Cloud.—A post-village of Freeborn co., abt. 40 m. S.S.W. of Faribault.

Trenton, in *Missouri*, a city, cap. of Grundy co., 150 m. N.W. of Jefferson City. *Pop.* (1897) 5,450.

Trenton, in *N. Carolina*, a post-village, cap. of Jones co., 100 m. S.E. of Raleigh.

Trenton, in *New Jersey*, a city, cap. of the State, and seat of justice of Mercer co., on the Delaware, 30 m. N.E. of Philadelphia; Lat. 40° 14′ N., Lon. 74° 46′ 30″ W. It is regularly laid out and handsomely built, and contains numerous foundries, rolling-mills, manufactories of locomotives, paper, hardware, wire, &c. It was the scene of a battle, Dec. 26, 1777, in which Gen. Washington defeated the British and Hessians, taking 1,000 of the latter prisoners. *Pop.* (1895) 62,518.

Trenton, in *New York*, a post-township of Oneida co., 12 m. N. of Utica.

Trenton, in *Ohio*, a post-village of Butler county, 8 miles north-east of Hamilton.—A township of Delaware county.—A village of Jefferson county, 11 miles northwest of Wheeling, W. Virginia.—A village of Tuscarawas county, 98 miles east north-east of Columbus.

Trenton, in *Tennessee*, a post-town, cap. of Gibson co., 130 m. W. of Nashville.

Trenton, in *Virginia*, a village of Cumberland co., abt. 50 m. W. of Richmond.

Trenton, in *Wisconsin*, a township of Dodge county.—A post-village and township of Pierce county, 18 miles south-east of Prescott.—A township of Washington county.

Tren'ton Falls, in *New York*, a post-village of Oneida co., 15 m. N.E. of Utica, on West Canada Creek. It is noted for its beautiful falls, 6 in number, occupying at intervals a ravine 2 m. long, with an aggregate descent of 312 feet.

Trepan', *n.* [Fr.] (*Surg.*) See TREPANNING.
—*v. a.* To perforate, as the skull, and take out a piece.—To lay a snare for; to take by stratagem; to ensnare; to catch.

Trepang', *n.* (*Zoöl.*) See HOLOTHURIA.

Trepan'ning, *n.* (*Surg.*) The operation of perforating the skull by means of a circular saw, when the head is so injured that it is necessary to remove a part of the bone. The instrument is called a *trepan* or *trephine* (Fig. 2524). The operation is not dangerous; but care requires to be taken not to injure the soft parts underneath. When the bone is nearly sawn through, the piece is then raised with the elevator, the projecting angles of the bone being afterwards removed with a saw, and all other irregularities of the cut surface destroyed. The cut edges of the bones afterwards throw out granulations, which become ossified; but there is always a small interval which does not ossify, in or about the centre.

Fig. 2524.—TREPHINE.

Trephine', *n.* [Fr.] (*Surg.*) See TREPANNING.
—*v. a.* To trepan; to perforate with a trephine.

Trepida'tion, *n.* [Fr.; Lat. *trepidatio*, from *trepidare*, to tremble.] An involuntary trembling; a quaking or quivering, particularly from fear or terror; a state of terror.—Hurry; confused haste. (R.)

Tres'cott, in *Maine*, a township of Washington co., on the Atlantic, 80 m. E. of Bangor.

Tres-Mon'tes, a peninsula of Chili, W. of Patagonia, between the Chonos Archipelago and the Gulf of Penas.

Tres'pass, *v. n.* [O. Fr. *trespasser*, from *tres*, Lat. *trans*, beyond, and *passer*, to pass.] To pass over the boundary line of another's land; to enter unlawfully upon the land of another.—To intrude; to go too far; to put to inconvenience by demand or importunity.—To commit any offence, or to do any act that injures or annoys another; to violate any rule of rectitude, to the injury of another; to transgress voluntarily any divine law or command; to violate any known rule of duty.
—*n.* Any injury or offence done to another.—Any voluntary transgression of the moral law; any violation of a known rule of duty.

(*Law.*) In its widest and most extensive sense, it signifies any transgression or offence against the law of nature, of society, or of the country in which we live, whether it relates to a man's person or his property;—hence, it includes beating any person, taking or detaining his goods; also, non-performance of promises or undertakings, and, in general, any misfeasance or act of one man whereby another is injuriously treated or damnified. Whenever the act itself is directly and immediately injurious to the person or property of another, and therefore necessarily accompanied with some force, an action of trespass *vi et armis* will lie; but if the injury is only consequential, a special action of trespass *on the case* may be brought. But in the more limited and usual sense, it signifies no more than an entry on another man's ground without lawful authority, and doing some damage, however inconsiderable, to his real property. The law regards every entry upon another's lands, unless by the owner's leave, or in some very particular cases, as an injury or wrong, for satisfaction of which an action of trespass will lie, but determines the *quantum* of that satisfaction by considering how far the offence was wilful or inadvertent, and by estimating the value of the actual damage sustained.

Tres'passer, *n.* One who commits a trespass; one who enters upon another's land, or violates his rights.—A transgressor of the moral law; an offender; a sinner.

Tres-Pon'tes, in Brazil, a town of the prov. of Minas-Geraes, 25 m. E. of Lavras do Funil; *pop.* 4,000.

Tress, *n.* [Fr. *tresse*; It. *treccia*, tress, from Gr. *tricha*, threefold, from the usual mode of braiding the hair.] A braid or knot of hair; a ringlet; a curl.

Tressed, (*trest,*) *a.* Having tresses.—Curled; formed into ringlets.

Tres'sel, *n.* Same as TRESTLE, *q. v.*

Tressure, (*tresh'ur,*) *n.* [Fr. *tresser*, to twist.] (*Her.*) An ornamental frame or border around a bearing.

Tress'ured, *a.* That is surrounded with a tressure.

Tress'y, *a.* Abounding in tresses.

Trestle, (*tres'l,*) *n.* [Fr. *tréteau*; L. Lat. *trestellus*, from Du. *driestal*, a tripod, from *drie*, three, and *stal*, stool.] A three-legged prop for supporting anything which requires to be placed horizontally.—The frame of a table; a movable form for supporting anything.

Trestle-board. A board on which architects, &c., draw designs;—so called because formerly placed on trestles. (*Worcester.*)—*Trestle-bridge.* A bridge supported by trestles.—*Trestle-trees.* (*Naut.*) Two bars of wood or iron at the mast-head, fitting on the shoulders of the mast, passing lengthwise of the ship, and holding up the cross-trees, on which and on the trestle-trees themselves the top is laid.—*Trestle-work.* A sort of staging for a support.

Tret, *n.* [Probably from Lat. *tritus*, *tero*, to wear.] (*Com.*) An allowance to purchasers of 4 pounds on every 104 of suttle weight, for waste matter, or for dust or sand which may be mixed with commodities.

Treuen, (*tri'en,*) a town of Prussia, in Saxony, 9 miles from Plauen; *pop.* 5,812.

Trenenbrietzen, (*tri-en-breet'sen,*) a town of Prussia, 22 m. from Potsdam; *pop.* 6,000.

Tre'vat, *n.* A weaver's instrument for severing the thread of the pile of velvet.

Treves, (*trairv,*) (Ger. *Trier*, anc. *Augusta Trevisorum.*) the most ancient, and one of the most celebrated cities of Germany, in the centre of a large valley lying along the Moselle, 60 m. from Coblentz. The chief buildings are the Elector's palace, now turned into barracks, and the church of Notre Dame, built about 1240, and affording a good specimen of Gothic architecture. *Manuf.* Woollens, cotton, leather, &c. The archbishop of *T.* was, in virtue of his office as chancellor of Burgundy, one of the electors of the empire, a right which seems to have originated in the 12th or 13th century, and continued till the French Revolution. The ambition and talents of some of these episcopal rulers obtained for them great political weight in Germany. Since 1814, *T.* has belonged to Prussia.

Trev'et, *n.* Anything that stands on three legs, as a stool.

Treviglio, (*trai-veel'yo,*) a town of N. Italy, 20 m. from Milan; *pop.* 6,846.

Trevil'lian's Depot, in *Virginia*, a post-village of Louisa co., 67 m. N.W. of Richmond.

Treviso, (*tre-ve'so,*) a town of N. Italy, on the Sile, 16 m. from Venice. *T.* is the cap. of a prov. of same name, and is surrounded by a wall of from 24 to 38 feet in height, and strengthened by numerous bastions. *Pop.* 28,684.

Trevi'so, (DUKE OF.) See MORTIER.

Trev'orton, in *Pennsylvania*, a post-village of Northumberland co., abt. 10 m. S.E. of Sunbury.

Trévoux, (*trai-voo',*) a town of France, dept. Ain, on the Saône, 14 m. from Lyons; *pop.* 4,065.

Trex'lerstown, in *Pennsylvania*, a post-village of Lehigh co., 80 m. W.S.W. of Allentown.

Trey, (*trā,*) *n.* [Lat. *tres.*] A three at cards or dice.

Tri-. [Gr. *treis*; Lat. *tres.*] A prefix signifying *three.*

Tri'able, *a.* That may be tried; that may be subjected to trial or test.

Tri'ableness, *n.* The state or quality of being triable.

Triaconteh'edral, *a.* [Gr. *triaconta*, thirty, and *edra*, seat, base.] (*Min.*) Containing thirty sides.

Tri'ad, *n.* [Lat. *trias*, *triadis*; Gr. *trias*, *triados*, from *treis*, three.] The union of three; three united.

(*Mus.*) The chord of a note with its third and fifth, in which the octave is sometimes added; the common chord.—*Dwight.*

Triads of the Welsh bards, are poetical histories, in which the facts recorded are thrown into the form of triplets.

(*Chem.*) A molecule with a combining power of 3.

Triadel'phia, in *Maryland*, a post-village of Howard co., 50 m. N.W. of Annapolis.

Triadelphia, in *W. Virginia*, a post-village of Ohio co., abt. 8 m. E. of Wheeling.

Triadelphia Iron-Works, in *Pennsylvania*, a village of Lancaster co.

Triadel'phous, *a.* [Gr. *treis*, and *adelphos*, brother.] (*Bot.*) Applied to stamens whose filaments are united or arranged in three sets or parcels, as in the common St. John's-wort.

Tri'al, *n.* [From O. Fr. *triement.*] Act of trying; any effort or exertion of strength for the purpose of ascertaining its effect, or what can be done; examination by a test; experiment.—Suffering that puts strength, patience, or faith to test; afflictions or temptations that exercise and prove the graces or virtues of men.—Temptation; test of virtue; state of being tried.

(*Law.*) The examination of a cause in controversy between parties, before a proper tribunal. The term is most frequently applied to trial by jury, whether in a civil or criminal matter.

Trial'ity, *n.* Triad; three united. (R.)

Tri'alogue, (*-lōg,*) *n.* [Gr. *treis*, three, and *logos*, discourse.] A discourse of three persons.

Trian'dria, *n.* [Gr. *treis*, and *aner*, *andros*, a man.] (*Bot.*) The third class of plants in the Linnæan system, characterized by having three stamens.

Tri'angle, *n.* [Fr., from Lat. *triangulum*—*tres*, and *angulus*, an angle.] (*Geom.*) A figure which has three sides, and consequently also three angles. *T.* are *rectilineal*, *spherical*, or *curvilineal.* *Rectilineal* or *plane T.* are bounded by straight lines; *spherical triangles* are formed on the surface of a sphere by the intersection of the planes of three great circles; *curvilineal T.* are those which are bounded by three curves of any kind whatever. *T.* receive other distinctive names from the relation of their sides and angles. A plane *T.* is said to be *equilateral* when its three sides are all equal; *isosceles*,

when two only are equal; and *scalene*, when all three are unequal. It is called *right-angled* when one of its angles is a right angle; *oblique-angled*, when one of its angles is greater than a right angle; and *acute-angled*, when each of its angles is less than a right angle; lastly, two *T.* are said to be *similar* when their angles are respectively equal, each to each.

(*Astron.*) One of the 48 constellations of Hipparchus, situated in the northern hemisphere. The same name is also given to one of the 12 southern constellations formed by Bayer. There is also the *Little Triangle*, added by Hevelius, near the first named.

(*Mus.*) A small steel triangular instrument of percussion (Fig. 876), open at one of its angles. It is set in vibration by being struck with a short metal bar.

T. of forces. (*Statics.*) A theorem according to which three forces which, applied to the same point, produce equilibrium, are always parallel and proportional to the sides of a triangle, taken in order. The term *polygon of forces* is applied to the general theorem.

Tri'angle, in *New York*, a post-township of Broome co., 15 m. N. of Binghamton; *pop.* abt. 2,200.

Tri'angled, *a.* Having three angles; triangular.

Tri'angles, (The,) a group of islands in the Gulf of Mexico, off the E. coast of Yucatan.

Trian'gular, *a.* Having three angles; having the form of a triangle; relating to a triangle.

T. compasses. Compasses having three legs; two opening in the usual manner, and the third turning round an extension of the central pin of the other two, besides having a motion on the central joint of its own. The instrument is useful in the construction of maps and charts, as three points may be taken off at once.—*T. numbers.* (*Math.*) The series of numbers formed by the successive sums of the terms of an arithmetical progression, of which the common difference is 1. Thus:—

Arithmetical progression . 1, 2, 3, 4, 5, 6, &c.
Triangular numbers . . . 1, 3, 6, 10, 15, 21, &c.

The general term of the series is $n\frac{1}{2}(n+1)$.

Triangular'ity, *n.* The quality of being triangular.

Trian'gularly, *adv.* In a triangular manner.

Trian'gulate, *v. a.* To divide into triangular network by mensuration. — To make triangular.

Triangula'tion, *n.* [Fr.] (*Survey.*) The network of triangles with which the face of a country is covered in a trigonometrical survey.

Trianthe'ma, *n.* (*Bot.*) The Horse-purslain, a genus of plants, order *Trianthema*.

Tri'archy, *n.* [Gr. *treis*, three, and *archē*, rule.] Government by three persons.

Tri'as, *n.* (*Geol.*) A system which derives its name—*Trias*, or triple system—from its being composed, in Germany, where it is very fully developed, of three main members; viz., the *Keuper*, the *Muschelkalk*, and the *Bunter Sandstein*. These, as far as they may be compared, are the equivalents of the upper New Red Sandstone. The Trias has been separated from the lower New Red or Permian, because its flora and fauna are essentially *Mesozoic* and akin to those of the oölite and chalk, while those of the Permian are essentially *Palæozoic* in their fossils, and related to those of the coal-measures below. The Flora embraces equisetums, calamites, ferns, cycadaceous and coniferous plants; the Fauna, corals, star-fishes, shell-fish, crustaceans, reptiles, foot-prints of birds, and indications of marsupial mammals.

Trias'sic, *a.* Belonging to, or constituting trias.

Triba'sic, *a.* (*Chem.*) When an acid, on being brought in contact with a metallic oxide, exchanges three atoms of hydrogen for an equivalent amount of metal, it is termed a *tribasic acid*.

Tribe, *n.* [Fr. *tribu*; Lat. *tribus*, from *tres*, three.] A family, race, or series of generations, descending from the same progenitor, and kept distinct, as in the case of the twelve tribes of Israel.—A nation of savages; a body of rude people united under one leader or government.—A division, class, or distinct portion of people, from whatever cause that distinction may have originated.

(*Nat. Hist.*) A number of things having certain characters or resemblances in common.

Tribe's Hill, in *New York*, a post-village of Montgomery co., 38 m. N.W. of Albany.

Trib'let, Trib'olet, *n.* A goldsmith's tool for making rings.

Tribom'eter, *n.* An apparatus for measuring the friction of metals.

Tri'brach, *n.* [Gr. *treis*, three, and *brachys*, short.] (*Prosody.*) A poetic foot of three short syllables.

Tribulation, (*-lā'shun,*) *n.* [Fr.; L. Lat. *tribulatio*, from *tribulo*, *tribulatum*, to oppress, afflict, from *tribulum*, a thrashing instrument with sharp teeth, resembling a sledge.] Severe trouble or affliction; that which distresses life; vexation.

Tribu'nal, *n.* [Lat., from *tribunus*, a tribune who administered justice.] The seat of a judge; the bench on which a judge and his associates sit for administering justice; more generally, a court of justice.

Trib'unary, *a.* Relating to a tribune, or to tribunes.

Trib'unate, *n.* See Tribuneship.

Tribune, (*trib'yun,*) *n.* [Fr. *tribun*; Lat. *tribunus*, from *tribus*, a tribe.] The chief of a tribe among the ancient Romans; afterward an officer or magistrate chosen by the people, to protect them from the oppression of the patricians or nobles, and to defend their liberties against any attempts that might be made upon them, by the senate and consuls.—A bench or elevated place, from which speeches were delivered to the people:—still used in this sense in the French legislative assemblies.

Trib'uneship, *n.* The office of a tribune.

Tribunician, (*-ish'an,*) **Tribunitial,** (*-ish'al,*) *a.* Pertaining to tribunes; suiting a tribune.

Trib'utarily, *adv.* In a tributary manner.

Trib'utariness, *n.* The state or quality of being tributary.

Trib'utary, *a.* Paying tribute to another; subject; subordinate; paid in tribute; yielding supplies of anything.

—*n.* One that pays tribute, or a stated sum in acknowledgment of subjection.—An affluent; a stream which falls into another stream.

Tribute, (*trib'yūt,*) *n.* [Fr. *tribut*; Lat. *tributum*, from *tribuo*, to give, to bestow, from *tribus*, a tribe.] Something given or contributed; a grant.—An annual or stated sum of money or other valuable thing, paid by one prince or nation to another, either as an acknowledgment of submission, or as the price of peace and protection, or by virtue of some treaty.—A personal contribution.

Trib'uter, *n.* (*Mining.*) A miner who works a section of a lode, receiving a portion of the ore raised, or of its value.

Tri'ca, *n.* (*Bot.*) One of the names of the shield or reproductive organs of a lichen.

Tri'cala, or **Trikhala,** (anc. *Tricca*,) a town of European Turkey, in Thessaly, 32 m. from Larissa; *pop.* 12,000.

Tricap'sular, *a.* (*Bot.*) That has three capsules.

Trice, *n.* [Fr. *trois*, three.] A space of time during which one can say or tell three; a very short time; an instant; a moment.

—*v. a.* (*Naut.*) To haul or tie up by means of a rope.

Tricennial, (*-sen-,*) *a.* [Lat. *tricennalis*, from *tricennium*—*triginta*, thirty, and *annus*, a year.] Belonging to the period of thirty years, or occurring once in that period.

Tricen'tenary, *n.* [Lat. *tres*, three, and *centum*, a hundred.] A period or space of three hundred years.

Triche'cus, *n.* (*Zoöl.*) See Morse.

Trichi'asis, *n.* [Gr.] (*Med.*) A disease of the eyelids, in which the eyelashes grow inwards and irritate the bulb of the eye.

Trichi'næ, *n. pl.* [From Gr. *thrix*, a hair.] (*Zoöl.*) A genus of minute nematoid worms, infesting, in the adult procreative state, the intestinal canal, and, in its larval state, the muscular tissue of man and certain mammals, especially the hog. The young trichinæ, as they are seen in the human muscle, present the form of spirally-coiled worms, in the interior of small, globular, oval, or lemon-shaped cysts, which appear as minute specks scarcely visible to the naked eye. (Fig. 2525.) These cysts are more or less covered externally with calcareous matter, according to the length of time they have remained in a fixed position, and the degree of degeneration which their walls have undergone. The trichina measures, on an average, 1-78th of an inch in length, and 1-130th of an inch in breadth. The number of larval trichinæ that may simultaneously exist in the muscles of a single man or animal is enormous. In a cat a single ounce of flesh was estimated to contain 325,000 trichinæ; and if all the voluntary muscles of a human body of ordinary size were similarly affected, the number of worms would exceed 1,950 millions! On the second day after their introduction, these intestinal trichinæ attain their full sexual maturity; and about the sixth day the minute filaria-like embryos hatched within the oviducts of the female are excluded. They forthwith penetrate the mucous coats or walls of the intestine, enter the capillaries, are transported by the circulation to the whole muscular system, pierce and escape from the capillaries to penetrate that tissue, and within a fortnight attain the ordinary characters of *Trichina spiralis*, providing themselves by irritation of the sarcolemma with their adventitious cyst, which, at a later period, may become calcified. As the first introduction of *Trichina* is from eating meat, the animal matter in the garbage or offal commonly given to pigs occasions the frequency of their occurrence in that domestic animal. Where the custom may prevail of eating pork, or particular forms of pork, *e. g.* ham, bacon, sausages, &c., imperfectly cooked or raw, the *Trichinæ* in such meat are introduced in a state highly favorable for their development and procreation into the intestine, and thus is produced the painful and often fatal disease called *Trichiniasis*. Wholesome feeding of the pig with vegetable food, and thorough cooking of the pork, are the main preventives of *Trichiniasis*.

Fig. 2525. — Trichina. Lying coiled up in muscle, the outside of the cyst supporting fatty tissue, vessels, &c. (Magnified.)

Trichini'asis, *n.* (*Med.*) See Trichinæ.

Trichi'lia, *n.* (*Bot.*) A genus of trees, order *Meliaceæ*. The juice of the bark of *T. emetica*, the Arabian Ekaja or Ecaija, is a purgative and a violent emetic. *T. moschata*, the Musk-wood, is remarkable for its musky odor.

Trichinopoly, (*trich-i-nop'o-le,*) a city and fortress of the S. of India, cap. of a district, on the Cauvery, opposite the island of Seringham, famous for its magnificent Hindoo temples; Lat. 10° 50′ N., Lon. 78° 50′ E. *Pop.* 35,000.

Trichom'atose, *a.* (*Med.*) Applied to the hair when affected with Plica, *q. v.*

Tri'chord, (*kōrd,*) *n.* [Gr. *trichordon*—*treis*, and *chorde*, a string or cord.] (*Mus.*) An ancient instrument, or lyre, with three strings.

Trichos'tema, *n.* (*Bot.*) A genus of plants, order *Borraginaceæ*. The Blue-curls, *T. dichotoma*, found on dry or rocky hills in the Northern and Middle States, is a foot high, branches opposite, leaves petiolate, flowers axillary and terminal, corolla purple, and stamens slender of a delicate purplish hue, gracefully bending from the lower lip of the corolla to the upper, forming a beautiful arch.

Tri'chroism, (*-kro-izm,*) *n.* [Gr. *treis*, and *chroma*, color.] (*Min.*) The property possessed by certain minerals of exhibiting, when viewed by transmitted light, different colors in three different directions.

Trick, *n.* [Fr. *tricher*; It. *treccare*; Lat. *tricor*, to play tricks.] An entanglement: a fraudulent contrivance for an evil purpose, or an underhand scheme to impose upon the world; a hoax or cheating; a dexterous artifice; vicious practice; the sly dexterity or legerdemain of a juggler.—A parcel of cards falling to the winner at one turn or one round of play; as, to win the odd *trick*.—A particular practice, habit, or manner.

—*v. a.* To deceive; to impose on; to defraud; to cheat.

—[W. *treciaw*, to furnish or harness, to trick out; *trec*, an implement, harness, gear.] To dress; to decorate; to set off; to adorn fantastically.—Often followed by *up*, *off*, or *out*.

—*v. n.* To practise trickery or fraud.

Trick'er, Trick'ster, *n.* One who tricks; a deceiver; a cheat.—A Trigger, *q. v.*

Trick'ery, *n.* The act of dressing up; artifice; stratagem.

Trick'ing, *n.* Act of one who tricks; cheating.—Dress; ornament; decoration.

Trick'ish, *a.* Full of tricks; artful in making bargains; given to deception and cheating; knavish.

Trick'ishly, *adv.* In a trickish manner; artfully; knavishly.

Trick'ishness, *n.* State or quality of being trickish.

Trick'le, *v. n.* To fall in drops; to rill in a slender stream; to flow in a small gentle stream.

Trick'ling, *n.* The act of flowing in a small gentle stream or in drops.

Trick'-track, *n.* [Fr. *trictrac*.] A game at table, resembling backgammon.

Trick'y, *a.* Trickish; practising tricks. (Colloq.)

Tric'linate, *a.* (*Min.*) Applied to crystals whose three axes are unequal and oblique to one another.

Triclin'ic, *a.* (*Crystall.*) Noting a system of crystallization such that the three axes of the crystals are unequal, and all their intersections are oblique, as in the oblique rhomboidal prism.

Triclin'ium, *n.* [Lat.] (*Roman Antiq.*) A room for the entertainment of guests, furnished on three sides with couches, the fourth side being left open for the attendance of the servants.

Tricoc'cus, *n.* [Gr. *trikokkos*, with three grains.] (*Bot.*) A fruit consisting of three cocci, or seeds with elastically dehiscing shells.

Tri'color, (*-kūl'er,*) *n.* [Fr., of three colors.] A flag having three colors in equal masses. The present European tricolor ensigns are: France—blue, white, red—divided vertically. Italy—green, white, red—divided vertically. Belgium—black, yellow, red—divided vertically. Holland—red, white, blue—divided horizontally.

Tri'colored, *a.* Having three colors.

Tri'corn, *a.* [Lat. *tres*, and *cornu*, a horn.] Three-horned.

Tricor'poral, Tricor'porate, *a.* [Lat. *tres*, and *corpus*, a body.] Having three bodies.

Tricus'pid, *a.* [Lat. *tres*, and *cuspis*, a point.] Three-pointed.

T. valve. (*Anat.*) One of the valves of the heart, situated between the right auricle and ventricle, and so named from having a triangular shape.

Tricus'pidate, *a.* Having three points.

Tridac'nidæ, *n. pl.* (*Zoöl.*) A family of lamellibranchiate molluscs, having the shell open, the valves equal, the foot small, and furnished with byssus.—*Tridacna gigas* (Fig. 2526) is remarkable for its great size, exceeding that of any other bivalve. The shell of a single specimen has been known to weigh more than 500 lbs. The valves are used as an ornament for grottoes and fountains. They are deeply furrowed and beautifully grooved. This great mollusc is a native of the East Indies, and is found in shallow water. It is used for food, and one suffices for a number of persons.

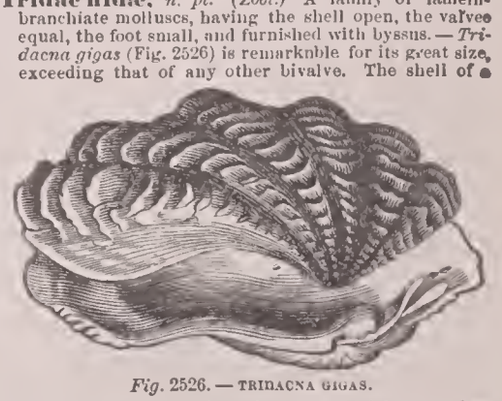


Fig. 2526. — Tridacna gigas.

Tridac'tyl, Tridac'tylous, *a.* [Gr. *treis*, and *daktylos*, a finger.] Having three fingers or three toes.

Tri'dent, *n.* [Fr.; Lat. *tridens*.] The three-pronged sceptre which the poets and painters of antiquity placed in the hand of Neptune, is so called by way of eminence—Hence, any instrument in the form of a fork with three prongs.

Tri'dent, Tri'dented, *a.* Having three teeth or prongs.

Triden'tate, Triden'tated, *a.* (*Bot.*) Having three sharp teeth.

Tridiapa'son, *n.* (*Mus.*) A triple octave, or a twenty-second. — *Moore.*

Tridodecahe'dral, *a.* [Gr. *treis, dodeka,* twelve, and *hedra,* a base.] (*Crystall.*) Noting crystals which present three ranges of faces, placed one above another, each range consisting of twelve faces.

Trien'nial, *a.* [Fr. *triennal ;* Lat. *triennium,* the space of three years.] Continuing three years; happening every three years.

Trien'nially, *adv.* Once in three years.

Tri'er, *n.* [From *try.*] One who tries; one who makes experiments; one who examines anything by a test or standard; one who tries judicially; one appointed to decide whether a challenge to a juror is just; a trior.— A test; that which tries or approves.

Triesch, (*treesh,*) a town of Moravia, 6 m. from Iglau; *pop.* 5,600.

Trieste, (*tre-est',*) a large seaport of the Austrian dominions, the capital of a district in the Illyrian territory, near the N.W. extremity of the Adriatic Sea, and 72 m. from Venice; Lat. 45° 38′ N., Lon. 13° 46′ 5″ E. It consists of an old town standing on a hill, with a castle on the top; the new town is on level ground, intersected by the Maria Theresa Canal, and built with neatness and regularity. It is the principal maritime city of the Austrian empire and the great emporium for its trade by the Adriatic. This trade was formerly, and even yet to a certain extent, conducted in barks of 20, 30, or 40 tons; but to accommodate the large steamers of our day, the new port, recently opened, was projected, at a cost of abt. $7,300,000. It consists of 3 jetties, 700 ft. long by 300 ft. broad, thus converting the old harbor into 3 basins, with nearly 2 miles of quay. These basins have a depth of from 25 to 45 ft. *Manuf.* Ship-building, Sugar-refining, soap, leather, paper, &c. Trieste is built on or near the site of the Roman colony of Tergesto; and there are some remains of the aqueduct which brought water to it from a distance of six miles. In 1797 and in 1805 it was taken by the French. *Pop.* (1897) 162,500.—The *Gulf of T.* forms the head of the Adriatic, and, at its entrance, has a length and breadth of 20 m. It contains the islands of Grado, &c., and receives the Isonzo, Stella, and other rivers.

Tri'fallow, *v. a.* Same as TREFALLOW, *q. v.*

Trifa'rious, *a.* [Lat. *trifarius,* threefold.] (*Bot.*) Arranged in three vertical rows.

Trifas'ciated, *a.* [Lat. *tres,* and *fascia,* a band.] Surrounded by three bands.

Tri'fid, *a.* [Lat. *tres,* and *findo, fidi,* to split.] (*Bot.*) Applied to leaves divided into three segments by incisions extending about to the middle of the blade; three-cleft.

Tri'fle, *n.* A thing of no moment.

—*v. n.* To act or talk without weight or dignity; to act with levity; to talk with folly; to play the fool; to indulge in light amusements.

Tri'fler, *n.* One who trifles or acts with levity.

Tri'fling, *a.* Being of small value or importance; trivial.

—*n.* Employment about things of no importance.

Tri'flingly, *adv.* In a trifling manner.

Tri'flingness, *n.* Quality or state of being trifling.

Trifo'ral, Trifo'rous, *a.* Bearing three flowers.

Trifo'liate, Trifo'llated, *a.* [Lat. *tres,* and *folium,* leaf.] (*Bot.*) Applied to leaves which bear three leaflets from the same point, as in those of the clover.

Trifo'lium, *n.* [Lat. *tres,* and *folium,* a leaf.] (*Bot.*) A genus of plants, order *Rubaceæ,* sub-order *Papilionaceæ,* distinguished by their trifoliate leaves, with stipules adhering to the leaf-stalk, and commonly known as *Clovers* or *Trefoils.* There are numerous species, several of them natives of the U. States, and some of them important from an agricultural point of view. Of these the following may be mentioned: *T. pratense,* the Broad-leaved Red Clover, is extensively employed as a shifting crop, either by itself, or in mixtures which the farmer call *seeds.* Its arable form is much larger than the wilder varieties, the former being so much an induced plant that it has become difficult to make it hold to some lands so perfectly as it formerly did, in which cases the soil is described as clover-sick. *T. medium,* the Zigzag Clover, is a lover of sandy soils, whereas the *T. pratense* is not so well adapted for light land; and being a large species, it appears to have been introduced to cultivation as a good cropper where the commoner clover had failed. Its place is now generally supplied by *T. pratense perenne,* commonly called Cow-grass. *T. incarnatum,* the Carnation Clover, is an annual species, much used (especially in the early soils in the neighborhood of London) upon the white-crop stubble sown in autumn. Several varieties of its seed can be obtained. *T. repens,* the Creeping Trefoil, White Clover, or Shamrock, is a valuable feeding-plant in dry and thin soils; and in laying down permanent pastures, unless in strong land, it should be always pretty freely employed. Its spontaneous growth in the meadow is always hailed as a sign of an improved condition. A four-leaved shamrock is esteemed by superstitious persons as being lucky, perhaps upon the principle that it is thought to be fortunate to get anything rare; but in truth, four-leaved and even more-leaved clovers are not infrequently met with.

Tri'glyph, *n.* [Gr. *treis,* and *glyphē,* a carving, carved work.] (*Arch.*) An ornament consisting of a three-grooved tablet in the frieze of the Doric order, repeated at equal intervals.

Trig'onal, Trig'onous, *a.* Triangular; having three angles or corners.

Trigonomet'ric, Trigonomet'rical, *a.* Pertaining to, performed by, or according to, the rules of trigonometry.

Trigonomet'rically, *adv.* According to the rules or principles of trigonometry.

Trifo'rium, *n.* [Lat.] (*Arch.*) In Gothic architecture, an arched story between the pier arches and the clear-story of a building, (Fig. 2527.)

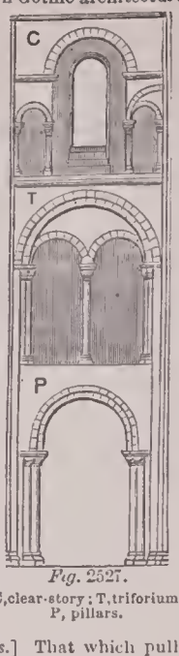


Fig. 2527.
C, clear-story; T, triforium; P, pillars.

Tri'form, *a.* [Lat. *triformis.*] Having a triple form or shape.

Tritur'cate, Tritur'cated, *a.* Having three forks, prongs, or points; three-pronged.

Trig, *n.* A stone, wedge, or block, to stop a wheel, or to prevent a cask from rolling.

Trig'amist, *n.* One thrice married.

Trig'amous, *a.* [Gr. *treis,* three, and *gamos,* marriage.] (*Bot.*) Applied to plants containing three sorts of flowers in the same flower-head; *i.e.,* males, females, and hermaphrodites.

Trig'amy, *n.* [Gr. *treis,* three, and *gamos,* marriage.] State of being married three times; or the state of having three husbands or three wives at the same time.

Trigeminous, (*jĕm-*) *a.* [Lat. *tres,* and *geminus,* twin-born.] Three at a birth; threefold.

Trigg, in *Kentucky,* a S.W. co., bordering on Tennessee; *area,* 530 sq. m. *Rivers.* Cumberland, Little, and Tennessee. *Surface,* hilly; *soil,* generally fertile. *Min.* Iron, limestone, and stone-coal. *Cap.* Cadiz. *Pop.* abt. 13,000.

Trig'ger, *n.* [Lat. *traho, tractus.*] That which pulls or draws; the catch which, being pulled, disengages the cock of a gun-lock, and allows it to strike fire.

Trigonom'etry, *n.* [Gr. *trigonos,* a triangle, and *metron,* a measure.] That branch of mathematics which treats of measuring triangles. The exact meaning of the term, however, has been much extended; so that it includes the determination of the situation and distance of all the points in a given space, in which the distance and situation of some points are given. A plane triangle consists of six parts: namely, three *sides* and three *angles;* the numerical value of any of these parts being given, and one of these three being a *side,* the value of any of the other three may be found by *T.* The science owes its origin to the Greek astronomers of Alexandria. From the time of Hipparchus, the solutions of the most useful cases of spherical triangles have been known, and fundamental formulæ are to be found in the *Analemma* of Ptolemy. The chords of the double arcs, however, were used by the Greeks in place of the *sines,* which were introduced by the Arabians, to whom the science is indebted for other improvements. *Tangents* were introduced by Regiomontanus, by means of which the calculations were greatly simplified. The present compact and elegant form in which the solutions appear is the result of the improvements introduced by modern analysis.

Tri'gram, *n.* [Gr. *treis,* and *gramma,* a letter.] A trigraph.

Trigrammat'ic, Trigram'mic, *a.* Containing, or consisting of, three letters.

Trl'graph, (*-graf,*) *n.* [Gr. *treis,* and *graphō.*] A name given to three letters having one sound, as *eau* in *beau.*

Trigyn'ia, *n.* [Gr. *treis,* and *gyne,* a woman.] (*Bot.*) A name given by Linnæus to those orders which have three pistils, or at least three styles.

Trihe'dral, *a.* [See TRIHEDRON.] Having three equal sides.

Trihe'dron, *n.* [Gr. *treis,* three, and *hedra,* side.] (*Geom.*) A figure having three equal sides.

Triju'gous, *a.* [Lat. *tres,* and *jugum,* a yoke.] (*Bot.*) Applied to pinnate leaves whose petals bear three pairs of leaflets.

Trikeri', a town of European Turkey, in Thessaly, at the extremity of a peninsula in the Gulf of Volo; *pop.* 6,000.

Trilat'eral, *a.* [Fr., from Lat. *tres,* and *latus, lateris,* side, a side.] Having three sides, as a triangle.

Trilat'erally, *adv.* With three sides.

Trilem'ma, *n.* A situation or difficulty in which there is a choice between three.

Trilin'gual, Trilin'guar, *a.* [Lat. *tres,* and *lingua,* tongue, language. See LINGUIST.] Consisting of three languages.

Trilit'eral, *a.* [Lat. *tres,* and *litera,* letter.] Consisting of three letters.

—*n.* A word consisting of three letters.

Tril'ithon, *n.* [Gr. *treis,* and *lithos,* a stone.] Three stones placed together like door-posts and a lintel.

Trill, *n.* [It. *trillo.*] (*Mus.*) A quaver; a shake of the voice in singing, or of the sound of an instrument.

—*v. a.* To utter with a quavering or tremulousness of voice.

—*v. n.* To shake or quaver; to play in tremulous vibrations of sound; to flow in a small stream, or in drops rapidly succeeding each other; to trickle.

Trillia'ceæ, *n.* (*Bot.*) The *Trillium* or Paris family, an order of plants, class *Dictyogens.* They are unbranched herbaceous plants, with rhizomes or tuberous root-stocks. Leaves whorled, not articulated, net-veined. Flowers large, solitary, hermaphrodite; fruit succulent. There are four genera and thirty species, natives of temperate regions. They are said to have narcotic, acrid, and purgative properties.

Tril'ling, *n.* One of three children born at the same birth.

Tril'lion, *n.* In English notation, the product of a million multiplied by a million, and that product multiplied by a million. In French and American notation, the number represented by a unit with twelve ciphers annexed, being a million a million times repeated.

Tri'lobate, Tri'lobed, *a.* (*Bot.*) Divided into three lobes.

Tri'lobite, *n.* [Gr. *treis,* three, and *lobos,* lobe.] An extensive family of palæozoic crustaceans, deriving their name from the obvious three-lobed-like aspect of their bodies. The *T.* in numerous generic forms, as *asaphus* (Fig. 2528), *ampyx, catymene homalonotus, dunas,* &c., are especially characteristic of the Silurian system. About a dozen genera range through the Devonian epoch; only three or four appear in carboniferous strata; and not a single specimen has been found in later formations.

Fig. 2528. TRILOBITE. (*Asaphus candatus.*)

Triloc'ular, *a.* (*Bot.*) That has three cells, as a capsule.

Tril'ogy, *n.* [Gr. *trilogia.*] (*Lit.*) A series of three dramas, which, although each of them is in one sense complete, yet bear a mutual relation, and form parts of one historical and poetical picture. The *Agamemnon, Choephoræ,* and *Eumenides* of Æschylus, and the *Henry VI.* of Shakspeare, are examples of a *trilogy.*

Trim, *a.* [A. S. *trymian, getrymian.*] Set in order; dressed up; suitably adjusted; firm; compact; snug; nice; tight; neat; as, everything about the ship is *trim,* her dress is *trim.*

—*v. a.* To set in order; to prepare; to arrange; to adjust; to make right, that is, to put in due order for any purpose; as, to *trim* a ship, to *trim* a fire.— To dress; to put into a proper state, as the body; to decorate; to ornament; to invest with extra embellishments; as, a cap *trimmed* with ribbons.— To clip; to shave; to shear; to lop; to dock; to curtail; as, to *trim* a hedge, to *trim* the hair.— To supply with oil; as, to *trim* a lamp.— To dress, as timber; to make smooth; as, to *trim* a board.

(*Naut.*) To arrange in due order for working, as the sails of a ship.— To adjust, as the cargo of a ship, or the weight of persons or goods in a boat, so equally on each side of the centre and at each end, that she shall preserve her proper balance in the water and sail well; as, to *trim* ballast — To reprove with some degree of acerbity; to snub. (Used colloquially.)

To trim up, to adjust in due order; to attire; as, to *trim up* a head-dress.—*To trim in.* (*Carp.*) To join by a tenon and mortise, as a piece of timber into other work.

—*v. n.* To fluctuate between parties, so as to appear to favor or countenance each; to balance; as, a *trimming* politician.

—*n.* Dress; gear; ornaments; as, a cavalcade in goodly *trim.*—State; condition; order; disposition; as, he was not in good *trim* to work.

(*Naut.*) The best disposition of a ship's proportion of ballast or cargo, arrangement of sails, and position of masts, as whether erect or raking, with a view to her sailing well.— *In ballast trim.* (*Naut.*) Having only ballast on board; — said of a ship.

Trim'ble, in *Kentucky,* a N. co., bordering on the Ohio river; *area,* 155 sq. m. *Surface,* hilly; *soil,* fertile; *Cap.* Bedford. *Pop.* (1897) 7,480.

Trimble, in *Ohio,* a post-village of Athens co. *Pop.* (1897) 510.

Trimbelle, in *Wisconsin,* a river which flows S. into the Mississippi river from Pierce co.

—A post-village of Pierce co., 12 m. E. of Prescott. *Pop.* (1897) about 140.

Tri'merous, *a.* (*Bot.*) Having the parts in threes.

Trimes'ter, *n.* [Fr. *trimestre.*] A period of three months.

Trimes'trial, *a.* Pertaining or having reference to a term of three months; quarterly.

Trim'eter, *n.* [Lat. *trimetrus ;* Gr. *trimetros—tri,* and *metron,* measure.] (*Pros.*) A poetical division of verse, consisting of three measures.

Trim'eter, Trimet'rical, *a.* [Fr. *trimétrique,* from Lat. *trimetrus.*] (*Pros.*) Containing, or consisting of, three poetical measures.

Trimet'ric, *a.* [From Gr. *tri,* and *metron,* measure.] (*Crystall.*) Having three unequal axes intersecting at right angles, as the rectangular and rhombic prisms.

Trim'ly, *adv.* In a trim or orderly manner; neatly; nicely.

Trim'mer, *n.* One who trims, fits, adapts, arranges, or decorates.— A time-server; one who fluctuates between two parties; also, a turn-coat.

(*Arch.*) A piece of timber inserted in a roof, floor, wooden partition, &c., to support the ends of any of the joists, rafters, &c.

Trim'ming, *n.* Act of one who trims or adjusts.— Necessary or ornamental appendages to anything; decorative accessories to an article of dress, as lace, ribbons, and the like; also, the concomitants served with a dish at table; as, the *trimmings* to a leg of mutton; — commonly used in the plural.—Act of rebuking or castigating; as, to give one a *trimming.* (Colloq.)

Trim'ness, *n.* State of being trim; state of being neat or spruce, and in good order; petty elegance; snugness; compactness.

Trimorphism, (*-morf-izm,*) *n.* [Gr. *tri,* and *morphē,* form.] (*Crystall.*) The property of crystallizing in three different forms.

Trimûrti, *n.* [From Sansk. *tri,* three, and *mûrti,*

form.] (*Hind. Myth.*) The name of the Hindu Triad, or the gods *Brahma* (masculine), *Vishnu*, and *Siva*, when spoken of as an inseparable unity, though three in form. When represented, the *T.* appears as one body with three heads: in the middle, that of Brahma; at the right, that of Vishnu; and at the left, that of Siva (Fig. 247).

Tri'nal, *a.* [Lat. *trinus.*] Threefold.

Trincomalee', a seaport-town of Ceylon, on the N.E. side of the island; Lat. 8° 33′ 6″ N., Lon. 81° 14′ 6″ E. The inner harbor is land-locked, and has water in many places sufficient to float the largest vessels close to the shore; but its peculiar superiority over all other harbors of India consists in its being accessible to all description of ships during the monsoons. *Pop.* abt. 20,000.

Trine, *a.* [Lat. *trinus.*] Threefold; trinal.

Trinerv'ate, Tri'nerve, Tri'nerved, *a.* [Fr. *trinervé*, from Lat. *tri*, and *nervus*, nerve.] (*Bot.*) Having three ribs or nerves extending unbranched from the base to the apex; — said of a leaf.

Tring, a town of England, in Hertfordshire, 32 m. from London; *pop.* 5,000.

Trin'ga, *n.* (*Zoöl.*) A genus of grallatorial birds, of the family *Scolopacidæ*, consisting of a large number of small birds which live on the shores of both salt and fresh water in all parts of the world. They are found more or less in flocks, and feed upon minute shell-fish and other small aquatic animals. Their wings are long and pointed, tail short, lower portion of tibiæ naked, hind toe very small, and the fore toes with a membranous margin. They are known under the general name of Sandpipers, and the popular names of Dunlins, Ox-birds, Robins, Snipe, &c.

Trin'gana, a town on the Gulf of Siam, on the E. side of the Malay peninsula. It is the residence of a rajah, and the capital of a state of the same name. *Pop.* 60,000.

Tringle, (*tring'gl,*) *n.* [Fr., from L. Lat. *taringa.*] The curtain-rod of a bed.

(*Arch.*) A name common to certain little square members or ornaments, as regulets, listels, and plat-bands.

Trinidad', one of the largest of the British W. India islands, the most S. of the Windward group, off the N.E. coast of Venezuela, at the mouth of the Gulf of Paria, 50 m. long, and 30 m. in average breadth; Lat. of its N.E. extremity, 10° 50′ N., Lon. 60° 54′ W. *Rivers.* Caroni, Oropuche, and the Ortoire. *Surface*, diversified by mountains, plains, and swamps; *soil*, very fertile. *Climate*, in general, healthy. *Cap.* Port of Spain. *T.* was discovered by Columbus in July, 1498. It belonged successively to the Spaniards and French, and was finally taken by the British in 1797.

Trinidad', in *California*, a post-village and township of Klamath co., 270 m. N.N.W. of San Francisco.

Trinidade, (*tre-ne-da'da,*) a town of Brazil, 19 m. N.E. of Rio de Janeiro; *pop.* abt. 5,000.

Trinida'de, an island of Brazil, in the Atlantic; Lat. 20° 31′ S., Lon. 29° 19′ W.

Trinita'rian, *a.* [Fr. *trinitaire.*] Pertaining or relating to the Trinity, or to the doctrine of the Trinity.

—*n.* A believer in the doctrine of the Trinity; — opposed to *unitarian.*

Trinita'rianism, *n.* (*Theol.*) The doctrine of Trinitarians.

Trinité, (La.) (*tree-nee-ta'*,) a town of Martinique, on the E. coast, 16 m. E. of St. Pierre; *pop.* 6,000.

Trinity, (*trin'e-te,*) *n.* (*Theol.*) The doctrine of the Trinity, received by the greater part of the Christian world, teaches that in the unity of the Godhead there are three persons, of one substance, power, and eternity, viz., — the Father, the Son, and the Holy Ghost. The word *Trinity* does not occur in the Scriptures, nor in the Apostles' Creed, nor yet in the Nicene Creed, but it is found in the Athanasian Creed.

Trinity, in *California*, a N.W. co.; *area*, 3,000 sq. m. It is traversed by Eel creek. *Surface*, mountainous in the E. and W.; *soil*, generally fertile. *Cap.* Weaverville. *Pop.* (1897) 3,917.

Trinity, in *Louisiana*, a post-village of Catahoula parish, 12 m. S. of Harrisonburg.

Trinity, in *Texas*, a S.E. co.; *area*, 710 sq. m. *Rivers.* Neches and Trinity. *Surface*, undulating; *soil*, fertile. *Cap.* Groveton. *Pop.* (1897) 8,500.

Trin'ity River, in *Texas*, formed by the junction of the Elm and W. Forks, in Dallas co., flows into Galveston Bay, about 40 m. N. of Galveston city, after a S.E. course of 550 m., of which it is navigable 500 m. The Elm Fork rises in Cook co., and has a S.E. course of 150 m. The W. Fork rises in Archer co., and flows generally S.E. abt. 200 m. The valley of the Trinity is very fertile, and produces cotton, maize, rice, and sugar.

Trin'ity-Sun'day, *n.* The Sunday next after Whitsunday; — so called on account of the feast which is held on that day in honor of the Holy Trinity.

Trink'et, *n.* [Originally *tricket*, a dim. of *trick*, to adorn.] A small ornament, as a jewel, a ring, a toy, &c.; — generally in the plural; as, she pawned her *trinkets.* — Tackling; tools; accessories of insignificant value; — commonly in the plural.

Trink'etry, *n.* Trinkets collectively considered; jewelry; bijouterie.

Trino, (*tre'-*,) a town of N. Italy, on the Po, 30 m. from Turin; *pop.* 8,976.

Trinoctial, (*-nŏk'shal,*) *a.* [From Lat. *tri*, and *nox*, *noctis*, night.] Comprising the period of three nights.

Trinod'al, *a.* [Lat. *tri*, and *nodus*, knot.] (*Bot.*) Three-knotted, as a stem.

Trino'mial, *a.* [Lat. *tres*, and *nomen*, a name.] (*Math.*) Noting an algebraical quantity or expression consisting of three terms, connected by the sign plus or minus; as, $a^3 + bc^2 - d^3$.

—*n.* (*Math.*) An algebraical quantity consisting of three terms; — also, sometimes, written *trinominal.*

Tri'o, *n.* [Fr., from Lat. *tres*, *tria.*] Three united; three persons acting in combination; as, a *trio* of friends.

(*Mus.*) A composition consisting of three parts, for voices or instruments.

Trioctahe'dral, *a.* [Lat. *tri*, and Eng. *octahedral.*] (*Crystallog.*) Having three ranges of faces, one above another, each range presenting eight faces.

Tri'olet, *n.* [Fr.] A stanza of eight lines, in which the first line is thrice repeated.

Trio'nes, *n. pl.* [Lat.] (*Astron.*) The seven principal stars in the constellation Ursa Major, popularly called Charles's Wain; four of the stars being fancied to represent a wain or wagon, and the three others the oxen by which it is drawn.

Trios'teum, *n.* (*Bot.*) A genus of plants, order *Caprifoliaceæ. T. perfoliatum*, the Fever-root, Feverwort, or Horse-gentian, has a large and fleshy root, which is in much repute in medicine, having many of the properties of ipecacuanha.

Trip, *v. n.* (*imp.* and *pp.* TRIPPED, (*tript.*) [Dan. *trippe*; Ger. *trippeln*, to trip; Swed. *trippa*; D. *trippeln.*] To hop, skip, or dance through gladness; to run or step lightly or nimbly; to take short, quick, light steps; to skip; to caper; as, *tripping* the light, fantastic toe. — To strike the foot against something in walking or running, so as to make a false step; to stumble; to lose one's footing. — To make a short or sudden journey; to jaunt; to travel to a short distance. — To fail; to err; to be deficient; to be guilty of a blunder, misstep, or dereliction of duty, propriety, or morality; as, he found his memory *trip* and fail him.

—*v. a.* To cause to stumble; to supplant; to cause to fall by striking the feet suddenly from under the person; — usually preceding *up*; as, to *trip up* an antagonist in wrestling. — Hence, to cause to fall by depriving of support; as, "to *trip* the course of law." (*Shaks.*) — To catch in a misstep, blunder, or dereliction; to convict; to bring home to; to detect; as, he was *tripped* in the fact.

(*Naut.*) To loose, as a ship's anchor, from the bottom by its cable.

—*n.* Act of tripping; a stroke or catch by which a wrestler overthrows his antagonist. — A stumble by the loss of foothold, or the striking of the foot against an object; a stumble; a misstep. — Hence, a failure; a mistake; figuratively, a blunder; a slight error, digression, or dereliction, arising from haste or inconsideration.

"They who of each *trip* th' advantage take." — *Dryden.*

— A skip; a caper; a quick, light footstep. — A jaunt; an excursion; a short journey or voyage; as, to take a *trip* to Havana.

(*Naut.*) A single tack in plying to windward.

Triparted, *a.* (*Bot.*) Divided into three segments or lobes; tripartite.

(*Her.*) Presenting three parts or pieces.

Tripartient, (*-par'shent,*) *a.* Dividing into three equal parts, as a number.

Trip'artite, *a.* [Fr., from Lat. *tripartitus* — *tres*, three, and *partitus*, divided.] Divided into three parts; triparted. — Made by three parties; as, a *tripartite* treaty. — Possessing three corresponding parts or copies.

Tripartition, (*-tish'un,*) *n.* [Fr., from Lat. *tri*, and *partitus.*] A division by three, or into three parts.

Tripe, *n.* [Fr.; W. *tripa.* Etymol. unknown.] Properly, the entrails, but in common usage, the large stomach, of ruminating animals dressed and prepared for food; as, a dish of *tripe* and onions. The parts used are the paunch, or rumen (*plain T.*), and the smaller reticulum (*honeycomb T.*).

Tripen'nate, Tripin'nate, *a.* [Fr. *tripenné*; Lat. *tri*, and *penna*, *pinna*, a feather.] (*Bot.*) Trebly pinnate.

Triper'sonal, *a.* [From Lat. *tri*, and *persona*, a person.] Consisting of three persons.

Triper'sonalist, *n.* (*Theol.*) Same as TRINITARIAN, *q. v.*

Tripet'aloid, *a.* [Gr. *tri*, three, *petalon*, leaf, and *eidos*, form.] (*Bot.*) Having the appearance of being furnished with three petals, as a flower.

Tripet'alous, *a.* [Fr. *tripétale*; Gr. *treis*, three, and *petalon*, leaf.] (*Bot.*) Three-petalled, as a plant.

Triph'thong, *n.* [Gr. *treis*, and *phthoggos*, a voice.] (*Gram.*) Same as TRIGRAPH, *q. v.*

Triphyline, (*trĭf'y-lin,*) *n.* [Gr. *treis*, and *phylē*, a class.] (*Min.*) A triple phosphate of lithia, manganese, and iron, found commonly in coarsely granular crystalline masses of a greenish-gray color.

Triple, (*trĕp'l,*) *a.* [Fr., from Lat. *triplex*, *triplus* — *tres*, and *plico*, to fold.] Threefold; consisting of three united; multiplied by three; as, a *triple* head, a *triple* knot. — Treble; three times repeated; as, a *triple* proportion. — *Triple crown.* (*Eccl.*) Same as TIARA, *q. v.* — *Triple ratio.* (*Math.*) A ratio which is equivalent to 3. — *Triple salt.* (*Chem.*) A tribasic salt. See TRIBASIC. — *Triple stars.* Three stars in close proximity. (*Nichols.*) — *Triple time.* (*Mus.*) That class of time in which each measure is divided into three equal parts.

—*v. a.* (Usually written TREBLE.) To treble; to make threefold, or thrice as much or as many.

Triple Alliance. (*Hist.*) An alliance between the States-General and England, against France, for the protection of the Spanish Netherlands, was ratified Jan. 23, 1668. Sweden joined the league, April 25, and it then became known as the Triple Alliance. — Another, called the *Second Triple Alliance*, between England, France, and Holland, to oppose the designs of Cardinal Alberoni, the Spanish minister, was signed by the English and French, Nov. 28, 1716, and by the Dutch at the Hague, Jan. 4, 1717. — A Triple Alliance between Great Britain, Russia, and Austria, was concluded against France at St. Petersburg, Sep. 28, 1795.

Trip'let, *n.* [From *triple.*] A combination of three of a kind, or three united; as, a woman sometimes gives birth to *triplets.*

(*Poet.*) Three verses rhyming in unison.

—*pl.* (*Mus.*) Notes grouped together by threes, as in jigs.

(*Optics.*) An eye-piece of a microscope, which, when used, triples the power of the instrument.

Trip'licate, *a.* [Lat. *tres*, and *plico*, to fold.] Threefold; tripled.

Triplicate ratio. (*Math.*) In two numbers or magnitudes, the same as the ratio of the first to their fourth proportional. It is equal to the cube of their ratio, or the ratio of their cubes, as in the case of numbers.

—*n.* A third document or thing corresponding to two others of the same kind; as bills of lading drawn out in *triplicate.*

Triplication, (*-kā'shun,*) *n.* [Late Lat. *triplicatio.*] Act of trebling or making threefold, or adding three together.

Triplic'ity, *n.* [From Lat. *triplex.*] Trebleness; the state of being triple or threefold.

Trip'lite, *n.* [Gr. *treis*, and *lithos*, stone.] (*Min.*) A compound of phosphoric acid in combination with the protoxides of iron and manganese, which occurs of a pitch-black to a clove-brown color, in compact crystalline masses with a lamellar structure, and a cleavage in three directions at right angles to each other.

Tri'pod, *n.* [Gr. *treis*, and *pous*, *podos*, a foot.] (*Antiq.*) A vessel (Fig. 2529), table, seat, or instrument having three feet. It was from such a seat that the Pythian goddess rendered oracular answers at Delphi.

Fig. 2529. TRIPOD.

(*Surv.*) A three-footed stand for supporting a theodolite, &c.

Trip'ody, *n.* [Gr. *treis*, and *pous*, *podos*, a foot.] (*Pros.*) A series of three feet.

Tripoli, (*trip'o-le,*) a country of N. Africa, and the most easterly of the Barbary states, extending along the S. shore of the Mediterranean, between Lon. 11° to 25° E., and Lat. 28° to 33° 30′ N.; being bounded on the S. by the Libyan Desert, E. by Egypt, and W. by Fezzan; estimated area 200,000 sq. m. The sea-board is about 1,000 m. in length; for 15 or 18 m. inland the country presents a perfect garden of fertility, but the country beyond is mostly a desert of sand. The products are cotton, silk, corn, tobacco, dates, figs, grapes, saffron, madder, castor-oil, senna, galls, other drugs, dye-woods, and fruits. Among the animals the horse takes the foremost place; next cattle, sheep, goats, camels, dogs, and poultry. Among the carnivora are wolves, foxes, hyenas, and jackals; and among the inoffensive are the gazelle, hare, ostrich, antelope, etc. Of the mineral kingdom salt seems to be the only article of consequence obtained. The manufactures are woollen and cotton fabrics, such as carpets, camlets, burnouses, sacking, leather nets, earthenware, and potash. The principal trade is by caravan with central Africa, or by sea with Malta, Tunis, and the Levant. *T.*, since 1877, forms a province of the Ottoman Empire; the religion of the inhabitants is that of Mohammedanism. The knights of St. John of Jerusalem, to whom *T.* had been ceded by the Emperor Charles V., were expelled by Sultan Solyman, 1551; and the corsair Dragut, who was made the first governor, instituted a system of piracy which was continued for centuries. The capital was bombarded by a French fleet in 1683, and in 1804 by an American squadron under Commodore Preble; but it was only in 1806 that a British force visiting *T.*, compelled the Bey to renounce piracy. Estim. *pop.* 1,200,000.

TRIPOLI, the cap. of the above state, a fortified city and important seaport on the W. coast of Africa, on a low rocky peninsula entering into the Mediterranean; Lat. 32° 53′ 56″ N., Lon. 13° 11′ E. The harbor, defended by a mole, is both secure and protected. There is a magnificent triumphal arch, raised A. D. 164, to the honor of Aurelius Antonius and Verus, but the modern town has little to distinguish it from Mohammedan cities in general. *Pop.* abt. 15,000.

Trip'oli, or **Tar'abloos,** (anc. *Tripolis,*) a seaport of Syria, cap. of a pashalic of the same name, traversed by the small river Kadish, 15 m. from Beyrout; Lat. 34° 26′ N., Lon. 35° 44′ E. It stands at the foot of the branches of Mount Lebanon, and along the edge of a small triangular plain, which extends between them and the sea, and terminates in a flat promontory, on which is the place of anchorage. The plain is entirely covered with trees, chiefly mulberry, planted in regular order, and serving for the production of silk, which forms the staple of *T.* It is, however, very unhealthy. Silk is largely exported, both in a raw and manufactured state. *T.* was taken in 1108 by the Crusaders, who destroyed the rare and valuable library of Persian and Arabic works, said to amount to 100,000 volumes. *Pop.* abt. 16,000.

Trip'oli, in *Iowa*, a post-village of Bremer co., abt. 14 m. N.E. of Waverly.

Trip'oli, Trip'il, *n.* (*Min.*) A silicious mineral originally brought from Tripoli, used in polishing metals, marble, glass, &c.

Tripolitza, (*tri-po-lit'sa.*) [Mod. Gr., three cities.] A town of Greece, under the Turkish rule capital of the Morea, now the chief town of the government of Mantinea, lies 22 m. S.W. of Argos, and 39 S.W. of Corinth, in a plain 3,000 feet above the sea. It derives its name from being near the sites of the three ancient cities — Tegea, Mantinea, and Pallantium. In 1821 it was stormed by the Greek insurgents; and in 1828 razed to the ground by the troops of Ibrahim Pasha; it has since, however, been rebuilt. *Pop.* 8,000.

Trip'per, *n.* One who, or that which, trips or supplants; one who skips or walks nimbly.

Trip'ping, *p. a.* Quick; nimble; sprightly on the feet; stepping lightly or quickly.

(*Her.*) A term analogous to *passant*, but applied to animals of the chase; — also written *trippant*.

—*n.* Act of one who trips, capers, or walks nimbly. — A light dance or step.

(*Naut.*) Act of loosing an anchor from the ground by its cable or buoy-rope.—*Tripping-line*, n small rope serving to unring the lower top-gallaut-yard arm, when in the act of striking it, or when lowering it on deck.

Trip'pingly, *adv.* In a tripping manner.

Trip'sacum, *n.* (*Bot.*) A genus of plants, order *Graminaceæ*. *T. daclyloïdes*, the Sesame Grass, or Gamn Grass, is a large, but coarse grass; stem slightly compressed, smooth, solid with pith, brown at the nodes, 4–5 ft. high; leaves nearly an inch broad, long, lanceo-linear, smooth beneath, roughost above. It is found throughout the U. States on river-banks and sea-shores.

Trip'-shaft, *n.* (*Mach.*) A supplementary rock shaft, worked hy hand, for starting a steam-engine.

Trip'sis, *n.* [Gr., from *tribein*, to rub.] Act or process of Shampooing, *q. v.*

(*Med.*) Same as Trituration, *q. v.*

Triptolc'mæa, *n.* (*Bot.*) A genus of plants, order *Fabaceæ*, composed of trees or woody climbers, with alternate pinnate leaves, common to the tropics of both hemispheres. The *rose-wood* of the cabiuet-maker is said to be obtained of several species of this genus; but, according to Dr. Allemão of Rio de Janeiro, the greater part of the best kind of rosewood exported from Brazil, is the wood of *Dalbergia nigra*, while other qualities aro the prodnce of species of *Machærium*.

Triptol'emus. (*Myth.*) The son of Celeus, king of Attica, hy Neæra. The goddess Ceres wished to make him immortal, but was prevented through the meddling curiosity of his mother. She, however, taught him agriculture, and rendered him serviceable to mankind by instructing him how to sow corn and make bread. She also gave him her chariot, drawn by two dragons, in which he travelled over the earth, and distributed corn to all the inhabitants of the world.

Trip'tote, *n.* [Fr., from Gr. *treis*, nnd *ptōtos*, falling.] (*Gram.*) A noun or denominatiou that has only three cases.

Triquetrous, (*-kwē'trŭs,*) *a.* [Lat. *triquetrus.*] Three-sided, with plane or concave sides.

(*Bot.*) Trigonal; three-edged.

Tri-rectan'gular, *a.* [Prefix *tri*, and *rectangular.*] Having three right angles; as, a *tri-rectangular* triangle.

Tri'reme, *n.* [Fr., from Lat. *tres*, and *remus*, an oar.] An ancient Greek and Roman vessel of war, having three banks of oars, invented by Ameinocles the Corinthian, B. C. 700. Other authorities say they were invented B. C. 703. They were first built by the Athenians at the instance of Themistocles, B. C. 481, and by the Romans B. C. 260.

Trirhomboid'al, *a.* [*tri* and *rhomboidal.*] Possessing three rhombic faces or sides.

Trisacramenta'rian, *n.* [Fr. *trisacramentaire.*] (*Eccl.*) A member of a certain religious sect who admit of three sacraments only.

Trisect', *v. a.* [Lat. *tres*, and *seco*, *sectum*, to cut.] To cut or divide into three equal parts.

Trisect'ed, *p. a.* (*Bot.*) Cut or divided into three equal parts or segments,—said of leaves.

Trisection, (*-sĕk'shun,*) *n.* The cutting or separation of a thing into three equal parts; — especially, in geometry, the division of an angle into three equal sections.

Trise'rial, Trise'riate, *a.* [From Lat. pref. *tri*, and *series.*] (*Bot.*) Arranged in three rows, one beneath another.

Tris'mus, *n.* [Gr. *trismos*, gnashing of teeth.] (*Med.*) Spastic closure of the under jaw; — a partial tetanus.

Trisoctahe'dron, *n.* [Gr. *treis*, and Eng. *octahedron.*] (*Crystallog.*) A solid bounded by twenty-four equal faces.

Tris'past, Trispas'ton, *n.* [Gr. *trispastos*, drawn thrcefold.] (*Mech.*) A machine with three pulleys acting in connection with each other for raising heavy weights.

Trisperm'ous, *a.* [Gr. *treis*, and *sperma*, seed.] (*Bot.*) Three-seeded, as n capsule.

Tristan d'Acunha, (*tris-tan'da-koon'ya,*) the chief of a group of three islands In the S. Atlantic, claimed hy Great Britain, lying to the S.S.E. of St. Helena, and E S.E. of the Cape of Good Hope, nnd named after their discoverer, a Portnguese navigator, in 1506. It lies in Lat. 37° 6′ S., and Lon. 12° 2′ W.; the other two aro called *Nightingale* and *Inaccessible*. *T.* is 20 m. in circumference, mountainous, and supplies water and fresh provisions to such ships as touch at ite remote shores.

Triste, (*trēst,*) *a.* [Fr.] Sad; gloomy; heavy; melancholy.

Triste, in Mexico, an island in the Gulf of Terminos, off the S.W. coast of Yncatan.

Triste, (Gulf of,) an inlet of tho Carihbean Sea, on the N. coast of Venezuela; Lat. 10° 30′ N., Lon. between 67° 30′ and 68° 30′ W.

Trist'fully, *adv.* Sadly; gloomily; with melancholy.

Tristichous, (*tris'tik-ŭs.*) *a.* [Gr. *treis*, and *stichos*, a row.] (*Bot.*) In three longitudinal or perpendicular ranks.

Tristigmat'ic, Tristig'matose, (*-lōz,*) *a.* [From Lat. *tres*, and *stigma.*] (*Bot.*) Having three stigmas, as a flower.

Trisul'cate, *a.* Having three forks, tines, or prongs.

Trisyllab'ic, Trisyllab'ical, *a.* [From Gr. *treis*, and *syllabē*, syllable.] Pertaining to a trisyllable; consisting of three syllables; as, a *trisyllabic* root.

Trisyl'lable, *n.* A word consisting of three syllables.

Trite, *a.* [Lat. *tritus*, from *tero*, *tritum*, to wear by rubbing.] Stale; threadbare; worn out; hackneyed; used till so common as to have lost its originality and force; as, a *trite* subject, a *trite* citation, a *trite* proverb.

Trite'ly, *adv.* In a trite manner.

Trite'ness, *n.* Quality or state of being trite.

Triter'nate, *a.* (*Bot.*) Applied to compound leaves whose common petiole divides into three secondary petioles, which are each subdivided into three tertiary petioles, each of which bears three leaflets.

Tri'theists, *n. pl.* [From Gr. *treis*, and *theos*, God.] (*Eccl. Hist.*) A sect who taught that the Father, Son, and Holy Ghost were three co-equal distinct beings, united by a common will and purpose, arose in the 6th century. It separated into Conouites and Philoponists, so called from the names of the leaders.

Trit'icum, *n.* [Lat., wheat.] (*Bot.*) An important genus of the order *Gramınaceæ*. *T. sativum*, and its varieties, is an annual cereal or corn grass, which supplies the inhabitants of many civilized countries with their most important article of food, known to everyone under the name of Wheat, *q. v.* *T. repens*, the Creeping Couch, is also well known, but as one of the most troublesome weeds of the farm and garden. Its stem, abt. 2 feet high, and trailing at the lower joints, is extremely difficult to eradicate. *T. caninum*, the Dog's Couch-grass, differs from it mainly in the absence of the running underground stems (rhizomes). It has, however, the same pungent flavor which belongs to all the *Tritici*, due probably to the presence of some kind of essential oil, by virtue of which it would appear to be capable of exerting powerful emetic action, at least on dogs.

Tri'ton. (*Myth.*) A sea deity, son of Neptune, by Amphitri te, who could calm the sea and abate storms at pleasure. He is generally represen t e d as blowing a shell; his body above the waist is like that of a man, and below, a dolphiu. Many of the sea deities are called Tritons.

Fig. 2530. — TRITON.

(*Zoöl.*) See Salamandridæ.

Tri'tone, *n.* [Gr. *tres*, and *tonos*, tone.] (*Mus.*) A sharp fourth. (R.)

Triturable, (*trit'yūr-a-bl,*) *a.* [Fr.] That may be triturated or reduced to a fine powder by pounding, rubbing, or grinding.

Trit'urate, *v. a.* [Fr. *triturer*, from Lat. *tero*, *tritus*, to wear away by rubbing.] To rub; to crush; to pound. —To rub or grind to a very fine powder, and, properly, to a finer powder than that made by pulverization; to levigate.

Trituration, (*trit-yū-rā'shun,*) *n.* [Fr.] Act of triturating, or of reducing to a very fine powder by rubbing or grinding; levigation.

Triumph, (*trī'umf,*) *n.* [Lat. *triumphus.*] (*Roman Hist.*) A public and solemn honor conferred by the ancient Romans on a victorious general, by giving him a magnificent entry into the city, is said to have originated in the reign of Romulus, B. C. 753—B. C. 715. The triumph of the consuls Valerius and Horatius, B. C. 449, refused by the senate, but granted by a vote of the people, was the first instance of a triumph without the authority of the senate. The triumph of Camillus, for the taking of Veii after a siege of 10 years, was celebrated with great pomp B. C. 395. There were two kinds of triumphs: the great, called the *triumph;* and the lesser, called the *ovation* (*q. v.*). — Hence, by implication, pomp with which a victory is publicly celebrated; joy or exnltation over success. — State of being victorious; victory; conquest; as, he was a general who could boast of few *triumphs*.—Formerly, a card that could take all others; — now written *trump*, q. v.

—*v. n.* [Fr. *triompher.*] To celebrate victory with pomp: to rejoice over victory; to exult in a success or advantage gained. — To prevail; to obtain victory, advantage, or success.—To boast insolently, as of an advantage gained over nnother.

"You that *triumph* thus upon my misery." — *Shaks.*

—To flourish; to succeed; to be prosperous.

Triumphal, (*trī-ŭmf'al,*) *a.* [Lat. *triumphalis.*] Pertaining, or having refereuce, to triumph; serving to commemorate a triumph or victory; as, a *triumphal* arch.

Triumphant, (*-ŭmf'ant,*) *a.* Trinmphing; rejoicing, asover victory.—Celebrating or commemorating victory; expressive of jubilation for success or advantage gained; as, a *triumphant* pæan. — Victorious; graced with conquest; as, "Our faith *triumphant* o'er our fears." (*Longfellow.*) — Used on an occasion of triumph; triumphal; as, "a *triumphant* chariot." — *South.*

Church triumphant, the church in heaven, enjoying a state of trinmph over her enemies; — as opposed to *church militant*. See Militant.

Triumph'antly, *adv.* In a trlumphant manner.

Tri'umpher, *n.* One who triumphs, or rejoices over victory; a vanquisher.

Triumpho, (*tree-oom'fo,*) in Brazil, a town of the prov. of São Pedro, 30 m. W. of Porto Alegre; *pop.* abt. 4,500.

Trium'pho de la Cruz, (*kroos,*) in S. America, a bay and group of islands on the N. coast of Honduras.

Trium'vir, *n.*; Eng. *pl.* Triumvirs; Lat. *pl.* Triumviri. [Lat. *tres*, three, and *vir*, a man, a male person.] Originally, one of a trinmvirate. — One of three men united in office, and goveruing with equal powers.

Trium'virate, *n.* [Fr. *triumvirat;* Lat. *triumviratus.*] A coalitiou or association of three men, constituting a board for the management of some public business among the Romans, one of which, the *Triumviri capitales*, for inquiring into capital offences, was instituted about B. C. 292. Julius Cæsar, Pompeius, and Crassus, formed a *T.* for carrying on the government, B. C. 60. Another was formed by Octavianus Cæsar, Marcus Antonius, and Lepidus, and afterwards sanctioned by a *Senatus Consultum*, B. C. 43. At the expiration of five years it was prolonged for five years more, B. C. 38. Augustus deprived Lepidus of his power, B. C. 36. It legally expired on the last day of the year B. C. 33.—A *T.* was appointed at Rome, consisting of Mazzini, Armellini, and Saffi, with the entire executive power placed in their hands, Feb. 27, 1849.

—Hence, by implication, a junto, coalition, or association of three in office, government, or authority.

Triune, (*trī'yūn,*) *a.* [Lat. *tres*, and *unus.*] Three in one; — an epithet applied to God, to indicate the unity of the Godhead in a trinity of persons.

Trin'nity, *n.* State or quality of being triune; trinity.

Trivento, a town of S. Italy, 50 m. from Naples; *pop.* 4,611.

Triv'et, *n.* [Fr. *trépied*, a tripod.] A three-legged stool or other support.

Triv'ial, *a.* [Fr.; Lat. *trivialis*, from *trivium*, a cross-road.] That may be picked up anywhere or everywhere; — hence, common; worthless; vulgar; ordinary. — Commonplace; hackneyed; trifling; inconsiderable; of little value or importance; as, a *trivial* affair, a *trivial* instance, a *trivial* fault.

Trivial'ity, *n.* State or quality of being trivial; trivialness; want of importance. — That which is trivial; a bagatelle; a trifle.

Triv'ially, *adv.* In a trivial manner.

Triv'ialness, *n.* Same as Triviality, *q. v.*

Tri'-weekly, *a.* Thrice weekly; happening or appearing three times a week; as, the *tri-weekly* issue of a journal.

Tro'ad. (*Geog.*) The plain around ancient Troy.

Tro'as. (*Anc. Geog.*) A maritime city of Mysia, in the N W. part of Asia Minor, situated on the Ægean coast, at some distance S. of the supposed site of ancient Troy. *T.* was a Macedonian and Roman colony of much promise, and was called Alexandria Troas. The Turks call its ruins *Eski Stamboul*, "the old Constantinople." Its remains, in the centre of a forest of oaks, are still grand and imposing. *T.* was three times visited by St. Paul.

Troat, *v. n.* [From *throat.*] To cry, as a buck in rutting-time.

—*n.* The cry or call of a buck in rutting-time.

Tro'car, Tro'char, *n.* [Fr., from Lat. *tres*, three, and *quart*, a fourth. So called from its triangular point.] (*Surg.*) An instrument used in tapping for the dropsy.

Tro'cha. *n.* The name given to a military line of defence, composed of forts and barbed wire fences, several of which were made across the island of Cuba during the insurrection of 1895–98.

Trochaic, Trochaical, (*-kā'ik-,*) *a.* (*Poet.*) Consisting of, or pertaining to trochees; as, *trochaic* verse.

Trochan'ter, *n.* [Gr., a runner.] (*Anat.*) A name given to two processes (*greater* and *less T.*) at the upper end of the thigh-bone; — so called because the muscles inserted into them are those chiefly concerned in the act of running.

Troche, (*trō'kē.*) *n.* [From Gr. *trochos*, a runner.] (*Med.*) A small round lozenge or tablet, generally composed of sugar and mucilage, united with a small portion of more active remedies, intended to be allowed gradually to dissolve in the mouth.

Trochee, (*trō'kee,*) *n.* [Lat. *trochæus*; Gr. *trochaios*, from *trochos*, a running.] (*Pros.*) A rhythmical measure, consisting of two syllables, a long and a short; thus, –∪.

Trochil'ic, *a.* Having refereuce to, or characterized by, rotary or circular motion.

Trochil'ics, *n. sing.* [Lat. *trochlea*, from Gr. *trochalos*, running.] The science of rotary motion.

Trochil'idæ, *n.* (*Zoöl.*) The Humming-birds, a family of insessorial birds, containing above 300 species, divided into about 75 genera or sub-genera. The *T.* include some of the smallest known birds, many of which are remarkable for the wonderful splendor of their plumage. In this one respect alone, neither pen nor pencil could convey any adequate idea of their dazzling lustre. They are active little birds, and from the structure of their frames, it is apparent that they were intended to pass most of their time upon the wing. Their food consists of small insects, and perhaps the nectareous juices of flowers, which their tonguo is beautifully fashioned for obtaining. This organ is very long, and can be darted out of the bill to a considerable length, by a sudden motion, like that of a spring. Their feet are small, generally dark-colored. Their wings are very long and narrow, and they are, by means of the rapid motiou given to them, able to balance themselves in the air, hovering round flowering shrubs and plants, probing their tubular nectaries, and at the same time emitting a pretty loud humming noise, caused by the concussion of their wings with the air; whence their English

Fig. 2531.
HUMMING-BIRD'S NEST.

name "humming-birds." The *T.* are very pugnacious little creatures, and defend their nests with the greatest courage against all intruders, even man himself. They are natives of America, and are found from one extent of the continent to the other, though in greatest number in the tropical parts, in the deltas, and along the banks of the great rivers both of the North and South. *Mellisuga humilis*, a species peculiar to the West Indies, has a very sweet note, and is perhaps the only species of the family that has a real song. The male bird of this variety is about 2½ inches in length, and is exactly like an humble-bee when darting about in the air. The nests of the humming-birds (Fig. 2531) are wonderfully made, with cotton, wool, and twigs, beautifully interwoven with feathers, and lined with down; and almost all the species lay two eggs, which in some cases are extraordinarily small. The smallest species of all is the *Mellisuga minima*, which is only about one inch and a quarter in length, and which weighs but twenty grains.

Troch'ilus, *n.* (*Zoöl.*) The typical genus of the fam. TROCHILIDÆ, *q. v.*

(*Arch.*) Same as SCOTIA, *q. v.*

Tro'cling, *n.* [From Fr. *trochet*, a cluster.] One of the small branches surmounting a buck's head.

Troch'lea, *n.* [Lat., a pulley, from Gr. *trochalia.*] (*Anat.*) A cartllaginous loop, through which the tendon of the *trochlearis muscle* or oblique muscle of the eye passes on its way to the sids of the organ, and so called from its answering the purpose of a pulley.

Trochoid, (*trō'koid,*) *n.* [From Gr. *trochos*, a wheel, and *eidos*, form.] (*Geom.*) A particular description of curve, generated by the motion of a wheel. See CYCLOID.

(*Anat.*) An articulation in which one bone revolves upon another like a wheel upon its axle.

Trochometer, (*-kŏm'-,*) *n.* [Gr. *trochos*, wheel, and *metron*, measure.] A contrivance devised for the computation of a wheel's revolutions; an odometer.

Trod, *imp.* of TREAD, *q. v.*

Trod, Trod'den, *pp.* of TREAD, *q. v.*

Trode, *old imp.* of TREAD, *q. v.*

Trog'lodyte, *n.* [Fr., from Gr. *trōglē*, a hole, a cavern, and *dytēs*, one who enters, from *dūō*, to enter.] Among the ancients, one of a tribe of men who had their dwellings in subterraneous caves; — certain remains of such caverns exist along the banks of the Nile, and in parts of Nubia, Arabia, and Syria.

Troglodytes, (*trŏg-lo-dī'tēz.*) *n.* (*Zoöl.*) A genus of quadrumanous animals, including the Chimpanzee and Gorilla.—Also, a genus of insessorial birds,—the Wrens. See WREN.

Trogo'nidæ, *n. pl.* (*Zoöl.*) The Trogon family, comprising scansorial birds with a broad short bill, the tip hooked and dentate, and the base surrounded by long stiff bristles, the wings short and rounded, tail elongated, legs small, tarsus short and hidden in the plumage. They live upon insects, build their nests in hollow trees, and are but little upon the wing. They are found on both continents; but N. America possesses only the Mexican trogon, *Trogon Mexicanus*, abt. 11 inches long, color golden-green above; under parts carmine; forehead, chin, and side of the head black.

Troitzk, a fortified town of Asiatic Russia, govt. of Orenburg; Lat. 54° 15′ N., Lon. 55° 30′ E.; *pop.* 6,000.

Troitzkoi-Monastere, (*troits'ko-mon'as-tēēr-ai,*) a fortified town of Russia, 40 m. from Moscow; *pop.* 8,000.

Troja, (*tro'ya,*) a town of S. Italy, 15 m. from Foggia; *pop.* 6,000.

Tro'ja, an island of the Mediterranean Sea, lying off the coast of Tuscany, and rising in the form of a cone; *area*, abt. 2 sq. m.

Tro'jan, *a.* (*Geog.*) Pertaining or having reference to ancient Troy, or its inhabitants; as, the *Trojan* war.

—*n.* (*Geog.*) A native or inhabitant of ancient Troy.

Troll, *v. a.* [Ger. *trotten.*] To roll; to move or turn in a circular direction; to drive about; to move volubly; as, to *troll* the tongue.—To circulate; to pass round about, as a measure or vessel of liquor; as, to *troll* the bowl. —To allure, in allusion to the practice of fishing with a baited trolling-line; — hence, to fish in, as water. — To sing the parts of in succession, as of a round, glee, and the like; as, "Will you *troll* the catch?" — *Shaks.*

—*v. n.* To roll; to go, move, or run round; as, "To *troll* it in a coach and six." (*Swift.*) — To fish, as for piko, with a rod whose line runs on a wheel or pulley.

—*n.* A kind of reel over which a line (called a *trolling-line*) of great length is rolled, used in fishing for pike. — A catch; a round; a glee; any song, the parts of which are taken up in succession.

(*Scand Myth.*) One of a race of beings engaged in a perpetual struggle with man, superior to man in strength and stature, but far beneath him in mind. Always outwitted, the *T.* embody the idea of unintellectual brute force, or mere awkward strength. This stupidity in the *T.* has by some been accounted for on the ground that they represent the old aboriginal races who retired into the mountainous fastnesses of the land, and whose strength was exaggerated because the intercourse between the races was small. (Dasent, *Popular Tales from the Norse*, lviii.)

Troll'er, *n.* One who trolls.

Trol'ley, *n.* In England, a truck for carrying railway materials.

Trol'lius, *n.* (*Bot.*) A genus of plants, order *Ranunculaceæ*, represented in America by only one species, the American Globe-flower, *T. laxus*, rare in swamps from Canada to Penn'a. It is about 1 foot high; leaves deeply cloft into 5 segments; sepals yellow; petals very small, orange-colored.

Trol'lop, *n.* [From *trull.*] A stroller; a loiterer; a vagrant; — hence, a slut; a slattern; an unkempt, slipshod, untidy woman.

Trol'lope, FRANCES, an English novelist and miscellaneous writer, B. 1780. In 1829 she went to the United States, and on her return home, three years afterwards, published the result of her experiences in her first book, *Domestic Life of the Americans* (1832). This work, owing to the severity of its strictures, was much animadverted upon at the time in this country. Mrs. *T.*'s subsequent literary career was one of incessant activity, and, perhaps, the most successful of her many performances are *The Widow Barnaby* and the *Vicar of Wrexhill*. D. at Florence, 1863. Her eldest son, THOMAS ADOLPHUS, lived for many years in Italy, and became favorably known by his romances of Italian life, such as *Marietta*; *Beatrice Malatesta*; *La Beata*, &c. He is also the author of a *History of Florence*; *The Girlhood of Catherine de Medici*, and *A Decade of Italian Women*. His brother, ANTHONY, is well known as one of the most noted novelists of his day. His pictures of Irish life, and graphic delineations of the clerical element of English society, are well appreciated. *The Warden*; *Doctor Thorne*; *Barchester Towers*; *The Last Chronicle of Barset*; *Phineas Finn*; *Can You Forgive Her*; *Orley Farm*; *Framley Parsonage*; *The Prime Minister*; *The Way We Live Now*; *The Small House at Arlington*; *The Vicar of Bullhampton*; *The American Senator*; and *Life of Thackeray*, are among his many works. Born 1815; died December 6, 1882.

Trombid'ium, *n.* (*Zoöl.*) A genus of insects, family *Acaridæ*, including the little, square, velvet-red mite seen in spring in flower-beds; and the Harvest-bug, which derives its name from its attacking the laborers employed in the harvest. The wound it inflicts — how produced is not well understood — occasions insupportable irritation, which usually leads the victims to scratch themselves, and thus to increase the inflammation. The skin becomes swollen and red, and sometimes even purple; and the minute vesicles caused by these insects sometimes terminate in suppuration.

Trom'bone, *n.* [It., augmentative of *tromba*, a trumpet.] (*Mus.*) A brass musical wind-instrument, somewhat similar in form to the trumpet, but larger, and made with three sliding tubes, by means of which the intonation can be regulated, and the complete scale played. There are three sizes of *T.*, playing alto, tenor, and bass respectively.

Tromp, *n.* [Fr. *trombe.*] (*Metall.*) A blowing-machine used in furnaces.

Tromp, MARTEN HARPERTZOON VAN, a Dutch admiral, B. at Briel, 1597. He began to serve under his father in the navy at ten years of age, gradually rose to distinction, and in 1637 attained the rank of lieutenant-admiral; in which capacity he served against the Spaniards, and captured many of their ships. In Oct., 1639, he won a great victory over the Spanish fleet and captured thirteen galleons. He was engaged in the naval campaigns of 1640 and 1641; but his courage and abilities were most strikingly displayed in the war with England in 1652–53. He had Robert Blake for his adversary, and was defeated off Dover in March, 1652. In Nov. following, he, in his turn, defeated Blake, and sailed up the English Channel with a broom at his mast-head. Another engagement took place in the Channel, in Feb., 1653, when the Dutch lost many of their ships, but *T.* succeeded in saving the 300 merchant-ships he was convoying. After commanding in several other battles against the English, this great seaman fell in the engagement with Monk, 23d July, 1653.—His son, CORNELIUS VAN TROMP, B. 1629, rose also to eminence as a naval commander, and, on De Ruyter's death, was appointed lieutenant-admiral-general of the United Provinces. D. 1691.

Tromp'il, *n.* [O. Fr. *trompille.*] An opening in a tromp.

Tro'na, *n.* (*Min.*) Native sesquicarbonate of soda; composed, when pure, of 37·8 soda, 40·2 carbonic acid, and 22 water = 100.

Troud, (St..) (*trawn(g,*) a town of Belgian Limburg, 20 m. from Maestricht. *Manuf.* Tobacco, lace, &c. *Pop.* 10,474.

Troop, *n.* [Fr. *troupe*; It. *truppa.*] A crowd; a throng; a collection of people; a multitude; a company; as, while a man is rich he has *troops* of friends. — A body of soldiers; an army; — applied to infantry, it is now used in the plural; as, a fine body of *troops*. — Specifically, a company or small body of cavalry, light-horse, or dragoons, commanded by a captain; as, a *troop* of lancers. — A company of stage-players; a theatrical company; a troupe; as, a *troop* of strollers. — A particular kind of drum-beat.

—*v. n.* To collect or gather in numbers or multitudes; to move forward in crowds; as, volunteers, by thousands, *trooped* to the standard. — To march in line or in company; as, "I do not . . . *troop* to the throngs of military men." — *Shaks.*

Troop'-bird, Troop'ial, *n.* (*Zoöl.*) A name popularly applied to several species of birds belonging to several genera of the family *Icteridæ*, in some respects resembling the starlings of the Old World, and in others coming near the finches, from which they differ by having the bill larger, straight, the base without bristles, and the tip without a notch. The name is derived from their habit of associating in large troops. They are generally called Orioles in N. America, and a well-known species has been described under BALTIMORE BIRD, *q. v.*

Troop'er, *n.* (*Mil.*) A private in a regiment or body of cavalry; a horse-soldier.

Troost'ite, *n.* (*Min.*) A variety of Willemite, containing 2 per cent. of carbonate of protoxide of manganese, and named after Dr. Troost, of Nashville College, Tenn. It is a ferruginous silicate of manganese, and is found at Stirling, in New Jersey.

Tropæola'ceæ, *n. pl.* (*Bot.*) A small order of plants, alliance *Malvales*. — DIAG. Free stamens; no disc; seeds without albumen; and an amygdaloid embryo. — They are smooth trailing or twining herbs, chiefly natives of S. America, and generally acrid, pungent, and antiscorbutic. There are 4 genera and about 40 species.

Tropæ'olum, *n.* (*Bot.*) The typical genus of the order *Tropæolaceæ*. *T. majus* is the showy Indian Cress or Garden Nasturtium, a well-known plant, with bright-yellow flowers and smooth peltate leaves. Its unripe fruit is frequently pickled and employed by housekeepers as a substitute for capers. Several beautiful species and varieties are now cultivated in borders.

Trope, *n.* [Fr.; Lat. *tropus*; Gr. *tropos.*] (*Rhet.*) A word turned or changed from its original signification to another; a change in the signification of a word, from a primary to a derivative sense; a word or expression used in a different sense from that which it properly signifies. See ALLEGORY, IRONY, METONYMY, SYNECDOCHE.

Tropez, (St.,) (*tro'pai,*) a seaport-town of France, dept. Var, 36 m. from Toulon; *pop.* 4,083.

Trophi, (*trō'fī,*) *n. pl.* [From Gr. *trophos*, a feeder.] (*Zoöl.*) In entomology, the parts of the mouth employed in manducation or deglutition.

Trophied, (*trō'fid,*) *a.* [From *trophy.*] Adorned with trophies.

Troph'imus, a disciple of St. Paul, a Gentile, and an Ephesian by birth, who came to Corinth with the apostle, and accompanied him in his whole journey to Jerusalem, A. D. 58, (*Acts* xx. 4.)

Tropho'nius. See AGAMEDES.

Trophy, (*trō'fe,*) *n.* [Fr. *trophée*; Lat. *tropæum* = Gr. *tropaion*, a memorial of victory.] Among the ancients, a memorial erected on the site of a victory. It originally consisted of the arms or spoils of the vanquished, set up in some public place, or carried in triumphal procession; — hence, anything held and preserved as a memorial of victory, as arms, flags, eagles, and the like, taken from an enemy.

(*Arch.*) An architectural ornament, representing the trunk of a tree charged or encompassed with arms or military weapons, offensive and defensive; — hence, something which is a memorial of conquest or token of victory; as, "the *trophy* of my love's conquest." *Spenser.*

Tro'phy-mon'ey, *n.* In England, a duty formerly paid as an annual impost, by householders, for equipping the militia with the furniture of war.

Trop'ic, *n.* [Fr. *tropique*; Lat. *tropicus*, from Gr. *tropikos*, a turning back.] (*Astron.*) One of the two tropical circles, or parallels of declination, whose distances from the equator are each equal to 23½° nearly. The N. one is called the *tropic of Cancer*, and the S. the *tropic of Capricorn*; and they are called *T.* because when the sun, in his journey N. or S., reaches either of them, he, as it were, turns back, and travels in an opposite direction in regard to N. and S.

(*Geog.*) One of two parallels of latitude, each at the same distance from the terrestrial equator as the celestial tropics are from the celestial equator; and they include that portion of the globe which is called the *torrid zone.*

—*pl.* The countries lying between the tropics, or near them on either side.

Trop'ic, Trop'ical, *a.* Being within or between the tropics; pertaining or having reference to the tropics; as, *tropical* heat, *tropical* winds, *tropical* latitudes. — Incidental to the tropics; as, *tropical* vegetation, *tropical* diseases.

—[From *trope.*] Figurative; metaphorical; rhetorically diverted from its proper or original sense; as, a *tropical* expression.

Tropical year, the time between the sun's leaving a tropic and returning to it. Popularly, it denotes the time from the longest day in one year till the longest in the next.

Trop'ically, *adv.* In a tropical or figurative manner; by way of metaphor.

Trop'ic-bird, *n.* (*Zoöl.*) See PHÆTON.

Trop'ist, *n.* [From *trope.*] One who deals in tropes; — specifically, one who explains the Holy Scriptures by tropes and figurative expressions.

Tropologic, (*-lŏj'ik,*) **Tropolog'ical,** *a.* Characterized or varied by tropes or metaphors.

Tropolog'ically, *adv.* In a tropological manner.

Tropologize, (*-pŏl'o-jīz.*) *v. a.* To treat in a tropological manner, as a word; to change to a tropical or figurative sense.

Tropology, (*-pŏl'o-je,*) *n.* [Gr. *tropos*, trope, and *logos*, discourse.] (*Rhet.*) A mode of speech characterized by the use of tropes, or involving change from the original import of the word.

Troppau, (*trop'pou,*) a fortified town of Austrian Silesia, at the confluence of the Oppa and Mohe, 35 m. from Olmütz. Here the diplomatic congress, afterwards removed to Laybach, was held from the 20th of Oct. to the 20th of Nov., 1820.

Trot, *v. n.* [Ger. *trotten*, frequent. of *treten*, to tread; Fr. *trotter.*] To move faster than in walking, and at less speed than in cantering or galloping, as a horse or other quadruped, by lifting one fore-foot and the hind-foot of the opposite side at the same time. — To move with speed or celerity; to run; as, it is time to *trot* towards home.

—*v. a.* To cause to run swiftly, but at a less speed than a canter or gallop, as a horse or other quadruped; as, I will *trot* my mare against yours for a stake.

To trot out, to lead or bring out, as a horse, to exhibit his action and running qualities; hence, by analogy, to produce, as for inspection. (Colloq.)

—*n.* That quick pace of a horse or other quadruped, other than a walk, a canter, or a gallop, when he lifts one fore foot and an off hind foot at the same time; as, to travel at a brisk *trot*. — In a ludicrous sense, a quick sort of

pace with a hobbling motion; as, to keep one on the *trot* — A contemptuous term for an elderly woman; as, "Marry him to an old *trot*." — *Shaks.*

Troth, *n.* [A. S. *treowth*, what shows truth.] Faith; belief; fidelity; trust; as, to plight one's *troth* to a woman.—Veracity; truth; word; verity; as, "by my *troth*, thou 'rt a good fellow."

Troth'-plighted, *a.* Having one's plight or fidelity given or received.

Trot'ter, *n.* A beast which trots; specifically, a horse distinguished for his speed in *trotting*.—A sheep's foot; — sometimes applied, humorously, to the human foot.

Trot'ting, *n.* Act of running with a trot, said of a horse or other quadruped. —(*Sports.*) Performance or action of a horse, kept exclusively to trot in matches with others.

Troubadour, (*trōō'ba·dōōr,*) *n.* See FRENCH LANGUAGE AND LITERATURE.

Trouble, (*trŭb'l,*) *v. a.* [Fr. *troubler*, from L. *turbula* — *turba*, an uproar, a mob.] To agitate; to disturb; to put into confusion; to disorder; as, "A woman moved is like a fountain *troubled*." (*Shaks.*)—To vex; to tease; to molest; to afflict; to grieve; to distress; to disturb; to perplex; to annoy; to fret; to worry; as, to be *troubled* in mind. — To busy; to cause to be much engaged or anxious; to give occasion for labor to; to be productive of inconvenience to;—used as a polite figure of speech; as, I am sorry to *trouble* you. — To sue for a debt; — colloquial and vulgar.

—*n.* State of being troubled, disturbed, or agitated; vexation; commotion or confusion of mind; perturbation of spirits; perplexity; annoyance; affliction; calamity; molestation; inconvenience; as, domestic *troubles* are the bitterest *troubles* of any.—That which afflicts; that which causes disturbance, annoyance, or vexation.

—*pl.* (*Mining.*) Faults or interruptions in the stratum.

Troubler, (*trŭb'ler,*) *n.* One who, or that which, troubles, molests, annoys, or disturbs.

Troublesome, (*trŭb'l-sŭm,*) *a.* Causing trouble, agitation, vexation, disturbance, or inconvenience; burdensome; annoying; tiresome; wearisome; annoying; teasing; importunate; giving fret or worry to; as, a *troublesome* creditor.

Trou'blesomely, *adv.* In a troublesome manner.

Trou'blesomeness, *n.* Quality of being troublesome.

Troubling, (*trŭb'-*) *n.* Act of disturbing or putting in commotion; act of afflicting, annoying, or incommoding.

Troublous, (*trŭb'lŭs,*) *a.* Full of disturbance, agitation, or commotion; tumultuous; disorderly; as, a people's *troublous* cries. (*Spenser.*) — Full of affliction or trouble; agitated; full of perturbation or calamity; as, they lived in *troublous* times.

Trough, (*trawf,*) *n.* [A. S. and Icel. *trog.*] Something hollow or hollowed out; — specifically, a vessel of wood, stone, or metal, in the form of a rectangular prism, open at the top, for holding water, &c.; as, a *trough* for horses to drink from; — also, the channel that conveys water, as in mills. — Hence, a channel or depression, long and narrow; as, the *trough* between two furrows.

Trough of the sea, the depression of surface between two high waves or combers; as, the ship labored in the *trough of the sea*.

Trounce, *v. a.* (*imp.* and *pp.* TROUNCED, (*trounst.*) To flagellate; to castigate; to punish, whip, or beat soundly; as, to *trounce* a school-boy.

Troup (*troop*), in *Georgia*, a W. co., bordering on Alabama; *area*, 493 sq. m. It is drained by the Chattahoochee river. *Surface*, diversified; *soil*, generally fertile. *Cap.* La Grange. *Pop.* (1897) 22,120.

Troupe (*trōōp*), *n.* [Fr., troop.] A company, troop, or set of public performers, either in music or the drama; as, an operatic *troupe*.

Troups'burg, in *New York*, a post-town of Steuben co., 30 m. S.S.W. of Bath. *Pop.* (1897) 2,210.

Trou'sers, Trow'sers, *n. pl.* [From Fr. *trousse*, a truss, a bundle; *trousser*, to tuck, gird, or fasten up.] A loose garment, fastened up with braces or suspenders, extending from the waist to the knee, or to the ankle, and covering the lower limbs; pantaloons. (NOTE. This word is rarely used in the U. States, that of *pantaloons* (*pants*) being almost universal; while the latter, on the other hand, is esteemed vulgar in England.)

Trousseau, (*trōō'sō.*) *n.* [Fr., from *trousse*, a bundle, a truss.] The outfit of a bride, including clothing, laces, jewelry, &c.

Trout, *a.* [A. S. *truht*; Fr. *truite*; Lat. *tructa* = Gr. *troktēs*, a gnawer.] (*Zoöl.*) See SALMO.

Trout-colored, Trout-coloured, (*-kŭl'erd,*) *a.* White; spotted with bay, black, or sorrel.

Trout Creek, in *Pennsylvania*, enters a branch of Sinnemahoning Creek, in Elk co.

Trout'let, Trout'ling, *n.* A small trout. (Colloq.)

Trout Run, in *Pennsylvania*, a post-village of Lycoming co., 15 m. N. of Williamsport.

Trouvère, (*troo'vair,*) *n.* [Fr., from *trouver*, to find.] Another form of the word *troubadour*, employed as a name to distinguish the vernacular poets of northern France from the Provençal troubadours. See FRENCH LANGUAGE AND LITERATURE.

Tro'ver, *n.* [From Fr. *trouver*, It. *trovare*, to find.] (*Law.*) A species of action on the case (ACTION, *q. v.*) which is employed to try a disputed question of property in goods and chattels. The declaration in trover contained, previous to 1852, a formal allegation that the plaintiff lost, and the defendant found, the goods in question; but this legal fiction is now abolished, and the action is brought on a simple allegation that the defendant converted to his own use, or wrongfully deprived the plaintiff of the use and possession of, the plaintiff's goods. In this action the plaintiff recovers damages equal to the value of the thing converted, but not the thing itself, which requires another form of action; detinue or replevin.

Trowbridge, (*trou'brij,*) a town of England, in Wiltshire, near the river Wene, 10 m. from Bath. *Manuf.* Superfine broadcloth and kerseymeres. *Pop.* 13,000.

Trowbridge, in *Michigan*, a post-township of Allegan co., abt. 4 m. S. of Allegan; *pop.* abt. 1,300.

Trow'el, *n.* [Fr. *truelle*; Lat. *trulla*, a dipper, dim. of *trua*, a ladle.] A flat metal tool used by masons, plasterers, and bricklayers, for lifting, spreading, and dressing mortar and plaster, and for cutting bricks so as to reduce them to the required shape and dimensions. — Also, a gardener's implement, having somewhat the shape of a mason's trowel, used in taking up plants, and for other purposes.

Trow'elled, *a.* Prepared or mixed with a trowel.

Trow'sers, *n. pl.* Same as TROUSERS, *q. v.*

Troy, TROJA, (*Homeric Geog. and Hist.*) The name of a district in the N.W. part of Mysia, in Asia Minor, and of a city situated in it. The latter was also called *Ilium*, and the former *Troas*, now the *Troad*. According to the account of Homer, the city was situated on ground rising above the plain formed by the rivers Scamander and Simois. On the S.E. was a hill, which was a spur of Mount Ida, and on which were the acropolis of the Trojans called *Pergamum*, the palaces of the king, and the temples of the gods. No such city as Troy, and no such people as the Trojans, were known in historic times. There have been various opinions respecting the site of the ancient city, and many efforts made to reconcile the present topography with the geographical statements made in the Homeric poems, but thus far with but little success. Attempts have also been made by chronologers to assign a date to the war of Troy, on a retrospective calculation from the opinion of Herodotus that Homer lived some four centuries before his own time, and that the Trojan war was, in the supposed age of Homer, a comparatively recent event. It must, however, be first proved that there was a single author named Homer, for the *Iliad*, or *Odyssey*, or for both (see EPIC; HOMERIC POEMS,) and that there really was a historical Trojan war. On both of these points no evidence, apparently, is forthcoming. Of the author or authors of the *Iliad* we know nothing: and the tale which the Homeric poets have left to us of the struggle to avenge the wrongs and woes of Helen is essentially a story in which the main chain of causation is superhuman, in which the gods mingle visibly with men, and the heroes themselves are the sons or husbands of immortal beings. From this narrative, full of an astounding thaumaturgy, Thucydides, by rejecting all the incidents as utterly improbable, and substituting political motives adequate to explain the movements of the contending forces, has extracted or rather fabricated a story thoroughly probable in itself, but for which we have less historical evidence than for the story of Robinson Crusoe. We are not, perhaps, justified in maintaining the negative position, that no war actually took place in the Troad; but we have as little warrant for asserting that there was.

Troy, in *Alabama*, a post-village, cap. of Pike co., 50 m. S.E. of Montgomery.

Troy, in *Illinois*, a township of Will co.

— A post-village of Madison co., 22 m. S.E. of Alton.

Troy, in *Indiana*, a township of De Kalb county.—A township of Fountain county.—A post-village and township of Perry county, on the Ohio, 63 miles E. of Evansville.

Troy, in *Iowa*, a township of Clarke county.—A post-village of Davis county, 90 miles south-south-west of Iowa City. — A township of Iowa county. — A township of Monroe county. — A township of Wright county.

Troy, in *Kansas*, a post-village, cap. of Doniphan co., abt. 16 m. N. of Atchison.

Troy, in *Maine*, a post-township of Waldo co., 38 m. N.E. of Augusta.

Troy, in *Michigan*, a post-village and township of Oakland co., abt. 21 m. N. of Detroit.

Troy, in *Missouri*, a post-village, cap. of Lincoln co., 60 m. W.S.W. of St. Louis.

Troy, in *N. Carolina*, a post-village, cap. of Montgomery co., 80 m. W.S.W. of Raleigh.

Troy, in *New Hampshire*, a post-village and township of Cheshire co., 45 m. S.W. of Concord.

Troy, in *New Jersey*, a village of Morris co., 8 m. N.E. of Morristown.

Troy, in *New York*, a city, cap. of Rensselaer co., on the Hudson, at the head of steamboat navigation and tidewater, 6 m. N. of Albany, and 151 m. N. of New York; Lat. 42° 44′ N., Lon. 73° 40′ W. It is regularly laid out, and handsomely built, partly on a level plain, and partly on an eminence which commands an extensive view. At *T.* is the principal outlet of the canals connecting the Hudson with Lakes Champlain, Ontario, and Erie; and it has railway connections with New York, Boston, and the north and west. The Union Depot, in the centre of the city, is one of the largest in the country, 60 trains arriving and departing daily. The iron furnaces and factories are among the largest E. of the Alleghanies, being furnished with the magnetic ores of Lake Champlain, and the hematitic ores of western Massachusetts. The coal is brought from Pennsylvania. The chief iron-works are those for bar-iron, railway-spikes, nails, locomotives, stoves, hot-air furnaces, hollow ware, machinery, agricultural implements, &c. Other important manufactures are those of railway cars, coaches, omnibuses, cotton and woollen goods, breweries, distilleries, flour, boots and shoes, shirts and collars—the latter employing 4,500 persons, with extensive machinery. There is also the largest manufactory of mathematical instruments in the country. *T.* contains numerous churches and public schools, the celebrated female seminary founded by Mrs. Emma Willard, the Rensselaer Polytechnic Institution, (one of the finest of its kind in the country,) asylums, academies, &c.— *West Troy* stands on the opposite side of the Hudson, and has an extensive U. S. arsenal. *Pop.* of Troy (1880) 56,748; (1897) 62,500; of West Troy (1880), 8,820; (1897) 16,450.

Troy, in *Ohio*, a township of Ashland county.— A township of Athens county. — A township of Delaware county.—A township of Geauga county. —A post-village, capital of Miami county, 68 miles west of Columbus.—A township of Morrow county. —A township of Richland county.—A township of Wood county.

Troy, in *Pennsylvania*, a village of Allegheny co., 1 m. N. of Pittsburg. — A postborough and township of Bradford co., 18 m. W. of Towanda.—A township of Crawford co.—A village of Jefferson co., 5 m. S. of Brookville.

Troy, in *Tennessee*, a post-village, former cap. of Obion co., 150 m. W. of Nashville.

Troy, in *Vermont*, a post-township of Orleans co., 50 m. N.E. of Montpelier.

Troy, in *Wisconsin*, a township of Sauk co.; *pop.* abt. 1,200. — A township of St. Croix co., 3 m. S. of Hudson; *pop.* abt. 700.—A post-village and township of Walworth co., 34 m. S.W. of Milwaukee.

Troy, Troy'-weight, *n.* [Etymol. uncertain.] An English weight chiefly used in weighing gold, silver, diamonds, and other articles of jewelry. The pound troy contains 12 ounces or 5,760 grains — the pound avoirdupois containing 7,000 of such grains.

Troy Centre, in *Maine*, a post-village of Waldo co., 37 m. N.E. of Augusta.

Troy Centre, in *Wisconsin*, a post-village of Walworth co., 32 m. S.W. of Milwaukee.

Troyes, (*trwaw,*) a city of France, cap. of the dept. of the Aube, situate between two fine meadows on the Seine, 88 m. E.S.E. of Paris. Its chief edifices are its churches; in particular the cathedral, and the churches of St. Nicholas and St. Urbain. *Manuf.* Hosiery, cotton and woollen stuffs, and yarn. *T.* was the cap. of the old province of Champagne, and, in 1814, was the scene of hard contests between the Russians and the French. *Pop.* 36,276.

Troy Grove, in *Illinois*, a post-village and township of La Salle co., abt. 11 m. N. of La Salle.

Troy Lake, in *Wisconsin*, a village of Walworth co., 54 m. S.E. of Madison.

Trua'go, in *Michigan*, a village of Wayne co., 15 m. S.S.W. of Detroit.

Tru'ant, *a.* [Fr. *truand*; L. Lat. *trutanus*, a vagabond.] Loitering; loafing; wandering from business; shirking duty; as, a *truant* disposition.

—*n.* An idler; a loiterer; a loafer; especially, a boy who stays away from school without just reason; as, to play *truant*.

—*v. a.* To idle away time; to loiter or wander away from business.

Truce, *n.* [A. S. *trywsian*, to give one's word; L. Lat. *truca*, *treuga*; Fr. *trêve*.] (*Mil.*) A covenant to preserve peace for a time, resting upon the mutual good faith of the commanders; a suspension of arms by agreement of the commanders on either side; a temporary cessation of hostilities, either for negotiation or other purpose; an armistice. See ARMISTICE. — Hence, temporary cessation or intermission of action, pain, or conflict; short quiet.

Flag of truce. (*Mil.*) See FLAG.—*Truce of God.* [Lat. *treuga Dei.*] (*Hist.*) A suspension of arms, which occasionally took place in the Middle Ages, putting a stop to private hostilities. The right to engage in these hostilities was jealously maintained by the inferior feudatories of the several monarchies of Europe. But it was restrained by the repeated promulgation of these truces, under the authority of the Church.

Truce'-breaker, (*-brāk-,*) *n.* [*Truce* and *breaker.*] The violator of a truce, covenant, or engagement.

Truck, *v. n.* [Fr. *troquer*; Sp. *trocár*; Fr. *troc.*] To traffic by exchange of commodities; to barter.

—*v. a.* To give in exchange; to exchange; to barter; as, to *truck* looking-glasses for elephants' tusks.

—*n.* Exchange of commodities; permutation; barter. — Small commodities suited to traffic by barter. (Colloq.)

Truck, *n.* A small wheel, as of a vehicle; a cylinder. — A two-wheeled vehicle for conveying merchandise or any heavy weight.

(*Mach.*) On railroads, a sort of platform (sometimes covered over), used for the conveyance of coaches, carriages, &c.

—*pl.* (*Mil.*) In artillery service, small, thick, round wheels of wood or iron.—Also, round blocks of wood, hollowed out at the centre, in which the feet of a gun are placed when the ground is had.

(*Naut.*) The small, circular wooden cap at the end of a mast, or of a flag-staff, containing one or more pulleys for the halyards to pass over.

Truck'age, (*-aj,*) *n.* Practice or custom of bartering goods; exchange of commodities. — Charge for carrying on a truck; freight.

Truck'er, *n.* One who traffics by exchange of wares or commodities.

Truckle, (*trŭk'l,*) *n.* [dim. of *truck.*] A small wheel or castor.

—*v. a.* To trundle; to roll or move upon truckles or castors.

—*v. n.* To yield to another's terms in trucking or bartering; hence, to yield or bend obsequiously or complaisantly to the will of another; to creep: to submit.

Truck'le-bed, *n.* A trundle-bed; a bed that runs on wheels, and may be pushed under another.

Truck'ler, *n.* One who truckles, or yields obsequiously to the will of another; a sycophaut; a time-server.

Truck'man, *n.; pl.* TAUCKMEN. One who traffics by way of barter or exchange. — A truck-driver; one who carries goods on a truck.

Truck'-system, *n.* An arrangement by which an employer pays his workmeu in kiud or in goods, iustead of in money.

Tru'culence, Tru'culency, *n.* [Lat. *truculentia.*] Quality of being truculent; savageness or ferocity of manners or disposition.

Tru'culent, *a.* [Lat. *truculentus.*] Fierce; wild; savage; barbarous; as, a *truculent* Indian. — Of ferocious or terrible aspect or countenance. — Cruel; destructive; unsparing; as, a *truculent* pestilence.

Trudge, (*truj,*) *v. n.* [Akin to *tread,* q. v.] To go on foot; to tramp; as, "I *trudged* to Rome upon my naked feet." (*Dryden.*) — To travel or march heavily, or with labor; to move or jog along with wearisomeness; to march heavily on; as, he *trudged* it throughout the day.

True, *a.* (*comp.* TRUEA; *superl.* TRUEST.) [A. S. *treowe;* Dan. *trouw.*] Worthy of belief or confidence; conformable to fact; being in accordance with the actual state of things; veritable; not false, erroneous, or imaginary; — opposed to *false;* as, a *true* story, a *true* account. — Genuine; pure; real; actual; not pretended; not counterfeit, adulterated, or false; as, a *true* Christian. — Exact; in conformity to a rule, pattern, or example; right or just to precision; as, a *true* copy of the original. — Faithful; loyal; steady in adherence to friends, to promises, to one's sovereign or state, or the like; constant; not false, fickle, faithless, or perfidious; as, a man *true* to his country, an officer *true* to his charge, a wife *true* to her husband.

True bill. (*Law.*) The formula by which the grand jury finds or approves a bill of indictment.

True'-blue, *a.* Of tried and sterling honesty and fidelity; — a term derived from the *true* or *Coventry blue,* formerly famous for its constancy of color.

—*n.* A person of unswerving loyalty.

True'-born, *a.* Of genuine birth; possessing native rights; as, a *true-born* American.

True'-bred, *a.* Of a true, right, or genuine breed, or strain of blood; as, a *true-bred* game-cock. — Manifesting genuine breediug aud educatiou; as, a *true-bred* patrician.

True'-hearted, *a.* Being of a loyal, faithful, and constant heart; honest; sincere; uot false, perfidious, or deceitful; as, a *true-hearted* man.

True'-love, (*-lŭv,*) *n.* One truly loved or loving.

(*Bot.*) A popular name of *Paris quadrifolia,* which was once considered a powerful love-philter.

True-love'-knot, True-lov'er's-knot, (*-lŭv'-nŏt,*) *n.* A knot consisting of lines drawn through and through one another, and united with many involutions; — considered as an emblem of interwoven affection.

True'ness, *n.* Quality of being true; faithfulness; constancy; sincerity; reality; genuineness; exactness.

Truffle, (*truf'l,*) *n.* [Fr. *truffe;* It. *tartufo,* from Lat. *terra,* the earth, and *tuber,* a truffle.] The commou name of *Tuber,* a genus of Fungi, order *Ascomycetes.* The species are subterranean, and dogs are trained to discover them by their smell. They are highly esteemed as seasoning or flavoring agents. The best are imported from France and Italy, preserved in oil. *Tuber æstivum, cibarium,* aud *melanospermum,* are the species commonly used.

Truffled, *a.* Furnished, cooked, or stuffed with truffles; as, a *truffled* turkey.

Tru'ism, (*-izm,*) *n.* [From *true.*] A palpable or self-evident truth.

Trujillo, or TAUXILLO, (*troo-heel'yo,*) in Peru, a town, cap. of the dept. of Libertad; Lat. 8° 7′ 3″ S., Lon. 79° 9′ W. *Pop.* 10,000. — In Venezuela, a city of the dept. of Zulia, 90 m. S.W. of Barquesimeto; *pop.* abt. 4,500. — In Central America, a seaport-town of Honduras, on the Caribbean Sea; Lat. 15° 55′ N., Lon. 85° 59′ W. *Pop.* abt. 5,000.

Trull, *n.* [Ger. *trulle.*] A low vagrant strumpet.

Trullization, (*-zā'shun,*) *n.* [From Lat. *trulla,* a trowel.] The laying of coats of mortar or plaster with a trowel.

Tru'ly, *adv.* In a true manner; consonant with truth or actuality; in agreement or accordance with fact; not falsely or erroneously; as, I state the case *truly* to you. — Sincerely; faithfully; honestly; really; veritably; as, a *truly* attached couple, a *truly* loyal citizen. — Exactly; justly; precisely; as, to judge *truly* of one's own sentiments. — In fact; in deed; in reality; without fraud, fallacy, or deception; as, a *truly* pious mind.

Tru'mansburg, in *New York,* a post-village of Tompkins co., 11 m. N.W. of Ithaca.

Trum'bull, JOHN, an American painter, son of Governor Jonathan Trumbull (said to have been the original "Brother Jonathan"), and brother of General Jonathan Trumbull, aid-de-camp to General Washington, B. in Lebanon, Connecticut, 1756, was educated at Harvard College, and devoted himself to painting. When the war of independence broke out, he joined the provincial army before Boston, and soon became colonel and aid-de-camp to Washington; but being offended with the action of Congress, respecting the date of his commission, he resigned, and resumed the palette. In 1780 he repaired to England for the purpose of studying painting under his countryman West. Suspected by the English government, he was arrested, but was liberated on condition of immediately quitting England. He subsequently lived, on two occasions, in London and Paris, and became, after his final return to his native country, president of the American Academy of Fine Arts. In 1817 he was employed by Congress to paint four large national pictures for the Rotunda of the Capitol at Washington — the *Declaration of Independence; Surrender of Burgoyne;* the *Surrender of Cornwallis;* and the *Resignation of General Washington, at Annapolis.* These pictures, for which he received $32,000, are chiefly valuable as collections of portraits. He afterwards completed a gallery of all his historical pictures, 57 in number, on a smaller scale, which became the property of Yale College, and has great historical value. D. in New York, 1843.

Trum'bull, in *Connecticut,* a post-township of Fairfield co., 25 m. S.W. of New Haven.

Trumbull, in *Ohio,* a N.E. co., bordering on Pennsylvania; *area,* 625 sq. m. *Rivers.* Graud aud Mahoning rivers. *Surface,* undulating; *soil,* fertile. *Min.* Iron and stone-coal. *Cap.* Warren. — A post-township of Asbtabula co.

Trum'bull Long Hill, in *Connecticut,* a post-village of Fairfield co., 18 m. S.W. of New Haven.

Trump, *n.* [It. *trombu.*] (*Mus.*) A wind-instrument; a trumpet; — a word chiefly used scripturally and poetically; as, "When the archangel's *trump* shall blow."

—[Contracted from *triumph,* q. v.] A winniug card; one of the suits of cards which takes any of the other suits; as, spades are *trumps.* — A colloquialism for a genuine good fellow; an excellent person.

To put on, or *upon,* or *to the trumps,* to put to the last resort, shift, or expedient.

—*v. n.* In card-playing, to play a trump card when another suit has been led.

—*v. a.* To take with a trump card; to put a trump card upon in order to win; as, he *trumped* the last trick.

—[From Fr. *tromper.*] To devise; to fabricate; to forge; — preceding *up;* as, a *trumped up* story or allegation.

Trump'ery, *n.* [Fr. *tromperie.*] False show; worthless finery; tiusel; empty talk; trifles; useless matter; thiugs worn out and cast aside.

—*a.* Trifling; worthless; gewgaw; as, a *trumpery* ring, a *trumpery* excuse.

Trump'et, *n.* [Fr. *trompette;* It. *tromba, trombetta;* Gael. *trombaid.*] (*Mus.*) An instrument of brass or other metal, which has been commou in most nations under different forms from the remotest ages. The term, as at present used, is somewhat vague, it being employed not only to designate a special instrumeut, but in a generic manner as comprehending the whole family of brass instruments. The trumpet *par excellence,* however, consists of a tube eight feet long, expanding at the end at which the sound issues into a bell-like shape, and is doubled into a parabolic form. It is played by means of a mouth-piece nearly an inch in width. Its compass extends from G below the staff to E above.

(*Acoustics.*) An instrument used for the purpose of conveying articulate sounds to a great distance; as, a speaking-*trumpet.* — Also, an instrument for applying to the ear, in order to collect the sonorous waves of sound and deliver them more distinct. See EAR-TAUMPET.

(*Mil.*) A trumpeter. (R.)

—One who praises, or is the agent or instrument of propagatiug laudation.

To blow or *sound one's own trumpet,* to speak in self-praise; to boast. (Colloq.)

—*v. a.* To publish or proclaim by sound of trumpet. — Also, to sound the praises of; as, to *trumpet* a man's fame.

—*v. n.* To sound sonorously, or with a tone like that of a trumpet.

Trump'et-call, *n.* A call by the sound of the trumpet.

Trump'eter, *n.* One who sounds a trumpet. — One who proclaims, publishes, or denounces; as, "The clergy are spiritual *trumpeters* who sound alarms of damnation." — *South.*

(*Zoöl.*) See AGAMI.

Trump'et-fish, *n.* (*Zoöl.*) See CENTRISCUS.

Trump'et-flower, *n.* (*Bot.*) See BIGNONIA.

Trump'et-major, *n.* (*Mil.*) The chief trumpeter of a regimental band.

Trump'et-shaped, (*-shāpt,*) *a.* (*Bot.*) Tubular, with one end dilated.

Trump'et-shell, *n.* (*Conch.*) See BUCCINA and WHELK.

Trump'et-tongued, (*-tungd,*) *a.* Having a tongue loud or vociferous as a trumpet.

Trump'et-weed, *n.* (*Bot.*) See EUPATORIUM.

Trump'et-wood, *n.* (*Bot.*) Same as SNAKE-WOOD, *q. v.*

Trunc'al, *a.* Pertaining to the trunk or body.

Truncate, (*trunk'āt,*) *v. a.* [Lat. *trunco, truncatus.*] To cut off; to lop; to maim.

—*a.* (*Bot.*) Noting an abrupt termination as if a piece had been lopped off, as in the leaf of the tulip-tree.

Trunc'ated, *a.* Cut short; lopped off; maimed.

(*Min.*) Replaced by a plane equally inclined to the adjoining faces; as, a *truncated* edge.

(*Geom.*) Noting a pyramid, or cone, the top or vertex of which is cut off by a plane parallel to its base.

Truncation, (*-kā'shun,*) *n.* [Lat. *truncatio.*] Act of truncating, or state of being truncated.

(*Crystall.*) That change in the geometrical form of a crystal, which is produced by the cutting off of an angle or edge, so as to leave a face more or less large in place of the edge or angle.

Truncheon, (*trun'shun.*) *n.* [Fr. *tronçon,* from *tronc* = Lat. *truncus.*] A club; a cudgel; a short staff. — A baton, used by officers as a staff or symbol of command. — Also, a policeman's club or staff. — A stout stem, as of a tree, with the branches lopped off, so as to produce rapid growth.

Trundle, (*trun'dl,*) *n.* Any round, rolling body, as a little wheel; a castor. — A small go-cart. — A rolling motion.

(*Mach.*) Same as LANTERN-PINION, *q. v.*

—*v. a.* To roll, as a thing mounted on small wheels; as, to *trundle* a gun-carriage. — To roll or cause to revolve; as, to *trundle* a hoop.

Trun'dle, *v. n.* To roll, as a thing on little wheels. — To roll, as a hoop.

Trun'dle-bed, *n.* Same as TRUCKLE-BED, *q. v.*

Trun'dle-head, *n.* The wheel that causes the revolutions of a mill-stone. — *Trundle-head of a capstan.* (*Naut.*) The circular part at the top, with holes for the reception of the levers by which the apparatus is worked.

Trun'dle-tail, *n.* A dog having a curled-up tail.

Trunk, (*trŭngk,*) *n.* [Fr. *tronc,* from Lat. *truncus.*] The woody stem, shaft, or body of trees, such as the oak, ash, and elm; the main part, without the branches; that part of a plant or shrub which, springing immediately from the root, ascends in a vertical position above the surface of the soil, and constitutes the principal bulk of the individual. — The body of an animal minus the limbs; the torso of a human figure. — The main body or bulk of anything; as, the *trunk* of an artery, as distinct from the branches or feeders. — The snout or proboscis of an elephaut. — A covered sluice; a water-course made with planks. — A travelling-case, box, or chest; a portmanteau; as, a leathern *trunk.*

(*Arch.*) Same as SHAFT, *q. v.*

(*Zoöl.*) That segment of the body of an insect which is between the head aud abdomen, and which supports the motory organs.

(*Mining.*) A cistern, pit, or gully in which ores are extracted from the slime in which they are deposited.

(*Mach.*) In marine steam-engines, a large pipe passing through the cylinder, and connecting with the piston; —used in driving a propeller.

—*v. n.* (*Mining.*) To extract ores from the slime, by means of a trunk.

Trunked, (*trŭnkt,*) *a.* Having a trunk, as a tree.

Trunk'-engine, (*-ĕn'jin,*) *n.* (*Mach.*) A marine steam-engine with an horizontal cylinder, used for driving a propeller.

Trunk'-fish, *n.* (*Zoöl.*) A family of fishes (*Ostraciomidæ*), belonging to the order *Plectognathes.* It comprises fishes which have the head and body covered with regular bony plates, soldered in such a manner as to form an inflexible shield, so that the mouth, tail, and fins are the only movable parts. The genus *Lactophrys* contains 2 or more species (Fig. 2532), from 4 to 14 inches long, which are found on the Atlantic coast of the U. States.

Fig. 2532. — TAUNK-FISH, (*Lactophrys camelinus.*)

Trunk'ful, *n.; pl.* TAUNKFULS. So much as a trunk will hold; as, a *trunkful* of clothing.

Trunk'-hose, *n.* [*Trunk* and *hose.*] A kind of short, wide, puffed-out breeches gathered in above the knees, or immediately under them; — worn during the 16th century. (See Figs. 1062 and 1214.)

Trunk'-line, *n.* The main or chief line of a railroad, canal, or other mode of transit.

Trun'nel, *n.* Same as TREENAIL, *q. v.*

Trunnion, (*trŭn'yun,*) *n.* [Fr. *trognon,* probably from *tronçon,* a stump.] (*Gun.*) One of two knobs which project from the opposite sides of a gun, mortar, or howitzer, and serve to support the piece on the cheeks of the carriage.

Trun'nion-plate, *n.* (*Gun.*) A covering-plate for the cheek of a gun-carriage, passiug under the trunnion.

Tru'ro, a seaport-town of England, co. of Cornwall, at the junction of the rivers Allen and Kenwyn, 8 m. from Falmouth. *T.* is in the centre of an important mining district, and exports chiefly smelted tin, and tin and copper ores. *Pop.* 12,000.

Truro, in Nova Scotia, a seaport-town, can. of Colchester co., at the E. extremity of Mines Basin. *Pop* 4,000

Truro, in *Illinois,* a post-township of Knox co., abt. 12 m. E. of Knoxville.

Truro, in *Massachusetts,* a post-village and township of Barnstable co., 55 m. S.E. of Boston.

Truro, in *Ohio,* a twp. of Franklin co.

Trusion, (*tru'zhun,*) *n.* Act of thrusting or pushing; pulsion.

Truss, *n.* [Fr. *trousse,* from Lat. *torqueo, tortus,* to twist.] That which is twisted, tied fast, or bound up; specifically, a bundle or small bale; as, a *truss* of hay or straw. — A stomacher or corset, worn by women; also, a kind of padded jacket, worn under armor.

(*Surg.*) An apparatus by which, in cases of rupture, the intestine is retained in the abdominal cavity. This is commonly effected by the aid of a steel spring resting upon a small pad or cushion, which is kept in its place by a proper bandage. See HERNIA.

(*Ship-building.*) A collection of timbers, or, preferably, iron plates, for giving an internal diagonal support to the ribs or side timbers.

(*Naut.*) A rope confining the middle of a lower yard to the mast.

(*Arch.*) The collection of timbers forming one of the principal supports to a roof, framed together for mutual support, and to prevent straining or distortion from the superincumbent weight. Diagrams of two of the simplest forms are given in Fig. 2274.

(*Engin.*) A triangular or polygonal frame, to which rigidity is given by staying and bracing, so that its figure shall be incapable of alteration by the turning of the bars around their joints.

—*v. a.* To bind, pack, or stow close; as, baggage *trussed*

into a little compass. — To skewer; as, to *truss* a fowl. — To strain, support, or keep tight, as a roof. — To hang; — generally before *up*; as, to *truss up* a spy. — To furnish with a truss or trusses; as, to *truss* a ruptured body. — *To truss up.* To make close, tight, or compact; as, to *truss up* the matter of a treatise.

Truss'ed-roof, *n.* (*Arch.*) The principal rafters of the beam at certain points where depression of the timber is likely to occur.

Truss'ing, *n.* (*Arch.* and *Ship-building.*) A mode of framing by means of a truss or trusses.

Trust, *n.* [Icel. *traust*; W. Fris. *treast*, confidence, reliance.] Confidence; security; faith; a reliance or resting of the mind on the integrity, fidelity, veracity, justice, good-feeling, sympathy, or other sound principle of another person. — He who, or that which, is the ground, object, or basis of confidence or reliance; as, a good wife is a man's surest *trust*. — That which is committed to one's care and good faith; charge received in confidence; deposit; as, to accept a sacred *trust*, to betray one's *trust*, &c. — Confident opinion of any event; assured prevision or anticipation; hope; belief; feeling of certainty; dependence upon something future or contingent, as if present, palpable, or actual.

"Sustained and soothed by an unfaltering *trust*."—*Bryant.*

—Credit given on promise or prospect of payment, actual or implied; delivery of goods or commodities without an immediate equivalent; — vulgarly, *tick*; as, to buy or sell articles on *trust*.

(*Law.*) A term commonly used to designate any equitable right or interest as distinguished from a legal one; properly that class of equitable rights supposed to be founded in the confidence placed by one party in another. The courts consider a trust estate as equivalent to the legal ownership. The estate of the trustee is at law subject to all the incidents which attend the ownership of land, the trustee being considered merely as the instrument of conveyance. Trusts are generally created to protect the interests of married women or children, or to secure the rights of heirs. They frequently involve the sale or purchase of property, etc., in which, unless the trustee exercises due caution, he may become liable for any loss that ensues. Trust estates are now very commonly placed in the care of financial institutions, known as Trust companies, as a means of promoting care and honesty in administration and security against loss.

(*Commercial.*) A title now commonly given to great combinations of industrial or commercial establishments for the purpose of promoting the interests of the individual members of the association by doing away with competition and enabling the combined company to control product and prices. Combinations of this kind, in which the individual members merge their interests, have become very common in the United States of recent years, some of them being of immense proportions. In some instances the Trusts have proved injurious to the interests of the people, and efforts have been made to limit and control their operations by legal enactment, but as yet with little effect.

—*v. a.* To place faith or confidence in; to repose belief or security in; to rely on; as, he is a man not to be *trusted*. — To believe; to credit; to give credence to. — To commit or confide to the care of; to entrust in reliance on one's honor and fidelity; as, to *trust* a lady in charge of a friend, to *trust* a parcel to a messenger. — To give credit to; to sell to on credit, or on a promise of future payment as, he declines to *trust*, his rule being cash on delivery. — To risk or venture with some degree of confidence; as, he is fit to be *trusted* with his liberty.

—*v. n.* To be credulous; to believe in; to be won to confidence.

"*Trust* no future, howe'er pleasant."—*Longfellow.*

—To be confident of something present or future; as, I *trust* to see you again to-morrow. — To sell, exchange, or allow to pass from one's possession, in consideration of a prospect of future payment or indemnification; as, I would *trust* him to the amount of thousands of dollars.

To trust in. To have confidence in; to rely on; — preceding *in*.

"The Lord is a buckler to all that *trust in* him."—2 *Sam.* xx. 11.

To trust to. To confide in; to depend on; as, I will *trust to* your honor.

—*a.* Held in trust; retained in behalf of another; as, *trust* money.

Trust'-deed, *n.* A deed conveying property to a trustee, for some purpose assigned.

Trustee', *n.* (*Law.*) See TRUST.

Trustee process. (*Law.*) Same as GARNISHMENT, *q. v.*

Trustee'ship, *n.* Office or functions of a trustee; — also, the state of being placed in the hands of a trustee.

Trust'er, *n.* One who trusts, or gives credit.

(*Scots Law.*) One who assigns a trust, in distinction from *trustee*.

Trust'ful, *a.* Full of trust.

Trust'fully, *adv.* In a trustful manner.

Trust'fulness, *n.* Quality of being trustful.

Trust'ily, *adv.* In a trusty or trustworthy manner.

Trust'iness, *n.* Quality of being trusty.

Trust'ingly, *adv.* With trust or implicit confidence.

Trust'less, *a.* Unworthy of trust.

Trust'lessness, *n.* Unworthiness of trust.

Trust'worthiness, *n.* Quality of being trustworthy.

Trust'worthy, *a.* Trusty; deserving of trust or implicit confidence; as, a *trustworthy* servant.

Trust'y, *a.* (*comp.* TRUSTIER; *superl.* TRUSTIEST.) That may be safely or implicitly trusted; that is justly entitled to confidence; that may be relied on; trustworthy; as, a *trusty* friend. — That will not fail in time of need; strong; firm; puissant; as, a *trusty* weapon.

Truth, *n.*; *pl.* TRUTHS. [A. S. *treowth.*] Quality of being true; as, (1.) Conformity to fact, reality, or actuality; absolute accordance with that which is, or has been, or shall be. (2.) Constancy; faithfulness; as, I believed in his *truth* till the last. (3.) Conformity to rule; exactness; in close analogy with some model or exemplar. (4.) Honesty; virtue; probity; as, "Malice bears down *truth*." (*Shaks.*) (5.) Purity, or exemption from falsehood; veracity; habitual disposition or practice to speak only what is true; as, "Ridicule is the test of *truth*." (*Shaftesbury.*) — That which is true; that which is firm, established, fixed; that which is the proper object of belief; real state of things; verity; as, what is the *truth* of this matter? — Correct opinion; a true thing, statement, or proposition; real fact or just principle; as, the *truths* contained in Divine Writ.

In truth, in verity; in fact; actually. — *Of a truth*, necessarily true; verily; certainly.

Truth'ful, *a.* Adhering closely to the truth; conformable to truth; that may be relied on as true.

Truth'fully, *adv.* In a truthful manner.

Truth'fulness, *n.* Quality or state of being truthful.

Truth'less, *a.* Lacking truth or veracity.

Truth'lessness, *n.* State or quality of being truthless.

Truth'-teller, *n.* One distinguished for veracity.

Truttaceous, (*-tā'shus,*) *a.* [From L. Lat. *trutta* = Lat. *tructus*, a trout.] Pertaining, or relating, to fish of the trout kind.

Truxillo, TRUJILLO, (*troo-heel-yo',*) a town of Spain, in Estremadura, 38 m from Merida; *pop.* 6,002.

Truxillo, in South America. See TRUJILLO.

Trux'ton, in *Illinois*, a post-village of Bureau co., 70 m. W.S.W. of Chicago.

Truxton, in *Missouri*, a post-village of Lincoln co., abt. 65 m. N.W. of St. Louis.

Truxton, in *New York*, a post-village and township of Cortland co., 28 m. S. of Syracuse.

Try, *v. n.* (*imp.* and *pp.* TRIED, (*trīd*) To endeavor; to attempt; to essay; to make an effort; as, he *tries* hard to succeed.

—*v. a.* [A. S. *treawian, truwian.*] To make proof of; to put to the proof or test; to examine; to make experiment of. — To purify or assay, as metals; to refine, as fatty substances. — To put to the test; to show the truth or stability of, with a view to confidence in; to subject to crucial experiment; as, his patience was sorely *tried*. — To have knowledge by the aid of experience; as, he has not yet *tried* matrimony. — To essay; to undertake; to attempt; as, it is impossible to *try* to please everybody. — To examine judicially; to subject to the examination, and decision or sentence of a judicial process or tribunal; as, the cause was *tried* in court, he was *tried* for his life.

To try on, to invest one's self with, as a garment, with a view to judge of its fitness and suitability; as, to *try on* a coat. — To attempt; to essay; to seek to perform; as, it is of no use *trying* it *on* with him. (Colloq.) — *To try out*, to carry on exertions till a result is arrived at; as, "I'll *try* it *out*, and give no quarter." (*Dryden.*) — *To try the eyes*, to strain or over-exert them.

—*n.* Act of trying; trial; attempt; experiment; essay.

Try'gon, *n.* (*Zoöl.*) The Sting-ray, a genus of fishes, fam. *Raiidæ*, distinguished by having the eyes on the upper (dorsal) aspect; the tail long and slender, without fins, and armed with a strong spine notched on both sides.

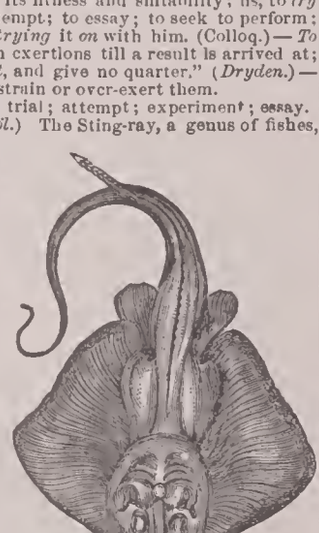


Fig. 2533. — STING-RAY. (*Trygon hastata.*)

Try'ing, *a.* Adapted to try, as patience, endurance, or the sensibilities; severe; afflictive; crucial; as, a *trying* occasion.

Try'on, in Prince Edward Island, a seaport-town of Queen's county, on Northumberland Strait; Lat. 46° 17′ N., Lon. 63° 38′ W.

Try'-sail, *n.* (*Naut.*) A small gaff sail of strong canvas, set in bad weather.

Tryst, (*trist,*) *n.* [From A. S. *trywisan*, to pledge one's faith.] An appointment to meet; — also, place of meeting; rendezvous; as, a lover's *tryst*. (Scot.)

—*v. a.* or *n.* To agree to meet, as another person.

Tsar, (*zar,*) *n.* [Russ.] Same as CZAR, *q. v.*

Tsari'na, Tsaritz'a, *n.* [Russ.] Same as CZARINA, *q.v.*

Tsarsko'selo. [Russ., imperial town.] A town of Russia, 13 m. S. of St. Petersburg. It is the residence and favorite resort of the imperial family.

Tset'sé, *n.* (*Zoöl.*) The *Glossinia morsitans*, a dipterous insect, described by Dr. Livingstone as a terrible pest of some parts of S. Africa. It is not much larger than the common house-fly, of a brown color, with four yellow bars across the abdomen. The wings project considerably beyond the abdomen. The proboscis is adapted for piercing the skin, and the fly lives by sucking blood. Its bite, harmless to man, is almost certain death to an ox, horse, or dog. Livingstone, in one of his journeys, lost 43 fine oxen by it.

Tsung-ming', an island near the coast of China, in the Eastern seas, near the mouth of the Yang-tse-kiang river. *Ext.* abt. 40 m. long and 15 broad. Lat. 31° 38′ N., Lon. 120° 54′ E.

Tsusima, (*soo-se-ma,*) an island of Japan, in the Strait of Corea, 45 m. long, with a breadth of 12 m.; Lat. 34° 40′ N., Lon. 129° 30′ E.

Tu'am, an archiepiscopal town of Ireland, co. of Galway, 18 m. from Galway. *Manf.* Linens and canvas. *Pop.* 8,000.

Tuariks, *n. pl.* See BERBERS.

Tub, *n.* [D. *tobbe*; Ger. *zuber.*] An open wooden vessel formed with staves, heading, and hoops, with two handles so as to be carried by two persons, used for various domestic purposes, as for washing, for making cheese, &c.; a kind of short, one-headed cask, or small circular vat. — Hence, the amount which a tub contains, regarded as a measure of quantity; as, a *tub* of butter.

(*Mining.*) A cast-iron cylinder put in the shaft instead of bricking, for the purpose of beating out the water and making it rise to a level. (Sometimes called *tubbing.*)

—*v. a.* (*imp.* and *pp.* TUBBED, (*tūbd.*) To plant, set, or pack in a tub; as, to *tub* butter, to *tub* a plant.

Tu'bal, (*Script.*) a son of Japheth (*Gen.* x. 2), supposed to have been the progenitor of the Tubieni, who occupied the N.E. part of Asia Minor.

Tubal-Cain, (*Script.*) son of Lamech and Zillah, inventor of the art of forging metals. (*Gen.* iv. 22.)

Tube, *n.* [Fr.; Lat. *tubus.*] A pipe, siphon, or other long hollow body, usually of a cylindrical form, and used for the conveyance of fluids, and for other purposes; a conduit; a sluice.

(*Optics.*) A telescope, or, more properly, that part of it into which the lenses are fitted, and by which they are directed and used.

(*Nat. Hist.*) A vessel of animal bodies or plants, which conveys a fluid or other substance.

(*Bot.*) That part of a monopetalous corolla formed by the union of the edges of the sepals or petals.

—*v. a.* To supply with a tube or tubes.

Tube'form, Tu'biform, *a.* [Lat. *tubus*, and *forma*, form.] Having the form of a tube; tubular.

Tu'ber, *n.* [Lat., from *tumere*, to swell.] (*Bot.*) A subterranean branch arrested in its growth, and excessively enlarged by the deposition of starch in its tissue. It has upon its surface a number of little buds, or *eyes* as they are commonly called, from which new plants are formed the succeeding year. The potato and Jerusalem artichoke are good illustrations of this peculiar modification of a stem. — Also a genus of Fungi. See TRUFFLE.

(*Anat.*) A knot or swelling.

Tubercle, (*tū'ber-kl,*) *n.* [Fr. *tubercule*; Lat. *tuberculum*, from *tuber*, a swelling.] (*Anat.*) A swelling, tumor, or pimple on animal bodies.

(*Med.*) The characteristic product of the micro-organism known as *Bacillus tuberculosis*. It takes the form of a minute granular mass, which may become fibrous in character, or pass through the *cheesy* degeneration. It frequently attacks the spongy texture of the lungs, causing ultimately an ulceration of the part and those suppurating cavities which form the pathological features of PHTHISIS. *q. v.*

(*Bot.*) A little knob, resembling a pimple, found on plants; a wart-like excrescence on the leaves of some lichens.

Tubercled, (*tū'ber-kld,*) *a.* Having tubercles; as, a *tubercled* lung.

Tuber'cular, *a.* Having little knobs or excrescences; tuberculated. — Tuberculose.

Tuberculin, *n.* A toxic extract obtained from a pure cultivation of *Bacillus tuberculosis*, and claimed by Koch to exert a curative effect, through inoculation upon persons affected with tuberculosis.

Tuber'culosis, *n.* A disease characterized by the presence of tubercles, usually in the lungs, where they constitute the affection known as *Consumption* or *Phthisis*, but also in the intestines, liver, kidney, brain, or any other organ of the body. It occurs even superficially, in the skin, where it is known as *Lupus*. The affection, instead of being localized, may be generally distributed, in which case it leads to acute inflammation, attended by rapid wasting and grave prostration. In 1882 Dr. Koch discovered the cause of this disease to be a micro-organism, which he named *Bacillus tuberculosis*. The disease was found to be contagious, through *bacilli* floating in the air from the dried sputum of consumptive persons. *T.* is common among the lower animals, especially the cow, whose milk, in this case, may contain the tubercle bacillus.

Tuberiferous, *a.* [Lat. *tuber*, and *ferre*, to bear.] Bearing or yielding tubers.

Tube'-rose, *n.* [Fr. *tubéreuse.*] (*Bot.*) See POLIANTHES.

Tu'berose, *a.* Tuberous.

Tuberos'ity, *n.* State of being tuberous.

(*Anat.*) A knob-like protuberance on a bone, having a rough, uneven surface, to which muscles and ligaments are attached.

Tu'berous, *a.* Covered with knobby or wart-like protuberances.

(*Bot.*) Resembling a tuber.

Tub'-fish, *n.* (*Zoöl.*) The Sapphirine Gurnard (*Trigla hirundo*), a fish distinguished by its large pectoral fins.

Tubic'olæ, *n. pl.* (*Zoöl.*) See SERPULA.

Tübingen, (*too'bing-en,*) a town of Germany, in Würtemberg, on the Neckar, 59 m. from Strasburg. It is the seat of a well-known university. *Manuf.* Woollen cloths and gunpowder. *Pop.* 8,286.

Tubipor'idæ, *n. pl.* (*Zoöl.*) See ALCYONACEA.

Tub'-man, *n.*; *pl.* TUB-MEN. An official belonging to the English Court of Exchequer.

Tu'bular, *a.* [Fr. *tubulaire*, from Lat. *tubulus*, dim.

of *tubus*, tube.] Tubiform; consisting of a pipe; fistular; as, a *tubular* calyx.

Tu'bular Bridge, *n.* (*Engineering.*) A bridge formed by a great tube or hollow beam, through the centre of which a roadway or railroad passes. The most remarkable bridge of this kind is the Britannia Bridge (Fig. 419), for although the bridge since carried across the St. Lawrence is of much greater total length, the width of each of its constituent spans is less. Notwithstanding the success of these structures, the tubular form has been to a great extent superseded by the *lattice bridge*, a kind of bridge patented in 1835 by the American engineer Ithiel Torm, and since that time much used for spanning rivers of great breadth. This has arisen from the great saving in the material of which the sides are composed, as compared with the solid plated sides of the tube. The lattice-bridge derives its name from the peculiar formation of the bearing-beams, or girders, that run throughout its length from end to end, and form supports for the transverse beams on which the joists and flooring are laid that form the roadway. There are two trusses on either side of the roadway, which are firmly bolted together. The trusses are formed of planks or scantlings, about eight or nine inches in breadth, which are inclined diagonally to each other at an angle of rather more than 45°, like the laths which compose a piece of trellis-work, and fastened together by trenails of hard wood at every point where the planks cross each other.

Tu'bulate, Tu'bulated, *a.* Furnished with a tube.

Tubula'tion, *n.* Construction of a tube.

Tubulibranchia'ta, *n. pl.* (*Zoöl.*) An order of hermaphrodite gasteropodous molluscs, comprehending those which have the shell in the form of a more or less irregular tube in which the branchiæ are lodged.

Tubuli'form, *a.* [Lat. *tubulus*, and *forma*, shape.] Like a small tube in form or shape.

Tu'bulose, Tu'bulous, *a.* [Fr. *tubuleux*.] Longitudinally hollow; having the form of a tube. — Containing small tubes; as, a *tubulous* compound flower. — (*Bot.*) Characterized by a campaniform border, with reflex segments, springing from a tube; — said of a floret.

Tu'bulure, *n.* (*Chem.*) A kind of tubular opening in a retort.

Tuca'no, in Brazil, a town of the prov. of Bahia, 8 m. from Itapicuru; *pop.* abt. 2,000.

Tuck, *v. a.* [Sw. *tocka*, to contract, to draw towards one.] To gather into a narrower compass; to press in or together; to fold under; to gather up; as, to *tuck* up an article of dress. — To inclose by pushing bed-clothes close around.

—*n.* A rapier; a long, narrow sword. — An horizontal plait or fold made in a garment to shorten it; as, to take in a *tuck*.

(*Naut.*) That part of a ship where the ends of the bottom parts are brought together under the stern.

Tuckahoe, (*tuk-a-ho'*,) *n.* [N. Amer. Ind., bread.] (*Bot.*) See JATROPHA and PACHYMA.

Tuck'ahoe, in *New Jersey*, a creek which rises in the W. border of Atlantic co, and flows S.E. into Great Egg Harbor Bay, between Atlantic and Cape May cos. — A post-village of Cape May co.

Tuck'ahoe, in *Virginia*, a township of Henrico county.

Tuck'ahoe River, in *Maryland*, rises in Queen Anne co., and flowing S., enters the Choptank River between Caroline and Talbot cos.

Tuckasa'ga, in *N. Carolina*, a village of Mecklenburg co., 169 m. W.S.W. of Raleigh.

Tuck'asaw Creek, in *Georgia*, enters the Ocmulgee River from Pulaski co.

Tuck'er, *n.* [From *tuck*.] One who, or that which, tucks. — An ornament round the top of a woman's corset to shade the bosom.

Tucker, ST. GEORGE, an American lawyer and statesman, b. in the island of Bermuda, 1752, and sometimes distinguished by the title of "The American Blackstone," was a zealous promoter of the independence of the U. States, and bore a part in its accomplishment, not only with his pen, but with his sword. D. 1828.

Tucker, in *West Virginia*, a N.E. co., bordering on Maryland; *area*, 500 sq. m. It is drained by Cheat river. *Surface*, hilly; *soil*, fertile. *Cap.* Parsons. *Pop.* (1897) 6,640.

Tucker's Island, or TUCKER'S BEACH, in *New Jersey*, in Little Egg Harbor Bay.

Tuck'erton, in *New Jersey*, a post-village and port of entry of Burlington co., on Little Egg Harbor Bay, 60 m. S.S.E. of Trenton.

Tuck'-net, *n.* A small net used to take out fish from a larger one.

Tuc'son, in *Arizona*, a city, cap. of Pima co., about 175 m. S.S.E. of Prescott. *Pop.* (1897) 6,000.

Tucuman, or SAN MIGUEL DE TUCOMAN, (*too-koo-man'*,) a town of the Argentine Republic, cap. of a dept. of same name, stands in a pleasant plain, and contains some fine churches and convents. Its principal trade is in oxen and mules. Here the Independence of the Plata provinces was first promulgated, and, in 1816, the first congress of the republic was held. Lat. 26° 49′ S., Lon. 64° 36′ W. *Pop.* 10,000.

Tudela, (*too-da'la*,) a city of Spain, in Navarre, at the confluence of the Queylcs and the Ebro, 55 m. from Pampcluna; *pop.* 7,500.

Tu'dor, the name of one of the royal families of England allied to the race of Plantagenets. The line embraced five sovereigns, and commenced in 1485 with Henry Tudor, Earl of Richmond, the grandson of Sir Owen Tudor, a Welsh knight of distinction, by his wife, the widow of Henry V., and who, after the battle of Bosworth Field, was proclaimed king by the title of Henry VII.; from him the crown descended to his son Henry VIII., whose son Edward VI. succeeded, and after him his two sisters Mary and Elizabeth; the Tudor dynasty expiring with the death of the latter in 1603, when the house of Stuart succeeded.

Tu'dor Architecture. That style of architecture which prevailed in England during the Tudor dynasty. The styles, however, to which this term is applied are many and widely different, including the Late Perpendicular Gothic, the Mixed or Elizabethan style, in which Italian details were introduced in buildings otherwise Gothic, and the Italian, as practised by Inigo Jones and

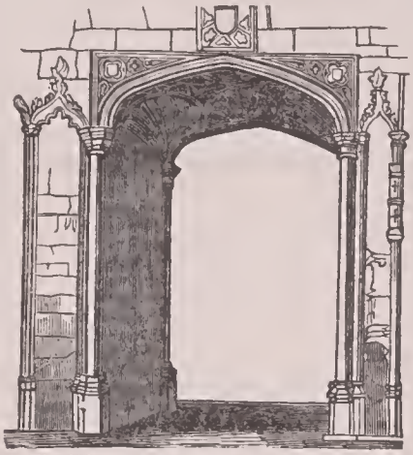


Fig. 2534. — GATEWAY IN THE TUDOR STYLE.
(End of the 15th century.)

his contemporaries. Some writers would divide the style thus denominated into *early* and *late* Tudor, the former term including the Late Perpendicular style, in which ornamental details were profusely introduced; while the latter is applied to those in which Italian details are introduced, and which are otherwise distinguished as *Elizabethan*. Among the most striking peculiarities of the *T. A.* may be mentioned the gate-houses (Fig. 2534); the numerous turrets and chimneys; the beautiful hay and oriel windows; the roofs, ceilings, and panelled wainscot round the internal walls.

Tue'-iron, (*-ĭ'urn*,) *n.* Same as TUYÈRE.

—*pl.* A pair of blacksmith's tongs.

Tuesday, (*tūz'dĭ*,) *n.* The third day of the week, was dedicated by the Saxons to their god *Tuisco*, respecting whose attributes little is known. The Romans held it sacred to Mars, and called it *Dies Martis*.

Tu'fa, Tuff, *n.* [It. *tufo*, porous ground.] (*Min.*) A name applied to certain porous loose rocks, sometimes consisting chiefly of calcareous matter deposited from water containing much carbonate of lime in solution, and sometimes of fine powdery volcanic dust cemented more or less completely by the infiltration of water, but generally loose and spongy. This dust consists of material erupted from volcanoes, and under the microscope has sometimes been found to contain large quantities of the silicious cases of infusoria. The first-named variety is called *calcareous tufa*, the last-named *volcanic tufa* or *tuff*. Volcanic tufa is the material under which Pompeii was buried. Similar materials have been deposited in places where there are no other indications of volcanic action, and occur among rocks of all ages. Calcareous tufa, when consolidated, passes into Travertine.

Tuft, *n.* [Fr. *touffe*.] A collection of small things in a knot or bunch; a flexible or waving cluster; as, a *tuft* of hair, grass, feathers, flowers, &c. — A clump; a cluster; a group; as, a *tuft* of trees.

(*Bot.*) A head of flowers, each elevated on a partial stalk, and all combining to form a dense, roundish mass.

—*v. a.* To separate or divide into tufts. — To furnish or adorn with tufts.

Tuft'ed, *p. a.* Adorned with a tuft; as, a *tufted* cap. — Growing in tufts or clusters; as, a *tufted* grove.

Tuft'-hunter, *n.* A toady; a parasite; a hanger-on.

Tuft'onborough, in *New Hampshire*, a post-township of Carroll county, 45 miles N.N.E. of Concord.

Tuft'y, *a.* Adorned with tufts; growing in clusters; bushy.

Tug, *v. a.* (*imp.* and *pp.* TUGGED, (*tŭgd*.) [A. S. *teon*, pret. *tuge*.] To drag along with continued or persistent exertion; to haul along; to pull, drag, or draw with great effort; as, to *tug* at the oar.

—*v. n.* To draw or pull with laborious effort; as, to *tug* against the stream. — To labor; to strive; to struggle; to contend.

"They strenuously *tugged* for their liberty."—*Howe.*

—*n.* A drawing or hauling with force; a pull with strenuous effort. — A trace or drawing-strap of a harness.

(*Naut.*) A ship used for the purpose of towing other vessels; a STEAM-TUG, *q. v.*

—*pl.* (*Mining.*) Hoops of iron fastened to the covers to which the tackles are affixed.

Tu'galo, in *S. Carolina*, a township of Oconee county.

Tugaloo' River, rises in Jackson co., *N. Carolina*, and flowing generally S.E., unites with the Kiowee River near Andersonville, S. Carolina, to form the Savannah River.

Tu'gendbund, *n.* [Ger., union of virtue.] (*Hist.*) A patriotic association formed in Prussia after the Treaty of Tilsit in 1807. Its object was to prepare the people of that country, by moral instruction and discipline, for better times. It was abolished at the instigation of the French; but its spirit survived, and it had great effect in promoting the national war against Napoleon in 1813.

Tug'ger, *n.* One who, or that which, tugs.

Tug'gingly, *adv.* With laborious drawing or pulling.

Tug'-iron, (*-ĭ'urn*,) *n.* An iron on the shaft of a wagon, to which a tug or trace may be attached or made fast.

Tuition, (*-ĭsh'un*,) *n.* [Sp. *tuicion*; Lat. *tuitio*.] Instruction; teaching; act or business of conveying or imparting knowledge of the various branches of learning; schooling. — Price, payment, or compensation charged or paid for instruction.

Tui'tional, Tui'tionary, *a.* Relating to tuition.

Tula, or TOULA, (*too'la*,) a town of Russia, cap. of govt. of same name, stands at the confluence of the Tulitza and the Upa, 106 m. from Moscow. It was founded in 1509, and is the seat of the imperial manufactory of arms, established by Peter I. in 1712. *Pop.* 60,000.

Tu'la, or MONTEZUMA, a river of Mexico, falls into the Tampico River near its mouth in the Gulf of Mexico, after a N.E. course of 200 m.

Tula, a town of Mexico, 40 m. N.N.W. of Mexico city.

Tu'la-metal, *n.* [From *Tula*, in Russia.] (*Metall.*) An alloy or composition of silver, lead, and copper.

Tulare', in *California*, a S.E. co.; *area*, 5,592 sq. m. *Rivers.* Kern and King. *Lakes.* Kern and Tule. *Surface*, traversed on the E. by the Sierra Nevada, between which and the Coast Range is the fertile valley of San Joaquin. *Cap.* Visalia. *Pop.* (1897) 25,200.

Tu'le, in *California*, a lake of Tulare co., abt. 40 m. long and 22 m. broad.

Tu'lip, *n.* [Fr. *tulipe*; D. *tulpe*, from Turk. *tulban*, a turban.] (*Bot.*) The common name of TULIPA, *q. v.*

Tu'lipa, *n.* [Lat.] (*Bot.*) A genus of plants, order *Liliaceæ*. The species are few, but the varieties are endless, and are the beautiful bulbous plants called Tulips. In the middle of the 17th century, there was quite a mania for cultivating tulips in the Netherlands; and most extravagant sums were given for bulbs of new varieties. At the present time, Holland supplies Europe and America with bulbs.

Tuliposma'nia, *n.* A peculiar mania, or enthusiastic passion, for the acquisition or cultivation of tulips.

Tu'lip-tree, *n.* (*Bot.*) See LIRIODENDRON.

Tullaho'ma, in *Tennessee*, a post-village of Coffee co., 70 m. S.E. of Nashville.

Tullamore', a town of Ireland, in King's co., and nearly divided in two portions by a river of the same name, 50 m. from Dublin; *pop.* 5,200.

Tulle, (*te(r)l*,) a town of France, cap. of the dept. of Corrèze, on the Corrèze, 45 m. from Limoges. *Manuf.* Woollen stuffs, paper, and lace (known as *point de Tulle*). *Pop.* 13,073.

Tul'lus Hostil'ius, the third *mythical* king of Rome, and successor of Numa. His reign was a series of wars with Alba, the Veii, and the Sabines. The legend of the famous combat between the Horatii and Curiatii forms part of the story of the Alban war.

Tul'ly, in *Missouri*, a village of Lewis co., 192 m. N.W. of St. Louis.

Tully, in *New York*, a post-village and township of Onondaga co., 20 m. S. of Syracuse.

Tully, in *Ohio*, a township of Marion co.

—A township of Van Wert co.

Tul'lytown, in *Pennsylvania*, a post-village of Bucks co., abt. 6 m. S.W. of Trenton.

Tul'ly Valley, in *New York*, a post-village of Onondaga co., 130 m. W. of Albany.

Tulma'ro, or TULMERO, a town of Venezuela, 50 miles W.S.W. of Caracas; *pop.* abt. 9,000.

Tulpehock'en, in *Pennsylvania*, a creek which rises in Lebanon co., and flowing E.S.E., enters the Schuylkill River near Reading. — A post-township of Berks co., 20 m. S.W. of Pottsville.

Tumble, (*tŭm'bl*,) *v. n.* [A. S. *tumbian*; Fr. *tomber*, to fall, from It. *tombolare*, to fall topsy-turvy.] To roll, or roll about by turning from one side to the other; as, to *tumble* and toss about in bed, *tumbling* waves, &c. — To fall or come down suddenly, violently, or precipitately; to roll down; as, to *tumble* from a house-top. — To play tricks of mountebankery by various librations, movements, and contortions of the body; as, to *tumble* for a livelihood.

To tumble home, to bend inward, as a ship's sides.

—*v. a.* To throw by chance or violence; to precipitate, or throw down or headlong; to cause to fall, turn, or roll; to turn over or throw about for examination or searching; — sometimes with *over*; as, after *tumbling over* everything he could not find what he wanted. — To rumple; to disturb; to throw into disarrangement or disorder; as, to *tumble* bed-clothes.

To tumble down, to throw or fling down negligently. — *To tumble out*, to throw or roll out; as, to *tumble* one's self *out* of bed, to *tumble out* baggage from a railroad car.

—*n.* A fall; a rolling over; act of tumbling.

Tum'bler, *n.* One who tumbles; — also, one who makes somersaults, or performs tricks of mountebankery. — A large drinking-glass of a cylindrical form, or of the form of the frustum of an inverted cone; — so named because originally it was made with a pointed bottom, and could not, therefore, be set on end without tumbling or falling over. — Also, the contents of such a glass; as, mix me a *tumbler* of punch. — A sort of dog, so called from his practice of tumbling before he attacks his game. — A variety of the domestic pigeon, which is accustomed to tumble or turn over during its flight.

Tum'blerful, *n.*; *pl.* TUMBLERFULS. So much as a tumbler will hold.

Tum'bling-bay, *n.* A weir in a canal or water-course.

Tum'brel, Tum'bril, *n.* [Fr. *tombereau*, a dung-cart.] A dung-cart.—A cucking-stool for scolds.—A sort of low carriage with two wheels.
—In England, a wicker cage for holding hay for sheep, etc. (*Mil.*) A two-wheeled covered cart, used for ammunition, miners' and pioneers' tools, &c.

Tumefaction, (*-fāk'shun.*) *n.* [Fr.; see TUMEFY.] Act or process of swelling, or rising into a tumor.—A swelling; a tumor.

Tu'mefy, *v. a.* [Fr. *tuméfier*, from Lat. *tumeo*, to swell, and *facio*, to make.] To swell, or cause to swell; as, *tumefied* language.
—*v. n.* To swell; to rise in a tumor; as, a *tumefied* joint.

Tu'mid, *a.* [Fr. *tumide*; Lat. *tumidus*, from *tumeo*, to swell.] Protuberant; bulging; rising above the surface or level; as, *tumid* hills. (*Milton.*)—Being swelled, enlarged, or distended; as, *tumid* flesh.—Puffy; pompous; bombastic; turgid; euphnistic; swelling or inflated in sound, sense, or substance; as, a *tumid* style of diction.

Tumid'ity, Tu'midness, *n.* [L. Lat. *tumiditas.*] State of being swelled, distended, dilated, or puffed up; turgidity.

Tu'midly, *adv.* In a swelling or inflated manner.

Tu'mor, *n.* [Lat., from *tumeo*, to swell.] (*Surg.*) In its widest acceptation, a swelling of any kind on any part of the body; but usually restricted to a swelling of a permanent nature, while such as arise from inflammation and disappear along with the cause, are usually known as *tumefactions*. *T.* are commonly distinguished into *sarcomatous*, or such as are firm and of a fleshy consistence; and *encysted*, consisting of a sac containing matter more or less pulpy or fluid. Of each of these, surgeons distinguish several kinds.

Tumored, (*tū'merd,*) *u.* Distended; swollen; inflated.

Tump, *v. a.* [W. *twmp*, a hillock.] To lay or form a mass of earth round a plant.—To draw or drag, as an animal after it has been slaughtered. (Local, U. States.)

Tump'-line, *n.* A band or strap fastened across a man's forehead to aid in his carrying a pack on his back. (Local, U. States.)

Tum'-tum, *n.* A West Indian dish of boiled plantain beaten to a jelly.

Tu'mular, *u.* [From Lat. *tumulus*, a heap.] Formed in a heap; being in, or consisting of, a heap or hillock.

Tu'mult, *n.* [Fr. *tumulte*, from Lat. *tumultus.*] Violent agitation or commotion, with confusion of sounds; as, "What *tumult's* in the heavens?" (*Shaks.*)—Commotion, agitation, or disturbance of a multitude, usually attended with great noise, uproar, and confusion of voices; popular ferment or turbulence.—High excitement; perturbation; bustle; stir; irregular or disordered motion; as, the *tumult* of the passions.

Tumult'uary, *a.* Tumultuous; disorderly; confused; attended by riot; as, *tumultuary* agitation.—Restless; unquiet; perturbed; as, "Men without religion live always in a *tumultuary* state."—*Atterbury.*

Tumult'uous, *a.* [Fr. *tumultueux.*] Full of tumult, bustle, or confusion; attended by riot or tumult; disorderly; as, a *tumultuous* flight.—Noisy; confused; irregular; full of boisterousness or agitation; as, a *tumultuous* meeting.—Disturbed; violently worked or moved.—Turbulent; violent; tending to sedition; as, a *tumultuous* appeal to the mob.

Tumult'uously, *adv.* In a disorderly manner; with tumult or turbulence.

Tumult'uousness, *n.* State of being tumultuous.

Tu'mulus, *n.*; *pl.* TUMULI. [Lat., from *tumeo*, to be swollen.] (*Archæol.*) A barrow, or artificial mound of earth, often covering an ancient tomb or sepulchre. The practice of rearing mounds of earth and stone over the resting-place of the dead may be traced to remote antiquity. It had doubtless its origin in the heaps of earth displaced by interment, which, in the case of the illustrious warrior or chief, it became the practice to raise into the size and form of the barrow, or *T.*, which is found all over northern Europe, from Great Britain and Ireland to Upsala in Sweden, and the steppes of the Ukraine. Sepulchral mounds of some sort seem, indeed, to have been erected among all the nations of Asia as well as of Europe, and they are found in numbers in North America. Some of the larger *T.*, barrows, are but partially artificial; natural mounds having been added to, or shaped into, the form which it was wished that they should take. See MEGALITHIC MONUMENTS.

Tun, *n.* [Fr. *tonne*, *tonneau*, a cask.] A large cask; an oblong vessel bulging in the middle, like a pipe, puncheon, or hogshead, girt with hoops, and used for stowing various kinds of merchandise for convenience of carriage, as brandy, oil, sugar, skins, &c.—In England, a liquid measure of capacity, containing 252 gallons, or 4 hogsheads.—A proverbial term for a large quantity.—Also, a contemptuous appellation given to a drunkard.
(*Com.*) Same as TON, *q. v.*
—*v. a.* To put into tuns or casks; as, to *tun* wine or oil.

Tunable, (*tūn'u-bl,*) *a.* That may be tuned or put in tune;—hence, harmonious; melodious; musical.

Tun'ableness, *n.* Quality of being tunable.

Tun'ably, *adv.* In a tunable or musical manner.

Tunamagu'ont, in *Pennsylvania*, a village of McKean co., 220 m. N.W. of Harrisburg.

Tun'-bellied, *a.* [*Tun* and *belly.*] Having a belly shaped like a tun;—hence, big-bellied.

Tunbridge, (*tun'brij,*) a town of England, co. of Kent, on the river Tun, 28 m. from London. *Manuf.* Toys and pottery. *Pop.* 5,000.

Tun'bridge, in *Illinois*, a township of De Witt county.

Tunbridge, in *Vermont*, a post-township of Orange co., 28 m. S.E. of Montpelier.

Tun'bridge Wells, a town of England, co. of Kent, within 5 or 6 m. from the town of Tunbridge. *Manuf.* Toys and leather;—but its importance is derived from the mineral waters in the vicinity. *Pop.* 12,000.

Tune, *n.* [Fr. *ton*; Lat. *tonus*=Gr. *tonos*, a note of the voice.] Sound; note.
(*Mus.*) A short air or melody; a series of musical notes in some particular measure, and consisting of a single series, for one voice or instrument, the effect of which is *melody*; or, a union of two or more series or parts to be sung or played in concert, the effect of which is *harmony*; as, a lively *tune*, a psalm *tune*, &c.—Correct intonation in singing or playing; state of giving the proper application of sounds; harmonious sympathy or accordance; concert of the parts of an instrument with reference to the adjustment of due harmony; as, that pianoforte is out of *tune*.—Hence, by analogy, proper state for use or application; right disposition or tendency; order; concord; fit temper or humor; harmony of parts; as, he is not in good *tune* for his work.
—*v. a.* To put in tune; to harmonize; to put into a state adapted to produce the proper sounds; as, to *tune* a violin.—Hence, to place in proper or suitable order or disposition.—To attune; to adapt in style of music; to give tone to.—To sing melodiously or harmoniously.
—*v. n.* To form accordant musical sounds.—To hum; to sing without articulating words.

Tune'ful, *a.* Harmonious; melodious; musical.

Tune'fully, *adv.* In a tuneful, or melodious manner.

Tune'less, *u.* Destitute of tune or melody.

Tun'er, *n.* One who tunes; specifically, one whose business is to put musical instruments in proper tune.

Tung'state, *n.* [Fr.] (*Chem.*) See TUNGSTEN.

Tung'sten, *n.* [Sw. and Dan. *tung*, heavy, and *sten*, stone.] (*Chem.*) *T.* is a metal found in small quantities in the form of an acid in *Scheelite* or tungstate of lime, and *Wolfram*, a tungstate of iron and manganese. The metal itself, which is of an iron-gray color, is procured from the tungstate of lime by a process interesting only to the scientific chemist. Its alloys are unimportant. Steel containing *T.* is said to have remarkable properties, but it is questionable whether they are due to the presence of this metal. It forms two oxides, a hinoxide (WO_2), a heavy black powder, and the teroxide, or *Tungstic acid* (WO_3), its only important compound. This acid is readily procured in an impure condition, by heating scheelite or wolfram with hydrochloric acid, which dissolves the metals, leaving the tungstic acid behind as an insoluble residue. The anhydrous acid is of a beautiful lemon-yellow color, insoluble in water, but soluble in solutions of the alkalies, with which it forms soluble salts. The most important of these is the *tungstate of sodu*, used as an antiflammable agent in starch. If hydrochloric acid is added to a mixture of tungstate of soda and glue, a compound of tungstic acid glue is obtained which at 30° to 40° is so elastic as to admit of being drawn out into very thin sheets. On cooling, this mass becomes solid and brittle, but on being heated it becomes again soft and plastic. This material has been successfully employed, instead of albumen, in calico printing, in order to fix the aniline colors upon cotton; the further applications of this substance are as tannin, but the resulting leather becomes as hard and stiff as a plank of wood. The preparation is recommended as a lute or cement. The *tungstate of lead* appears to offer decided advantages as a white pigment; in fact, if tungstic acid could be procured in sufficient quantities, we should have a number of valuable pigments from this source. The compounds of this metal, as a rule, are not poisonous; they resemble those of molybdenum very closely, and it is worthy of note that the atomic number and specific gravity of *T.* are nearly double those of molybdenum.—*At. weight* 183·6; *spec. grav.* 7·3; *Symbol* W (from the Latin name *Wolframium*, from the mineral *Wolfram*, in which *T.* was first found).

Tung'stic Acid, *n.* (*Chem.*) See TUNGSTEN.

Tunguragua, (*toon-goo-ra'gwa,*) a volcano of Ecuador, 16,424 ft. high; Lat. 1° 29′ S., Lon. 79° 20′ W.

Tungu'ses, a wandering native race of Asiatic Russia, who cover nearly the whole S.E. portion of that vast territory. They are first found on the banks of the Yenisei, whence they extend all the way eastward to the Sea of Okhotsk.

Tu'nic, *n.* [Fr. *tunique*, from Lat. *tunica.*] (*Antiq.*) A garment worn by the Romans of both sexes under the toga and next to the skin. It was generally of wool of a white color, and reached below the knee.
(*Eccl.*) In the Roman Catholic Church, a long white under-garment worn by the clergy when officiating.
—A garment formerly worn under a coat of mail; hence, among the moderns, a loose-fitting jacket or body-coat; as, a soldier's *tunic*, a boy's *tunic*.
(*Bot.*) An integument, as of a seed.
(*Anat.*) A membrane that covers or composes some part or organ; as, the *tunic* of the eye.

Fig. 2535.
BOLTENIA PEDUNCULATA.
(Reduced to 1·18th of its size.)

Tu'nica, in *Mississippi*, a N.W. co., bordering on the Mississippi; *area*, 450 sq. m. *Rivers.* Coldwater and Tunica. *Surface*, flat; *soil*, generally fertile. *Cap.* Tunica. *Pop.* (1897) 14,100.

Tunic'ata, *n. pl.* (*Zoöl.*) A class of animals many of which are known as ascidians (*q. v.*) or sea-squirts, and which are believed to be related, at a low level, with the vertebrates. Most of them display vertebrate characteristics as larvæ, and some do so in adult life.

Tu'nicate, Tu'nicated, *a.* [Fr. *tuniqué*, from Lat. *tunicare.*] Covered with a tunic; coated with layers; as, a *tunicated* tuber.

Tunicle, (*tū'ni-kl,*) *n.* [Lat. *tunicula*, dim. of *tunica.*] A tunic, integument, or natural covering; as, distinct plants under one common *tunicle*.

Tun'ing, *n.* (*Mus.*) The art of adjusting the several sounds of a musical instrument, so as to produce as nearly as possible a correct scale, as well as that of making two or more instruments agree with each other, and thus enable them to be played in concert. All instruments are liable to change their tone; this, however, in some, such as the horn, flute, &c., is of little importance, as all the parts, if changed at all, change together, and the whole effect of temperature can be corrected by lengthening the pipe of which the instrument consists. Others, however, as violins, harps, drums, &c., require *T.* every time they are played; thus it is necessary for the performer to understand the art of *T.* himself. Organs, harmoniums, pianofortes, are extremely liable to alter their tone; wet, cold, heat, removing from one room to another, all these causes will tend to put them out of tune, more especially the latter instrument; and even if exposed to none of these evils, they will require *T.* at certain intervals, owing to the various parts being unconnected and subject to separate accident and unequal wear.

Tun'ing-fork, *n.* (*Mus.*) A steel instrument consisting of a handle and two prongs, which, when struck against the table, or some hard substance, produces a certain fixed note, by which the pitch of voices or instruments is determined. There are forks of various tones, but the A and C forks are most commonly used.

Tun'ing-hammer, Tun'ing-key, *n.* (*Mus.*) An implement for tuning pianofortes.

Tu'nis, a kingdom or regency of N. Africa, now under the armed protection of France, is principally between Lat. 33° and 37° N., Lon. 9° and 11° E.; having S.E. the regency of Tripoli, N.W. Algeria, S. and W. the Desert of Sahara, and N. and E. the Mediterranean; *area*, roughly estimated at 50,000 sq. m. On the eastern coast are those deep indentations known as the Gulf of Cabes, or Little Syrtis, and the Gulf of Hammamet; and on the N., the Gulf of *T.* and Bizerta. The N. portion of the country is mountainous and hilly, but all the S. part is a plain or level, and still (as in the time of the Romans, when it formed one of their granaries) extremely fertile. The principal river is the Majerdah, which, after a course of 140 m., falls into the Gulf of *T.* The minerals are silver, copper, lead, quicksilver, and salt. The vegetable products are wheat, maize, barley, millet, olives, dates, grapes, tobacco, hemp, indigo, cotton, senna, and opium. Buffaloes, sheep, camels, horses, and oxen constitute the chief domestic animals; while the lion, panther, ounce, lynx, wild boar, wolf, and bison comprise the principal wild ones, or the carnivora. The commerce of *T.* is larger than that of all the other Barbary states, the exports and manufactures consisting of soap, morocco leather, shawls, red skull-caps or the fez; these, with wheat, wax, olives, dates, hides, alfa grass, and feathers, comprise the chief items of export and trade. The Bey of *T.*, though nominally the viceroy of the Sultan, is virtually the sovereign of the country, and the authority with whom all European states directly treat in their commercial relations with *T.*; his power is despotic, the Divan merely confirming what he decides to propose. The religion of the people is the Mohammedan, though the Tunisians are very tolerant in matters of faith. The chief towns are Tunis, the cap., Kairwan, Susa, Hammamet, Bizerta, Ilax, Cabes, Monastes, and Beja.—This region, which in antiquity was the centre of the Carthaginian dominions, remained in the possession of the Romans from the destruction of Carthage to the beginning of the 5th century, when the Vandals settled themselves in Africa. In 690 it became subject to the Caliphs; conquered by Barbarossa in 1534, by the Emperor Charles V. in 1537, taken anew in 1570 by the Turks, it gradually regained independence. Became a French protectorate in 1881. *Pop.* (1897) 1,650,000.

TUNIS, the capital of the above state, and one of the chief cities in northern Africa, is situated on the western side of the gulf of that name, and lies in Lat. 36° 48′ N., Lon. 10° 16′ 2″ E., abt. 3 m. S.W. from the ruins of the ancient Carthage. The whole city is enclosed by a high wall, and on all the eminences without the walls are erected outworks or forts. In 1881 France sent an expedition to Tunis with the object of securing Algeria against incursions of Tunisian tribes, took possession of the whole country, and under form of a treaty, signed May 12, virtually reduced the Bey to a state of vassalage. Lake Tunis separates it from its port Goletta. Its *pop.*, larger, perhaps, than that of any other African city, Cairo excepted, is about 125,000, of whom about 30,000 are Jews.

TUNIS, (BAY OF,) a deep indentation of the Mediterranean, comprehending a coast of 120 m., in the most interior part of which is the city of Tunis. It lies between capes Bon and Farina, and its entrance is 45 m. wide.

Tun'ja, in the Republic of Colombia, a town of the dept. of Boyaca, 70 m. N.N.E. of Bogotá. *Pop.* (1897) 9,600.

Tunkers, or DUNKERS, a religious denomination founded in 1708, in Schwartzenau, Germany. The name *T.* (from the German *tunken*, to dip) was originally given them as a nickname to distinguish them from the Mennonites. They are also called *Tumblers* from their mode of baptism, which is by putting the person while kneeling head first under water, so that the motion resembles the act of tumbling. They are also called *German Baptists*, while they themselves take the name of *Bre-*

thren, in accordance with *Matt.* xxiii. 8: "All ye are brethren." Between 1719 and 1729 they all emigrated to America, to which country the denomination has since been confined. They have dispersed themselves through almost every State of the Union, and are most numerous in Pennsylvania, Maryland, Virginia, Ohio, and Indiana. Their church government is nearly the same as that of other Baptists, except in the choosing of their ministers. From the *T.*, as a sect, must be distinguished the *Seventh-Day T.*, also called the *German Seventh-Day Baptists*. They were established by Conrad Beissel, a native of Germany, who separated himself from the *T.* society at Mühlbach (Mill Creek), in Lancaster co., Pa., and went to a hermitage on the banks of the Cocalico, where he was joined by many of the society from Mill Creek, who settled around him in isolated cottages. In 1733 a monastic society was established, constituting, with the buildings subsequently erected by the community, the irregular inclosed village of Ephrata. The habit of the Capuchins or White Friars was adopted by both the brethren and sisters. Monastic names were given to all who entered the cloister. In 1740 there were 36 single brethren in the cloister and 35 sisters, and at one time the society, including the members living in the neighborhood, numbered nearly 300. After 1777 the society at Ephrata began to decline, and of the peculiar features of the early Seventh-Day *T.* few traces are now to be found there. Their principal settlement is now at Snowhill, on Antietam Creek, in Franklin co., Pa. See BAPTISTS.

Tunkhan'nock, in *Pennsylvania*, a creek which flows into the N. branch of the Susquehanna at Tunkhannock. — A post-borough, cap. of Wyoming co., 20 m. N.W. of Scranton; *pop.* abt. 2,000. — A mountain in the N.E. of Wyoming co.

Tun'nage, *n.* An inelegant orthography of TONNAGE, *q.v.*

Tun'nel, *n.* [Fr. *tonnelle*, dim. of *tonne*, a tou.] A funnel; a tun-dish.—The opening in a chimney for the passage of smoke; a flue; a funnel; a smoke-stack.

(*Civ. Engin.*) A tubular opening, or an arched subterranean passage cut through a hill, a mountain, a rock, an eminence, or under a river or town, to carry a canal, road, railway, &c., in an advantageous and straight course. The construction of *T.* is by no means of recent origin, although it is only of late that they have become common. The outlet for the Lake Copais in Bœotia is one of the oldest monuments of the labor of man. The great *T.* in Samos, which was seven stadia long, was driven through a mountain 900 ft. high, for the purpose of serving as the bed of a channel to convey water from a natural source to the city of Samos. One of the most interesting works of this kind in modern times is the *T.* carried under the Thames, to connect the lower parts of London, lying on each side of the river, with one another by a convenient roadway, without involving the necessity of building a bridge, which in that spot would interfere with the navigation of the river. Its total length, between the shafts, is 1,200 feet; its total cost was $2,273,570; and it was opened to the public in 1843. Tunnels of much greater length and difficulty have, however, since been constructed. More than one of these has been constructed under the Thames. Of these the Blackwall *T.*, opened to use May 22, 1897, is 6,200 feet long and 27 feet in internal diameter, being the largest subaqueous *T.* yet constructed. About half of it is lined with great iron plates, and it has a width sufficient for two carriage-ways and two foot-ways. The *T.* under the Severn is 4½ miles long, and that under

Fig. 2536.—TUNNEL IN SWITZERLAND.
(On the road from Brunnen to Flüelen.)

the Mersey, between Liverpool and Birkenhead, about 1 mile long. An effort to tunnel the Hudson at New York resulted in failure, but the East river is being successfully tunnelled. Of rock cuttings, the first great enterprise of modern times was the excavation of the Mt. Cenis *T.*, 7½ miles long, through the heart of an Alpine mountain. This was pierced by gunpowder blasting, the blast holes being excavated by compressed air, for which external water-power was employed. This work occupied from 1859 to 1870, and that of the Hoosac *T.*, in Massachusetts, 4¾ miles long, from 1856 to 1873, the delay largely due to lack of funds. These achievements have been much surpassed in more recent times, through the aid of more powerful explosives and more rapid processes of rock boring. The St. Gothard *T.* is 2 miles longer than the Mt. Cenis, yet it was completed in a much shorter time. The Arlberg *T.*, 6·38 miles in length, begun in 1880, was opened to travel in 1883. In 1893 was begun a still greater enterprise, the Simplon *T.*, the full length of which is to be 12¼ miles. These Alpine tunnels have been in a measure matched by several railroad tunnels in the United States, while that constructed for the Croton aqueduct is 33 miles in length, much of it driven through rock. All mining drifts are nearly tunnels, and some of these are of great length, the Sutro *T.*, in Nevada, being 4½ miles long. Still another class of tunnels are those driven by Chicago under Lake Michigan to a distance of 4 miles from shore, to obtain a pure water supply. The greatest *T.* yet projected is that under the British channel from England to France. The project, however, seems to present no serious physical difficulties, though it has, up to this time, met with insurmountable political ones.

Tun'nel City, in *Wis.*, a P.-V. of Monroe co.

Tun'nel-net, *n.* A net having a wide mouth at one extremity, and a narrow one at the other.

Tun'nel-pit, Tun'nel-shaft, *n.* A shaft sunk from the surface to the level of a tunnel, for ventilation

Tun'nelton, in *W. Virginia*, a P.-V. of Preston co.

Tun'ny, *n.* [Fr. *thon.*] (*Zoöl.*) An acanthopterygious fish, family *Scombridæ*. The *T.* of Europe has been known and celebrated from a very remote time, and at present forms a valuable source of profit to the inhabitants of the northern coasts of the Mediterranean. Though bearing a general resemblance to the Mackerel in form, it is a far larger and stouter fish, acquiring sometimes the size of 9 feet, and the weight of 500 pounds. The flesh is considered very delicious, though very solid food, as firm as sturgeon, but of a finer flavor. The American *T.*, or Horse-mackerel (*T. secundodorsalis*), found from New York to Nova Scotia, is from 9 to 12 feet long, and attains a weight of 1,000 pounds. It is not liked by fishermen on account of its injuring their nets; and its flesh, though possessing a fine mackerel taste, is rarely used, except for mackerel bait.

Tun'stall, a town of England, in Staffordshire, 4 m. from Newcastle-under-Lyne. *Manuf.* Tiles and pottery. *Pop.* 10,300.

Tunung'want, or TUNA, in *New York*, a village of Cattaraugus co., 55 m. S.E. of Dunkirk.

Tunuyan', a river of the Argentine Republic, dept. of Mendoza, flows into the Guanacache Lagoon, after a N.E. course of 200 m.; Lat. 34° S., Lon. 66° 30′ W.

Tuolum'ne, a river of *California*, rises in Tuolumne co., and flowing S.W., enters San Joaquin River abt. 40 m. S.E. of Stockton.— A N. central co.; *area*, 2,000 sq. m. *Rivers.* Stanislaus, and Tuolumne, and the middle fork of Stanislaus River. *Surface*, mountainous in the E., and level and fertile in the W. *Min.* Gold. *Cap.* Sonora. *Pop.* (1897) about 6,500.

—A village of Stanislaus co., on the Tuolumne river, 7 m. from its mouth in the San Joaquin.

Tup, *n.* In England, a ram; a male sheep.

Tup, *v. n.* and *a.* [Ger. *tuppen.*] To butt with the head, as a ram. — To cover or copulate, as a ram.

Tu'pelo, *n.* (*Bot.*) The common name of *Nyssa*, a genus of trees, order *Alangiaceæ*, natives of N. America, chiefly of the southern parts of the U. States; having simple, alternate leaves, mostly entire; greenish, inconspicuous flowers at the extremity of long stalks; the fruit a drupe. *N. villosa* (Fig. 2537) attains a height of 60 to 70 feet. It is often called Black Gum-tree. *N. tomentosa*, the Large *T.*, is a lofty and beautiful tree, remarkable for the extraordinary enlargement of the base of the trunk, which is sometimes 8 or 9 feet in diameter, while at no great height the diameter diminishes to 15 or 20 inches. The fruit resembles a small olive, and is preserved in the same way by the French settlers in America. *N. candicans* or *capitala*, the Ogechee Lime or Sour Gum-tree, is a small tree, of which the fruit is very acid, and is used like that of the lime. The wood of all the species is soft, that of the Large *T.* remarkably so.

Fig. 2537.—TUPELO,
(*Nyssa villosa.*)

Tupi'sa, or **Tupi'za,** a town of Bolivia, 140 m. S. of Chuquisaca; *pop.* abt. 6,000.

Tupunga'to Mountain, one of the Chilian Andes, 45 m. E. of Santiago, 15,000 ft. high; Lat. 33° 10′ S.

Turanian Family of Languages, (*tu-rai'ne-an.*) (*Philology.*) One of the three great families of languages into which modern philology has divided all the spoken and dead dialects of the world. The term Turanian is used in opposition to *Aryan*, and refers to the nomadic races of Asia as opposed to the agricultural or Aryan races. The Turanian group of languages consists of two great divisions, the *northern* and the *southern*. The northern comprises five sections of dialects,— the Tungusic, Mongolic, Turkic, Finnic, and Samoiedic. The southern, which occupies the south of Asia, comprises the Tamulic, or the languages of the Deccan: the Bhotija, or the dialects of Thibet and Bhootan; the Taic, or the dialects of Siam; and the Malaic, or the Malay and Polynesian dialects.

Tur'ban, *n.* [Fr.; Pers. *dulband*; Turk. *tulban*; Hind., probably from *surband—sur*, the head, and *band*, a bandage.] A head-dress worn by the Orientals, consisting of a cap, with a sash of fine linen or tatleta artfully wound round it in plaits.

—A kind of head-dress worn by ladies.

(*Conch.*) The complete set of whorls belonging to a shell.

Tur'bett, in *Pennsylvania*, a township of Juniata co., 7 m. S.W. of Mifflintown.

Tur'bid, *a.* [Lat. *turbidus*, from *turba*, uproar, confusion.] Muddy; foul with extraneous matter: having the lees or sediment disturbed; thick; not clear; as a *turbid* liquid.

—Being in a state of confusion; disturbed; as, fierce and *turbid* spirits.

Tur'bidness, Turpid'ity, *n.* State or quality of being turbid; muddiness; foulness.

Turbinaceous, (*-ā'shus.*) *a.* Pertaining to turf; having the characteristic qualities of turf.

Tur'binal, *n.* [From Lat. *turben*, a top.] The nasal capsule in the head of a fish.

Tur'binate, *v. n.* To whirl or spin round like a top.

Tur'binate, Tur'binated, *a.* [Fr. *turbiné*, from Lat. *turben*, a top.] Gyrating or spinning round after the manner of a top; as, *turbinate* motion.

(*Bot.*) Top-shaped; as, a *turbinated* nectary.

Turbination, (*-ā'shun,*) *n.* [Lat. *turbinatio.*] Act of revolving, spinning, or whirling, as a top.

Tur'bine. See WATER-WHEEL and STEAM ENGINE.

Tur'bot, in *Pennsylvania*, a township of Northumberland co., 13 m. N. of Sunbury.

Tur'bulence, Tur'bulency, *n.* [Fr. *turbulence.*] State of being turbulent; agitation; disorder; tumult; confusion; disposition to resist authority; riotousness; insubordination.

Tur'bulent, *a.* [Fr.; from Lat. *turbo*, to disturb.] Being in violent commotion; tumultuous; agitated; disturbed; as, *turbulent* winds. — Restless; unquiet; inclined to tumult, insubordination, and disorder; refractory; violent; as, a *turbulent* mob. — Producing commotion or agitation.

Tur'bulently, *adv.* In a turbulent manner.

Turbut, or **Tarbut,** (*toor-but'*,) a city of Khorassan, in Persia, 50 m. from Meshed; *pop.* 18,000.

Tur'cism, (*-kizm,*) *n.* Same as TURKISM, *q. v.*

Tur'co, Tur'ko, *n.* (*Mil.*) In the French service, a soldier native of Algeria, and dressed like an Arab.

Tur'coman, *n.*; *pl.* TURCOMANS. (*Geog.*) A native or inhabitant of Turkistan, in Central Asia.

Tur'dus, *n.*, **Tur'didæ,** *n. pl.* (*Zoöl.*) See THRUSH.

Tureen', *n.* [Fr. *terrine.*] A large, deep table-vessel for holding soup; a terreen.

Turenne, HENRI DE LA TOUR D'AUVERGNE, VICOMTE DE, (*toor-rain',*) a French general, b. at Sédan, 1611, studied the art of war under his maternal uncles, Prince Maurice of Nassau, and Prince Frederick Henry. In 1634 he received the command of a French regiment, and gained brilliant distinction in the campaign in Flanders. In 1639 he commanded with success in Italy, and in 1643 conquered Roussillon. In the next year he was made marshal of France, and commander of the French armies in Germany. He gained the great battle of Nordlingen in 1645; and by his able manœuvres, and decision and skill in action, he was the chief cause of the advantages gained over the Imperialists in the latter part of the Thirty Years' war. When the civil war of the Fronde broke out in France, *T.* was first engaged against the court, but afterwards became the chief commander of the royal armies. In 1654 and 1655 he commanded against the Spaniards and the Low Countries, gained the battle of the Dunes, and conquered the greater part of Flanders. The peace of the Pyrenees in 1660 closed this war; but when hostilities were renewed in 1667, *T.* ran through another rapid career of victories in Flanders, and the Spaniards were obliged to beg again for peace in the next year. In 1672 he was at the head of the French troops in Holland. He took 40 towns in 22 days, and won 5 pitched battles against the Dutch and Austrians. He continued to guide the French arms with almost unvarying skill and success till July 27th, 1675, when he was killed by a chance cannon-shot while reconnoitring the ground for an intended battle against the celebrated Imperialist commander, Montecuculi.

Turf, *n.*; *pl.* TURFS. [A. S. and D.; Ger. and Icel. *torf*; Fr. *tourbe.*] The surface or upper surface of grass lands, of a smooth and uniform texture, covered with pasture-grass. — Peat; a peculiar kind of blackish, fibrous, vegetable, earthy substance, used as fuel.

(*Sports.*) The distinctive appellation applied, in modern phraseology, to the sport of horse-racing; also, the sward or ground on which such racing is practised; as, to win the "Derby" is the crowning honor of the *turf*.

(NOTE. *Turf* occasionally aids in the formation of such self-explaining compounds as *turf*-clad, *turf*-pit, &c.)

—*v. a.* (*imp.* and *pp.* TURFED, (*turft.*) To cover with turf or sod; as, to *turf* the slope of a terrace.

Turf'en, Turf'y, *a.* Made of, or covered with turf.

Turf'iness, *n.* State of abounding with turf.

Turf'ing, *n.* Operation of laying down turf, or covering with turf.

Turf'ing-spade, Turf-spade, *n.* An implement for under-cutting turf.

Turf'ite, *n.* A votary of the turf; an habitual frequenter of horse-races, trotting-matches, &c.;—hence, a professional bettor; a blackleg.

Turf-moss, *n.* A tract of heathery, boggy land.

Turgeneff. See TOURGUENEF.

Tur'gent, (*-jent,*) *a.* [Lat. *turgus*, from *turgeo*, to swell.]

Swelling, tumid; protuberant; rising into a tumor or puffy state; as, *turgent* humors. — Bombastic; tumid; puffy; inflated; turgid; as, *turgent* language.

Turges'cence, Turges'cency, *n.* [Fr. *turgescence.*] State of becoming turgid or swollen; act of swelling.— Empty magnificence; ridiculous pomposity; bombast; inflation; puffiness.

(*Med.*) Superabundance of humors in any part.

Turges'cent, *a.* Growing large; a swelling.

Tur'gid, (*-jid,*) *a.* [Lat. *turgidus,* from *turgeo,* to swell.] Swelled; bloated; distended beyond its primary state by some internal agency or expansive force; as, a *turgid* limb. — Tumid; pompous; inflated; bombastic; as, a *turgid* manner of talking.

Turgid'ity, *n.* State of being turgid or swollen; tumidity.

Tur'gidly, *adv.* In a turgid manner.

Tur'gidness, *n.* Quality of being turgid.

Turgot, Anne Robert Jacques, (*toor'go,*) a French statesman, b. in Paris, 1727. He was created comptroller-general of the finances in 1774, in which office he evinced great talents, by endeavoring to effect a reform in the public expenditure, and by introducing several important regulations for the revival and encouragement of trade. After the death of Quesnoy, he was at the head of the society called the Economistes. He was the author of a number of works upon politics, political economy, metaphysics, and literature. D. 1781.

Tu'ri, in Brazil, a town of Maranhão, 40 m. N.N.W. of Guimaraens; *pop.* abt. 6,000.

Tu'rin, in *New York,* a post-village and township of Lewis co.

Tu'rin, [It. *Torino,*] a city of N. Italy, formerly the cap. of the Sardinian dominions, in a beautiful plain, on the Po, 80 m. from Milan; Lat. 45° 5′ N., Lon. 7° 44′ E. It is of an oblong form, with a circumference of about 4 m. It is one of the most regular towns in Europe, the streets running in straight lines with intersecting streets at right angles, and all its squares of a perfect shape and regularity; its buildings are massive and lofty, some of its main thoroughfares being lined with arcades. Its chief buildings are the king's palace, the cathedral, the chapel del Sudario, cased with black marble and adorned with gilt bronzes, the old ducal palace of Savoy, the opera house, the university, divided into five faculties, divinity, law, medicine, surgery, and arts, with its library of 112,000 volumes and 2,000 MSS.; botanical gardens, and numerous learned and scientific societies, museums, &c. *Manuf.* Woollen cloths, cottons, silks, velvets, gloves, hats, optical and mathematical instruments, leather, tobacco, paper, carriages, arms, and steel works.

Tu'rio, *n.; pl.* Turiones. [Lat.] (*Bot.*) A shoot, sprout, or sucker from the ground.

Turionif'erous, *a.* (*Bot.*) Throwing out shoots, as the asparagus.

Turk, *n.* (*Geog.*) A native or inhabitant of Turkey; an Osmanli. — An old name for a Mohammedan or Mussulman.

Tur'key, or the Ottoman Empire, a very extensive country, partly in S.E. Europe and partly in W. Asia, comprising some of the most celebrated, best situated, and naturally finest provinces of the continents to which they belong. The limits of the Turkish Empire are not easily defined; inasmuch as it is usually represented as including several extensive countries which are substantially independent. Previous to the Russian war of 1877–78, the total area of the Empire was officially estimated at 1,742,874 square miles, with a population of 28,165,000 inhabitants. The result of the war, sanctioned by the great European powers, and embodied in the stipulations of the Treaty of Berlin, which was signed July 13, 1878, greatly reduced the area and population of the Empire, particularly that of its most important part, in Europe. By the treaty which created the semi-independent States of Bulgaria and of Eastern Roumella, gave Bosnia and Herzegovina to Austria-Hungary, additions of territory to Greece, Roumania, Servia, and Montenegro, and large territories in Asia to Russia (see below), the total estimated area was reduced to 1,116,848 square miles, and the population to 21 million; but all statistics relating to Turkey are necessarily imperfect in the absence of regular official returns. Turkey in Europe borders on Montenegro, Austria (Bosnia), Servia, Roumania, the Black Sea, the Bosphorus, the Sea of Marmora, the strait of the Dardanelles, the Archipelago, the Ionian Sea, and the Adriatic. Its political divisions (mostly villages) are Edirneh or Adrianople (Roumelia or Thrace), the principality of Turna or the Danube (Bulgaria), Salonica (Macedonia), Janina (the part left of Thessaly and Albania), Prisvend (Albania), Scutari (formerly part of Prisvend), Candia or Crete, and the metropolitan district situated at the point where the Black Sea flows into the Marmora; here is the centre of power of the Turkish empire, and its capital, Constantinople.—Asiatic Turkey comprises Asia Minor, and vast adjacent territories. The western frontier is formed by the Mediterranean; to the S. the Turkish dominion stretches as far as the Isthmus of Suez, exteuding thence without interruption into Africa, occupying (nominally) the whole of Egypt, and along the Arabian Gulf to the Strait of Babel-Mandeb, occupying the narrow coast-belt bounded S.E. and E. by Arabia and Persia, N. by Russia (Caucasus) and the Black Sea. For a distance of 100 miles the Mediterranean washes the shores of Syria, flat and harborless above the promontory of Carmel, then steeper and richer in harbors, flourishing by commerce in the time of the Phœnicians: but now, for the larger part, desolate, the harbors having become filled up by the North African coast-current. Beyroot, which may be considered as the port of Damascus, is here the most important harbor. From the Bay of Iskanderoon, the coast turns suddenly to the W., and for a distance of 150 m. it is rocky, but rich in small harbors. The W. coast of Asia Minor, about 10 miles long in a straight line, is much cut up, and fringed with numerous islands. Formerly Greek colonies flourished here, with numerous harbors and cities, but now only Smyrna is of any importance. The Hellespont and the Dardanelles lead to the Sea of Marmora, the Thracian Bosphorus to the Black Sea, whose southern coast, about 180 miles long, is rather poorly articulated, but rich in small harbors, of which Sinoob and Trebizond are the most important. The mountains of Koordistan consist of an imposing system, with difficult passes, and form the western border of the plateau of Iran. The highlands of Armenia and Asia Minor are bounded S. by a range which branches off from the mountains of Koordistan, and terminates W. at the Bay of Iskanderoon, separating Armenia from Mesopotamia. To the N. the border range of the plateau continues to the vicinity of Tiflis, and runs along the coast of the Black Sea to Scutari. In the interior of Asia Minor the ranges of Taurus and Anti-Taurus reach a height of 11,000 feet, and form the boundary towards Syria. The Cilician passes afford the only communication between the two countries. Armenia is covered with high mountains, of which Ararat, 16,250 feet high, is the most remarkable. Asia Minor is to some extent steppe land, in many places exceedingly fertile. To the S. of Asia Minor and Armenia, the Lebanon system, consisting of various ranges, runs from N. to S., losing itself to the E. in the Syrian desert, which forms the peninsula of Arabia. Turkey owns only the narrow coast belt, called Hedshas, which, however, is more fertile than the rest of Arabia, as the border ranges which it contains attract some moisture. The lowland of Mesopotamia is a desert W. of Euphrates, and between the Euphrates and Tigris, a steppe-land broken up by some ranges of hills; but from the point where the two streams unite, to their mouth in the Persian Gulf, a distance of about 100 miles, stretches a flat alluvial plain, which in antiquity was the richest cornland of Asia. These two rivers are the largest in Asiatic Turkey. The Euphrates rises in the plateau of

Fig. 2538.— CASCADE IN THE GORGES OF MOUNT TAURUS.

Armenia, breaks through the southern border range near the sources of the Tigris at Diarbekr and reaches the Persian Gulf after a course of 350 geographical miles. The Tigris is 220 geographical miles long from its source to its union with the Euphrates. The region where the two streams approach each other was very rich and densely peopled in antiquity. Here stood Babylon and over and over again new cities arose on the ruins of the old; now, Bagdad stands near. The plateau of Syria is split by a deep furrow between the Lebanon and Anti-Lebanon ranges, in which the Orontes flows. The Leontes, Jordan, and Kishon water Syria and Palestine, the Kisil-Irmak (Halys) Mæander, and Hermus, water Asia Minor. Politically, Asiatic Turkey is divided into—Armenia, with the city of Erzeroom, which carries on the transit traffic with Persia, the border fortress of Kars, and the city of Van; Koordistan, with the cities of Diarbekr, Nisibin, Masdin, Mosul (in whose vicinity are the ruins of Nineveh), Bagdad an important commercial place, and Hille (on the ruins of Babylon); Irak Arabi, comprising Southern Mesopotamia, with the city of Basra, the starting-point of the caravans to Mecca; El Dschesireh, comprising the northern part of Mesopotamia, with the cities of Rakka and Orfa; Asia Minor or Anatolia, with the cities of Brusa, at the foot of the Olympus (up to 1458 the capital of the Osmanli empire), Scutari (a suburb of Constantinople), Kjutahia, Smyrna, Sinoob, Angora, Kaisarijeh, Adana, and Tarsus; Syria and Palestine with the cities of Haleb, Tskanderoon, Antakijah, Damascus, Tadmor, Baalbec, Tripoli, Beyroot, Saide, Zor, Jaffa, Jerusalem,—these two latter named cities are now being connected by railroad—and Gaza, the starting-point of the caravans to Egypt; and finally, the Arabian possessions with Mecca and Medina. The above provinces were divided into 14 villages previous to the war of 1877-1878; but two of these had to be ceded to Russia, by Art. 58 of the Treaty of Berlin, it was stipulated that there should be annexed to Russia the former Turkish possessions in Asia comprising "The territories of Ardahan, Kars, and Batoum, with the port of Batoum as well as all the territories comprised between the former Russo-Turkish frontier and a line beginning at the Black Sea, and extending to a point to the northwest of Khorda and to the south of Artvin." The provinces thus ceded to Russia are estimated to embrace an area of 5,670 sq. m., with a population of 600,644, including 417,602 Mahomctans. By a treaty, signed June 4, 1878, between the British Government and that of the Ottoman Empire, entitled "Convention of defensive alliance between Great Britain and Turkey," it was settled that Asiatic Turkey should be placed under British protection, to be defended, if necessary, "by force of arms" against any invader, and that, "in return, the Sultan promised to England to introduce necessary reforms, to be agreed upon later between the two powers, into the government; and for the protection of the Christians and other subjects of the Porte in these territories; and in order to enable England to make necessary provision for executing her engagements, his Imperial Majesty the Sultan further consented to assign the Island of Cyprus to be occupied and administered by England.—The European population of Turkey is composed of many different elements. In antiquity the Greek race lived in the peninsula, and worked out a rich civilization; the traveller discovers with astonishment numerous ruins of cities, with their temples and aqueducts and other traces of a former civilization, in places where there is now only scanty pasture for goats. The Greek language still lives outside of Greece in Thessaly, in the Chalcidian peninsula and in south-eastern Thracia. In the north-western part of the country lived the Illyrians, belonging to the Indo-Germanic race; they were subdued spiritually by the Grecks, materially by the Romans. It was during the Middle Ages that the Slaves first penetrated into their territory, the present Dalmatia and Bosnia; and, under the name of Albanians or Arnaouts, the Slaves still inhabit the mountain regions S. of Montenegro as far as the Gulf of Corinth. Thracians, Getes, and Dacians lived E. of Macedonia, in the present Bulgaria, Wallachia, Moldavia, and Transylvania. Their empire was crushed by the Emperor Trajan; but, singularly enough, these nations have preserved up to this very day the Roman mark which, at that time, was stamped upon them by violence. In the present Roumania, they call themselves *Rumuni;* that is, Romans. Of the Goths and Longobards, who invaded the country in the early Middle Ages, no trace can be found. Then came the Slaves, and afterwards a Finnish people, the Bulgarians, whose empire lasted to the time of the Turks. They number now about 4,500,000, are Greek Catholics, and are settled S. of the Danube, in Bulgaria, Macedonia, and Thracia. The Franks conquered Constantinople in 1203; and in the same century the Venetians took possession of Crete and the opposite coast regions. Next followed the invasion of the Osmanlis from Gallipoli. They live scattered, and their number in the peninsula is not over 1,000,000. Although they are the ruling race, their number must be kept up by immigration from Asia. There are, moreover, about 400,000 Armenians, as many Gypsies, 75,000 Jews, 400,000 Tcherkassians, and a minor number of other tribes in European Turkey. In Asiatic Turkey the largest part of the population belongs to the Caucasian race. Of the Indo-Germanic family of this race, Persians live in the provinces of Bactria and Sogdiana, Koords in the mountains of Koordistan, and Armenians around the sources of the Euphrates and the Koor. The Armenians formerly possessed a large empire, but it has been divided between Persia, Russia, and Turkey; and the greater part of the nation now wanders around the world as peddlers; they are Christians. Of the Shemitic family, the Aramaic branch occupies the plateau of Armenia, Syria, and Mesopotamia. In these regions the Syrians and Chaldeans formerly possessed powerful empires. The Hebrew branch occupied the coast-land of Syria and Palestine. The Turkish people belong to the Tartaro-Finnic family of the Mongolian race. Issuing from the Altai Mountains, their original home, they have spread widely, and they now form the ruling race in the Asiatic part of the Turkish empire. They are most densely settled in Asia Minor, where they distinguish themselves as agriculturists.—The cultivation of the country is very far from corresponding to the exceedingly rich resources, partly on account of the bad administration, partly on account of the indolence of the population. The soil is almost everywhere very fertile, and could produce all kinds of fruit in abundance. About 40 per cent. is in fields and in vineyards, 14 in forest, 11 in pasture, 60 in meadows, and 29 is unproductive. Agriculture is carried on in a most primitive manner. Maize, wheat, and buckwheat are the principal cereals; but, with the exception of the Danubian countries, there is nowhere produced a surplus above the home demand. Almond, lemon, orange, and olive trees are also extensively cul-

ivated. Cattle-breeding is a very important branch of the national industry. The horses are not equal to the Arabian, but they are strong and useful. The breeds of mules and asses are good. The buffalo plays a considerable part in agriculture. As large districts still lie waste, wild animals, such as bears, wolves, &c., and game, such as the wild boar, the stag, the deer, &c., abound, and hunting is a remunerative occupation. Mining is much neglected; some gold, silver, iron, lead, copper, sulphur, and quicksilver are produced in Macedonia. The circumstances that all trades are still carried on in the old traditionel fashion, and no use is made of the inventions and progress of foreign nations, is very characteristic of the state of manufacturing industry. Nevertheless, all the principal manufactures such as carpets, leather goods, arms, &c., are distinguished both for their excellence of workmanship and their fine taste in form and color. But these good qualities are now rapidly vanishing. Formerly, many costly textile fabrics, arms, &c., were exported from Turkey; but the country has now become inundated by the importation of cheap machine-made goods, and this change has almost crushed its manufacturing industry. Woollen and cotton goods are extensively manufactured. The traffic in the interior suffers much from bad administration, and from the want of sufficient means of communication. Good roads are very scarce, and the common roads are suited only for beasts of burden, or for vehicles of the most primitive construction. In 1880, there were, in the whole empire, only 958 miles of railroad open for traffic. The foreign commerce, both by land and by sea, is exclusively carried on by foreigners, Armenians, and Greeks, as the Osmauli is too proud and too lazy to do it himself.—*Govt.* The fundamental laws of the empire are based on the precepts of the Koran. The will of the Sultan is absolute, in so far as it is not in opposition to the accepted truths of the Mohammedan religion, as laid down in the sacred book of the Prophet. Next to the Koran, the laws of the "Multeka," a code formed of the supposed sayings and opinions of Mohammed, and the sentences and decisions of his immediate successors, are binding upon the sovereign as well as his subjects. Another code of laws, the "Canoun-nameh," formed by Sultan Solyman "the Magnificent," from a collection of "hatti-sheriffs," or decrees, issued by him and his predecessors, is held in general respect, but merely as an emanation of human authority. The Koran and the "Multeka" alone, both believed to be of divine origin, embody the fundamental laws of the state, and prescribe the action of the theocratic govt. A charter of liberties, not yet fully executed, was granted by Sultan Abdul Medjid to his subjects in the "Hatti-Humáyonn" of February 18, 1856. The principal provisions of this imperial order are as follows:—"Full liberty of worship is guaranteed to every religious profession. No one can be forced to change his religion. No legal documents shall acknowledge any inferiority of one class of Turkish subjects to another, in consequence of difference in religion, race, or language. All foreigners may possess landed property, while obeying the laws." The legislative and executive authority are exercised, under the supreme direction of the Sultan, by two high dignitaries, the *Grand-Vizier*, the head of the temporal govt., and the *Sheik-ul-Islam*, the head of the Church. The Grand-Vizier is President of the *Divan*, or Ministerial Council, divided into nine departments.—*Turkish Usages.* The national dress of the Turks is loose and flowing; that of the women, with the exception of the turban, differing but little from that of the men (Fig. 2539). The shape and color of the turban serves to distinguish the different orders of the people, and the functions of the public officers. Latterly, however, it has become fashionable to imitate the dress and manners of other European nations; though the former is inconvenient in consequence of the numerous ablutions, the performance of which is enjoined by the Koran. All women of the upper classes, when they appear in the streets, have their faces carefully veiled. And such is the privacy of the harem, or women's apartments, that, unless on very rare occasions, all males are excluded from them except the master of the family. Polygamy is permitted by the law of the Prophet, but

Fig. 2539.—GIRL OF BAGDAD.

is a privilege not often resorted to. If a man marry a woman of equal rank, the marriage of any other wife is frequently guarded against by the marriage contract. In cases of polygamy, the wives are usually either slaves, or women of an inferior rank to the husband. The seclusion, or rather, slavery of the women, powerfully contributes to the maintenance of the worst prejudices of the Ottomans. But the practice is deeply rooted in Oriental habits, and will not be easily changed. There is a regular slave-market at Constantinople; but slaves in the East, and especially in *T.*, are far from being in the depressed condition we might suppose. The laws of *T.* protect the slave from ill-usage; and, in this respect, the customs of the country are in complete harmony with the laws. "The most docile slave," says Marshal Marmont, "rejects with indignation any order that is not personally given him by his master; and he feels himself placed immeasurably above the level of a free or hired servant. He is as a child of the house; and it is not unusual to see a Turk entertain so strong a predilection for a slave he has purchased, as to prefer him to his own son. He often overloads him with favors, gives him his confidence, and raises his position; and, when the master is powerful, he opens to his slave the path of honor and of public employment." The Turks are excellent horsemen, and throw the *djerrid* or lance with the greatest dexterity and force; but, excepting this exercise and that of wrestling, they indulge in no active exertion. Their delight is to recline on soft verdure under the shade of trees, and to muse without fixing their attention, lulled by the trickling of a fountain or the murmuring of a rivulet, and inhaling through their pipe a gently enebriating vapor. Such pleasures, the highest which the rich can enjoy, are equally within the reach of the artisan or the peasant. They never dance themselves, but enjoy public dances, the performers in which, however, are reckoned infamous. Turkish usages are, in truth, in almost all respects, the opposite of those of the W. European nations. The close and short dresses of the latter, calculated for promptitude of action, appear in their eyes to be wanting both in dignity and modesty. They reverence the beard as the symbol of manhood and the token of independence, but they practise the depilation of the body from motives of cleanliness. In performing their devotions, or on entering a dwelling, they take off their shoes. In inviting a person to approach them, they use what with us is considered a repulsive motion of the hand. In writing they trace the lines from right to left. The master of a house does the honors of the table by serving himself first from the dish; he drinks without noticing the company; and they wish him health when he has finished his draught. They lie down to sleep in their clothes. They affect a grave and sedate exterior; their amusements are all of the tranquil kind; they confound with folly the noisy expression of gaiety; their utterance is slow and deliberate; they even feel satisfaction in silence; they attach the idea of majesty to slowness of motion; they pass in repose all the moments of life which are not occupied with serious business; they retire early to rest, and they rise before the sun.—*Hist.* The earliest notice of the Turks or Turcomans, in history, is abt. the year 800, when, issuing from various parts of Turkestan, they obtained possession of a part of Armenia, called from them Turcomania. They afterwards extended their conquests over the adjacent parts of Asia, Africa, and Europe, occupying Syria, Egypt, and eventually the territory that remained to the Greek empire. In 1453 Constantinople was taken by Mohammed II., and became the capital of the empire. The Morea and the Islands were afterwards overrun, with parts of Hungary, the Crimea, and the shores of the Black Sea. They next took the whole of the country now forming Turkey in Asia, the Hejaz in Egypt, and the regencies of Tripoli, Tunis, and Algiers. From the accession of Mohammed IV. in 1648, the Turkish empire began rapidly to decline, the vice and profligacy of the harem and seraglio being reflected in every branch of the state. The shelter given to Charles XII. of Sweden, in 1711, led to the first war with Russia, which must have ended in the ruin of that empire but for the cupidity of the grand-vizier, who accepted a bribe to allow Peter the Great and his army to escape. From that time till 1774 the war with Russia was frequently renewed, and, by the peace of the latter year, a large extent of territory and the Black Sea were ceded by the Porte to Russia. In the campaign of 1787 the Turks were still more unfortunate, and, though in 1789, under Selim III., they retook Belgrade, they were elsewhere defeated. In 1807 the Emperor Alexander declared war against the Porte, and in the campaign advanced his frontier to the Pruth by the conquest of Bessarabia; the next severe loss of the Turks sustained was from the revolt of the Greeks and the subsequent independence of their country. In 1854 war was once more declared against Turkey by Russia, when England, France, and Sardinia joined the Porte to enable the Sultan to resist the threatened invasion of his dominions; the burning of the Turkish fleet off Sinope, the campaign on the Danube, the battles of Alma, Inkerman, Balaclava, and the bombardment and capture of Sebastopol, were some of the results of the two years' war with Russia; Turkey, for the first time in nearly a century, sheathing the sword without the loss of a foot of territory. Subsequently, *T.* engaged in a war with the Montenegrins, who sought to cast off her yoke; and, later, was concerned in suppressing revolutionary tendencies in the Danubian principalities. In 1875, an insurrection broke out in Herzegovina, and in October, Turkey declared her partial insolvency. Other grave complications threatening the dismemberment of the empire, the 6 great European powers proposed a scheme of reforms in Feb. 1876, which was mainly accepted by the Sultan, but was of no effect in consequence of the opposition of the Turkish fanatics to Christian equal rights. On May 30, Sultan Abdul-Aziz was deposed, and was succeeded by his nephew, Murad V., who, on June 4, announced his predecessor's alleged suicide. Three months later, Murad V. was deposed on proof of insanity, and was succeeded by his brother, Abdul-Hamid II. On Jan. 18, 1877, a resolution was passed by the Grand Council of Turkey, presided over by Midhat Pasha, rejecting absolutely all the proposals of the European Powers for administrative powers, which gave pretext to Russia to declare war against Turkey, April 21. During the sanguinary conflict which ensued, the Turkish troops fought with heroic valor, but they were eventually obliged to yield to superior numbers, and after the fall of Plevna, the Porte sued for peace, and an armistice was accordingly signed in Feb. 1878. A treaty of peace was soon afterwards signed at San Stephano (March 3), but its provisions were considerably modified by the representatives of the great powers assembled in Congress in Berlin. *Pop.* (1897), in Europe, 4,000,000; in Asia, 16,000,000; and in Africa, 1,500,000; total, 21,500,000. For Turko-Greek War, of 1897, see GREECE.

SULTANS OF TURKEY, (*House of Othman.*)

Othman, or Osmen 1.	1299	Osman I	1618
Orchan	1326	Amurath IV., "The Intrepid,"	1623
Amurath I.	1360	Ibrahim	1640
Bajazet I., "The Thunderbolt,"	1389	Mohammed IV	1649
Solyman I	1402	Solyman III.	1687
Mohammed I.	1413	Achmet II	1691
Amurath II	1421	Mustapha II.	1695
Mohammed II. (Conqueror of Constantinople)	1451	Achmet III.	1703
Bajazet II.	1481	Mahmoud I	1730
Selim I	1512	Osman II	1754
Solyman II., "The Magnificent,"	1520	Mustapha III.	1757
Selim II.	1566	Abdul Hamid	1774
Amurath III.	1574	Selim III	1788
Mohammed III.	1595	Mustapha IV.	1807
Achmet I.	1603	Mahmoud II	1808
Mustapha I.	1617	Abdul-Medjid	1839
		Abdul-Aziz	1861
		Murad V.	1876
		Abdul Hamid II.	1876

Tur'key, in *S. Carolina*, a twp. of Williamsburg dist.

Tur'key, *n.* (*Zoöl.*) This magnificent bird, that has so improperly received the name of a country to which it is entirely foreign, composes the genus *Meleagris*, family *Phasianidæ*. There are two species, both indigenous to N. and Central America. The Wild *T.* of the U. States (*M. gallopavo*), the largest of the gallinaceous birds, now rare on the Atlantic coast, but still found in large flocks in the regions farther west, is abt. 3½ feet in length, being somewhat larger than the domestic variety. The general color of the plumage is black, variegated with bronze and bright glossy-green, in some parts changing to purple; the quills are green-gold, black towards the end, and tipped with white; the tail consists of 18 feathers; on the breast is a tuft of black hairs, 8 inches in length: in other respects it resembles the domestic bird, especially in having a bare carunculeted head and neck, a fleshy dilatable appendage hanging over the bill, and a short blunt spur or knob at the back part of the leg. Tame *T.*, like every other animal in a state of domestication, vary considerably in color, but the prevailing one is dark-gray, inclining to black, with a little white towards the end of the feathers. The young males do not put out the tuft on the breast till they are about three years old. The females lay their eggs in the spring, generally in a retired and obscure place, as the male will often break them. They are usually from 14 to 18 in number, white mixed with reddish or yellow freckles: the female sits with so much perseverance, that if fresh eggs be introduced into the nest immediately upon the young being hatched, she will long continue the business of incubation. Young *T.*

Fig. 2540.—OCELLATED TURKEY, (*Meleagris ocellata.*)

require great care in rearing, being subject to a variety of diseases from cold, rain, and dews; but so soon as they are sufficiently strong, the hen abandons them entirely, and they are capable of enduring the utmost rigors of winter. The motions of the male, when agitated with desire, or inflamed with rage, are very similar to those of the peacock: he erects his tail, and spreads it like a fan, while his wings droop and trail on the ground, and he utters at the same time a dull, hol-

low sound; he struts round and round with a solemn pace, assumes all the dignity of the most majestic of birds, and every now and then bursts out abruptly into a most unmusical gurgle. A second species of the *T.* is found in Central America, termed the Ocellated *T.* (*Meleagris ocellata*) (Fig. 2540), which is much more brilliant in plumage than the common variety. It is nearly of the same size, but its feathers are of a beautiful metallic-green or brouze color, variegated with black, gold, and azure-blue.

Tur'key-buz'zard, *n.* (*Zoöl.*) See VULTURIDÆ.

Turkey Creek, in *Louisiana*, rises in Madison parish, and flowing S.W., unites with Bœuf Bayou in Franklin parish.

Tur'key Hill, in *Pennsylvania*, a village of Lancaster co.

Tur'key Lake, in *Indiana*, in the N.E. of Koscinsko co., is abt. 12 m. long.

Tur'key-poult, *n.* A young turkey.

Tur'key-red, *n.* A brilliant red dyo obtained from madder, used for dyeing calicoes and woollen cloths.

Tur'key River, in *Iowa*, is formed by the junction of the N. and Middle Forks, in Fayette co., and flowing S.E., falls into the Mississippi in Clinton co.

Tur'key-stone, *n.* (*Min.*) Same as NOVACULITE.

Turk'ish, *a.* (*Geog.*) Pertaining, or having reference to Turkey, or to the Turks.

Turk'ism, Tur'cism, (*-cizm.*) *n.* The manners, characteristics, and religious ideas peculiar to the Turks.

Tur'kistan, or **Tur'kestan** (the country of the Turks), a name used to signify an almost undefined tract of territory in Asia, inhabited by the Onigours, Kirgheez, Usbecks, Turcomans, Osmanlis, Nogays, and other nomad tribes who devastated Europe from the 4th to the 12th century, and received the general name of *Turks*. The western portion, commonly known as *Independent Tartary, Western Turkestan, Great Bokharia*, or simply *Turkestan*, or *Turan*, lies between Lat. 36° and 55° N., Lon. 52° and 89° E., and comprehends various states or khanates, viz.: Khokan, in the N.E.; Khiva, in the W.; Bokhara, in the E. and center; Khoondooz, or Badakshan, in the S.E.; and Kafiristan, a small outlying state, now hardly considered as belonging to Turkestan, being separated from the others by the mighty range of the Hindu-Koosh Mountains. In modern times it has long been inhabited by two classes of people: the settled population, including the Sarts and Tajiks, of ancient Persian stock; the Uzbegs (the dominant race), Hindus and Jews; and the nomadic population of Turkomans, Kirgheez, Karakalpaks, &c., largely predatory in habits. Persia having suffered severely from their plundering and slave-making incursions. Since the Russian occupation these have been forced to adopt peaceful habits and occupations. *Eastern Turkestan, Chinese Turkestan, Little Bokharia* or *Turfan*, is bounded on the N. by the Tian-Shan mountains, W. by the Pamir tableland, and S. by the Thibet and Cashmere highlands.—*Hist.* From the earliest times, Turkestan has played a prominent part in Asiatic history, coming into early relations with the Persian and Macedonian empires, while in the 8th century A. D. it was conquered by the Arabs, and became a part of their extended domains. It was later overrun by the Mongol hordes of Genghiz Khan, and subsequently became the center of the power of the all-conquering Timur or Tamerlane. Under him and his immediate successors, Samarcand, his capital, became a prominent seat of such learning and enlightenment as then existed, though it has since fallen into almost complete decay. Turkestan was afterwards held by various dynasties, and in time broke up into a number of independent khanates, as above named. The more recent history of Turkestan is one of wars between Bokhara, Khokand, and Khiva. In 1849 the Afghans invaded and conquered South Turkestan, and in 1864 Russia subdued Tashkend and Khokand; in 1866 invaded Bokhara, and in 1868 forced its emir to cede Samarcand to Russia. Khiva was invaded and conquered in 1873; and after a fierce struggle in 1875–76, Khokand was conquered and annexed. The Tekke Turcomans were subjugated in 1880–81, and Merv became a Russian province. The country is now divided into Russian Turkestan, including Khokand (now Ferghana) in the N. and N.E., Merv and the Tekke Turkoman country in the S.W., Khiva, under Russian influence, in the W., and Bokhara in the E. and center, and Afghan Turkestan in the S. Russian Turkestan is now divided into the 3 provinces of Sir Daria, Ferghana, and Samarcand, and has an area of 257,134 sq. m., and a population of 2,670,035. The capital is Tashkend, in Sir Daria. Russia also took possession of Kuldja, in Chinese Turkestan, in 1870, but has restored it, while in 1877 the Chinese defeated an insurgent emir, and regained control of the whole country. A railroad now crosses Russian Turkestan, and trade is rapidly increasing.

Fig. 2541.
A TURCOMAN ESCORT OF CARAVANS IN THE HYRCANIAN DESERT.

Tur'lupin, *n.* (*Eccl. Hist.*) A French synonym for LOLLARD (*q. v.*).

Tur'maline, *n.* Same as TOURMALINE (*q. v.*).

Tur'man, in *Indiana*, a township of Sullivan co. *Pop.* (1897) 2,010.

Tur'meric, *n.* (*Bot.*) See CURCUMA.

Tur'meric-paper, *n.* (*Chem.*) A test-paper, made by immersing unsized paper in tincture of turmeric. It is used as a test for alkalies, which changes its yellow color to reddish-brown, as do also their carbonates and phosphates, some of the alkaloids, and boracic acid.

Tur'moil, *n.* Disturbance; tumult; uproar; harassing agitation or labor.

—*v. a.* To harass with agitation or disturbance; to harass; to disquiet.

—*v. n.* To be disquieted or harassed.

Turn, *v. a.* [A. S. *tyrnan*; Fr. *tourner*; Lat. *tornare* = Gr. *torneũ*, to round off.] To turn on a lathe; to give circular or other forms to by means of a lathe or revolving cutting-tool; as, to *turn* ivory or metal, to *turn* a tobacco-stopper or a bed-post.—Hence, to shape; to form; to mould; to adapt; to put in proper condition; as, "His whole person is finely *turned*." (*Tatler.*)—To cause to move in a circular course; to change or shift, as sides; to cause to go about, either partially, wholly, or repeatedly; to cause to revolve; to cause to move upon a centre, or as if upon a centre; as, to *turn* the head round, to *turn* back.—To alter, as a position; to put the upper side downward, or one side in the place of the other; to bring out the inside of; as, to *turn* a garment, to *turn* a beefsteak on the gridiron.—To change or alter, as the posture of the body or direction of the look; to deflect; to tend or incline differently; to change direction to or from any point;—employed both in a literal and figurative sense; as, to *turn* a ship from her course, to *turn* one's eyes on a person, to *turn* the attention to or from something.—To direct by a change to a certain purpose or object; to deviate; to move from a given course or straight line; to direct, as the inclination, thoughts, or mind; to keep passing or changing in the course of trade; to transfer; to use or employ; as, to *turn* money into land, to *turn* a favorable opportunity to advantage.—To change or alter in any manner; to transform; to vary; to metamorphose; to translate; to alter or change, as color; to substitute by change, as the manner of writing; to convert; to change, as from one opinion, party, or line of conduct, to another; to change or alter from one purpose or office to another; to dissuade from a purpose, or cause to change sides;—frequently with *to* or *into* preceding the effect or result of the change; as, to *turn* prose *into* poetry, to *turn* orange *into* red, to *turn* English *into* French, to *turn* a Republican *to* a Democrat; to *turn* an ague *to* a fever; to *turn* from good to bad, &c.—To cause to ferment and become sour; to make acid; to sour; as, the milk has quickly *turned*.

To be turned of, to exceed; to be advanced beyond; as, she is *turned of* fifty.—*To turn a corner*, to pass round a corner.—*To turn the enemy's flank.* (*Mil.*) To pass round and assume a position behind it, or sideways with it.—*To turn aside*, to avert.—*To turn away.* (1.) To discard; to discharge or dismiss from service; as, to *turn away* a servant. (2.) To avert; to put aside from; as, we pray to God to *turn away* some evil from us.—*To turn back*, to return or give back; as, to *turn back* what one has received from another. (R.)—*To turn down*, to fold, press, or double down; as, to *turn down* a leaf in a book.—*To turn in*, to fold or double under; as, to *turn in* the edge of a blanket.—*To turn in the mind*, or *to turn over in the mind*, to ponder, revolve, meditate, or reflect upon.—*To turn off.* (1.) To dismiss contemptuously or ignominiously; as, to *turn off* a kept mistress. (2.) To give over; to reduce; as, we are not *turned off* to that extremity. (3.) To divert; to deflect; as, to *turn off* sad thoughts from the mind. (4.) To get through; to accomplish; to perform; as, he *turns off* a great quantity of bad poetry.—*To turn one's coat*, to change sides; to rat; to go over to the opposite party; to act the renegade.—*To turn out.* (1.) To expel; to drive out; as, he *turned* his son *out* of doors. (2.) To place at ley or pasture; as, to *turn* horses *out* to grass. (3.) To produce, as the result of labor, or any mechanical or manual process; to furnish, as a perfected thing; as, that man *turns out* a good article.—*To turn over.* (1.) To transfer; as, he *turned over* the business to his son. (2.) To cause to roll over; to cause the change of sides of. (3.) To overset; to capsize; to overturn; as, to *turn* a man head *over* heels. (4.) To open and examine leaf by leaf, as a book; as, to *turn over* a novel.—*To turn tail*, to flee ignominiously.—*To turn the back*, to retreat; to flee; to depart from; as, he *turned his back* from temptation.—*To turn the back on* or *upon*, to flout; to ignore; to treat with contempt or disdain; to reject or refuse with contumely; as, to *turn the back upon* one's poor relations.—*To turn the die*, or *dice*, to change the course of luck or fortune. "Fortune, when they least expect it, *turns the dice*."—*Dryden.*

To turn the edge of, to blunt; to make dull; to deprive of keenness; as, to *turn the edge of* a razor.—*To turn the head* or *brain of*, to infatuate; to make giddy; to make mad, wild, or enthusiastic; to overthrow the mental equilibrium of; as, he has *turned his brain* with religious crotchets.—*To turn the scale*, to cause to preponderate; to change, as the state of a balance;—generally, to insure favorableness or success; as, between rich and poor, money *turns the scale*.—*To turn the stomach of*, to nauseate; to sicken; to disgust.—*To turn the tables*, to reverse good fortune by ill.—*To turn to*, to have recourse to; to make reference to; as, to *turn to* a person for information.—*To turn upon*, to retort; to throw back.

—*v. n.* To move round; to have a circular motion; to wheel or whirl round; to revolve entirely, partially, or repeatedly; as, a man *turns* on his heel, a wheel *turns* on its axis.—Hence, to hinge; to depend on for determination or decision; to revolve upon, as the chief support; as, the question *turns* upon this point.—To be brought about eventually; to result or terminate; to issue; to come to pass; as, these inventions have not *turned* to much account.—To change the course, current, or direction; to deviate; to take a different way or tendency; to pursue a different course of life; to be deflected; to change the mind or conduct; as, he will relent, and *turn* from his displeasure; they have *turned* from their evil courses.—To be changed, altered, or transformed; to become metamorphosed or transmuted; also, to become by change; as, to *turn* traitor, water *turns* to ice, suspicion *turned* to jealousy.—To exercise the art or trade of a turner; as, he is engaged in *turning*.—To sour; to become acidulated; as, ale *turns* in hot weather.—To be nauseated or revolted; as, it quite *turns* my stomach.—To become giddy; as, his head is *turned* with his good fortune.—To change about; as, the tide *turns* from flow to ebb, and conversely.—To lean in the contrary direction;—said of scales.

(*Surg.*) In obstetrics, to bring down the feet of a child in the uterus, in order to render delivery more easy.

(*Print.*) To insert a type of similar thickness, in lieu of any sort which has run out.

To turn about, to move the face to another quarter; as, he *turns about* his business.—*To turn away.* (1.) To digress or deviate. (2.) To go from; to depart.—*To turn in.* (1.) To have an inward declination; as, his knees *turn in*. (2.) To go to bed; as, it is time *to turn in*. (3.) To enter for accommodation or entertainment; as, let us *turn in* this hotel.—*To turn off*, to deviate from a direct line or course; as, the street *turns off* at right angles.—*To turn on* or *upon*, to retaliate; to retort; to answer; as, "Pompey *turned upon* him, and bade him be quiet." (*Bacon.*)—*To turn out.* (1.) To become dislodged or dislocated, as a bone. (2.) To rise from bed; as, I *turned out* early this morning. (3.) To project; to have an outward bias; to protrude; as, his feet *turn out* in walking. (4.) To have issue, effect, or result; to terminate in; to appear in the end; as, he *turns out* to be an unmitigated scamp.—*To turn over*, to roll; to tumble; to gyrate; to turn from side to side.—*To turn to benefit, profit*, or *advantage*, to become worth the while; to promise success; as, some men have the knack of *turning* other people's slips *to* their own *advantage*.—*To turn under*, to be folded downward or under.—*To turn up*, to bend upward; as, *to turn up* one's sleeves.—To transpire; to occur; to come to pass; as, "Something will yet *turn up* for Micawber." *Dickens.*

—*n.* Act of turning; movement or motion in a circular direction; rotatory action, revolution; as, the *turn* of a wheel round its centre.—Change of direction; new arrangement, order, or disposition of things; alteration of bent or course; as, his conduct took a *turn* for the better.—Change; alteration; vicissitude; as, the slippery *turns* of fortune.—One of the successive portions of a course; meandering; direction; hence, a winding; a bend or bending; also, a walk to and fro; as, let us take a *turn* in the garden, the river takes a *turn* at that place.—Successive course; incidental opportunity; proper chance; due time; time at which, by successive vicissitudes, anything is to be had or done; appropriate occasion; as, let each take his *turn*.—Occasional act of kindness or ill-will; reigning inclination or course; as, to do a person a good *turn*.—Convenience; occasion; purpose; exigence; as, this will do to serve my *turn*.—Form; cast; shape; manner; mould; mode; fashion,—employed both literally and figuratively; hence, manner of arranging words in a sentence; style of signification; as, female virtues are of a domestic *turn*. a person of an agreeable *turn*, *turn* of thought, conversation, &c.—A step of the ladder at the gallows. (R.)—One round of a rope or cord; as, a *turn* of a hawse or cable.

(*Mus.*) A grace marked thus ∾, indicating that the note above it, one degree higher, must be struck before it shortly, then passed quickly through the note itself and turned from the note a degree below into the note itself over which the mark is placed.

—*pl.* (*Med.*) The menses.

By turns, in succession; alternately; one after another; as, "*By turns* the tuneful Muses love to sing" (*Dryden.*)—At intervals; as, "They feel *by turns* the bitter change of fierce extremes." (*Milton.*)—*In turn*, in due order of precedence or succession; as, to go on duty *in turn*.—*To a turn*, perfectly, to a nicety; as, the beef is roasted *to a turn*;—in allusion to the *turn* of the spit whereon it is cooked.—*To take turns*, to alternate; to follow by succession.—*Turn and turn about*, an alternate ratio of duty or obligation; as, to stand a treat for liquor, *turn and turn about*.—*Turn of life.* (*Med.*) The time of the final cessation of the menses in women.

Turn'again, in *Alaska*, an island at the entrance of Cook's Inlet, abt. 4 m. long and 2 wide; Lat. 61° 8′ N., Lon. 150° 30′ W.

Turn'-beuch, *n.* A simple portable lathe, used by clockmakers and watchmakers.

Turn'-cap, *n.* A cowl for a chimney, made to revolve with the wind.

Turn'coat, *n.* One who forsakes his party or principles; a renegade; a rat.

Turneff', in the Caribbean Sea, a group of islands near the coast of British Honduras; Lat. 17° 36′ N., Lon. 87° 46′ W.

Turn'er, *n.* One who turns; especially, one who performs the operation of turning things by means of a lathe; as, a wood- or ivory-*turner.*—Among the Germans, a gymnast; an athlete.

Turner, Joseph William Mallard, the most distinguished landscape painter of the English school, b. in London, 1769. Early evincing a marked predilection for art, he, in 1789, entered as a student at the Royal Academy, where he studied assiduously for three years, and produced some of his minor pictures. In 1799, he was elected A. R. A., and, in 1802, became R. A. Down to this period he was principally known as a painter in water colors. Turning his attention to oils, he during the next half century exhibited more than 200 pictures, including some reproductions of nature of marvellous skill and beauty. Among his best works (the values of which average from $6,000 to $15,000) may be mentioned the *Wreck;* the *Old Temeraire;* the *Burial of Wilkie;* the *Death of Nelson;* *Ulysses Deriding Polyphemus;* *Crossing the Brook;* *Rome;* *Venice;* *Sun Rising Through a Mist;* *Wreck of the Minotaur;* *Bay of Baiæ;* *Dido building Carthage;* *Calais Pier,* &c., &c. *T.,* who has been styled the "English Claude," combined in his works comprehension and truth to nature. Brilliancy and fervor of imagination, and breadth of observation, are indeed conspicuous; but these are only modes of that vivid, almost intuitive penetration with which he entered into the arcana of nature. As a colorist, *T.* ranks among the best painters of modern times. Unsocial and peculiar in his habits — penurious indeed,—*T.,* in all that related to art, exhibited the most extended munificence. He bequeathed the greater bulk of his large fortune to found almshousee for the benefit of reduced artists, and left his unsold picturee — many of them among his choicest examples — to the British nation. These works, about 100 in number, form the contents of the "Turner Room," in the National Gallery, London. D. 1851.

Turn'er, in *Maine,* a post-vlll. and twp. of Androscoggin co., 27 m. W.S.W. of Angusta.

Turnera'ceæ, *n. pl.* (*Bot.*) A small order of plants, alliance *Violales.* Diag. Polypetalous flowers, perigynous contorted petals, forked styles, and exstipulate leaves.—They are herbaceous plants, exclusively natives of S. America and West Indies. They have little economic interest.

Turn'er's, in *New York,* a post-village of Orange co., 57 m. N. of New York city.

Turn'ery, *n.* Art of a turner; art or practice of forming into a cylindrical or other shape by the lathe.—Things or wares formed by turning on the lathe.

Turnhout, (*toorn'hout,*) a town of Belgium, prov. of Antwerp. *Manuf.* Carpets, lace, paper, &c.

Turn'ing, *n.* The process by which a circular form is given to wood and other materials by means of a lathe and cutting tools, as in wood or metal *T.;* or by the thrower's wheel, which is a species of lathe, with shaping instruments, and in the manufacture of earthenware. The lathe by which ordinary wood *T.* is effected, called *turning-lathe,* is a machine for moving the material to be wrought in such a manner that, being fixed opposite to the tool, any point in the circumference will act upon the whole circle in exactly the same manner.

Turn'ing-point, *n.* The point on which anything turns; that which decides a matter.

Tur'nip, *n.* [Dan.; A. S. *nœpe* = Lat. *napus,* a kind of turnip. The *tur* is unaccounted for.] (*Bot.*) A biennial plant of the genus *Brassica,* (*B. rapa.*) It has lyrate hispid leaves, and the upper part of the root, especially in cultivation, becomes swollen and fleshy. It is a native of Europe and the temperate parts of Asia, growing in borders of fields and waste places. It has been long cultivated, and is to be found in every garden of the temperate and cold parts of the world as a culinary esculent; in many countries it is also extensively grown in fields for feeding cattle and sheep. The cultivated varieties are very numerous. In them, the upper part of the root assumes a globose, oblong, or roundish depressed form. Some are common to the garden and the farm, and some of the largest kinds attain a size as to weigh 20 or 25 lbs. Although the *T.* is of great value for feeding cattle, it is not very nutritious, no less than 90–96 parts of its weight actually consisting of water. The *Swedish T.,* or *Ruta Baga,* extensively cultivated in Europe for feeding cattle, is regarded by some botaniste as a variety of the same species, and by some as a variety of *Brassica napus,* but more generally as a variety of *B. campestris,* a species common in corn-fields and sides of ditches in the north of Europe. The young leaves of the *T.* are good as greens, and particularly those of the Swedish *T.,* when it has begun to sprout in spring.

Tur'nip-fly, *n.* (*Zoöl.*) The *Anthomya radicum,* a dipterous insect of the fam. *Muscidæ,* which attacks the root of the turnip, whilst very young, and commits great ravages in turnip-fields.

Turn'key, *n.; pl.* Turnkeys, a person who has charge of the keys of a prison for opening and closing the doors.

Turn'-out, *n.; pl.* Turn-outs. Among workmen, a Strike, *q. v.*—Also, a workman out on strike.

—A shunt, or siding, on a railroad.—An equipage; as, his carriage and horses formed a splendid *turn-out.*

—Net quantity of produce yielded.

Turn'-over, *n.* Act or consequence of oversetting; an upsetting; as, a *turn-over* in a sleigh.—A kind of jam puff or pastry.

—An apprentice, in any trade, who is handed over from one master to another to complete his time.

—*a.* That may be turned down, or over something else; as, a *turn-over* wrist-band.

Turn'pike, *n.* [*turn* and *pike.*] Originally, a cross of two bars armed with pikes at the end, and turning on a pin; fixed to hinder horses from entering any gate by which the way is obstructed, in order to take toll.—Specifically, a toll-bar, *q. v.*—A turnpike-road. (Colloq.)—In Scotland, a winding stair in houses.

—*v. a.* To form, as a public highway, in the manner of a turnpike road.

Turn'pike-road, *n.* A public road or highway, made and kept in repair by tolls levied upon travellers and passengers who go along it.

Turn'-serving, *n.* Act or practice of serving one's own turn or interest, to the exclusion of that of others.

Turn'sole, *n.* (*Bot.*) See Heliotropium.

(*Chem.*) A coloring matter used as a dye, and as a chemical test, to detect the presence of free acids. See Crozophora, and Litmus.

Turn'spit, *n.* One who turns a spit in a kitchen; hence, a person engaged in some menial employment.—A variety of dog, allied to the terriers, so called from having formerly been employed to turn a wheel on which depended the spit for roasting meat in the kitchen.

Turn'stile, *n.* [*turn* and *stile.*] A turnpike in a foot-path or by-road.

Turn'stone, *n.* (*Zoöt.*) A grallatorial bird of the fam. *Hæmatopodidæ,* and genus *Strepsilas,* so named from its turning over with its strong bill the stones and weeds along the margins of the sea and of lakes in search of insects, molluscs, as well as crustaceans which hide beneath them. The best known species, *S. interpres,* is about 9 inches long and 18 in alar extent. It is irregularly variegated with black, dark rufous, and white. It is found throughout N. America, on the Atlantic and Pacific shores.

Fig. 2542.
TURNSTONE, (*S. interpres.*)

Turn'-table, Turn'-plate, *n.* A circular table, with cross-rails fixed on its surface, supported by rollers, and capable of being turned on a central pivot, used for moving railroad-cars, trucks, &c., from one line of rails to another.

Turpentine, (*ter'pen-tine,*) *n.* (*Chem.*) A semi-solid resinous substance, which exudes from various species of pine on cutting incisions in the bark. There are several kinds of *T.* known in commerce; that obtained from the *Pinus Abies* constitutes common *T.;* that from the *Pinus Larix,* or common larch, is known as *Venice T.;* that from the *Pistacia Lentiscus* forms *China T.;* and *Canada balsam* is obtained from the *Abies balsamea.* They all consist of various portions of resin, dissolved in the oil or essence of *T.* If the *T.* of the *Pinus Abies* is distilled with water, it yields about one-fourth of its weight of the essence, oil, or spirits of *T.,* as it is variously called. The oil passes over with the vapor of the water as a volatile limpid inflammable liquid, of a peculiar penetrating well-known balsamic odor, the residue in the retort being common resin or rosin. Oil of *T.* is a hydrocarbon, $C_{20}H_{16}$; *sp. gr.* 0·864; boiling-point, 320°. It mixes freely with alcohol and ether, but not with water. It dissolves the fixed and essential oils, resins, sulphur, phosphorus, and india-rubber. In its purified form it constitutes the burning fluid known as *camphene.* Being a ready solvent of the gum resins, it is largely employed in the manufacture of varnish, also, in oil-paint, as a diluent of the oil. Oil of *T.* is a powerful grease-solvent; but only the fresh oil should be used for this purpose, as, when kept for any length of time, it gradually oxidizes into a resin, which becomes dissolved in the remaining oil. Oil of *T.* is remarkable in a chemical point of view, on account of the number of singular compounds that may be obtained from it. With hydrochloric acid it forms an artificial camphor, crystallizing in flattened rectangular prisms, which have an aromatic odor resembling oil of thyme. With water it forms crystalline hydrates, and with oxygen a crystalline hydrated oxide. The monohydrate of *T.,* or *terpinol,* is an oily liquid, boiling at 334°, and having an odor like hyacinths. The oils of bergamot, neroli, lemon, thyme, caraway, and several others, contain hydrocarbons isomeric with oil of *T.,* but they differ in their physical and chemical properties. Oil of *T.* is used as a burning fluid in Deville's lamp-furnace for obtaining high temperatures. It is used in medicine as a rubefacient. It has also vermifuge properties, and stimulates the urinary organs very powerfully. *Canada balsam,* which is a very white resin dissolved in oil of *T.,* is employed in varnish-making and mounting microscopic objects. The other *T.* are occasionally used in medicine.

Tur'pentine, in *New Jersey,* a village of Burlington co., 1 m. E. of Mount Holly.

Tur'penzine, *n.* (*Chem.*) A substitute for turpentine, consisting of the lighter hydrocarbons, obtained from paraffine oil and petroleum.

Turpeth', Turpith, or Turpith Mineral, *n.* (*Chem.*) The yellow basic sulphate of mercury, so called from its yellow color.

Tur'pitude, *n.* [Fr., from Lat. *turpitudo.*] State of departure from the law of rectitude; moral deformity; shameful wickedness; inherent baseness or vileness of principle in the human heart; extreme depravity; baseness or vileness of words, thoughts, or actions.

Turquino, or Pico Turquino, (*toor-kee'no,*) a mountain of Cuba, 50 m. W. of Santiago de Cuba, 8,000 ft. high.

Turquoise, (*-koiz'* or *keez',*) *n.* [Fr., said to be so called from having been first brought from Turkey.] (*Min.*) A bluish-green stone much used in jewelry. It is an amorphous form of hydrated phosphate of alumina. The finest kinds of turquoise are obtained from Persia and Arabia; but it is also found in Saxony.

Tur'rel, *n.* A cooper's tool.

Tur'ret, *n.* [Gael. *turaid;* W. *twred,* from *twr,* a tower.] (*Arch.*) A small tower, attached to, and forming part of, another tower, or placed at the angles of a church or public building.

Tur'reted, Turric'ulated, *p. a.* Having the form of a tower or turret.—Exhibiting turrets.

Tur'ret-ship, *n.* (*Naval.*) A species of iron-clad war vessel, in which the guns are carried in one or more iron turrets, which may be rotated either by hand-winches or by a steam-engine, so that the guns may be fired in any required direction. There are two varieties of *T. S.,* of which the earliest and best is that which was invented by Captain John Ericsson of New York. The other variety—which in many of its features resembles the plan of Ericsson—is known as the system of Captain Cowper Coles, R. N., (though invented by Mr. Theodore R. Timby of N. York,) and this system has been adopted to some extent in the British navy (see Fig. 2543), while the American navy has adopted the system of Ericsson, usually called the *Monitor system* (Fig. 1835). One of the principal points of difference between the *Monitor* and the

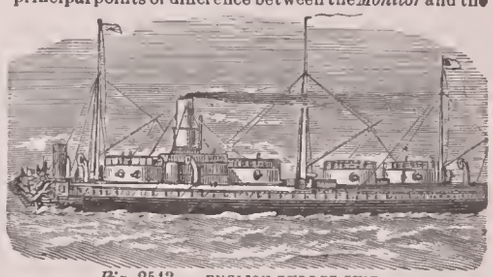


Fig. 2543.—ENGLISH TURRET-SHIP.
(The *Royal Sovereign.*)

British *T. S.* is, that its hulls are almost entirely submerged, the turret or turrets being wholly above the upper deck; while, in the latter, the hulls rise higher from the water, and the turrets are sunk below the deck, except in so far as is absolutely necessary for discharging the ordnance. See Vessels, Armored.

Tursheez, (*toor-sheez',*) a city of Khorassan, in Persia, situate on the borders of the Great Salt Desert, 75 m. from Mushed. *Pop.* Unascertained.

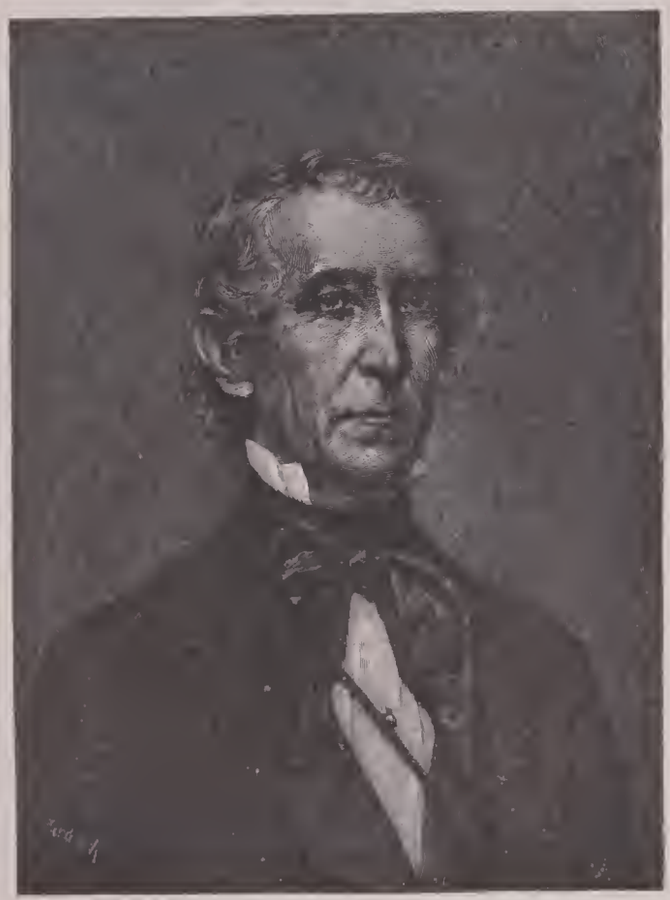
Tur'tle, *n.* [A. S. *tortel,* a turtle-dove,—a name subsequently applied by sailors to the marine chelonians of the W. Indies.] (*Zoöl.*) The name popularly applied to the marine chelonian reptiles, the characters of which are given under the name of the order Chelonia. The Turtles form the sub-order *Chelonii,* divided into the two families *Chelonioidæ* and *Sphargididæ.* The latter has been described under its name. The Chelonioidæ, or Loggerhead family, comprises turtles whose general form is somewhat like a heart flattened on one side, and furnished in front with a pair of large, flat, wing-like, scaly flippers, and behind with a pair of scaly rudders.—The best known variety of the edible species of *T.* is the Green *T.* (*Chelonia mydas,*) of the warm parts of the Atlantic coast of America. It attains a length generally of 5 or 6 feet, and of from 500 to 600 pounds weight. The flesh of this *T.* is peculiarly delicate, and the eggs are likewise esteemed a great dainty. They are generally taken by watching them when they come on shore on moonlight nights for the purpose of depositing their eggs, when their captors secure them by turning them on their backs, so that they cannot escape by running off. They are often met with in the Atlantic, sometimes 1,200 miles from land, where they are easily captured when asleep on the surface of the water. The Hawk's-bill, or Tortoise-shell *T.,* *Eretmochelys imbricata,* is another species, and does not attain so large a size as the one just described, seldom being found to exceed 200 pounds in weight. It is found in the warm parts of the Atlantic, and also in the Indian Ocean, but is not much thought of, as its flesh is very coarse and inferior to that of the green *T.* It is called the hawk's-bill *T.* from the curved and pointed form of the upper jaw (Fig. 575), which, however, presents but very little resemblance to the beak of any bird of prey. This *T.* is much sought after for the value of its shell, which is converted into the best "tortoise-shell" of commerce. The largest species of the family is termed the Loggerhead *T.,* *Thalassochelys caouana,* which is found in the Atlantic and Mediterranean seas. This species generally feeds on mollusca, and its flesh is consequently unfit for food, besides being highly poisonous. The shell, too, is not worth much, and the only thing which it is valued for is a large quantity of oil which it yields, and which burns very well in lamps.

Tur'tle-dove, *n.* (*Zoöl.*) A species of pigeon of the Old World, *Columba turtur,* family *Columbidæ,* celebrated for its gentleness and plaintive notes. It is 11–12 inches long; the upper parts tawny slate-color, spotted with brown; the breast brownish, other under parts white.

Tur'tle, in *Wisconsin*, a township of Rock county.
Tur'tle Bay, lies on the W. coast of Africa.
Tur'tle Creek, in *Ohio*, a township of Shelby co.—A township of Warren co.
Turtle Creek, in *Pennsylvania*, enters the Monongahela River from Alleghany co.—A post-village of Alleghany co., 12 m. S.E. of Pittsburg.
Turtle Creek, in *Wisconsin*, rises in Walworth co., and falls into Rock River from Rock co.
Tur'tle-shell, *n.* Same as TORTOISE-SHELL, *q. v.*
Turyassu', a river of Brazil, enters the Atlantic at the Bay of Turyassu between the provs. of Maranhão and Para, after a N.W. course of 350 m.
Tuscaloo'sa, in *Alabama*, a N.W. central co.; *area*, 1,340 sq. m. *Rivers.* Black Warrior, and Sipsey or New river. *Surface*, hilly; *soil*, very fertile. *Min.* Iron, stone coal, and limestone. *Cap.* Tuscaloosa. *Pop.* (1897) 33,250.
—A city, cap. of the above co., 125 m. N. W. of Montgomery; Lat. 33° 12′ N., Lon. 87° 42′ W. *Pop.* (1897) 5,200.
Tuscaloo'sa River, in *Alabama*. See BLACK WARRIOR.
Tus'can, *n.* (*Geog.*) A native of Tuscany.
Tus'can Order, *n.* (*Arch.*) One of the five Classic orders, being a Roman modification of the Doric style with unfluted columns, and without triglyphs. It is the simplest of the orders.
Tus'cany. [It. *Tosca'na.*] Formerly, a sovereign grand-duchy of Italy, in the central part of the Peninsula, lying for the most part S. and W. of the Apennines, in Lat. 42° 20′ to 44° 10′ N., and Lon. 10° 15′ to 12° 20′ E.; *area*, 8,440 sq. m. The N. and N.E. of the country is filled with mountains, whence numerous rivers and streams flow down to the sea, the most important of which are the Arno, the Serchio, and the Ombrone. This district is also the source of the Tiber. The rest of *T.* is an undulating region of hills and dales, except the coasts, which are flat and marshy. Of these marsh-lands, the largest is (or was) the *Maremma*. The principal crops are maize, wheat, rye, and barley. Wine and oil are also abundantly produced. Mules, cattle, and sheep are reared in great numbers; there are flourishing manufactures of silks, woollens, and straw (for hats;) and a very considerable trade is carried on in articles of marble, alabaster, porcelain, coral, wax, &c. The chief city, Florence, has been for some years the capital of Italy, now transferred to Rome. Other important places are Leghorn, Pisa, Siena, and Arezzo. *T.* is familiar to the reader of ancient history under the names of *Etruria* and *Tyrrhenia*. It was overrun by the "barbarians" in the 5th century. Held at first as a duchy and fief of Lombardy, it was afterwards ruled by the family of the Medici, and on their extinction, by a younger branch of the imperial house of Austria. In 1860, the National Assembly at Florence unanimously voted its annexation to Sardinia. It has been since divided into 8 provinces, with a total *pop.* of 2,142,525.
Tuscarawas, (*tus-ka-raw'wuss,*) in *Ohio*, a river which rises in Stark co., and flowing S.W., unites with the Walhonding River at Coshocton to form the Muskingum.—An E. co.; *area*, 520 sq. m. *Rivers.* Tuscarawas River, and Stillwater and Sugar creeks. *Surface*, undulating; *soil*, fertile. *Min.* Iron and stone-coal. *County Seat*, New Philadelphia.—A township of Stark county.
Tuscaro'ra, in *Iowa*, a village of Lee co.
Tuscaro'ra, in *New York*, a village of Niagara co., abt. 3 m. E. of Lewistown.—A township of Steuben co.
Tuscaro'ra, in *Pennsylvania*, a township of Bradford co.—A township of Juniata co.—A township of Perry co.—A post-vill. of Schuylkill co., 73 m. N.E. of Harrisburg.
Tuscaro'ra Creek, in *Virginia*, flows into the Potomac from Berkeley co.
Tuscarora Creek, in *New York*, enters Lake Ontario from Niagara co.
Tuscarora Creek, in *Pennsylvania*, enters the Juniata River from Juniata co.
Tuscaro'ra Moun'tain, in *Pennsylvania*, extends from the Juniata River S.W. along the E. border of Juniata and Fultou cos., thence S. into Maryland as Cove Mountain.
Tuscaro'ras, a tribe of N. American Indians, who, at the settlement of N. Carolina, had 15 towns on the Tar and Neuse rivers, and 1,200 warriors. In 1711, they began a war with the settlers, and after a series of savage encounters, were defeated, and joined the Iroquois in the State of New York, where they became allies of the English, and where about 50 families, who have adopted the habits of civilization, still remain.
Tus'cl, *n. pl.* (*Anc. Hist.*) The name given by the Romans to the ancient inhabitants of Etruria or Tuscany, and the people existing when Rome was founded, and till Etruria became a portion of the Roman Empire.
Tusco'la, in *Illinois*, a city, cap. of Douglas co., 150 m. S. W. of Chicago. *Pop.* (1897) 2,050.
Tuscola, in *Michigan*, an E. co., bordering on Saginaw Bay; *area*, 830 sq. m. *Rivers.* Cass and Sebewaning river, and White creek. *Surface*, undulating; *soil*, generally fertile. *Cap.* Caro. *Pop.* (1897) 35,630.
—A village of Livingston co., 30 m. E. of Lansing.
—A post-village and township of Tuscola co., 24 m. N. of Flint.
Tus'cor. *n.* The tusk of the horse.
Tus'culum. (*Anc. Geog.*) A city of Latium, was founded, according to tradition, by Telegonus, son of Ulysses and Circe, abt. B.C. 1200. Having become a dependency of Alba, it recovered its liberty abt. B.C. 641. It was attacked by the Volsci and the Æqui B.C. 461, and received assistance from Rome against its assailants, in return for which the Tusculans aided the Romans in recovering the Capitol from the Sabines, B.C. 458. War having been declared against it by the Romans, Camillus, at the head of the army, on entering the city, found the people engaged in their ordinary occupations, and received a most friendly welcome, (a proceeding that led to a closer alliance between the two powers,) B.C. 378. For several centuries, its counts held so much power in Rome that they could almost insure the elevation of their own nominee to the papal chair. Continued contests between the two cities in the 12th cent. led to the destruction of *T.* in 1168. It never recovered from this blow; but lower down there arose from its ruins the small town of FRASCATI, *q. v.*
Tuscum'bia, in *Missouri*, a post-village, cap. of Miller co., 35 m. S.S.W. of Jefferson City.
Tush, *interj.* Pshaw!—an exclamation expressive of rebuke, unbelief, or contempt: as, *tush*, it is absurd!
Tush, *n.* A horse's tusk, or long, pointed tooth.
Tusk, *n.* [A. S. *tusc*; Fris. *tusch*; Ir. *tosq.*] The long, pointed tooth of certain rapacious, carnivorous, or pugnacious animals; as, the *tusk* of a wild boar.
Tusked, Tusk'y, *a.* Furnished or armed with tusks.
Tuske'gee, in *Alabama*, a post-village, cap. of Macon co., 40 m. N.E. of Montgomery.
Tus'pan, or TUSAPAN, in Mexico, a seaport-town of Vera Cruz, on the Gulf of Mexico, 145 m. N.W. of the city of Vera Cruz; *pop.* abt. 1,200.
Tus'sac-grass, Tus'sock-grass, *n.* (*Bot.*) A European plant, genus *Dactylis*, (*D. cæspitosa,*) remarkable for its great tufts, sometimes 5 or 6 feet in height.
Tus'sey's Mountain, in *Pennsylvania*, extends S.W. from the N. of Centre co. to the S. of Bedford co.
Tussic'ular, *a.* [From Lat. *tussis*, a cough.] Pertaining, or having reference, to a cough.
Tussila'go, *n.* [Lat. *tussis*, a cough.] (*Bot.*) A genus of plants, order *Asteraceæ*, having bracteæ with a membranous edge, a naked receptacle, a hairy pappus; the florets of the ray pistilliferous, in many rows, tongue-shaped; those of the disc perfect, few. *T. petasites*, the Pestilent-wort, or Butter-burr, is a European medicinal

Fig. 2544.—COLT'S-FOOT, (*T. farfara.*)

herb. The only American species is *T. farfara*, the Colt's-foot, or Horse-foot (Fig. 2544). It has yellow flowers, with very narrow rays, and is found in wet places, brook-sides, in the N. and Middle States. It has long been used as a popular remedy in chronic coughs and other pulmonary complaints.
Tus'sock-moth, *n.* (*Zoöl.*) A name given by collectors to moths of the fam. *Bombycidæ*, comprising the genera *Halesidota* or *Lephocampa*, and *Orgyia*, whose larvæ are short, thick, with a crest of tufts along the back, and which, in the caterpillar state, have long pencils of hair projecting before and behind the body.
Tus'ten, in *New York*, a township of Sullivan co.; *pop.* abt. 1,200.
Tus'teren, an island off the W. coast of Norway, immediately to the W. of Christiansand. It is 12 m. long, with a breadth of 6 m.
Tut, *interj.* An exclamation employed in rebuking, checking, or manifesting contempt or disbelief;—it is synonymous with *tush*: as, "*Tut, tut!* here's a mannerly forbearance."—*Shaks.*
—*n.* [Dan.] An imperial or royal ensign, consisting in a golden globe with a cross upon it.
Tut'-bargain, *n.* A bargain by the lump.
Tutbury, (*tut'ber-re,*) a town of England, in Staffordshire, on the Dove, noted for its ancient castle, now in ruins, in which Queen Mary of Scotland was confined for some time. *Pop.* 2,200.
Tu'telage, *n.* [Fr. *tutéle*, from L. Lat. *tutela.*] Guardianship; protection; state of being under a guardian.
Tu'telar, Tu'telary, *a.* [Fr. *tutélaire.*] Guardian; protecting; having the guardianship or charge of protecting a person or a thing; as, a *tutelary* divinity.
Tut'hill, in *New York*, a post-village of Ulster co.
Tu'tor, *n.* [Fr. *tuteur*, from Lat. *tutor*, a watcher.] A protector, defender, or preserver; one who watches over another;—hence, specifically, a guardian; one who is chosen to look to the persons and estates of children left by their parents in their minority;—also, one who has the charge of instructing another, or others, as the children of a family in various branches, or in any department of human learning or morals; a preceptor; a teacher; as, a private *tutor*, that is, one who instructs his pupils by private tuition.—In the English universities, a member of some college or hall, generally a fellow, who superintends the studies of the under-graduates.—In American colleges, an instructor of a lower grade than a professor.
—*v. n.* To have the guardianship or charge of; to instruct; to teach.—To play the pedagogue; to act the tutor toward; to treat magisterially or severely; as, I am not to be *tutored* by men of your stamp.
Tu'torage, Tu'torship, *n.* Office or occupation of a tutor; guardianship; tutelage.
Tu'toress, Tu'trix, *n.* A female tutor; a governess.
Tuto'rial, *a.* [Late Lat. *tutorius.*] Pertaining to, or characterized by, the acts of a tutor or preceptor.
Tuto'ya, a seaport-town of Brazil, on the Atlantic, 160 m. E. of Maranhao.
Tutti, (*tōōt'te,*) *n. pl.* [It., from Lat. *totus*, the whole.] (*Mus.*) A direction to performers that all the parts are to be played together.
Tutt'lingen, a town of Germany, in Würtemberg, on the Danube, 20 m. from Sigmaringen: *pop.* 5,878.
Tut'ty, *n.* [L. Lat. *tutia.*] An impure oxide of zinc, collected from the chimneys of smelting-furnaces.
Tux'tla, in Mexico, a town of Chiapas, 37 m. W. of Ciudad Real; *pop.* abt. 6,000.
Tuy, (*twe,*) a fortified town of Spain, in Galicia, on the Minho, 20 m. from Pontevedra; *pop.* 4,500.
Tuyère, (*twee-er',*) *n.* [Fr.] (*Metall.*) A conical orifice in a blast furnace, in which tapered pipes are placed for imparting the blast.
Tver, or TWER, (*twair,*) a city of Russia in Europe, cap. of a govt. of same name, at the confluence of the Twerza, the Volga, and the Tmaza, 100 m. from Moscow, on the high-road between that city and St. Petersburg. It is a place of considerable activity. *Pop.* 28,700.
Twaddle, (*twŏd'dl,*) *v. n.* To twattle; to prate much in a weak, silly manner, like a person in his dotage.
—*n.* Twattle; empty, silly talk; fustian; insignificant discourse; gabble; bosh: idle verbiage.
Twad'dler, *n.* One who talks twaddle, or prates in a weak or senseless manner.
Twad'dling, *n.* Silly talk; idle verbiage; gabble.
Twain, *a.* or *n.* [A. S. *twegen.*] Two;—a word seldom used, except poetically and in burlesque; as, "United, yet divided, *twain* at once."—*Cowper.*
Twang, *v. n.* [Sansk. *dhvani*, a sound.] To sound with a quick, sharp, strident noise; to make the sound of a string which is stretched and suddenly pulled; to twangle or twank; as, the *twanging* of a banjo.
—*v. a.* To make to sound sharply, as by pulling a tense string, and letting it go suddenly.
—*n.* A sharp, quick, vibrating sound; as, the *twang* of a bowstring.
—An affected modulation of the voice; a kind of nasal sound; as, his speech is all *twang* and tautology.
Twan'kay, *n.* The most inferior kind of green tea.
'Twas, (*twoz.*) A contraction of *it was.*
Twattle, (*twŏt'tl,*) *v. a.* and *n.* Same as TWADDLE, *q. v.*
Twat'tler, *n.* A TWADDLER, *q. v.*
Tway'-blade, Twy'-blade, *n.* (*Bot.*) See LISTER, and LIPARIS.
Tweak, (*tweek,*) *v. a.* [A. S. *twiccian*, to twitch.] To twitch; to pinch and pull with a sudden jerk; as, to *tweak* a person's nose.
—*n.* A sharp pinch, pull, or twist.
Tweed, *n.* A light, twilled cotton or woollen stuff used for summer clothing.
Tweed, a large river of Scotland on the English Border, rises in Peeblesshire, and, taking a course nearly N.E., drains almost all the E. portion of the Scottish Lowlands, and enters the North Sea at Berwick. It is 97 m. long, and forms the English border for 18½ m.
Tweed'dale, the popular name of the Scottish co. of Peebles.
Tweedle, (*twē'dl,*) *v. a.* To handle gingerly;—having reference to inartistic violin-playing;—hence, to allure; to wheedle; to coax by blandishments; as, a wife *tweedles* her husband into good humor.
Tweese, Tweeze, *n.* A surgeon's case of instruments.
Tweez'ers, *n. pl.* [From Fr. *étuis*, cases.] Nippers; small pincers used to pluck out hairs, formerly carried by ladies in an étui at the side.
Twelfth, *a.* [A. S. *twelfta.*] The second after the tenth;—the ordinal of twelve.—Forming or being one of twelve equal parts into which a thing is divided.
—*n.* The quotient of a unit divided by twelve; one of twelve equal parts.
(*Mus.*) An interval including an octave and a fifth.—The name of a stop in an organ.
Twelfth'-cake, *n.* An ornamented cake distributed among friends or visitors on the festival of Twelfth-night.
Twelfth'-day, Twelfth'-tide, *n.* The twelfth day after Christmas, being the festival of the EPIPHANY, *q. v.*
Twelfth-night, *n.* The evening of the Epiphany, a festival of the Church of Rome.
Twelve, *a.* [A. S. *twelf*; D. *twaalf.*] One more than eleven; ten and two more; twice six; a dozen.
Twelve tables. See TABLE.
—*n.* The number which consists of ten and two; the sum of twice six.—A symbol expressing twelve units, as 12, or XII.
Twelve'-month, *n.* A year, as consisting of twelve calendar months; as, "Not twice a *twelve-month* you appear in print."—*Pope.*
Twelve'-pence, *n.* A shilling sterling, equivalent to about 25 cents.
Twelve'-penny, *a.* Worth a shilling; sold for a shilling or twelve-pence.



John Tyler

1790–1862

Twelve'-score, *a.* and *n.* Twelve times twenty, or two hundred and forty.

Twelve Tables. (*Roman Hist.*) The decemvirs appointed at Rome B. C. 451, drew up a code of civil law, which was engraved upon 10 tables of brass, and called the Ten Tables. Two more were added B. C. 450, and the code received the name of the Twelve Tables.

Twen'tieth, *a.* [A. S. *twentigtha.*] The ordinal of twenty — Being, or forming, one of twenty equal parts into which a thing is divided.

—*n.* One of twenty equal parts; the quotient of a unit divided by twenty.

(*Mus.*) An interval embracing two octaves and a sixth.

Twen'ty, *a.* [A. S. *twentig.*] Two tens or twice ten; a score. — Proverbially, an indefinite number; as, I do not like him for *twenty* reasons.

—*n.* The sum of twelve and eight, or twice ten.—A symbol designating twenty units, as 20, or XX.

Twen'ty-fold, *a.* Twenty times as many.

Twen'ty-fours, *n.* (*Print.*) A sheet of paper which, when printed, folds into 24 leaves or 48 pages; — the book is called a 24mo.

Twi'bil, *n.* [A. S. *twibill.*] A reaping-hook; also, a kind of mattock.

Twice, *adv.* [Icel. *tvisvar.*] Two times; once and again: once repeated; as, I *twice* called upon you. — Doubly; in twofold quantity or measure; as, he is *twice* as good a fellow as the other.

Twickenham, (*twik'nam,*) a village of England, in Middlesex, on the Thames, opposite Richmond, 12 m. from London. It is the burial-place of Pope. *Pop.* 7,000.

Twifallow, (*-fal'lō,*) *v. n.* To plough a second time; —said of land in fallow.

Twig, *n.* [A. S. *twigg.*] A small flexible shoot or branch of a tree or other plant, of no definite length or size.

—*v. a.* To take notice of, without being observed; as, *twig* what that fellow is about.—To comprehend; to take the meaning of; as, do you *twig* me? (Colloq. and vulgar.)

Twiggs, in *Georgia,* a S. central co.; *area,* 400 sq. m. *Rivers.* Ocmulgee, also Big Sandy and Turkey creeks. *Surface,* diversified; *soil,* generally fertile. *Cap.* Jeffersonville. *Pop.* (1897) 8,750.

Twig'gy, *a.* Full of, or abounding with twigs.

Twi'light, (*-līt,*) *n.* [A. S. *tweon-leoht.*] The faint or dubious light which is reflected upon the earth after sunset and before sunrise; crepuscular light.—Hence, a dim or faint light generally —An obscure or uncertain view; as, the *twilight* of the barbaric ages.

—*a.* Faint; dimly or imperfectly illuminated; shaded; faintly visible.

—Perceived or performed by twilight.

Twill, *v. a.* [Scot. *tweel, tweedle,* from A. S. *twœde,* double, twofold.] To weave so as to form into a double texture; to weave in such a manner as to produce a kind of diagonal ribbed appearance upon the surface of the cloth.

—*n.* A variety of textile fabric in which a kind of diagonal ribbed appearance is produced upon the surface of the cloth. — A spool for winding thread or yarn on.

Twill'y, *n.* See WILLY.

Twin, *n.* [Icel. *tvennir,* twins; A. S. *twinan,* to make double.] One of two brought forth at a birth, particularly by an animal that ordinarily produces but one; — used mostly in the plural, *twins,* and applied to the young of beasts, as well as to human beings.—One bearing a striking resemblance or analogy to another.

(*pl.*) (*Astron.*) See GEMINI.

—*a.* Noting one of two born at a birth; as, a *twin* brother or sister.—Noting one of a pair bearing a striking resemblance to each other; being in the relation of a twin to something else; — frequently before *to.*

(*Min.*) Presenting two united crystals.

(*Bot.*) Expanding into two protuberances, as an anther.

—*v. n.* To be born at the same birth. — To be paired, or matched.

Twin, in *Ohio,* a township of Preble co.

—A township of Ross co.

Twin'-born, *a.* Born at the same time.

Twine, *v. a.* [A. S. *twinan.*] To twist together, as two into one; to wind, as one thread or cord around another, or as any flexible substance around another body; to unite closely; as, *twined* silk. — To cling to closely; to embrace; to gird; to entwine; to gird closely about.

—*v. n.* To unite closely, as by twisting.

"Friends who *twine* in love unseparable."—*Shaks.*

To wind; to bend; to meander; to make turns, as a river.— To ascend spirally around a support, as a climbing plant; as, the *twining* clematis.

—*n.* [D. *twyn.*] Act of twining or winding round. — A twist; a convolution: as, the ivy's amorous *twine.* (*Philips.*) — A strong thread, cord, or string, composed of two or three smaller threads or strands twisted together; as, a ball of *twine.*

Twine'-flower, *n.* (*Bot.*) See LINNÆA.

Twine'-reeler, *n.* A machine for twisting twine.

Twinge, (*twinj,*) *v. a.* [Another form of *twitch,* q. v.] To twitch; to pinch; to tweak — To affect or torment with a sharp, sudden pain, as if by pinching.

—*v. n.* To suffer a keen, darting, or shooting pain; to experience an acute local pain, like a twitch.

n. A twitch; a pinch; a tweak; as, a *twinge* by the ear. — A sudden, sharp pain; a shooting local pain of momentary continuance; as, a *twinge* of the gout. — A sharp rebuke of conscience.

Twinkle, (*twink'l,*) *v. n.* [A. S. *twinclian,* formed from *wink,* with the prefix *ed,* signifying again, anew.] To wink repeatedly; to open and shut the eyes by turns; to blink. — To sparkle; to flash at intervals; to shine with a tremulous intermitted light, or with a broken quivering light; as, a *twinkling* star.

Twin'kle, Twink'ling, *n.* A repeated winking or blinking; a quick motion of the eye. — The time of a wink, a moment: an instant; as, they vanished in a *twinkling.* — A shining with intermitted, tremulous light, as the fixed stars.

Twin'kler, *n.* One who, or that which twinkles, or blinks; a winker.

Twin Lakes, in *Minnesota,* a post-village, former cap. of Carlton co., about 22 m. W. S. W. of Superior City.

Twin'-leaf, *n.* (*Bot.*) See JEFFERSONIA.

Twin'-like, *a.* Having a close resemblance; being a double or counterpart.

Twin'-likeness, *n.* A resemblance as close as that observed between twins.

Twin'ling, *n.* [From *twin.*] A twin lamb.

Twinned, (*twind,*) *a.* Produced at one birth, like twins; united.

Twin'ner, *n.* A breeder of twins.

Twins'burg, in *Ohio,* a post-village and township of Summit co., 143 m. N.E. of Columbus.

Twire, *n.* A thread; a twisted filament.

Twirl, *v. a.* [A. S. *thwirl,* a flail.] To whirl round with rapidity; to move or turn round with velocity by the fingers; as, to *twirl* a castanet.

—*v. n.* To be whirled round with rapidity; to revolve with a quick motion.

—*n.* A rapid whirl; a quick, circular motion; rapid rotation; twist; convolution.

Twist, *v. a.* [A. S. *getwisan.*] To unite by winding one thread, strand, or other flexible substance round another; to form by convolution; as, to *twist* a cord.— To form into a thread by many fine filaments; as, to *twist* cotton. — To contort; to writhe; to complicate; to convolve; as, to *twist* a roll of tobacco.— Hence, to pervert; to garble; to cause to deviate from the right form or meaning; to turn from a straight line; as, to *twist* a relation of facts. — To wind; to encircle; to unite by intertexture of parts; as, to *twist* a made-up narrative. — To insinuate; to wriggle; — used reflexively; as, self-interest *twists* itself into every business of life.

—*v. n.* To be twisted; to be contorted or united by winding round each other.

—*n.* A contortion; a convolution; a writhe; a flexure; as, a *twist* in the muscular fibres of an animal. — Manner of twisting; form received by twisting. — That which is twisted; as, (1.) A cord, thread, or anything flexible formed by winding strands or separate filaments round each other. (2.) A kind of cotton yarn, of several varieties. (3.) A kind of sewing silk, used by tailors, &c. (4.) A small twisted roll of dough, baked into bread. (5.) A small roll of tobacco; as, Limerick *twist.* (6.) A beverage concocted of gin and brandy mixed. (Colloq. and vulgar.)

(*Weaving.*) A warp which can be joined to another by twisting.

Twist'er, *n.* One who twists; a rope-maker; — also, one who joins the ends of threads together, in weaving.

(*Man.*) The inner part of the thigh, which takes the proper grip of the saddle.

Twit, *v. a.* [A. S. *edwitan.*] To taunt, upbraid, reproach, revile, or rebuke, as for some previous act deserving of censure.

Twitch, (*twich,*) *v. a.* [A. S. *twiccian.*] To pull with a sudden jerk; to pluck with a short, quick motion; to snatch; as, to *twitch* one by the sleeve.

—*n.* A short, sudden, quick pull; a snatch; a pull with a jerk. — A short spasmodic contraction of the fibres or muscles; as, a convulsive *twitch* of the face.

Twitch'er, *n.* One who, or that which twitches.

Twitch'ing, *n.* Act of pulling with a jerk; — also, the act of suffering spasmodic contractions.

Twitch'-grass, *n.* The Couch-grass. See TRITICUM.

Twit'ter, *v. a.* [Ger. *zwitschern,* to chirp.] To make a succession of small, tremulous, intermitted sounds; as, a *twittering* swallow. — To have a tremulous motion of the nerves. — To titter; to giggle; to laugh in a half-suppressed manner.

Twit'ter, *n.* [From *twit.*] One who twits, censures, or reproaches.

—[From the verb *twitter.*] A small, tremulous, intermitted sound or noise; as, the *twitter* of certain birds. — A slight, tremulous agitation of the nerves. — A titter; a giggle; a half-restrained fit of laughter.

Twit'tering, *n.* Act of one who, or that which twitters — A state of tremulous agitation, or nervousness arising from suspense or expectancy.

Twit'tingly, *adv.* In a twitting manner.

Twit'tle-twat'tle, *n.* See TITTLE-TATTLE. (Vulgar.)

'Twixt, (*twikst,*) *a.* A contraction of *betwixt,* used colloquially, and in poetry.

Two, (*too,*) *a.* [A. S. *twá, twegen;* D. *twee;* Icel. *tōō;* Fr. *deux.*] One and one.

(NOTE. *Two* is extensively used as a prefix in the construction of self-explanatory compounds, denoting something designed for, or applicable to, two objects; as, *two*-eared, *two*-handed, *two*-horse, *two*-leaved, *two*-story, *two*-valved, and the like.)

—*n.* The number which consists of one and one; the number greater than one and less than three. — A symbol expressing two units, as 2, or II.

Two Creeks, in *Wisconsin,* a vill. and twp. of Manitowoc co., abt. 18 m. N.N.E. of Manitowoc.

Two'-decker, (*-dek'ur,*) *n.* (*Navy.*) A ship of war having two tiers of guns.

Two'-faced, (*-fāst,*) *a.* Having two faces or visages, like the Roman deity Janus;—hence, insincere; deceitful; given to equivocation or double-dealing; as, a *two-faced* person.

Two'fold, *a.* Double; duplicate; multiplied by two; as, a *twofold* argument.—Two of the same kind, or two different things existing together; as, *twofold* leaves.

Two'-foot, (*-fūt,*) *a.* Measuring two feet, long, thick, or wide; as, a *two-foot* rule.

Two'-handed, *a.* Having two hands; — an epithet commonly used as an equivalent to *large, strong, powerful.* — Requiring the two hands to grasp; as, a *two-handed* sword.

Two'-parted, *a.* (*Bot.*) Bipartite.

Two'-pence, *n.* (*too-,* colloq. and vulg. *tŭp'pens.*) In England, a small coin or money of account, equivalent to two pennies.

Two'-penny, (*toō-,* colloq. *tŭp-,*) *a.* Of the value of two-pence.

Two'-ply, *a.* Double; consisting of two thicknesses, as cloth, &c. — Woven into a double thickness, by two sets of thread of the warp and weft respectively, as carpeting.

Two'-ranked, (*-rănkt,*) *a.* (*Bot.*) Distichous.

Two Rivers, in *Pennsylvania,* a village of Pike co., near the junction of the Delaware and Lackawaxen.

Two Rivers, in *Wisconsin,* a city and township of Manitowoc county, 15 miles northeast of Manitowoc. *Pop.* (1895) 3,593.

Two Sic'ilies, (KINGDOM OF THE.) See NAPLES.

Two'-tongued, (*-tungd,*) *a.* Double-tongued; hence, deceitful; insincere.

Ty'bee Island, in Tybee Bay, *Georgia,* at the entrance of Savannah River, has a fixed light 80 ft. high at the N. end; Lat. 32° N, Lon. 80° 52′ W.

Ty'burn, the name of a place notorious in the criminal annals of England, was the place of public execution for malefactors prior to the year 1783. It was situated near the present N.E. corner of Hyde Park, London, in the centre of the fashionable and magnificently built quarter of the metropolis now called *Tyburnia.*

Ty'cho Brahe. See BRAHE.

Tycocktow Island, (*ti-kok-tou',*) in the Canton River, China. It is 8 m. long, with a breadth of 6 m.

Tycoon', *n.* [Jap.] See JAPAN.

Tye, *v. a.* and *n.* An old orthography of TIE, *q. v.*

Ty'er, *n.* One who ties, attaches, or unites.

Tye River, in *Virginia,* flows S.E. into James River from Nelson co.

Ty'gart's Valley River, in *W. Virginia,* rises in Randolph co., and unites with the W. Fork of the Monongahela, 1 m. S. of Fairmont in Marion co., after a N. course of 150 m.

Ty'ing, *ppr.* of TIE, *q. v.*

Tyke, (*tīk,*) *n.* A Scottish and north of England term for a dog; also applied, with some degree of contempt, to a man; as, a Yorkshire *tyke.*

Ty'ler, *n.* [Fr. *tailleur.*] Among the Freemasons, one who guards the door of a lodge sitting in council, with a drawn sword.

Ty'ler, JOHN, 10th President of the U. States, B. in Charles City co., Va., 1790, was the 2d son of John Tyler, a distinguished patriot of the Revolution, who afterwards became speaker of the Virginia House of Delegates, governor of the State, and judge of the Federal Court of Admiralty. John entered William and Mary College at 12, and graduating at 17, was admitted to the bar at 19, when he almost immediately entered upon a large practice. At 21, he was elected to the State legislature, supporting the policy of Jefferson, Madison, and the Democratic party. He was almost unanimously re-elected 5 times; and, in 1816, entered Congress. During his long congressional career, he sustained all the measures of the State Rights party. In 1825, he was elected governor of Virginia; and in 1827, senator in Congress. He supported General Jackson and the Democratic policy; but sided with Mr. Calhoun on the question of nullification. At a later period, however, 1833–34, he supported Mr. Clay's resolutions of censure on General Jackson for removing the government deposits from the U. S. Bank. From this period, he became an active partisan of Henry Clay, the candidate of the Whig party; and in 1840, was elected Vice-President of the United States, with General Harrison as President. President Harrison died April 4, 1841, a month after his inauguration, by which Mr. T. became President. He began his administration by removing Democrats from office, and appointing Whigs, and pronouncing in favor of Whig measures, but soon after vetoed a bill for a U. S. bank, passed by Congress, on which occasion several members of the cabinet resigned; and after some changes, John C. Calhoun, the great Southern Democratic statesman, became Secretary of State. The most important act of T.'s administration was the annexation of Texas, March 1, 1845. At the close of his term of office, he retired into private life until 1861, when he was chosen President of a Peace Convention at Washington. Failing in his efforts toward a compromise, he gave his adhesion to the Confederate cause, and was a member of the Confederate Congress until his death, in Richmond, Jan. 17, 1862.

Ty'ler, in *Illinois,* a village of Winnebago co.

Ty'ler, in *Texas,* an E. co.; *area,* 930 sq. m. *Rivers.* Neches river, and Big Sandy creek. *Surface,* level; *soil,* generally fertile. *Cap.* Woodville. *Pop.* (1897) 11,650.

—A post-town, cap. of Smith co., 220 m. N. of Galveston. *Pop.* (1897) 7,500.

Ty'ler, in *West Virginia,* a N. co., bordering on Ohio; *area,* 330 m. *Rivers.* Ohio, also Middle Island creek. *Surface,* diversified; *soil,* very fertile. *Min.* Iron, stone-coal, limestone. *Cap.* Middlebourne. *Pop.* (1897) 12,860.

Ty'lersburg, in *Pennsylvania,* a post-village of Clarion co., 85 m. N.N.E. of Pittsburg.

Ty'lersville, in *Pennsylvania,* a post-village of Clinton co., 10 m. S.E. of Lock Haven.

Tym'bal, *n.* [Fr. *timbale.*] (*Mus.*) A kind of kettle-drum.

Tymoch'te, a creek in *Ohio,* enters Sandusky river from Wyandot co.—A village and township of Wyandot co., 75 m. N.W. of Columbus.

Tymp, *n.* (*Metall.*) In smelting, a space in the chamber of a blast-furnace adjoining the crucible, for cleaning out the earth.

Tym'pan, *n.* [Fr.] (*Arch.*) See TYMPANUM.

(*Print.*) A frame attached to the carriage of a printing-press by joints, and covered with parchment or cloth, upon which the blank sheets are put, in order to be laid on the form to be impressed.

Tympanites, (*tim-pa-nī'tēz*) *n.* (*Med.*) A distention of the abdomen, arising from a morbid aggregation of gas in the intestines; tympany.

Tympani'tis, *n.* Inflammation of the inner membrane of the middle ear; also, TYMPANITES, *q. v.*

Tym'panize, *v. n.* [Lat. *tympanizare.*] To act the part of a drummer.

—*v. a.* To make into a drum, or drum-head; or, to cause to sound like a drum.

Tym'pano, *n.* [It.] (*Mus.*) Same as KETTLE-DRUM. *q. v.*

Tym'pan-sheet, *n.* (*Print.*) A sheet of paper of the same size as that to be printed, placed on the tympan, and serving as a guide to lay the sheets exactly even upon, while printing.

Tym'panum, *n.* [Lat. = Gr. *tumpanon*, for *tupanon* —*tuptō*, to strike.] (*Anat.*) See EAR.

(*Arch.*) The triangular space between the horizontal and sloping cornices on the front of a pediment in Classical architecture; it is often left plain, but is sometimes covered with sculpture. This name is also given to the

Fig. 2545. — TYMPANUM OF DOORWAY, (Eng.), A. D. 1130.

space immediately above the opening of a doorway, &c., (Fig. 2545,) in mediæval architecture, when the top of the opening is square and has no arch over it. *T.* are occasionally plain, but are generally ornamented with carving or sculpture.

(*Bot.*) A membrane which stretches across the mouth of the spore cases of some urn-mosses.

(*Mach.*) A wheel placed round an axis for raising weights.

Tym'pany, *n.* [See TYMPANUM.] (*Med.*) See TYMPANITES.

Tyne (*tīne*), a river of England, which rises in Northumberland, and flowing E. falls into the German Ocean, separating the towns of North and South Shields. The *T.* has a course of only 80 m., but is of great importance, owing to the flourishing towns that line its banks. It is famous for boat-racing.

Ty'ner City, in *Indiana*, a village of Marshall co., 8 m. N.W. of Plymouth.

Tyngsborough, in *Massachusetts*, a post-village and township of Middlesex county, 32 miles N.W. of Boston.

Typ'al, *a.* Pertaining, or having reference to types; typical.

Type, (*tīpe,*) *n.* [Fr.; Sp. *tipo;* Lat. *typus* = Gr. *typos*, an impression, a model.] The mark of something; an emblem. — Stamp; mark; kind; sort. — A sign; a symbol; a token; — especially those by which it is said that Christ was prefigured to the Jews, whether figures, as the Brazen Serpent, the Lamb of the Passover, the Sacrifice of Isaac; or persons, as Moses, David, Jonah, &c.

(*Nat. Hist.*) A general form, or that form which gives the character of similarity to a group of individuals; an example or pattern; the primary model, according to which the parts of an animal body are formed. It is synonymous with the term BRANCH, *q. v.*

(*Fine Arts.*) The primitive model or pattern of an object or work of art; the impression on a coin or medal of any image or figure whatever.

(*Med.*) The particular form of a disease, as respects the order in which the symptoms appear and succeed each other. —*Dunglison.*

(*Typog.*) The letters, marks, and signs of all kinds (the small sizes cast in metal, the largest cut in wood) with which books, newspapers, broadsides, &c., are printed; — in a collective sense, printing-letters; print.

—*v. a.* To prefigure; — also, to represent. (R.)

Type'-founder, *n.* One who casts or makes type.

Type'-founding, *n.* The act, or the art, of casting types used in printing.

Type'-foundry, Type'-foundery, *n.* A place where the business of casting type and other material used in printing-offices is carried on.

Type'-metal, (*mĕt'l,*) *n.* The alloy of lead and antimony used in casting printer's types, the usual proportions being one part of antimony to three of lead, but a superior and harder kind of type is sometimes made by alloying two parts of lead with one of antimony and one of tin. Both these alloys take a sharp impression from the mould or matrix, owing to their expansion on solidification, and they are hard enough to stand the work of the press, without being brittle or liable to fracture.

Typha'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Arales.* DIAG. Numerous flowers on a naked spadix, a scaly or hairy calyx, long filaments, a solitary pendulous ovule, a seed adherent to its pericarp, and slit embryo.— They consist of herbs with rigid linear leaves and monœcious flowers, arranged on a spadix or in heads. They grow in watery places, chiefly in the northern parts of the world. The young shoots of *Typha latifolia* and *angustifolia* are sometimes boiled and eaten like asparagus. Their rhizomes are also edible.

Typhoid Fever, (*ti-foid',*) *n.* [Eng. *typhus*, and Gr. *eidos*, form.] (*Med.*) A disease which so much resembles in its main features that of typhus, that until very recently the two were generally regarded as but different stages of the same affection. There appears good reason, however, for believing them to be essentially distinct disorders. *T. F.* usually commences more insidiously and more gradually than typhus; the sufferer is less dull and stupid, but more anxious, and during the delirium decidedly more active, and even vivacious. Diarrhœa is almost always present in *T. F.* (often accompanied with hæmorrhage), very rarely in typhus. In the former the eruption consists of rose-colored spots, thinly scattered, and often entirely absent. *T. F.* is most common in youth, and rarely attacks persons after forty; while typhus may occur at any age; and the former does not reach its height for a week later than the latter. The general treatment required in both cases is alike, except in one or two particulars. At the commencement of *T. F.*, emetics are of service, but aperients should rarely be given, in consequence of the tendency to diarrhœa. The intestinal irritation and diarrhœa require for their treatment astringents, combined with opium, which may be administered either by the mouth or rectum. If there be hæmorrhage from the bowels, cold ought to be applied carefully over the abdomen. During convalescence, the patient requires to be carefully attended to, as relapses are apt to occur; and the return to a generous diet must be very gradual.

Typhoma'nia, *n.* (*Med.*) A low delirium commonly attendant on typhus fever.

Typhon, (*tī'fon.*) *n.* (*Greek Myth.*) A famous giant who was reputed to be the son of Tartarus and Terra, and fabled to have a hundred heads shaped like those of a serpent, and with devouring flames darting from its many mouths and eyes. Typhon, as soon as born, to avenge the death of his brother giants, made war on heaven, compelling the gods to disguise themselves and fly for safety; Jupiter, however, regaining courage, threw off the resemblance of a ram which he had assumed, and, hurling his thunderbolts at the audacious invader, flung him to earth wounded and writhing, when, to prevent his recovery, he cast Mount Etna at his head, and buried the rest of his body beneath the island. Through this vast mountain, however, the imprisoned giant still belches forth his fire and smoke, and bowls his discontent thunder.—In the Egyptian mythology, Typhon is the name given to the Evil Genius.

Typhoon, (*tī'fōōn.*) *n.* A furious whirlwind, tornado, or hurricane, moving forward with irresistible rapidity and violence; it is of common occurrence in the Chinese seas. The term is sometimes applied to the SIMOOM, *q. v.*

Ty'phous, *a.* Belonging, or relating to typhus.

Typhus, (*tī'fus,*) *n.* [Gr. *tuphō*, I smoulder, or burn and smoke without vent.] (*Med.*) A kind of continued fever, characterized by the ordinary symptoms of fever, with debility in the nervous and vascular systems, and a tendency in the fluids to putrefaction. It is so called because it burns not in open violence, as an inflammatory fever does, but with a sort of concealed and smothered flame. Any of the ordinary causes of fever may give rise to *T.*, the typhoid form being often dependent on the state of the constitution on which the cause is acting. Hence cold, intemperance, mental agitation, &c., which in strong and sanguineous habits might generate an inflammatory fever, will often in a debilitated and nervous constitution give rise to *T.* By far the most common cause of typhus is by contagion from febrile miasma, the activity of which is much increased by the crowding in close and ill-ventilated places, filth, insufficient nutriment, and other causes tending to depress the vital power. It is eminently contagious and infectious, and often prevails epidemically. It does not always commence in the same way, and sometimes it may be several days before the disease assumes its proper aspect, during which the patient may continue his ordinary occupation, but complaining of chilliness, nausea, thirst, loss of appetite, languor, and headache. Frequently, however, the precursory stage is short, or altogether wanting, and it commences with symptoms which are common to many acute diseases. Sometimes it sets in with a shivering fit or a severe headache, accompanied with great prostration and muscular pains in various parts. There are also dryness and heat of skin, thirst, constipation, and rapid pulse, with great irritability and restlessness towards the evening. Sometimes, even during the first stage of the disorder, the prostration of strength is so great that the patient lies on his back motionless, and is insensible to all that is going on around him. Towards the end of the first week the eruption peculiar to *T.* begins to show itself. It consists of irregular spots of a dusky or mulberry hue, disappearing on pressure, and feeling as if slightly raised above the skin. They may be few and single, or numerous and large, owing to the coalescence of several of them; their number and depth of color being in proportion to the strength of the attack. In a day or two they become of a brick-dust color, and only slightly fade on pressure, while each patch of eruption remains permanent till the end of the fever. It is rarely absent in adults, but in children, particularly in mild cases, it does not appear perhaps in more than three out of every four instances. During the second week the pulse becomes more frequent, weaker, and more compressible, the tongue darker and browner, and the voluntary movements very much weakened. The voice becomes feeble, and the patient can scarcely utter an audible sound; perhaps he may be unable to swallow, which is always regarded as a very bad symptom. It is at this period that delirium is most apt to ensue, and the patient generally loses his headache. During this stage there is great deficiency of sensation, and insensibility to impressions. It is in the course of the second week that the disease is most apt to terminate fatally. As it approaches this termination, a peculiar fœtor is exhaled by the patient's body; his tongue becomes dry, black, and fissured; his teeth are covered with dark sordes; sloughs form on different parts, and in extreme cases the toes have mortified. During the third week the patient's chance of recovery improves; in which case the more formidable symptoms begin gradually to diminish and abate. He begins once more to take an interest in what is going on around him, the temperature of his skin becomes more natural; the tongue moist and cleaner; and the frequency of the pulse much less. In many cases the improvement is so gradual that it is impossible to say when it begins; in others it is preceded by a marked aggravation of most of the other symptoms. In the early stages of this disease it is best not to interfere much with nature's operations: the principal aim ought to be to keep the patient alive until the fever poison has expended itself. When seen early, however, it is often of advantage to administer an emetic or a purgative; and the patient's uneasy sensations will be much soothed by sponging the surface of the body with tepid water. Directly the powers of life begin to fail, a stimulating course of treatment should be commenced,—a strong beef or chicken tea, with wine or brandy, frequently administered, taking care that it does not aggravate the febrile symptoms. When there is much general irritability and sleeplessness, a dose of opium may be given. As the patient begins to recover, a course of tonics will expedite his restoration to health.

Typ'ic, Typ'ical, *a.* [Fr. *typique;* Gr. *typikos.*] Pertaining to, or forming a type; emblematic; figurative; representing something future by a form, model, or resemblance.

(*Nat. Hist.*) Combining or designating the essential characteristics of a type.

Typic fever. (*Med.*) A fever following the diagnosis of a particular type; — correlative to *erratic fever.*

Typ'ically, *adv.* In a typical manner.

Typ'icalness, *n.* State or quality of being typical.

Typification, (*-kā'shun,*) *n.* Act of typifying or emblematizing.

Typ'ifier, *n.* One who, or that which, typifies.

Typ'ify, *v. a.* (*imp.* and *pp.* TYPIFIED.) [Eng. *type*, and Lat. *facio*, to make.] To make typical; to represent by an emblem, image, form, model, or resemblance.

Typinsan', the most E. and the largest of the Madjicosima Islands, in the China Sea; *ext.* 20 m. long, with a breadth of 10 at its widest point. Lat. 24° 42′ N., Lon. 125° 29′ E.

Typo, (*tī'po,*) *n.* [An abbreviation of *typographer.*] A colloquialism for a compositor or type-setter.

Typog'rapher, (*-fer,*) *n.* [Fr. *typographe.*] A printer.

Typograph'ic, Typograph'ical, *a.* Pertaining or having reference to typography or printing; as, the *typographic* art.

Typograph'ically, *adv.* In a typographical manner.

Typog'raphy, *n.* [Fr. *typographie*, from Gr. *typos*, typo, and *graphō*, to write.] The art of printing, or the operation of impressing letters or words on forms of type. See PAINTING.

Typol'ogy, (*-je,*) *n.* [Gr. *typos*, type, and *logos.*] The doctrine of types or figures, or a discourse on types.

Tyr. (*Scand. Myth.*) The son of Odin, and the god of war and of fame, which idea is expressed in old Norse by the word *tyr.* According to the Edda, he was single-handed. When the Asa-gods persuaded the wolf Fenrir to allow himself to be bound with the bandage Gleipnir, Tyr put his right hand in the wolf's mouth, as a pledge that he would be loosened; and when the gods refused to release him, the wolf bit off Tyr's hand to the wrist, which was called, in consequence, *Ulflithr*, or the Wolf's Joint. In the twilight-battle of the gods, he meets his death at the same time with his enemy, the monster dog Garmr.

Tyran'nic, Tyran'nical, *a.* [Fr. *tyrannique.*] Pertaining to, or suiting a tyrant; arbitrary; unjustly harsh or severe in government; imperious; despotic; cruel; as, *tyrannical* power.

Tyran'nically, *adv.* In a tyrannical manner.

Tyrannicidal, (*-sīd'-,*) *a.* Pertaining or relating to tyrannicide.

Tyran'nicide, (*-sīd,*) *n.* [Fr., from Lat. *tyrannus*, a tyrant, and *cædere*, to slay.] The act of slaying a tyrant. — The killer of a tyrant.

Tyrannize, (*tĭr'ran-nīz,*) *v. n.* [Fr. *tyranniser.*] To act the tyrant; to exercise arbitrary power; to rule with unjust and oppressive severity.

—*v. a.* To oppress; to subject to arbitrary treatment.

Tyranny, (*tĭr'-,*) *n.* [Fr. *tyrannie.*] Rule, sway, or authority of a tyrant; arbitrary or despotic exercise of power; unjust or oppressive abuse of sovereign or magisterial power. — Cruel government or discipline; oppressive tendency or command; as, the *tyranny* of an imperious husband. — Severity; rigor; inclemency; as the *tyranny* of arctic weather.

Ty'rant, *n.* [Fr. *tyran;* Lat. *tyrannus*; Gr. *tyrannos.*] Originally, one who obtained supreme or absolute power by usurpation, or who derived it from one who had ob-

tained such power by usurpation, and maintained it by force, although he might exercise his power with strict moderation.—Specifically, a monarch, or other ruler or governor, who takes advantage of his power to oppress his subjects or fellow-citizens; one who exercises unlawful authority, or legal authority in an unlawful manner; one who acts towards those who are subordinate to him, in a manner which law and humanity do not authorize, or which the purposes of government or policy do not require; a despot; a cruel task-master; an oppressor.

Tyrant Fly'catcher, *n.* (*Zoöl.*) The King-bird. See FLY-CATCHER.

Tyre, (*tīre.*) [Heb. *Tsoor*; Ar. *Soor.*] (*Anc. Geog.*) A famous city of antiquity, on the coast of Phœnicia, 24 m. to the S. of Sidon. The first city of *T.* was built on the mainland, but the second and more important city was erected on an island about a mile long, running parallel with the shore, but separated from it by a strait of the Mediterranean a mile wide. The city covered the whole island, and was of extraordinary magnificence and beauty, while its wealth made it the envy of all surrounding nations. *T.* had two capacious harbors, and the whole island was surrounded by a strong wall 150 feet in height. It was the emporium of all the commerce of the then known world, and the fleets of its merchant princes traded to all parts of the earth. The Tyrians were celebrated for their splendid dyes, especially of scarlet and purple, for their skill in all mechanical arts, their metallic work, industry, and commerce. In the time of David and Solomon, the Tyrian king, Hiram, maintained friendly relations with the Israelites, and his people, as the importers and chief workmen of Solomon, greatly assisted that monarch in the building of his temple. *T.* is repeatedly mentioned in the Old Testament for its strength, wealth, and beauty, and is threatened with destruction for its pride and grandeur. It was frequently subjected to the horrors of war, endured many long and fearful sieges, and became nominally a tributary state to the Assyrians and Persians. Alexander III. took *T.* after a seven months' siege of extraordinary difficulty, during which he constructed a mole connecting the insular city with the mainland, in July 332 B.C. *T.* was taken from the Saracens by the Crusaders, after a siege of five months and a half, June 20, 1123. Saladin sought in vain to retake it in 1187. The prosperity of *T.* was not finally destroyed until the conquest of Syria by the Turks in 1516. At present it is a poor town, called *Sur*, or *Soor*, with a *pop.* of abt. 3,000. It occupies the E. side of what was formerly the island, 1 m. long, and ½ m. from the shore, thus enclosing two so-called harbors separated by Alexander's causeway, which is now a broad isthmus. The only real harbor is on the N.; but even this is too shallow to admit any but the smallest class of vessels. It is filled, and the N. coast of the island lined with stone columns, whose size and countless number evince the former magnificence of this famous city.

Tyre, (*tīr*), in *New York*, a post-township of Seneca co.

Tyrian, (*tīr'-*,) *a.* [Lat. *Tyrius*; Gr. *Tyrios.*] (*Geog.*) Pertaining or having reference to Tyre, or to its people.
—Purplish in color, like the dye called *Tyrian purple.*
—*n.* (*Geog.*) A native or inhabitant of Tyre.

Tyringham, in *Massachusetts*, a post-township of Berkshire county, 126 miles south-west of Boston.

Ty'ro, *n.*; *pl.* TYROS. [Fr. *tyron*, from Lat. *tiro*, a recruit, a young soldier.] One who is employed in learning the rudiments of any branch of study; a beginner in learning, practice, or experience; a novitiate; a raw hand.
—Hence, a person having but a slight acquaintance with any subject.

Tyrol, (*tĭr'rol*; Ger. *te-rōl'*,) a prov. of Austria, including the Vorarlberg, and bounded N. by Würtemberg, Bavaria, Italy, and Switzerland, between Lat. 45° 39′ and 47° 46′ N., and Lon. 9° 35′ and 13° E.; *area*, 10,689 sq. m. Of all the countries of Europe, *T.* is the most exclusively mountainous. The Rhætian Alps traverse it from W. to E., and separate the valley of the Turr from those of the Drave and the Adige. The two loftiest peaks are the Ortlerspitz in the W., 12,855, and the Gross-Glöckner in the E., 12,438 feet above the sea. The chief rivers are the Turr, Drave, and Adige.—Wheat, rye, barley, oats, and Indian corn are grown in the more fertile districts, and, with hops, tobacco, flax, and hemp, and an abundance of fruit, constitute the most important products of agriculture. Though a good deal of flax is spun, some silk manufactured, and glass and paper made, the *T.* is by no means a manufacturing country. The inhabitants are frugal, hardy, brave, and industrious, and belong to the Roman Catholic Church; in the S. they resemble the Italians, while in the N. they more resemble the Germans, whose language they speak. The *T.* is divided into the 4 circles of Innspruck, Brixen, Trent, and Bregenz. The province is governed by its own national diet, composed of nobility, clergy, and deputies from the towns and districts, who hold their sittings at the capital, Innspruck. *Pop.* (1897) 1,010,200. This country passed to the house of Hapsburg in the 13th century, and its inhabitants are the most attached of any to the rule of the Austrian empire. (See HOFER.)

Fig. 2546.—A TYROLESE.

Tyrolese, (*tĭr-ŭl-eez'*,) *a.* (*Geog.*) Pertaining or relating to Tyrol, or to the people of that country; as, a Tyrolese jodel.
—*n. sing.* and *pl.* (*Geog.*) A native or inhabitant of Tyrol; plurally, the people of that country.

Tyr'olite, *n.* (*Min.*) A hydrated arseniate of copper with carbonate of lime, composed of 24·4 per cent. of arsenic acid, 43·8 oxide of copper, 9·18 water, and 11·0 carbonate of lime. It occurs in several parts of Tyrol, usually in small reniform aggregations, and diverging fibrous groups of a pale green color, and with a pearly lustre.

Tyrone', a co. of Ireland, prov. of Ulster; *area*, 1,266 sq. m. The surface is rough and mountainous in the N. and S., and in other parts hilly and scant of wood; but many portions of the soil are rich and fertile, and equally adapted for tillage and pasturage. The chief towns are Strabane, Dungannon, and Omagh.

Ty'rone, in *Michigan*, a township of Kent county.
—A post-township of Livingston co.

Tyrone, in *Minnesota*, a township of Le Sueur county, immediately north-east of the village of Le Sueur.

Tyrone, in *New York*, a post-village and township of Schuyler co., 18 m. N.N.E. of Bath.

Tyrone, in *Pennsylvania*, a township of Adams co.
—A post-borough of Blair co., 117 m. N.W. of Harrisburg; has extensive industries. *Pop.* (1897) 5,250.
—A village of Fayette co.
—A township of Perry co.

Ty'ronism (*-nĭzm*), *n.* State of being a tyro, novitiate, or beginner.

Tyr'rel, in *North Carolina*, an E. co., bordering on Albemarle and Pamlico sounds; *area*, 380 sq. m. It is traversed by the Alligator river. *Surface*, level and partly covered with swamps; *soil*, sandy. *Cap.* Columbia. *Pop.* (1897) 4,560.

Tyr'rell, in *Pennsylvania*, a village of Venango co.

Tyrrhe'nian Sea. The name given by ancient geographers, and sometimes retained by modern writers, to express that part of the Mediterranean extending between the coast of Italy in the N., and the islands of Corsica and Sardinia in the W., and Sicily in the E.

Tyrtæ'us, an ancient Greek poet, celebrated for his martial strains, flourished about B.C. 680. His birthplace is unknown. He was lame, and blind of one eye. In the war between the Lacedæmonians and Messenians, the former applied to the Athenians for a general; and the latter, it is said, in derision, sent them *T.* The bard, however, so inspired the Spartans by his warlike songs, that they reduced the Messenians to subjection. He was accordingly treated with great respect, and received the rights of citizenship. Some fragments of his songs are extant.

Tythe, *n.* An old orthography of TITHE, *q. v.*

Tzar, (*zar*,) **Tzari'na, Tzarit'za,** *n.* See CZAR, and CZARINA.

Tzaritzin, (*tsar-rit-seen'*,) a fortified town of Russia, on the Volga, 110 m. from Kamishin. It is celebrated for its mineral waters. *Pop.* 6,000.

Tzintzontzan, (*tsint-soo-tsan'*,) in Mexico, a town of, Michoacan, 20 m. S.W. of Valladolid; *pop.* abt. 2,500.

T.—SECTION II.

Ta'ber, Julia Marlowe, actress, was born in England, her family name being Brough; came to the U. S. when five years of age, and made her first appearance on the stage in a juvenile *Pinafore* company. When she was 12 years old this company was disbanded, and she was sent to school until she was 16; for four years after this she was in training for the stage, studying *Rosalind, Juliet, Parthenia,* and similar parts. She made her début in New York city as *Parthenia,* and established a high standard, to which she has always adhered. Her impersonations include all the lighter heroines of Shakespeare, and several modern plays. In 1896 she appeared in a dramatization of *Romolo,* and (1896–97) in the romantic scotish play *For Bonnie Prince Charlie.* In 1894 she was married to Mr. Robert Taber, who has for several years taken leading parts in her repertoire.

Tachym'eter, *n.* A surveyor's transit-instrument, as equipped with stadia-wires for stadia-surveying (*q. v.*).

Tach'yscope, *n.* A toy for exhibiting pictures representing continuous motion. A series of instantaneous photographs is mounted on a circular plate, and rotated in a field of view with an intermittent motion. Compare Phenakistoscope and Kinetoscope.

Taco'ma, in *Washington,* a city, cap. of Pierce co., on Puget Sound, 25 m. N.E. of Olympia. At the head of navigation on the sound, with a good harbor and an important commerce, lumber, coal and wheat being largely shipped. Is extensively engaged in the lumber manufacture, having many large saw-mills, numerous planing-mills and sash and door factories, shingle-mills, &c. *Pop.* (1897) 45,000.

Tacon'ic Sys'tem. (*Geol.*) A term formerly applied to an extensive system of rocks, well represented in the Taconic Mountains, western Massachusetts, formerly regarded as presilurian, but now held by geologists to be truly Silurian, so that the name is now little used.

Taft, Lorado, sculptor, was born at Elmwood, Ill., April 29, 1860; studied art in Paris 1880–83; settled as a sculptor in Chicago in 1886, producing statues of Grant, Colfax, etc., and monumental and decorative work, and lecturing on painting and sculpture.

Taft, William Howard, secretary of war, was born in Cincinnati, O., Sept. 15, 1857. He studied law; practiced in Ohio 1883–87; was judge of the Superior Court 1887–90; solicitor-general of the U. S., 1890–92; U. S. Circuit judge 1892–1900, and dean of law department Univ. of Cincinnati 1896–1900. He was president of the U. S. Philippine Commission 1900–03, and civil governor of the Philippine Islands 1901–03. In February, 1904, he succeeded Elihu Root as secretary of war.

Tahkee'na River. (*Geog.*) A river of the Yukon district, and one of the headwaters of the Lewes. Its sources are at the foot of the Chilkat Pass, where it flows out of West Kusswa Lake (afterward named Lake Arkell); it was formerly much employed by the Chilkat Indians as a means of reaching the interior, but was never in favor with the miners, and is now rarely followed by the Indians themselves, although its navigation from the lake down is reported to be easy. It empties into the Lewes river about 12 miles above Lake Lebarge. See Yukon.

Taine, Hippolyte Anolphe, historian and critic, was born at Vouziers, in Ardennes, France, April 21, 1828; studied at the College de Bourbon and l'École Normale, Paris; taught for some years, and gained his doctor's degree in 1853; thereafter devoted himself to literature. He won the Academy prize for an essay on Livy; published *Travels in the Pyrenees* (1855); *The French Philosophers of the Nineteenth Century* (1856); *Critical and Historical Essays,* in which he gave penetrative estimates of Carlyle and John Stuart Mill; *History of English Literature* (1864), a work that commanded the attention of English readers, and which is adjudged to be the most entertaining as well as the most critical work on the subject. In 1866 he published the series of lectures on art which he had delivered from the chair of History of Art and Æsthetics in l'École des Beaux-Arts, Paris, to which he was appointed in 1864. Another work on the same subject, *The Philosophy of Art in Greece,* was published in 1870; *Notes on England* (1871); *Notes on Paris* (1867); *A Voyage to Italy* (1866), &c. His greatest work in volume and in significance is *Origin of Contemporary France* (5 vols., 1876–90). It is in three sections: *The Ancient Régime, The Revolution,* and *The Modern Régime,* and is characterized by his usual critical method, which takes into account race, environment, and social characteristics of the age, and the various moulding influences surrounding individual characters. In 1871 *T.* received the degree of D.C.L. from Oxford, and in 1878 he was elected a member of the French Academy. Died March 6, 1893.

Tait, Archibald Campbell, ecclesiastic, was born in Edinburgh, Scotland, Dec. 22, 1811; educated at the Edinburgh Academy and Glasgow College, and later at Baliol College; was one of the leading opponents of the Puseyites. He became master of Rugby (1842); dean of Carlisle (1849); bishop of London (1856); archbishop of Canterbury (1868), the appointment being tendered him by Disraeli. In 1878 he presided over the Lambeth conference. He wrote many theological works in the conversational-lecture style adapted to popular comprehension. As Primate of England his personal influence was used to promote peace and harmony in church discussions. Died Dec. 3, 1882.

Tallahas'see, in *Alabama,* a post-village of Elmore co. *Pop.* (1897) 1,510.

Tallyho', *n.* The cry of the huntsman to urge on the hounds.—A four-in-hand coach or drag; perhaps from an individual coach having once been so named.

Tal'mage, Thomas De Witt, clergyman, was born at Bound Brook, N. J., Jan. 7, 1832; studied law, but soon entered New Brunswick Theological Seminary, graduating in 1856; preached first at Belleville, N. J., then at Philadelphia, and was called to Brooklyn, N. Y., in 1869. His church, known as the "Brooklyn Tabernacle," was burned in 1872; another was built, and that also was burned in 1889; a third structure, which cost about $400,000, and dedicated in 1891, was likewise destroyed by fire in 1894. Dr. Talmage removed to Washington, D. C., in 1895. Besides his great popularity as a preacher, he was for 30 years one of the most successful platform lecturers in the U. S. In 1889 he visited England, and afterward made a tour of Palestine and Continental Europe. His sermons and addresses have been published in daily and weekly journals, and also in book form. Died April 12, 1902.

Talo'ga, in *Oklahoma,* a post-village, cap. of "D" co., 70 m. from Kingfisher. *Pop.* (1897) 300.

Tam O'Shan'ter. The hero of Burns' poem of the same name; a good-natured, drunken rascal who is pursued by witches, but escapes.—A cap with a close-fitting rim surmounted by a large, flat top, usually with a knob or tassel in the center, made from various materials. In Scotland, a tight-fitting woollen cap or a braid bonnet.

Ta'ma, in *Iowa,* a thriving town of Tama co., 50 m. W. of Cedar Rapids; excellent water-power from the Iowa river; has farm-implement works and other industries. *Pop.* (1895) 2,196.

Tam'muz, a god of the Babylonians mentioned in Ezekiel viii., 14, where, it is said, the Israelitish women were weeping for him. Tammuz represents the spring vegetation which ends in the fourth month. For this reason the Babylonians named this month after the god; and as the Jews took the names of the months from the Babylonians, Tammuz was taken among the rest. It seems quite certain that there is some connection between the cult of Tammuz and that of the Greek Adonis. The real home of the Adonis worship appears to have been Syria and Asia Minor, though it is found as early as the 7th century B.C. in purely Greek countries. That sexual excesses were connected with the worship of Tammuz is evident from the phallus which still plays a part in the modern Persian festival of Husein, which, it is proved by Eerdman, contains remnants of the old Tammuz worship.

Tam'pico Fi'ber. (*Bot.*) Strong fibers, *piassava* (see Leopoldinia) or *istle,* used in the place of bristles for brushing, and exported from Tampico, Mexico, whence the name. The *istle* is an important tough fiber, also known as *ixtle, pita,* or *pinuella.* It is obtained from the long leaves of *Bromelia sylvestris,* a member of the pineapple family, cultivated in Mexico and largely exported, for use in belt-making, for bagging, cordage, hammocks, etc., and as a substitute for flax, as it is fine and white in the young plants, although short.

Tana'gra Figurines'. (*Archæol.*) A class of antique terra-cotta statuettes and reliefs first found in 1873 in the necropolis of Tanagra, in Bœotia, Greece, 24 miles northwest of Athens, but since sought for and discovered in other localities in Greece. They usually date from about 400 B. C., though some of them are evidently from prehistoric times. The earlier and ruder specimens are usually quite small, the finest of the later figures being only 8 to 9 inches tall. Although they are often found grouped around the bodies in the stone tombs or packed in vases, they seldom have any reference to death, but represent the simple everyday life of the Greeks. Most of the figures are of young women in a great variety of positions and usually draped, the draperies arranged in the countless graceful ways which were known to the Greek women. Sometimes a group of girls playing together is represented, or one girl is carrying another upon her back, or a girl is playing with an infant Eros, whom she appears half to dread. The motives, although numerous, are repeated over and over, for the figures were cast in clay moulds, many of which are still extant, but as the head was formed in a separate mould, replicas were often varied by giving the figures different heads or accessories. After the different parts were put together, the moulding was perfected with tools for the purpose, and, after baking, color was applied. The hair was usually made a rich auburn, the eyes blue, the lips crimson, the flesh a creamy white, and the draperies white or of any delicate tints most needed in the composition; gold leaf was used freely in the ornaments and in the borders of the draperies. Although in some other parts of Greece terra-cotta statuettes have been found of a purely sculpturesque style, those of the class found in Tanagra are very rarely heroic in motive, but belong to what is known as *genre* in art, giving a poetic representation of human character. They evidently derive their inspiration from contemporary literature, that of Theocritus, of Moschus, and of Bion. Besides occurring in graves, they are sometimes found in temples, as if they had been offerings, or buried beneath the temples, as if to purify the site, according to an old custom in Egypt. Their abundance proves them to have been inexpensive, probably the work of unknown artists, and within the means of the poorest, yet by the grace and refinement of their treatment they stand high as art, and help to give an idea of the inherent artistic culture of the whole Greek people.

Tana'na River. (*Geog.*) One of the largest tributaries of the Yukon, rising from the northern slopes of Mt. St. Elias (see St. Elias Alps) and flowing northwest some 600 miles through almost unexplored regions to the Yukon at the 152d meridian. Gold has been found along its course at various places, and it is navigable for half or more of its length.

Ta'ney, Roger Brooke, jurist, was born in Calvert co., Md., March 17, 1777; son of a planter; graduated at Dickinson College (1795); admitted to the bar (1799); became attorney-general of the U. S. (1831), and secretary of the treasury (1833), in which office he sustained President Jackson's position in regard to the U. S Bank question. In 1835 he was appointed associate justice of the Supreme Court; the Senate "indefinitely postponed" action on the nomination; Chief Justice Marshall died meanwhile, and *T.* was nominated to the vacant seat, which appointment was reluctantly confirmed by the Senate that he had so seriously antagonized. The most famous decision rendered by *T.* was that in the Dred Scott case. It is now believed that *T.*, while deciding adversely in this case, was not actuated by the intense pro-slavery sentiments that were attributed to him at the time and since, but that he rendered decision in accordance with what he believed to be the correct construction of the law. Upon inheriting his slaves he freed them, which indicates that he was not practically disposed to slavery, however strongly he may have sustained the institution in theory. The State of Maryland, by an interesting coincidence, abolished slavery on the very day of *T.*'s death, October 12, 1864.

Tanganyi'ka, a lake of E. Central Africa, S. of Lakes Victoria and Albert, all three having been discovered by Speke and Burton in 1858. They supposed that Tanganyika belonged to the Nile basin, but this theory was disproved by Livingstone and Stanley, in 1871. Its south and west coasts were surveyed in 1874 by Cameron, who discovered on the west side an outlet, the Lukuga. Stanley found, in 1876, that this channel communicates with the Lualaba, or Upper Congo, although he was satisfied that the channel is generally dried up in certain parts of its course, and carries the overflow of Tanganyika westward at intervals of years only. Thomson reaffirmed the connection between Tanganyika and the Congo by the Lukuga. Mr. Lore found the height of the surface, in March, 1879, to be

2,700 feet above the sea; in August, 1880, the water had fallen 30 feet 4 inches. The lake, which is about 600 miles from the coast, lies between 3° and 9° S. Lat. Its length is 420 miles (nearly a fifth longer than Lake Michigan); its breadth varies from 15 to 80 miles. The water is fresh and wholesome, the climate not unhealthy. The lake is surrounded by high mountains, some of them 10,000 feet in height. The scenery is beautiful, and the shores abound in animals of all kinds. The surrounding country is, in many places, densely populated. The most important town is Ujiji, on the eastern shore. As a line of connection between the Zambesi basin and the Nile, the lake is, in a very true sense, the heart of Africa.

Tannhäuser (*tän'-hoi-zĕr*). The hero of a German mediæval legend, a knight who, in the course of his travels, comes to the Venusberg, and enters the cave-palace to behold the wonders of the Lady Venus and her court. After living there for some time in every kind of sensual delight, his conscience smites him. He invokes the Virgin Mary, and makes a pilgrimage to Rome, to seek from Pope Urban, through confession and penance, remission of his sins, thus escaping damnation. The Pope, when he hears the knight's story, tells him that he can as little obtain God's mercy as the rod in his hand can become green again. Thereupon Tannhäuser departs in despair and returns to the Lady Venus. Three days after he had gone, the dry rod began to sprout and bear green leaves. Thereupon the Pope sent messengers to every country to look for the knight, but in vain, for he could nowhere be found. A ballad, once very popular all over Germany, and even beyond it, narrated this legend, the substance of which goes back to the days of German paganism. Wagner used the legend for an opera. As a matter of fact, in the middle of the 13th century, in the time of Pope Urban IV. (1261–65), there lived in Germany a Bavarian knight named Tannhäuser, who was a minnesinger and composed spirited ballads.

Ta'oism, *n.* (*Philos.*) A Chinese religion and also philosophical system which teaches that by non-resistance and inaction man may harmonize his moral and physical natures with their surroundings, and in this negative way overcome all obstacles to happiness and continued life. The philosophy of Taoism dates from the 600th century B.C., and was taught by the philosopher Lao-tse in a little book called *Tao-teh-king*, imperfectly rendered by the English "Classic of the Way and of Virtue." Taoism as a religion is contemporary with the introduction of Buddhism into China, and is counted one of the three great Chinese religions, of which the others are Confucianism and Buddhism. It has adopted Buddhist forms, and has temples, monasteries, idols, and a hereditary pope; it teaches that there are three "Pure Ones," not unlike the Christian Trinity, and that there is a moral system of rewards and punishments in the universe.

Ta'ös. (*Geog.*) The name of a district in New Mexico, about 50 m. north of Santa Fé, watered by the Rio de Taös, a tributary of the Rio Grande. It is a Mexicanized form of the Indian name of a great double pueblo, or adobe community-house of Indians of Tañoan stock, which has existed there since prehistoric times, and is one of the best examples extant of pueblo-architecture. About 400 Indians still inhabit it, but their native customs have become greatly modified by contact with civilization. They were early visited by Spanish priests, who erected a mission church there, the ruins of which remain. Mexicans settled in the valley 200 years or more ago, and began cultivation of the fertile lands, where a village grew up called Fernandez de Taos. This was one of the important centers of civilization when New Mexico came into the Union, and was the scene of a battle, and afterward the seat of the first Territorial government; it was also the residence of Kit Carson and Colonel Bent. It is now a flourishing town of about 4,500 population, and affords a good market to the Indians, who are diligent farmers and stock-raisers upon their small reservation, and are quite self-supporting. Remnants of the same nationality inhabit the Tigua (*tee'-wa*) group of pueblos on the Rio Grande.

Tarbell', Ida M., writer, was born in Pa., in 1860; became a writer for the *Chautauquan*, and contributed much to its success; resided in Paris, engaged in work for various periodicals; became connected with *McClure's Magazine*, for which she wrote biography during 1895–96.

Taren'tum, in *Pennsylvania*, a post-borough of Allegheny co., 22 m. N.E. of Pittsburg; has plate glass and flint glass factories, paper mills, &c. Rich coal mines in the vicinity. *Pop.* (1897) 5,500.

Tari (*tah'-rē*), *n.* (*Bot.*) The sap of *Phœnix sylvestris*, a species of palm, used in the production of date-sugar and also as a fermented beverage.

Tar'iff, *n.* (*Polit. Econ.*) A rate of duty, or the duty itself, on articles imported or exported. In mediæval Europe such duties were levied for the sake of revenue, but were early found to help special industries by their discriminations; and in 1664–67 Colbert made them an important part of his financial scheme. Other countries levied similar duties, both for revenue and protection, and, later France and England made war against each other as much by discriminating duties as by arms. The treaty of 1786 was a sort of truce, with its system of reciprocal reductions, but it was soon set aside by the wars of the Republic, and Napoleon.

Adam Smith and the French economists had laid the foundation for a more liberal policy, and after the fall of Napoleon, a change appeared in England. The Revolution had abolished the tariffs formerly maintained by one French province against another, but had established duties almost prohibitive on foreign importations; but in England the need of food beyond the product of her fields, and of raw material and markets for her growing manufactures, made free trade popular, and under the lead of Huskisson in 1824, Lord Althorp in 1832, and Cobden in 1842, the corn-laws were repealed in 1846, and with the Irish famine that year the protective system fell. Further reductions in duties were made in 1853, and in 1860 a treaty was made between England and France admitting imports at a duty of 10 per cent. Since 1860 England has levied duties only on articles not produced in the country—like wines, tea, and coffee; or, if so produced, like spirits, has balanced the duty by an internal revenue tax of like amount, and England has fully adopted the principle of free trade. This has not prevented the adoption of some protective duties in Canada and Australia, but the expectation that a general Colonial policy of protection would seriously modify the British system of free trade was quite negatived by the leading Colonial representatives at the Queen's jubilee in 1897.

In France, however, the treaty of 1860 was never popular, and was ended in 1881, and in 1891–92 France adopted a system distinctly protective, though providing for reciprocity in certain cases.

In Prussia Frederick II. established a system of strong protection, which, however, was somewhat moderated in 1818. Confusion following the varying tariffs in the different German states, a *zollverein*, or customs union, was formed in 1834, establishing free trade between the states of the union, but applying the moderate Prussian tariff of 1818 to foreign imports. In 1853 there were reciprocal reductions of duties between the states of the *zollverein* and Austria. Prussia urged further reductions in 1861, and made an independent treaty with France in 1862, which led to general *zollverein* reductions. But the Liberal party was overborne by the consolidation of the German Empire, which laid duties on farm products, hitherto free, and higher duties on manufactures. Reciprocal reductions, however, were made with Austria and Italy in 1892 as to grains and wines, and a like reciprocity was established with Russia in 1894 as to wheat and barley.

In the United States, before the adoption of the Constitution, Congress proposed a duty on imports, but was unable to secure consenting action of the several States; but in 1789 Madison proposed that specific duties be levied on liquors, wines, and certain other imports, and an *ad valorem* duty on all others; and a tonnage duty on American importing vessels, and a higher rate on foreign vessels. Some manufactures petitioned for rates that would protect their business. This first tariff act of Congress received Washington's signature July 4, 1789. Hamilton recommended a second tariff act, increasing duties by an average of 2½ per cent., which was passed Aug. 10, 1790; and other increases were made in 1791, 1792, 1794, 1797, 1800, and 1804. Some reductions were made in 1807 and 1808, but the act of 1812, passed as a war measure, doubled all existing duties and added 10 per cent. to goods imported in foreign vessels.

These early tariffs were mainly for revenue, though a part of the duties of 1789 were for protection, and the principle of protection was favored in the manufacturing States of Pennsylvania and Massachusetts. But in 1816 there was a distinct protective movement. Specific duties were laid upon crude iron, as well as upon manufactures, and a duty of 25 per cent. upon cotton goods and woollen goods. Henry Clay appeared in advocacy of protection as an economic principle, and the new law was enacted April 27, 1816. The protective movement was strengthened by a commercial crisis in 1818, and in 1824 the first act was passed for protection only, laying duties on hemp, wool, and iron, and increasing duties on manufactures. Daniel Webster made at this time his first great speech on the tariff, in which he argued against protection as a policy full of danger, as it neglected other interests than those specifically protected. The sentiment of Massachusetts was against the tariff, as her manufacturers wanted free raw material. In 1828 a new act, modifying duties in the interests of manufacturers, was more acceptable in New England, and Webster urged the protection of the established manufacturing system. Duties, however, were reduced in 1828, 1830, and 1832; and in 1833 Mr. Clay's "Compromise Bill" was an effort to save the falling protective system. The Whig party represented high protection of manufactures, and this was the main issue against the Democrats, who advocated free trade and were strong in the agricultural States and great commercial cities. The tariff of 1842 was a Whig triumph, with high duties on iron, cotton goods, woollen goods, paper, and glass, and generally protective duties on manufactures; but in 1846 the Democrats passed the "Walker Tariff," which lowered the protective duties somewhat, and made tea and coffee free.

After 1850 the tariff gave place in popular thought to the question of slavery. The Whig party was succeeded by the Republican party, formed to resist the extension of slavery, and maintained as the Union party during the Civil War, and including great numbers of anti-slavery and Union Democrats. The Morrill Tariff, passed in 1861, after the financial crisis of 1857, put a duty on pig-iron of $6 a ton, and on wool of 3 cents a pound; and the war tariff passed later increased both revenue and protection, and established a system of high protective duties, which were retained after the revenue duties had been reduced as excessive. In 1867 duties on wool and woollen goods were greatly increased, and a compound system of a specific duty *ad valorem* was introduced and largely developed. In 1869 duties on copper were increased. There were reductions and increases in 1870, 1872, and 1875. In 1882 President Arthur appointed a commission to revise the tariff, and some reductions were recommended, but the amendments made in Congress reduced its importance.

The Democratic triumph in 1884 brought the question of tariff reform into prominence. It was strongly urged by John G. Carlisle, of Kentucky, President Cleveland made it the subject of a message to Congress in 1887, and in 1890 William E. Russell was elected by the Democrats governor of Massachusetts on a platform of "free raw materials," and was re-elected in 1891 and 1892. Changes in other States showed that the question of protection and free trade was again before the people, and the parties have had alternate success and defeat, the McKinley tariff of high protection in 1890 being followed by the reductions of the Wilson tariff in 1894, and this again by the Dingley protective tariff of 1897.

In the discussion of free trade and protection, on theoretic principles, a great part of the eminent economists and university professors have favored free trade. They argue that protection taxes the community for the benefit of particular industries; that it causes higher prices, which burden the people generally; that it interrupts the natural development of commerce, and creates irritation and hostility between nations; that it is a survival of the mediæval system of war and plunder, and out of place in the development of peace. It would be intolerable between different States of the Union, and is only less burdensome between different friendly nations.

Protectionists reply that government must accept existing conditions, among which is the hindering of the development of great and varied natural resources by the free trade with other nations farther advanced in some kinds of manufacture, while to prohibit or limit that trade will permit the development of infant industries among us, which presently can stand alone, and greatly bless the whole community. In support of this doctrine they refer to the development of our cotton and iron industries, which they claim were built up by protection, and the silk and tin-plate manufacture, said to have been created by it. The freetraders reply that these wonderful growths should not be credited to protection; that they belong to modern invention and science, and are found in free-trade countries; that the stimulus of protection is not wholesome, but liable to frequent reverses, and the system brings out a horde of corrupt applicants for favors, so that each new tariff is disfigured and disgraced by corrupt lobbying in its passage, while its provisions represent not a wise protection, but the ability of manufacturers to bribe legislators. At the present time the U. S. has a very highly protective tariff, and the protective system is embedded in its laws, comparatively few advocating absolute free trade. The commercial community, for prudential reasons, deprecates any fresh unsettling of the conditions under which business is reviving. Yet it is commonly felt that the present tariff has been fixed upon no principles of science or justice, and few statesmen look for great permanence in its provisions. The campaign slogan, "Protection to American Labor," has a seductive ring, and would be even more effective in elections if labor could feel sure that the "protection" would extend to its own ranks. It is also coming to be better understood that a tariff which checks imports not only reduces the volume of revenue, but also the volume of exports, which, in turn, reduces the demand for the products of labor to a corresponding extent. It has even been suggested that if it is good policy to impose duties for the purpose of keeping out some foreign products in order to protect home producers, it would logically be better policy to absolutely prohibit *all* such imports. The truth is, unfortunately, that almost none of the citizens whose votes decide the tariff question have more than the most crude ideas of the subject; and, as the question has been, and is, very thoroughly identified with partisan politics, there is at present little hope of disinterested popular education on the topic through either the press or the rostrum.

Tar'kio, in *Missouri*, a post-village of Atchison co., 8½ m. N.E. of Rockport. *Pop.* (1897) 1,240.

Ta'ro, *n.* (*Bot.*) The Oceanic name of the rhizomes of species of *Colocasia*, a genus of the *Arum* family. These plants are indigenous to, or are cultivated in, tropical Asia, America, and Africa, eastern Australia, and the South Sea Islands. *C. antiquorum* was known to Pliny as being cultivated in Italy and Egypt. It is the *kolkas* of the Arabs and Egyptians, being largely harvested by them as a winter vegetable. The tuberous, stem-like starchy roots contain an acrid poisonous principle that, being volatile, is lost by cooking; but when cooked the rhizomes afford a valuable starchy food, largely used by native tribes. A fine starch can also be obtained from the tubers.

Tar'pon, or **Tar'pum,** *n.* (*Ichth.*) A large herring-like fish of the genus *Megalops*, which includes the jew-fish, and is represented in all warm seas; specifically, *Megalops thrissoides* of the southern coast of the United States, noted among anglers. This magnificent herring reaches 7 or more feet in length, is clothed with remarkably large and brilliant scales, often 3 inches wide, which are silvery, and are extensively used in ornamental work; hence common names for the fish are "silver king," "grand ecaille," and, in Texas, "sara-

nilla." It is distributed through the West Indies, all along the Gulf coast, and northward to Cape Hatteras. It is carnivorous, and actively pursues and feeds upon schools of immigrating fishes, which are followed by it far up fresh-water rivers. In these forays it often does great harm to the nets of fishermen, and even to the fishermen themselves, by hurling itself against them in its efforts to escape or avoid capture; as a large one may weigh 150 pounds, and is a very powerful swimmer, it is able to inflict serious injury. The fact that this strong and courageous fish will take a hook has led him to be the object of the ambition of every angler within his range; and there are many who consider that the catching and killing of a tarpon on a fly-rod constitute a feat superior in every respect to salmon-fishing. The power displayed and durability manifested may be understood, when it is known that men have been pulled out of their boats by the fish, and that three hours are sometimes required to exhaust a hooked specimen, whose rushes and leaps for life are prodigious. The flesh is excellent fare.

Tar'tan, *n.* (*Fabrics.*) The general name given to Scottish plaid cloths, of variously colored patterns, and of woollen, silk, cotton, or mixed material, but more properly applied only to plaided woollen goods in which the colors are arranged in "setts" having a given width and sequence. The style of this cloth is very old; it has been the material of the Scottish Highland costume for at least four centuries, each clan having a pattern of its own, distinguished by its design or prevalent colors, so as to be recognizable at once.

Taschereau (*tăsh-er-ō'*), Elzéar Alexandre, ecclesiastic, was born at Saint Marie de la Beauce, Quebec, Feb. 17, 1820; educated at the Seminary of Quebec and at Rome; ordained a priest (1842), and occupied the chair of Moral Philosophy at the Quebec Seminary; studied again in Rome (1854–56), receiving the degree of Doctor of Canon Law; returned to Canada, and became director and superior of the Grand Séminaire for various successive periods of office; was distinguished for his interest in educational progress. He was consecrated archbishop of Quebec in 1871, and elected a cardinal in 1886.

Tashkend', or **Tashkent',** the capital of Russian Turkestan, 300 miles northeast of Samarkand; it was captured by Russia in 1868, and consists of the old walled city and a new Russian quarter. The population was 121,410 in 1885, of which nearly one-sixth are Russians. There is a Russian citadel, official buildings, military stores, Russian schools, and an observatory. The town has telegraphic connection with Europe, and is a trading center, besides manufacturing silk, leather goods, and other things.

Tasim'eter, *n.* An apparatus for measuring changes in length, temperature, &c., of bodies, by means of variations in the electrical conductivity of carbon, the result of pressure. See Microtasimeter.

Tasman'nia, *n.* (*Bot.*) Several Tasmanian and Australian species of *Drimys*, a genus of the *Magnoliaceæ*, have been given this generic name. All are shrubs, and have simple, entire smooth and leathery evergreen, dotted leaves, scattered on the branches; and inconspicuous flowers crowded together in the axils of the upper leaves, or terminal, producing little unopening fruits containing several shining black seeds. *Tasmannia aromatica* (now *Drimys lanceolata*) possesses the same tonic and aromatic properties as the

Fig. 3072.—Tasmannia.
(*Drimys lanceolata* or *aromatica.*)

Winter's Bark of Magelhaen's Straits (*Drimys Winteri*), and is substituted for it by colonial doctors. The colonists call it the *Pepper-plant*, and use its little black pungent fruits as a substitute for pepper. It grows in large masses, and in favorable situations attains a height of twelve feet, with a trunk sometimes as much as nine inches in diameter; the branches being somewhat whorled, and when young clothed with red bark. Under the microscope the wood exhibits a structure resembling that of many coniferous plants, the fibers being marked with similar circular disks.

Tate, in *Mississippi*, a N. W. co.; *area*, 390 sq. m.; bounded W. and N. W. by Coldwater river, and drained by its tributaries. *Surface*, undulating; *soil*, fertile. *Cap.* Senatobia. *Pop.* (1897) 21,890.

Tat-on-duc Riv'er. A tributary of the Yukon, entering from the north a few miles west of the Alaskan boundary, and affording a short cut to the upper part of Porcupine river and the passes to the lower Mackenzie. It flows through picturesque cañons, and is fed by warm sulphur springs.

Tat'tersall's, *n.* A famous auction market in London, where racing and other high-class horses are sold. It is named from the autioneer, Richard Tattersall, who established it in 1766, taking a ninety-nine years' lease of property in Hyde Park Corner. After 1865, the lease having expired, the establishment was removed to Knightsbridge Green.

Tauch'nitz, Christian Bernard, nephew of the elder Tauchnitz, was born Aug. 25, 1816. The year after his uncle's death (1837) he also set up a printing establishment in Leipsic; is noted for the series of British authors, begun in 1842, and known as the "Tauchnitz Edition"; also published English translations of German authors, and a "Student's" series, &c. He was created a baron in 1860; and in 1877 became a Saxon life peer. Died Aug. 14, 1895.

Tauchnitz, Karl Christoph Traugott, printer and bookseller, was born at Grosspardau, Germany, Oct. 29, 1761; in 1809 he began publishing a series of editions of classic authors, offered a prize of a ducat for every error detected in the edition, and by corrections succeeded in producing in 1828 a remarkably correct edition of Homer. He introduced the process of stereotyping into Germany, and also applied it to music, which had not been attempted before. He stereotyped the Hebrew Bible, and the Koran in the original Arabic. Died Jan. 14, 1836, and was succeeded in business by his son, Karl Christian Tauchnitz.

Taus'sig, Frank William, political economist, was born at St. Louis, Mo., Dec. 28, 1859; graduated at Harvard (1879); received degrees of Ph.D. (1883) and L.L. B. (1886); travelled a year in Europe, and on his return was appointed professor of Political Economy in Harvard University. He published *Tariff History of the United States* (1888–92), and *The Silver Situation in the United States* (1892).

Tay'lor, James Monroe, clergyman, was born in Brooklyn, N. Y., Aug. 5, 1848; graduated at the University of Rochester and Rochester Theological Seminary; studied also in Europe; became pastor of a Baptist church at South Norwalk, and later at Providence, R. I. In June, 1886, he became president of Vassar College.

Taylor, Tom, dramatist, was born in Sunderland, Eng., in 1817. Among the hundred or more plays he wrote or adapted, the best known to-day are *The Ticket-of-Leave Man* and *Still Waters Run Deep.* Died in 1880.

Taylor, William, M. E. clergyman, was born in Rockbridge co., Va., May 2, 1821, and became an itinerant in 1843; since that time he has been a constant worker in foreign lands—Europe, Egypt, Australia, Tasmania, New Zealand, Asia, Africa, and India. On May 22, 1882, he was consecrated missionary bishop of Africa, and going to Central Africa he located 36 mission stations, providing 70 missionaries for their management. He was retired by the General Conference in 1896, but continued to devote himself independently to missionary work. He has published many books embodying the narrative of his varied experiences, with didactic practical reflections.

Taylor, William Mackergo, clergyman, was born at Kilmarnock, Ayrshire, Scotland; graduated at the University of Glasgow (1849); became a minister of the United Presbyterian Church; was a delegate to the General Assembly of the U. S. (1871), and in the same year was called to the pastorate of the Broadway Tabernacle (Congregational) Church, New York city; filled this pulpit until 1892. His published writings are very numerous, being mainly the essence of sermons revised and condensed. Died Feb. 8, 1895.

Taylor, in *Texas*, a post-town of Williamson co., 35 m. N.E. of Austin. Center of a cattle and sheep raising region. *Pop.* (1897) 2,795.

Taylor, in *Wisconsin*, a N. central co; *area*, 990 sq. m.; drained by Yellow, Jump, and Black rivers. *Surface*, rolling; *soil*, very fertile. Hardwood and pine timber. A good dairy county. Lumbering is the chief industry. *Cop.* Medford. *Pop.* (1895) 8,498.

Tchernova'da, a fortified town on the right bank of the Danube, in Roumania, in the province of Kustenji. The river is crossed at this point by a bridge (finished in 1895), which really consists of three viaducts and two bridges. The main bridge, 98½ feet high, crosses the Danube to the Island of Balta, which is crossed by a viaduct; then comes a second bridge across the river Borcea at Felesti. Viaducts on either side form the approaches. The entire length is 11,900 feet, and the cost was nearly $7,000,000.

Tech'nical Schools. (*Educ.*) This class of schools includes polytechnic institutes, institutes of technology, schools of applied science, mining schools—in fact, all schools in which the sciences are taught with a view to their practical application. It also includes technical departments of colleges, which often have a separate organization and name.

In the U. S. the earliest foundation for technical education was that of the Rensselaer Polytechnic Institute, at Troy, N. Y., established in 1824 by Stephen Van Rensselaer as a School of Theoretical and Applied Science. In 1896 it had 17 instructors and 135 students, with 5,000 volumes in its library. It has graduated more than 1,200 students, its work being mostly confined to the education of civil engineers, in which it has had a successful career. About the middle of the century, several of the more important colleges established special departments for scientific work. The earliest of these was the Sheffield Scientific School, of Yale University, founded in 1847 by Joseph E. Sheffield, of New Haven, who gave it an endowment of $1,000,000. In 1869 the school was reorganized on a more extensive scale. It was followed by the Lawrence Scientific School, of Harvard University, founded in 1848, by Abbott Lawrence, a merchant of Boston, who gave and bequeathed the school altogether $100,000. These two were for a long time schools of science rather than its applications, although they have latterly taken more of the character of schools of technology, with thorough courses in several branches of engineering. In 1852 was founded the Chandler Scientific School, of Dartmouth College, which has confined its work chiefly to civil engineering.

During the later years of the Civil War and the years immediately following its close, technical education in the U. S. received great impetus from two causes: First, the passage of the Morrill Act, by which large land grants were made to the several States for the purpose of enabling them to establish institutions for giving instruction in agriculture and mechanics; and, second, the endowment of schools of technology by persons who, by reason of the enormous expenditure of the government during the war, found themselves masters of far greater fortunes than they had ever hoped to possess. Probably half of the institutions growing out of or aided by the land-grant fund have special courses in the various branches of engineering and other technical subjects. Among those best known for the strength of the technical courses may be mentioned Cornell University, at Ithaca, N. Y.; Pardue University, at Lafayette, Ind.; the universities of Wisconsin, of California, the Ohio State University, at Columbus, and the Illinois Industrial University. To these may be added, as among the more important technical schools attached to colleges or universities, and not founded or supported by the land-grant fund, the Thayer School of Civil Engineering, connected with Dartmouth College, the School of Engineering of Washington University, at St. Louis, organized in 1870, and the School of Mines connected with Columbia University, New York city.

One of the foremost schools of technology in the U. S. is the Massachusetts Institute of Technology, at Boston. It was chartered in 1861, and opened in 1865. Though owing its origin to private endowment, it receives a share of the Congressional aid to land-grant colleges. The school of industrial science has grown to be the foremost feature of this institution. In 1896 it had 140 instructors and 1,215 students, with 40,000 volumes in its library. Its revenues in that year were $291,000. A little younger than this is the Worcester Polytechnic Institute, at Worcester, Mass. It was incorporated in 1865, and its first building opened to students in 1867. It was the first school of technology in the country to add a workshop to its equipment for the instruction of mechanical engineers, and systematically to provide workshop practice as a part of the course of study. In 1896 it had 32 instructors and 219 students, with 4,800 volumes in its library. In that year its income was $63,000. The location of Lehigh University, at South Bethlehem, Pa., incorporated in 1866, in the heart of a region rich in mineral resources, has given the institution such a bent in the direction of applied science that it may not unjustly be regarded as a school of technology.

In 1871 was founded, under the will of Edwin A. Stevens, a noted engineer, at Hoboken, N. J., the Stevens Institute of Technology. He bequeathed the institution, in addition to valuable land in Hoboken, $650,000. The school is devoted to mechanical engineering and allied studies. Practical instruction is given in all kinds of machine and electric work. In 1896 it had 25 instructors and 254 students, with 9,000 volumes in its library. Its income in that year was $64,600. The Rose Polytechnic Institute was opened at Terre Haute, Ind., in 1883. In 1896 it had 21 instructors, 123 students, and 4,950 volumes in its library. Its revenues in that year were $42,000. In 1891 the Case School of Applied Science was started at Cleveland, O. In 1896 it had 20 instructors, 240 students, and 2,000 volumes in its library. Its income in that year was $60,000.

Tech'niphone, *n.* A keyboard arranged like that of a piano, but unconnected with any sounding musical mechanism, designed for practice in fingering, &c., to avoid the annoyance to those within hearing; a dumb piano.

Technique (*tĕk-nēk'*), *n.* [Fr.] (*Fine Arts.*) The method in which an artist uses his materials to express his mental conceptions; the details, considered collectively, of mechanical performance in any art, especially music.

Teck, Duch'y of. (*Geog.*) A small ancient duchy in Swabia, now belonging to Würtemberg. In 1863 the King of Würtemberg conferred it upon the children of Duke Albert, of Würtemberg, whose son, Francis Paul Louis Alexander, consequently became Duke of Teck. He married Princess Mary Adelaide, a granddaughter of George III. of England, and their daughter, Princess Victoria May (born in London, 1867), was married in 1893 to the young Duke of York, only living son of the Prince of Wales, and heir apparent to the British throne. Duke Francis of Teck is a general in the British army and president of the Royal Botanic Society of London.

Tecnol'ogy, *n.* [Gr. *teknon*, a child, and *logos.*] A treatise on children, their training, diseases, &c.

Tecum'seh, in *Oklahoma*, a post-village, cap. of Pottawatomie co., 26 m. from Norman. *Pop.* (1897) 1,400.

Tee-to'tum, *n.* [Perhaps from *tee-total.*] An institution designed to furnish workingmen and women the privileges of a social club, with good food and non-intoxicating beverages, and also cooked food to families at a low price; a people's café, reading-room, &c.

Tegner (*tī'g-nēr'*), Esaias, the most eminent of Swedish poets, was born in 1782; became professor of Greek in

Lund University (1812), and bishop of Wexio (1824). His fame rests chiefly upon his *Frithjofs Saga*, based upon an old Norse saga of the same name. Died in 1846.

Tegucigal'pa, the capital of Honduras, Central America, situated on a plateau surrounded by mountains in the center of a rich agricultural district which once was a gold and silver-mining region, and still has mines. It is 60 miles from the port of Arnolpa, on the Gulf of Fenseca, and expects soon to have railway connection with the coast. It contains a cathedral, a university, a library, and a ladies' seminary. Population about 15,000. The department of the same name has a population of over 60,000 and an area of 3,475 square miles.

Tel-, Tele-. An initial compounding element, derived from the Gr. *têle*, far.

Telau'tograph, *n.* A form of telegraph, invented by Prof. Elisha Gray, for duplicating messages, drawings, &c., in facsimile at a distance. The mechanism was announced as perfected about 1892, and attracted much interest in scientific and electrical circles. Exhibitions were made of its workings, and duplications of all sorts of matter written or drawn at the sending mechanism were made at the receiver. A company was established in New York to manufacture and introduce it, but it was found that the use of the four connecting wires essential to the apparatus was too costly to render the invention commercially profitable. Prof. Gray therefore devoted himself to experiments for overcoming the difficulty, and in 1897 it was announced that he had succeeded in operating the machines satisfactorily with two wires, so that the expense of maintenance would be no greater than with an ordinary telegraph line. The transmitting and receiving instruments are very similar in appearance, each having a central flat surface, on which a continuous sheet of paper is drawn by means of a drum, the paper being moved mechanically by a lever at the transmitter, and electrically in unison at the receiver. The pen of the receiver is a glass tube, carrying its ink capillarily, while the writing instrument of the transmitter may be an ordinary pencil. The duplication of the motions of the pencil at the transmitter is performed by current-impulses controlled by the shortening or lengthening of two silk cords to which the pencil is attached. By a complex mechanism the impulses at the transmitter are so duplicated at the receiver as to cause two aluminum arms to shift the receiving pen along positions similar to those assumed by the sending pencil and the silk cords, so that the record made on the paper at the receiver is always a facsimile of that at the transmitter, whether words, figures, signs, or sketches are made. The system has great value in that all messages may be made autographically, their genuineness being thus recognizable by the recipient. The transmission of drawings is equally useful, though this has been accomplished by several other instruments. Compare *printing telegraph* under TELEGRAPH.

Tele-, Teleo-. An initial compounding element, derived from the Gr. *teleos*, complete, perfect.

Teleg'raphy, Im'proved Mod'ern Sys'tems of. The first great improvement in the operation of the electric telegraph, after the general introduction of the Morse system, came in the *multiple or synchronous system*, which appears to have been first suggested by Farmer, who conducted successful experiments at Boston in 1852. By placing two rapidly rotating synchronous commutators at each end of the circuit, connecting with two branches at each terminus, he produced a current in each branch, which was continuous enough for practical purposes, though really intermittent. As long as the synchronism of the commutators was maintained, the single wire could be operated from both branches, being made serviceable for sending two messages at the same time, in either direction. But the difficulty of maintaining the synchronism caused him to abandon his experiments. Patrick B. Delaney subsequently improved the synchronous method, producing a practical multiplex telegraph, which was introduced in Great Britain about 1885, where it is now employed by the Post-office Department. Lieut. F. J. Patten also improved the synchronous method, and experimented with it in the United States. He employed corrections of the synchronism of the commutators at very frequent intervals.

The duplex, quadruplex, sextuplex, &c., systems of telegraphy should not be confounded with the multiplex, which is produced by the synchronous rotation of sets of mechanism at opposite ends of a line. The multiplex system may be worked with two, three, four, five, six or more currents, and, according to the number worked, is styled diode, triode, tetrode, penthode, hexode, &c., meaning two-way, three-way, &c. The maintenance of perfect synchronism has not yet been attained, but with the aid of correcting devices a considerable number of ways can be worked on one line, the total being limited in practice by the static capacity of the line. At the Vienna Exposition in 1873 Meyer exhibited a tetrode system which has since been employed between Lyons and Paris, carrying as high as 110 messages an hour. Meyer's method was improved upon by Baudot in 1881, and by Paul La Cour, of Copenhagen, about the same time, but both of these have been supplanted by Delaney's mechanism.

Dr. Gintl, of Austria; Carl Frischen, of Hanover; Stark, of Austria; and J. B. Stearns, of Massachusetts, in the order named, experimented with and developed the system of *duplex telegraphy*, now in general use in both America and Europe. Gintl connected an auxiliary local circuit with the Morse key, passing through a separate but opposing helix upon the instrument at the home station to neutralize the effect of the current from the home instrument, at the same that the home instrument was left free to respond to increased current caused by operation of the Morse key at the distant station. Stearns' improvement to this was the most important, he adding a condenser to compensate for inductien, thus making it practical for long lines. Thomas A. Edison's *quadruplex system* is based upon Stearns', being introduced in 1874. Its principle is taken from the duplex system, two keys being provided in the sending circuit, and two relays, each having a coil in both the line-circuit and compensation-circuit. One key reverses the current, and the other brings into the circuit three times as much battery power, which permits of the two extra workings.

Edison's *phonoplex system* made duplexing practical for offices having a single Morse circuit, thus more than doubling the amount of service obtainable from a wire, without involving any material extra cost. The usual Morse waves are employed with one instrument, while the other instrument is worked from induced currents with the phonoplex apparatus, which employs both condensers and telephonic devices. In the S. D. Field *sextuplex system* of telegraphy three currents are employed, each being worked by the duplex method. The currents are: (1) A direct current, of increasing and decreasing strength, working a neutral relay. (2) A reversed current, working a polarized relay. (3) A rapid vibrating current, vibrating a telephonic diaphragm.

PRINTING TELEGRAPHS.—Telegraphic devices for making a record in ordinary Roman characters, that may be read by any person, have been numerously invented. One of these is the Hughes type-printer, which makes a record in large capital letters. A large keyboard, somewhat like that of a piano, is provided for sending the messages, and the whole affair is quite complex. It is used in England to some extent, especially for circuits connected with Continental systems. The Phelps and House machines have also been used to some extent. The stock-printing telegraph makes use of two type-wheels, on one of which are letters and on the other figures, the printing being done by the force taken from electro-magnets. The Rogers printing telegraph, used by the U. S. Postal Printing Telegraph Co., between Washington and Baltimore, employs a special form of typewriting-machine to punch holes in a paper tape, which tape is fed automatically through a transmitter, having eight minute levers, which make magnetic connections through the holes in the tape, and send corresponding impulses over the wire. In order to carry the system on one wire the octode, or eight-way, synchronous system is used, the wheels being kept in practical synchronism by visual supervision and pressure of the thumb. Each of the eight impulses is made to print a character, which forms a part of any of the 26 letters, so that from the combinations of eight simultaneous printings an angular form of Roman capital is formed. With this system messages can be written as fast as an operator can rattle the typewriter. The transmitter being automatic, they may be sent at almost any speed, and the receiving may be accomplished as fast as it is possible to do good printing with the recording mechanism, which means a durable speed of about 200 words a minute, or as fast as a public speaker would talk. A full description of the printing telegraph of Elisha Gray will be found at TELAUTOGRAPH. The electro-autograph of N. S. Amstutz, of Cleveland, O., reproduces pictures by telegraph, actually engraving a plate at the distant station from a gelatin-film original at the home station. This is accomplished by mounting the gelatin-film on a cylinder, over the uneven surface of which electric levers are depressed, with mechanism for producing a duplicate action of engraving tools on a plate at the receiver, so that when the levers at the sender have traversed the whole of the surface of the gelatin-film they have engraved at the receiver a plate having similar elevations and depressions, and fit for mounting on a press for printing. The Essick printing-telegraph provides a form of typewriter at each terminal, printing in lines and columns on a slip of paper 4½ inches wide. By the use of 14 different impulses the whole alphabet is represented. A speed of 50 words a minute is claimed.

TELEGRAPHY FROM MOVING TRAINS.—This is accomplished by induction. A telegraph wire is laid between or alongside the rails, so as to bring it near the train. A magneto-telephone apparatus is then placed in connection with the metallic roof of the car, and a pipe or other conductor low down under the car-body, and with ordinary Morse instruments on the train, and at stations connected with the special wire along the ground, messages may be sent. This has been done several times by Edison, L. J. Phelps, and others, but the system seems to have no commercial value. It is expensive owing to the difficulty of insulating a wire on the ground-level, and the railways do not seem to require it for signalling, or any similar purpose.

TELEGRAPHY WITHOUT WIRES.—It has been known for many years that it was possible to send electric messages without wires to considerable distances by induction. Morse accomplished it across a small river, having batteries on one side and magnets on the other, and parallel wires on each side connected with copper plates sunk at two opposite points on the banks. At Lavernock Point, in the British Channel, in 1893, messages were sent back and forth to Flatholm Island, more than three miles distant. Wires of 600 yards length were laid in parallel lines on the water's edge on each side, and a current of 150 volts and 15 amperes was employed, with 192 alternations per second. Telephone receivers were used on the secondary circuits, and the ends of the wires were dipped slightly in the water, it being found that a deep submergence resulted in an entire loss of the sounds. W. H. Preece, of the British post-office, also used the inductive system successfully between the Island of Mull and the shore of Scotland, when a broken cable interfered with regular operation, the distance being 4½ miles. Electrostatic methods have been even more successful. Dr. J. C. Bose, a Hindu physicist of Calcutta, in 1895 succeeded in telegraphing by the use of Hertzian waves, from a radiator in one room to a receiver 75 feet distant in another room, three brick walls intervening. He used a reflector of sulphur, ebony, and pitch. This system has since been developed, until a distance of more than a mile has been attained, but it is found that the waves will not pass through metals or water. In 1896 Guglielmo Marconi, an Italian electrician, while experimenting with Hertzian waves, sending them to a receiver a mile away, discovered that he was affecting another receiver also about a mile distant, through a hill three-quarters of a mile in thickness. Further investigation satisfied him that this was done by a new form of wave about 250,000,000 vibrations per second, and that this wave, unlike the Hertzian, was not stopped by metal, water, or anything else, and that the distance to which it could be sent appeared to depend upon the power of the electric apparatus used to set up the vibrations. Taking his invention to England, Marconi gradually developed its powers, until in 1899 he was able to send messages across the English Channel. In 1901 a signal was transmitted across the Atlantic, and on December 21, 1902, complete messages were sent from Glace Bay, Cape Breton, to the English station at Poldhu, Cornwall. Messages were sent to king Edward and to the king of Italy. The Marconi system is now widely used in sending messages between ships and shore and from ship to ship. No method has yet been devised to prevent interference between messages. In addition to the Marconi system there are various others in operation, though with less striking results. See TELEGRAPHY and ATLANTIC TELEGRAPH.

Teleicon'ograph, *n.* An instrument invented by M. Revoil, a French architect, combining the principles of the camera lucida and of the telescope. The principle involved is that of allowing the image transmitted by the object-glass of a telescope to pass through a prism connected with the eye-piece. The rays of light, that would in the ordinary use of the telescope be transmitted direct to the eye, are refracted by this prism, and thrown down upon a table placed below the eye-piece. The distance between the prism and the table determines the size of the image projected on the latter, and it is easy for the observer to trace, on a paper placed on this sketching-table, the actual outlines indicated by the refracted light. The telescope is fixed on a stand with screws and clamps, allowing of both horizontal and vertical motion, as it may often be necessary to give traverse to the instrument, in order to make a connected drawing of a larger area than can be included in the object-glass at one view. An entire panorama can be traced if the relative positions of the axis of the telescope and the surface of the table are undisturbed. The size of the image may be determined at will without any diminution of accuracy. The system of sketching with this instrument is termed *teleiconography*, and a sketch a *teleiconogram*.

Tel-el-Amar'na, an ancient ruined city on the right bank of the Nile, in central Egypt. It was the residence of Amenhotep IV., about 1600 B.C., and was a seat of sun-worship. Several hundreds of clay tablets, inscribed in cuneiform writing, were discovered in the ruins in 1887. The inscriptions have since been deciphered, and were found to be a diplomatic correspondence between Egypt, Babylonia, Assyria, and other countries of western Asia. They were in the Assyrian language, and prove its international use.

Tel-el-Ke'bir. [The "Great Mound."] A village of lower Egypt, 50 miles from Cairo and 80 miles from Ismalia on the edge of the Egyptian desert. It was fortified by Arabi Pasha (1882) to prevent the advance of the British, but on Sept. 13, Sir Garnet Wolseley, the British general, surprised the Egyptian camp, and routed the insurgents, inflicting a loss of about 3,000, which caused Arabi Pasha to surrender.

Telem'eter, *n.* A device for measuring distances on the earth's surface; a distance-meter. The most simple forms consist of telescopes containing parallel wires accurately spaced. If the height of a distant object, as a building, ship's mast, &c., be known, or can be guessed, the distance can be computed. For obtaining accurate results the telemeter of Capt. Gautier has been used in the French artillery service. He maintains two telescopes, the distance between which is accurately measured. The two telescope-stations are electrically connected, so that an object can be examined by both at the same time. The difference in the angles of observation, as measured from the basal-line uniting the two stations, affords material for calculating the distance by triangulation. This principle has been further developed in the modern range-finder (*q. v.*). Gautier also devised a telemeter for use in field observations. It possessed internal mirrors, whose angle could be absolutely known. If an object were viewed through the telescope and the position of the mirrors noted, and the observer stepped back 100 feet and took another look, it became necessary to shift the

mirrors to bring the object into view, and the length of the base-line of 100 feet and the amount of shift of the mirrors furnished two sides of a triangle of which the third was the distance sought. The mirror principle has been developed in numerous other telemeters. The Watkin telemeter, used by the British artillery, is a form of sextant, with double reflectors, and provides means for surveying a short triangular plot as a base from which an observation is taken, the result being read in yards directly on a scale on the instrument. Acoustic telemeters, as the Bouienge, record the time expiring between the observation of the flash of a gun and the hearing of the sound of the report. They are not absolutely accurate, as the direction and force of the wind affect the time of travel of the sound, and there is always some further error because of the inability of the operator to note the instants of observation to a minute fraction of a second.

Telep'athy, *n.* [Gr. *telos*, result, end, and *pathomai*, to experience.] (*Psychol.*) The supposed transfer of thought from one mind to another without any form of physical communication. The term has come to be used in consequence of a series of very painstaking experiments, by which it is held that the reality of such transfer of thought has been proved. These experiments all turn on two things: (1) the arranging of a certain series of thoughts in one person, with no connection whatever with a second person, who remains in ignorance that he is being experimented with; (2) the ascertainment that the second person then thinks over some of the thoughts which occur in the mind of the first. So much for the artificially contrived experiments. Then also cases of so-called "veridical hallucination"—cases in which presentiments of important events, such as deaths, &c.—occurring in certain persons' minds at the instant at which the real event, death, &c., actually happened to the person of whom the first had the presentiment, are also used as evidence.

The evidence is generally considered by competent psychologists—with certain very important exceptions—as far from adequate. There are certain ways of explaining the results without supposing actual telepathy. (1) There is the allowance to be made, as in all statistical work, for chance coincidences. (2) There is the possibility of unconscious suggestion given by the one person to the other. This comes up with especial force in the experiments made by hypnotic subjects, whose suggestibility is so enormously increased. (See HYPNOTISM.) (3) We must allow for the deceptions of memory to which all men are liable, more than ever when the matter is one which smacks of the mysterious and also touches upon their own most intimate affairs. It is a common fact that, after things have happened, we are convinced that we had anticipated them, when actual records show that our memory has suffered illusion. These three reasons for caution are sufficient to lead us to entertain a skeptical attitude toward telepathy in the present state of the evidence.

In case there should be finally reasons for accepting telepathy, this would not warrant any belief in supernatural action here, or in the presence of spiritual beings conveying the thought from one mind to another, as many seem to suppose. We are as yet quite ignorant of the ultimate laws which govern the action of the nervous system; and it is quite possible, as perhaps Ochorewicz was the first to say, that one nervous system might, when in certain condition accompanying thought or emotion (especially), set up, by a sort of induction strictly of a physical kind, the same condition and, to a degree, the same thought or emotion in the nervous system and mind of another person. We have a good analogy for this in the phenomena of electrical conditions induced by one conductor in another when there is no connection between them. J. MARK BALDWIN.

Tel'ephone (*t'l'e-fōn*), *n.* [Gr. *tēle*, afar, and *phonē*, a sound.] (*Telegraphy.*) The sensation which we call sound is excited by the action of the vibrations of the atmosphere upon the tympanum, or drum of the ear. These vibrations are conveyed thence to the auricular nerves in the interior parts of the ear. In the process of reproducing tone by electro-magnetism an artificial imitation of the mechanism of the human ear is employed, consisting of a stretched membrane corresponding to the tympanum, which by its vibrations generates and controls an electric circuit extended to a distant station. The earliest experiments in the production of musical sounds at a distance, by means of electro-magnetism, are generally attributed to Mr. Reiss, of Frankfort, Prussia, in 1861. His apparatus consisted of a hollow box, provided with two apertures—one at the top and the other in front—the former covered with a membrane tightly stretched in a circular frame. When a person utters sounds into the mouth-piece inserted in the front opening, the whole force of his voice is concentrated on a tight membrane, which is thrown into vibrations corresponding exactly with the vibrations of the air produced by the sound of the singing. A thin piece of platinum is glued to the center of the membrane and connected with a binding screw, in which a wire from the battery is fixed. Reiss' apparatus was capable of producing one only of the characteristics of sound, viz., its pitch. In 1874, Prof. Elisha Gray, of Chicago, invented a method of electrical transmission by means of which the intensity of the tones, as well as their pitch, was properly reproduced at the receiving station. Subsequently he conceived the idea of controlling the formation of what may be termed the electric waves by means of the vibrations of a diaphragm capable of responding to sounds of every kind, so arranged as to reproduce these vibrations at a distance. When this was accomplished the problem of the transmission and reproduction of articulate speech over an electric conductor was theoretically solved. Prof. Gray filed a caveat of this invention Feb. 14, 1876, and the same day Prof. Alexander Graham Bell, of Boston, applied for a patent, obtaining the first practical electric speaking telephone. The accompanying diagram illustrates the principle and method of the working of this apparatus. A represents the transmitting, and B the receiving, apparatus. When a person speaks into the tube, T, in the direction of the arrow, the acoustic vibrations of the air are communicated to a membrane tightly stretched across the end of the tube, upon which is cemented a light permanent bar-magnet, *n s*. This is in close proximity to the poles of an electro-magnet, M, in the circuit of the line, which is constantly charged by a current from the battery, E. The vibrations of the magnet *n s* induce magneto-electric pulsations in the coils of the electro-magnet, M, which traverse the circuit, and the magnitude of these

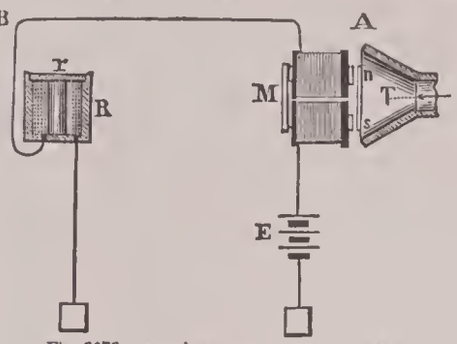


Fig. 3073.—BELL'S SPEAKING TELEPHONE.

pulsations is proportional to the rapidity and amplitude of the vibrations of the magnet. Hence, this apparatus is capable of transmitting both the pitch and intensity of the tones which enter the tube, T. The receiving instrument consists simply of a tubular electro-magnet, R, formed of a single helix with an external soft iron case, into the top of which is loosely fitted the iron plate, *r*, which is thrown into vibrations by the action of the magnetizing helix. The sounds produced in this manner were quite weak, and could be transmitted only a short distance. Other early devices connected with the telephone were invented by Prof. C. E. Dolbear, of Tuft's College, Massachusetts. Thomas A. Edison has invented a telephone based upon the principle of varying the strength of a battery current in unison with the rise and fall of the vocal utterance. Edison made the discovery that, when properly prepared, carbon possessed the remarkable property of changing its resistance with pressure, and that the ratios of these changes corresponded exactly with the pressure. By vibrating a diaphragm with varying degrees of pressure

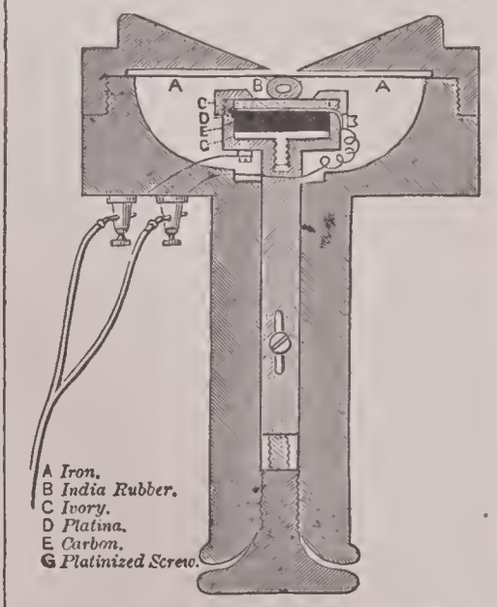


Fig. 3074.—EDISON'S TELEPHONE TRANSMITTER.

against a disk of carbon, which is made to form a portion of an electric circuit, the resistance of the disk would vary in precise accordance with the degree of pressure, and consequently a proportionate variation would be occasioned in the strength of the current. The latter would thus possess all the characteristics of the focal waves, and by its reaction through the medium of an electro-magnet, might then transfer them to a metallic diaphragm, causing the latter to vibrate, and thus reproduce audible speech. The cut shows the telephone as constructed by Edison. The carbon disk is represented by the black portion, E, near the diaphragm, A A, placed between two platinum plates, D and G, which are connected in the battery circuit, as shown by the lines. A small piece of rubber tubing, B, is attached to the center of the metallic diaphragm, and presses lightly against an ivory piece, C, which is placed directly over one of the platinum plates. Whenever, therefore, any motion is given to the diaphragm, it is immediately followed by a corresponding pressure upon the carbon, and by a change of resistance in the latter, as described above. It is obvious that any electro-magnet, properly fitted with an iron diaphragm, will answer for a receiving instrument in connection with this apparatus. All telephones employ a diaphragm at the transmitting end capable of responding to the acoustic vibrations of the air; all employ a diaphragm at the receiving end capable of being thrown into vibrations by the action of the magnetizing helix, corresponding to the vibrations of the transmitting diaphragm; and, finally, all depend for their action upon undulating electric currents produced by the vibratory motion of a transmitting diaphragm which increases and decreases the number and amplitude of the electric impulses transmitted over the wire without breaking the circuit. The Blake, Crossley, and other transmitters are very similar. The microphone, priority of invention in which was claimed by both Edison and Berliner, forms the basis of the carbon telephone. (See MICROPHONE.) In the United States, the American Bell Telephone Company early monopolized the telephone service by buying up the most important patents. Although the primary patents began to run out in 1893, the monopoly is maintained because of patents on switchboards and other conveniences which have grown with the development of the business; and in spite of efforts at competition the Bell corporation maintains control. The statistics of their business for the past four years are given below:

	1899.	*1900.*	*1901.*	*1902.*
Exchanges	1,126	1,239	1,348	1,411
Branch offices	1,008	1,187	1,428	1,594
Wire on poles, miles	396,503	509,036	627,897	823,193
Wire on bldgs., miles	15,329	15,087	16,833	17,947
Wire underground, "	358,184	489,250	705,269	883,679
Wire submarine, "	2,973	3,404	4,203	4,200
Total miles of wire	772,989	1,016,777	1,354,202	1,729,019
Total circuits	338,293	422,620	508,262	592,467
Total employees	19,668	25,741	32,837	40,864
Total subscribers	465,180	632,946	800,880	1,020,647

The number of instruments in the hands of licensees under rental at the beginning of 1902 was 2,525,606. The number of exchange connections daily in the United States is 7,531,761, or a total per year of over 2,425,000,000. The average number of daily calls per subscriber is 7·4.

In Great Britain telephony is carried on under a license from the postmaster-general, who receives one-tenth of the income. The National Telephone Company controls the business, having obtained supremacy by extended litigation. The Blake transmitters and Bell receivers are used.

Long-distance transmission was begun in the United States in 1883, when a line was successfully operated between New York and Cleveland. The difficulties in the way of perfect insulation were gradually overcome, and the conducting power of the line enhanced by using a large copper wire. In 1892 a line was put into successful operation between New York and Chicago, a distance of 900 miles, and this line was continued to Boston. Since then much longer distances have been covered, and at present almost all the large cities of the United States are connected by long-distance telephones, as are also the principal cities of Europe.

Tel'eseme, *n.* [Gr. *tele*, far, and *sēma*, sign.] An apparatus for a hotel, to indicate at the office, by means of electrical transmitters and an annunciator, the article or service desired by the occupant of a room.

Tel'ler, HENRY MOORE, statesman, was born in Allegany co., N. Y., May 23, 1830; studied law and practiced in New York; removed to Illinois (1858), and thence to Colorado (1861); was elected to the U. S. Senate when Colorado became a State, and took his seat December 4, 1876; was re-elected December 11, 1876, and remained in office until April 17, 1882, when he became secretary of the interior, till March 3, 1885; re-entered the Senate March 4, 1885, where he still (1897) remains. As a member of the National Republican convention at St. Louis, in 1896, he created a dramatic scene by leading the "free silver" forces in their exodus from the convention.

Tel'lurism, *n.* [Lat. *tellus* (gen. *telluris*), earth.] A theory of animal magnetism proposed by Dr. Kieser, a German, based on the supposed existence of a magnetic force or principle pervading all nature; or the force itself.

(*Med.*) The effect of certain soils in producing disease.

Tel'pherage, *n.* The system of aërial transportation by means of ropeways, cableways or wireways is common in mining regions, and where railways do not exist. It constitutes a cheap form of transportation, because of the low first cost of the line, which may be attached to trees trimmed for the purpose, and which overcomes all inequalities of ground by simply spanning them. In the case of mines on high ground desiring to deliver a product to some nearby river, they are sometimes operable entirely by gravity, because the loads sent down are always much greater than those sent up, furnishing power to run the line. There are two general systems of construction, one involving a stationary fixed rope or cable, on which the carriers

or hangers are suspended and run along by small pulley-wheels, and the other and more comuon method consisting of an endless rope, usually of wire, carried over sheaves at each end of the route, the carriers being suspended by clips. The telpherage system ie aleo in comuon use in many manufacturing plants, as an easy means of handling bulky material. (See ELECTRIC TELPHERAGE.)

Tem'ple, FREDERICK, ecclesiastic, was born Nov. 30, 1821, in Leukas, one of the Ionian Islands; graduated as a double-first at Balioi College, Oxford, and afterward became fellow and tutor of hie college. In 1846 he took orders in the Englieh Church; was for ten years principal of a training college near Twickenham, and later was head-master of Rugby. He became noted and influential iu the political discussions affecting Church and State. In 1885 he became biehop of London, and in 1896 succeeded Dr. Benson as Archbiehop of Canterbury. He was active in temperance reform measures, and manifested remarkable talent for administrative and charitable work. Died Dec. 23, 1902.

Temple, in *Texas*, a city of Bell co., 73 m. N.E. of Austin. *Pop.* (1890) 4,047.

Ten'derfoot, *n.; pl.* TENNERFOOTS. (*Slang.*) A newcomer to a mining-camp, or any one unused to frontier life and hardships.

Ten'ebræ, *n. pl.* [Lat. darkness.] (*R. C. Ch.*) The office of matins and lauds for Thursday, Friday, and Saturday of Holy Week, eung in the afternoons or evenings of the preceding days, the *Gloria Patri*, &c., heing omitted in token of sorrow. A dramatic effect is produced hy putting out, one hy one, the candles, to represent the darkness during the sufferiuge and death of Christ, only a single candle heing left, which ie hidden for a time, and then brought out to show that death could not really obtain dominion over Chriet.

Tent-cat'erpillars, *n. pl.* (*Entom.*) The larva of either of two North American web-worms, or mothe, of the family *Bombycidæ*, and genue *Clisiocampa*. *Clisiocampa americana* inhahits orchards, and *C. sylvatica* iufests forests. Both lay their egge iu the fall in gummy bands encirclng twigs. Theee survive the winter and hatch as soon as the really warm weather of the following eummer begins. The gregarious larvæ—which are hlackish, red-spotted, very hairy caterpillare—immediately epin themselves a community, tent-like, silken web, beneath which they lie in a squirming crowd at night and for most of the day, scattering at certain hours to feed upon the leaves, until in some cases not only large trees, but whole orchards are defoliated. Each caterpillar pays out a thread of silk as he goes, an l hy this guides his return to the nest. In a few weeks they cease feeding, epin cocoons, pass quickly through their trausformation and emerge as mothe, which very soon mate, deposit eggs, and die. The cherry is the favorite tree, and when a large number of cherry trees are near an orchard fruit-raising is almost impossihle; a few cherry trees, however, will act as useful traps, since most of the tent-moths will resort to them, and can be easily destroyed. The best plan is to search for their eggs in autumn or winter, snap off the infected twigs, and burn them; failing this, the "tents" of the caterpillars should he hurned, or hlown off the treee as soon as they are formed. An orchard or line of ehade trees neglected one season will he nearly destroyed the next. Compare WEB-WORM.

Terhune', MAAY VIRGINIA, known as MARION HARLAND, writer, was horn in Amelia co., Va., ahout 1830; hegan writiug at the age of 14; has produced many novels, the first, *Alone*, appearing in 1854; others that followed were equally popular. Mrs. *T.* hae also engaged extensively in editorial work, and has written voluminously on household topics, cookery, &c. In 1888, she established a magazine called *The Home-Maker*.

Ter'rell, in *Texas*, a city of Kaufman co., on the Texas Pacific and Texas Midland R.Rs., 32 m. E. of Dallas; has cotton and woollen factories, flour mills, &c., and surrounded by extensive cattle ranges. Here is the North Texas Hospital for the Ineane. *Pop.* (1897) 3,430.

Ter'ry, ALFRED HOWE, soldier, was horn at Hartford, Conn., Nov. 10, 1827; studied law at Yale; began to practice in 1849; filled eeveral State offices; in 1854 was appointed colonel of the 2d Connecticut militia, and in 1861 this regiment was mustered into the U. S. service as the 2d Counecticut volunteers, *T.* commanding. In April, 1862, he was made a brigadier-general, and from that time had an active and gallant career, his most brilliant victory being the capture of Fort Fisher, which was accomplished in conjunction with Admiral Porter's fleet. *T.* waepromoted to be a brigadier-general in the regular army, ano a major-general of volunteers, and received a vote of thanks from Congress. He was brevetted major-general in the regular army in 1865, and was in active service in Dakota in 1876. He was made a full major-general, March 3, 1886, and in 1888 voluntarily retired. Died Dec. 16, 1890.

Terry, ELLEN ALICE, actress, was horn in Coventry, Eng., in 1848; made her first appearance on the etage in 1858, during Charles Kean'e revival of Shakespearian drama; playing the parts of *Mamillius* in *The Winter's Tale*, and *Prince Arthur* in *King John*. She continued actlng until 1864, when she was married and left the stage; reappeared in 1867, and plaved at the New Queen's Theater, and the Prince of Wales' Theater in London. In 1878 she made her first appearance at the Lyceum Theater, with Henry Irving; since that date her stage career has been identical with that of Mr. Irving.

Terry, in *Texas*, a N.W. co.; *area*, 900 sq. m. Unorganized.

Tes'la, NIKOLA, electrician and inventor, was born in Herzogovina in 1858; studied engineering in the École Polytechnique, Paris; was engineer of Edison Station, Parie, and was employed at Edison's laboratory near Orange, N. J., leaving, after several years, to open a laboratory of his own. In 1888 he invented the rotary field-motor, the multiphase system of which is used in the 50,000 horse-power plant built to transmit the water-power of Niagara Falls to Buffalo and other towns. He holds advanced theories as to the possible application of electricity to industrial purposes; and his inventions and contrivances place him in the front rank of electrical scientists. He has already effected improvements which bid fair to revolutionize the accepted methods of utilizing electricity, and is credited with the belief that electric energy may soon be transmitted, under control, to almost any distance without the use of wires or other mechanical conductors.

Tes'lin Lake and Riv'er. (*Geog.*) Teslin Lake is a narrow body of water lying across the northern boundary of British Columbia, just west of the crossing of the 60th parallel and the 132d meridian. The length of the lake is said to be over 100 m., and it is a favorite spawning place of the salmon and resort of the Indians. A river flows into its southern or upper extremity from sources near those of the Pelly, and trails lead from the lake to Dease Lake and to Taku Inlet. Lake Teslin discharges through *Teslintoo*, or Newherry, river, an open but rapid stream which flows north through a treeless and somewhat arid valley about 175 m. to the Lewes, 27 m. below Lake Lebarge. Many bars along this river are gold-bearing to a greater or less degree, and the waters are navigable for small boats to the head of the lake.

Test'ing Machines'. The accurate testing of iron, steel, and other metals used in constructive work presents a problem of great importance, to which engineers have at all times devoted much attention, and the modern increased use of steel and iron in the largest structures renders it necessary not only that the metal work shall safely bear its load, but that it shall not unnecessarily add to it. The problem presented, therefore, to the modern engineer is to adjust with certainty a safe margin of strength with a minimum of weight (and, incidentally, of cost), and this can be determined only by experimental tests upon full-sized sections of the materials used in such construction. One method is to use machines designed to test comparatively small sample pieces under such conditions that the breaking strength of the test-piece is measured by the machine, and from the data thus obtained the strength per square inch of full-sized bridge-members and other constructive material is determined on paper by calculation. A feature common to such machines is, in principle, the common steelyard balance, supported by knife-edge. Of this character are the Riehle and Olsen machines, which are perfected types of weighing machines, made on the principle of the balance. The Riehle is built in sizes up to 100,000 pounds capacity, and the Olsen even larger. It is obvious that there is a limit to the capacity of machines built on the knife-edge principle, and to meet a demand for a more powerful machine, which should remain uninjured after heavy strains, A. H. Emery produced the hydraulic testing machine, which was originally used for the U. S. arsenal at Watertown, Mass. One of the "proof" experiments by the United States Government board was the breaking in tension of a forged iron link, 5 inches in diameter between the eyes, at a strain of 722,800 pounds, and immediately thereafter a single horse-hair $\frac{1}{1000}$ of an inch in diameter was slowly strained, and, after stretching 30 per cent., snapped under the recorded strain of 16 ounces. Masses of metal were subjected to pressures of 1,000,000 pounds in compression alternately with eggs and nutshells, and in all cases the machine operated with equal accuracy. The essential peculiarity of the Emery testing machine is the method by which the stress produced upon the piece tested is conveyed to the scale and accurately weighed by mechanism that is entirely frictionless, and hence responds to the same increment of load regardless of the amount of strain upon the specimen. This result is accomplished by receiving the load against a flat closed cylinder called the hydranlic weighing-head.

In operation the specimen to be tested, either by rupture or compression, is centrally secured between the straining-screws (3). The hydraulic pump (7) is then started to supplying water to the straining-head (2) through the pipes (4). The gearing (5) causes the straining-head to advance or recede from the weighing-head (1), which contains a hydraulic chamber so arranged that the force of the strain is borne by the water, and distributed throughout the whole area of the head, and a small tube carrying a stream of water to the scales (6) is made to bear a minute fraction of the strain, and measure it in such a manner as to record the strain to which the specimen tested has been subjected. When the specimen breaks, its first blow is delivered through a draw-bar and ribbed collar to an abutting piece in the weighing head, which transmits it through a ring to a rear annular beam, where the blow is absorbed by the total mass. The hydraulic support is thus thoroughly protected. The weighing-head is returned to its place on the bed after movement due to recoil by a set of spiral springs locked up in boxes secured to the bed. These springs are strong enough to move the head, and their resistance diminishes greatly the movement due to recoil, while the friction of the head upon the bed rapidly wipes out the oscillations. The annular beams bolted together constitute one built-up beam to resist the bending due to the pressure on the draw-bar midway between the straining-screws. The hydraulic support is thus enclosed in a rigid mass of cast-iron and effectually protected against injury from violence. This machine comes as near being frictionless as any mechanism ever manufactured, since its whole force is exerted between two bodies of water. Experiments have failed to demonstrate that the mechanism shows the slightest deterioration from the severe strains to which it is subject.

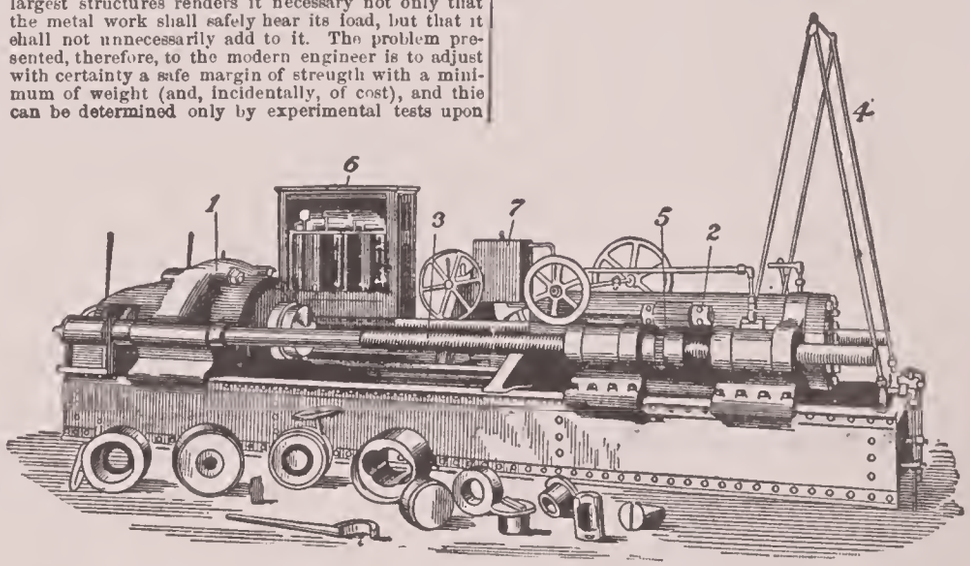


Fig. 3075.—A 200,000-POUND TESTING MACHINE.

1, weighing-head; *2*, straining-head; *3*, straining-screws; *4*, water-pipes; *5*, gearing; *6*, scales; *7*, hydraulic pump.

Tew'fik, MOHAMMED TEWFIK PASHA, a khedive of Egypt, eldest son of Ismail Pasha, was born Nov. 15, 1852; proclaimed Khedive in 1879. Though a Mohammedan, he was strongly opposed to the Moslem institutions of slavery and polygamy. Died Jan. 7, 1892.

Texarkan'a, in *Arkansas*, a city, cap. of Miller co., 145 m. S.W. of Little Rock, on the border of and partly in Texas. A manufacturing city, with a large cotton-seed oil mill, cotton compress, ice factory, &c. *Pop.* (1897) 6,385.

Tex'as, in *Illinois*, a township of Dewitt co.
—A village of Iroquois co.

Texas, in *Iowa*, a village of Washington co.

Texas, in *Michigan*, a village of Kalamazoo co.

Texas, in *Missouri*, a S. co.; *area*, 1,250 sq. m. *Rivers*, Current, and Big Piney and Robidoux Forks of the Gasconade. *Surface*, hilly, and covered with pine forests; *soil*, generally fertile, *Cap.* Houston.

Texas, in *New York*, a post-village of Oswego co., 38 m. N. of Syracuse.

Texas, in *Ohio*, a village of Champaign co.
—A post-village of Henry co., about 30 m. S.W. of Toledo.

Thax'ter, CELIA, poet, was born at Portsmouth, N. H., June 29, 1836; was married to Levi Lincoln Thaxter, of Watertown, Mass., in 1851. She was a constant writer for magazines, and several volumes of her verses have been published. Her last book was *An Island Garden* (1894). Died August 26, 1894.

Thay'er, in *Missouri*, a post-village of Oregon co., 28 m. S.E. of West Plaine. *Pop.* (1897) 1,260.

Thayer, in *Nebraska*, a S.E. co.; *area*, 576 sq. m.; drained by Little Blue river and Big Sandy creek. *Surface*, undulating; timber scarce; *soil*, fertile. *Cap.* Hebron. *Pop.* (1897) 15,500.

Theat'rophone, *n.* A telephone connected with a theater or opera-house, so that the words and music may be heard by a person at a distance.

Theos'ophy, *n.* (*Philos.*) Out of the old religious and mystical philosophy known as theosophy, and distinguished from other forms of religion and mysticism by the fact that all its theories are based upon consciousness rather than the testimony of external phenomena or revelation, has grown a modern Theosophical Society, organized by Madame Blavatsky in New York, 1875, and intended as a protest against the materialistic tendencies of the century. The avowed objects of the society are simple and broad: "(1) To form the nucleus of a Universal Brotherhood without any distinction whatever. (2) To promote the study of ancient and modern religions, philosophies, and sciences. (3) To investigate unexplained laws of nature and the psychical powers of man." Admittance to the society is granted to any one subscribing to these three objects, but the actual beliefs and teachings of most of the members include an intricate and mystical explanation of the universe, mainly based upon the occultism of the Egyptians and the Hindus. Theosophy affirms that the "Eternal Principle" is perpetually immanent, manifesting itself in spirit and matter; that the spiritual manifestations occur in seven planes, differing in degree of refinement rather than in character, and that the spiritual manifestations of the lowest plane are united with the material manifestations in man, who is himself a sevenfold being, composed of three immortal and four mortal principles, called severally *Atman* (spirit), *Buddhi* (spiritual soul, or discernment), *Manas* (mind), *Linga Sahira* (the astral body, which connects the spiritual and material elements, having the form and characteristics of the material body, but continuing for some time after the dissolution of the material elements), *Sthula Sahira* (the material body), *Jiva* (the life-energy), and *Kama* (animal instincts and desires); and that the three spiritual elements of man live on after the death of the material, and finally of the astral body, and are eventually re-incarnated, the conditions of each incarnation being governed by the acts of the previous life, in accordance with *Karma* (*q. v.*), the law of just fate, by which every act or thought of every life meets with its unalterable reward or punishment. It also affirms the perfectability of the race by means of its re-incarnations, but claims that the hopelessly wicked, by excluding the spiritual and immortal elements which should belong to them, may bring about their own annihilation. The various orders of spiritual beings who occupy the planes above man and the theosophical beliefs concerning them, as well as the almost innumerable details of the beliefs outlined here, may be found in the books on theosophy, chief among which are *The Secret Doctrine*, *Isis Unveiled*, and *The Key to Theosophy*, by Helene P. Blavatsky; *The Ocean of Theosophy*, by Wm. Q. Judge; *Esoteric Buddhism*, by A. P. Sinnett; *Nature's Finer Forces*, by Rama Prasad; and several translations from Oriental writers. The Theosophical Society now has over 300 branches in different parts of the world, with its main headquarters at Madras, India; In 1895 it claimed 100,000 members in the United States.

Therm-, Thermo-. An initial compounding element, derived from the Gr. *thermos*, hot.

Therm-am'meter, *n.* A device for measuring, in amperes, the strength of an electric current by the amount of heat generated.

Therm'ograph, *n.* A thermometer provided with a registering device; any mechanism for recording temperature. The form used by the U. S. Weather Bureau has a crescent-shaped bulb, filled with alcohol and hermetically sealed. Changes of temperature affect the curve of the bulb, which alteration of form is communicated to a series of multiplying levers, that exaggerate the motion, and give movement to the recording pen, which makes a tracing on the ruled paper of a moving cylinder. Bartlett's thermograph is especially designed for greenhouses, having a register for exhibiting in the office the temperatures prevailing in the different houses. Registering thermometers are used in the houses, and electrically connected with dials in the office. It is apparent that this apparatus may also serve as a warning of fire, and it is sometimes arranged so that a rise in temperature to 100° will ring a gong.

Ther'mo-mul'tiplier, *n.* A galvanometer or multiplier bearing a short coil as of about 200 turns of fine wire, and arranged to give small resistance, as for use with a thermopile. Called also *thermo-electric multiplier*.

Therm'ophone, *n.* An instrument devised by Henry E. Warren and George C. Whipple for ascertaining the temperature at a distant point, as the bottom of a lake, with the aid of the ear. It is based upon the principle that the resistance of a substance to an electric current varies with its temperature. The degree differs with the material, and two metals of opposite characteristics are used: copper, whose electrical resistance increases 1 per cent. for each 5° Fahr. of temperature, and German silver, which requires a rise of 50° in temperature to effect a like change in its resistance. A Wheatstone's bridge is formed with arms of these metals. The coils are sealed in brass tubes, and connected by wire at where the temperature is to be read. A movable contact is arranged on a slide-wire, and connected by a leading wire at a point central between the coils. A telephone and interrupter are employed in place of the galvanometer ordinarily used with a Wheatstone's bridge. This apparatus may be used to note the electrical balance between the two metals at the distant point, and as the electrical balance bears a definite relation to the temperature, the latter is arranged to be read direct from a dial. To use the instrument, the telephone is placed to the ear, and the pointer of the dial shifted. A buzzing sound is heard until the point of electrical balance is reached, when it ceases, and the degree of the dial on which the pointer is stopped indicates the temperature at the distant point.

Therm'opile, *n.* (*Phys.*) An instrument much used in experiments on radiant heat, or indeed in almost any case where au extremely small difference of temperature between two points is to be determined. It consists of a series of small bars an inch or so long, of bismuth and antimony soldered together alternately, and bent at the junction so that the bars shall be parallel, and the alternate junctions all looking in the same direction. Thirty or more such bars are generally joined together, the couples being insulated laterally by slips of varnished paper, or by gypsum, and the whole forms a little cube held together by a frame of ivory, which carries two binding screws connected with the first bismuth and the last antimony. When the thermopile is used for experiments in radiant heat, it is generally placed in the axis of a double cone of copper carefully covered with lamphlack to prevent radiation from external objects; and it is always used in connection with a galvanometer of small resistance called a *thermo-multiplier* (*q. v.*). The principle of the thermopile has been much used in experimental batteries and generators in the effort to secure the production of electricity direct from coal. The Clamond generator is a philosophical toy, in which alternate bars of silver and lead are used, or some alloys are superposed in rings, the inner ends being heated by a gas-jet, while the outer ends are cooled by radiation. By this means a very slight electric current is set up, and may be observed by using a wire to connect the bars. About 1883 Thos. A. Edison devoted much study to the problem, and produced a machine in which iron was rapidly magnetized and demagnetized, the alterations being used to affect surrounding coils of wire. The results were interesting, but not valuable commercially. Various other inventors have sought to produce a thermopile in which the use of some new alloy should set up a strong current, but none has been found.

Thick'head, *n.* A stupid fellow, blockhead, dolt.

(*Ornith.*) An Australian or Polynesian shrike of the Pachycephaline family, the males often being bright-colored.—Another name for the scansorial barbet.

Thlin'keet In'dians. (*Ethnol.*) To this tribe belong the Indians of the Alaskan coast from Mount St. Elias south to the river Nass. The Russians called them Kolosches. They nowhere cross the mountains into the interior except at Lake Tagish, at the eastern foot of Chilkoot Pass. The principal bands are the Yakutats, about the mouth of the Copper river; the Chilkats, at Lynn Canal; the Hoodsinoos, of Chatham Strait, and, following down the coasts and islands, the Auks, Kakas, Sitkas, Stikeens, and Tungases. The Sitkas, on Baranof Island, were the dominant tribe before the ascendancy of the whites destroyed tribal politics. They are a fine race physically, accustomed to braving both the terrors of the sea and the difficulties of hunting upon land in that region of mountains and forests. They were independent in spirit, warlike, and individually hardy and courageous; their organization includes a noble caste, from which alone chiefs can be elected, and they have many curious social customs. As hunters they have always been daring and successful, pursuing the mountain sheep and goat to the greatest heights, and conquering the bear in his native forest. Like the Haidas, they make large canoes and take hazardous voyages in them, after whales, for fish, and on war raids as well as peaceful journeyings. Their religion is a complicated shamanism, in which feasting and rude magic take a large part, and terror is the principal influence on their minds. They are clever carvers in wood, copper, and silver, and have long been renowned—especially the Chilkats—for their blankets, formerly woven from the wool of the white goat-antelope of their mountains.

Thom'as, Charles Louis Ambroise, musical composer, was born at Metz, France, Aug. 5, 1811; entered the Conservatoire (1828); gained many prizes, including the grand prize of Rome in the competition of 1832; composed many operas, including *Mignon*, *Le Carnival de Venice*, *Françoise de Rimini*, &c. He became director of the Conservatoire in 1871. Died Feb. 12, 1896.

Thomas, Theodore, musician and orchestral leader, was born at Esens, Hanover, Germany, Oct. 11, 1835; began his musical education in early childhood, and played at a concert when he was 6 years old. In 1845 his family removed to the U. S., and for two years he played violin solos at concerts in New York; travelled for a time in the South; returned to New York (1851), and for the next ten years was actively engaged in concert work. In 1855, in connection with Dr. William Mason and others, he began a series of chamber concerts, which were continued until 1869. His first symphony concerts were given in 1864–65, and except during 1869–72, when he was making concert tours, continued until 1878, when he left New York to take charge of the College of Music in Cincinnati, where he remained two years, returning to New York in 1880. With brief intervals he was the conductor of the Brooklyn Philharmonic Society from 1862; and of the New York Philharmonic Society from 1878 to 1891. He conducted five musical festivals in Cincinnati (1873–75–78–80–82), one in Chicago (1882), and one in New York (1882). In June, 1890, he married Miss Amy Fay, of Chicago; in 1891 he established his orchestra permanently at the Auditorium in that city; in 1893 was musical director at the World's Fair.

Thomas, In *Kansas*, a N. W. co.; *area*, 1,080 sq. m.; drained by the North and South Forks of Saline river, the North and South Forks of Solomon river, and the Middle and South Forks of Sappa creek. *Surface*, rolling prairie; *soil*, fertile. *Cap.* Colby. *Pop.* (1895) 3,512.

Thom'as, in *Nebraska*, a central co.; *area*, 720 sq. m.; intersected by Middle Loup river and the North Branch of Dismal river. *Surface*, rolling; *soil*, a sandy loam, very fertile; timber only along streams. Stock raising is the chief industry. *Cap.* Thedford. *Pop.* (1897) 850

Thom'aston, in *Connecticut*, a post-village of Litchfield co., 9½ m. N. of Waterbury. The Seth Thomas clock works are here. *Pop.* (1897) 1,050.

Thomp'son, Hugh Miller, clergyman, was born in co. Derry, Ireland, June 5, 1830; returned to the United States, and studied theology in Wisconsin; entered the Episcopal ministry in 1852; was rector at Chicago, New York, and New Orleans; in 1883 was consecrated assistant bishop of Mississippi, and in 1887 became bishop of that diocese.

Thompson, Sir John Sparrow David, jurist, was born at Halifax, Nova Scotia, Nov. 10, 1844; admitted to the bar in 1865. He was a member of the House of Assembly of Nova Scotia (1877-82); filled many honorable offices from that date onward, and became Premier of Canada in 1893. Died Dec. 12, 1894.

Thompson, Launt, sculptor, was born in Queen's co., Ireland, Feb. 8, 1833; removed to America in childhood; worked for nine years in the studio of Erastus D. Palmer, the sculptor; in 1858 he went to New York, and gave his principal attention to medallion portraits. His most notable works were of this character; his talent for portraiture was equalled by few American sculpters. Died Sept. 26, 1894.

Thompson, Maurice, writer, was born at Fairfield, Ind., Sept. 9, 1844; removed to Kentucky, and then to Georgia; served in the Confederate army; after the war returned to Indiana, and became a civil engineer; studied law; was elected to the legislature in 1879, and was State geologist from 1885 to 1889. Some of his books are: *Hoosier Mosaics* (1875); *A Tallahassee Girl* (1882); *Sylvan Secrets* (1887); and *A Fortnight of Folly* (1888).

Thompson, Robert Ellis, educator, was born at Lurgan, Ireland, April 5, 1844; removed to the U. S. in childhood; was educated at the University of Pennsylvania, graduating in 1865; was ordained by the Reformed Presbyterian Church, in 1868; was professor of History and English Literature in the University of Pennsylvania from 1881 until elected president of the Boys' High School, Philadelphia (1895). He has published several works on social science.

Thom'son, Elihu, electrician, was born in Manchester, Eng., March 29, 1853; studied electrical science in Philadelphia, and had charge of the chemical department in the High School there until 1880; he invented the system of electric welding, and has taken out over two hundred patents for various electrical inventions.

Thomson, William, first Lord Kelvin, British electrician, was born in 1824; graduated from Cambridge (1845), and in the following year was made professor of Natural Philosophy in Glasgow University. In 1848 he published *Distribution of Electricity on Spherical Conductors*, and in 1855 the *Electro-Dynamic Properties of Metals*. He has invented several electrical instruments, among which his quadrant and portable electrometers, from their diversity of application and extreme delicacy and accuracy, have proved of great service in indicating and registering electrical changes in the atmosphere. He has also invented the mirror galvanometer and the siphon recorder, which are of importance in submarine telegraphy, as they can be worked by very low battery power, thus saving the cables from wear. He was prominent in the laying of the first Atlantic cables, and has been conspicuous in the front rank of students of electrical science since that time, contributing much by his original research and experiments. He served in the international commission which decided on the best method of utilizing the power of Niagara. His theory of vortices has been generally accepted, and he has contributed much to the world's knowledge of heat, and the dynamical theory of gases. He was knighted in 1866, elected president of the British Association in 1871, and created Baron Kelvin in 1892. Besides the books already mentioned, he has written: *Thermal Effects of Fluids in Motion*; *The Mathematical Theory of Electricity*; *The Rigidity of the Earth*; *Approach caused by Vibration*; *Natural Philosophy*; *The Constitution of Matter*, and *Geology and General Physics*. Lord Kelvin visited the U. S. in August, 1897.

Thomson, William McClure, missionary, was born near Cincinnati, O., Dec. 31, 1806; educated at Miami University and Princeton Theological Seminary; was sent as a missionary to Palestine in 1833–49, again in 1850, and a third time in 1859, remaining seven years each time. He wrote articles on travels for various magazines. His principal work is *The Land and the Book* (1859). Died April 8, 1894.

Thon, *pron.* A word condensed from *that one*, and proposed, in 1858, by Mr. C. C. Converse, of Erie, Pa., as a pronoun of the common gender, in the third person, to be used when necessary to prevent repetition, or to avoid ambiguity or inaccuracy, as the following examples will illustrate: "If John or Mary is coming, *thon* (instead of he or she) will telegraph me." "Each member must sign *thon's* own name;" instead of his or her, or his alone, which might imply that all the members were males. "If the man or his wife is there, I will see *thon*" (instead of him or her). The same form answers for the plural, but is rarely needed, they, &c., being of the common gender.

Thoreau (*thō'-rō*), Henry David, an American author and naturalist, a friend of Emerson and others of the

Lord Kelvin

[WILLIAM THOMSON]

1824–

Concord school, was born at Concord, Mass., in 1817. Among his books are: *A Week on the Concord and Merrimac Rivers* (1849); *Walden, or Life in the Woods* (1854); *Excursions in Field and Forest* (1863); *The Maine Woods* (1864); *Cape Cod* (1865), and *A Yankee in Canada* (1866). He is noted for having lived in a small house, of his own construction, on the shores of Walden Pond, near Concord, in trying to demonstrate the simplicity of human needs; and also for upholding the rights of the individual. Died in 1862.

Thorn'ton, Sir Edward, diplomat, was born July 17, 1817, in London, England; entered the diplomatic service in 1842; was minister to the U. S. (1867–81); afterward British minister to Russia (1881), and to Turkey (1884); retired from public life in 1886.

Thur'man, Allen Granbery, statesman, was born at Lynchburg, Va., Nov. 13, 1813; removed to Chillicothe, O., in childhood, and was educated at an academy there; studied law in the office of Gov. William Allen, and was admitted to the bar in 1835; was elected to Congress (1844), and served one term. In 1851 became a justice of the Supreme Court of Ohio, and in 1853 chief justice; was Democratic candidate for governor in 1866, but defeated by Gen. Hayes. He became U. S. senator, March 4, 1869; and was re-elected in 1874. During his term in the Senate he formulated and secured the passage of what is known as the "Thurman Act," compelling the Pacific railroads to fulfill their contracts with the government. From 1876 he was repeatedly before the Democratic national conventions as a candidate for nomination to the Presidency. In 1888 he was nominated for Vice-President, but defeated at the polls. Died Dec. 12, 1895.

Thurs'by, Emma, singer, was born at Brooklyn, N.Y., Feb. 21, 1857; studied music under Meyer, Rudersdorff, and others in New York, and went to Italy for further study in 1873. On her return she sang in the Broadway Tabernacle, and other New York churches, and made concert tours of the U. S. and Europe. She steadily declined to appear in opera, and made a specialty of sacred music; is a popular soloist for vocal and philharmonic society concerts.

Thurs'ton, John Mellen, lawyer, was born in Montpelier, Vt., Aug. 21, 1847; removed to Wisconsin (1854), and was admitted to the bar (1869); settled in Omaha, Neb., and became active in politics; member of the legislature (1875); chairman of the Republican national convention of 1896; elected to the U. S. Senate in 1896.

Thurston, Robert Henry, mechanical engineer, was born in Providence, R. I., Oct. 25, 1839; graduated from the scientific department of Brown University, and took a practical course in mechanical engineering in his father's shops; served in the navy during the Civil War, and (1865) was assistant professor of Experimental Philosophy at the Annapolis Naval Academy; subsequently he was professor of Engineering in the Stevens School of Technology, Hoboken, N. J. In 1885 he took charge of the Sibley College at Cornell, which he developed into one of the best schools of engineering in the country. Meanwhile he was called as an expert examiner of boilers, safes, &c., and as authority on questions involving strength of materials in mechanical constructions. He has published several books on these subjects.

Thurston, in *Nebraska*, a N. E. co.; *area*, 398 sq. m.; drained by Logan creek. *Surface*, rolling; *soil*, a fertile black loam; timber scarce. *Cap.* Pender. *Pop.* (1897) 3,360.

Tick'et-scalp'er, *n.* One who buys and sells railroad or other tickets at reduced rates; a ticket-broker.

Ti'dal Mo'tors. (*Engin.*) It is rather surprising to contemplate the utter neglect which such a natural power as tides has received, during this age of development of natural sources and growth of industrial enterprises calling for large quantities of power at low cost. It does seem as if it ought to be cheaper for a manufacturing plant located on a tide-river to make some use of its rise and fall for driving machinery than to secure the power from steam obtained through the burning of coal, which perhaps is hauled hundreds of miles. The most serious difficulty presented in using the tides is that their action ceases for half an hour or more at each turn of the tide, or once in a little more than 6 hours, while all manufactories desire a continuous, steady, even power for 10 hours daily, and sometimes for 24 hours. It is therefore necessary, in constructing tidal motors, to arrange in some way for an accumulation of the power during the strong flow of the tide, and maintaining it in reserve for the period of slack water. The simplest way of doing this is to provide a reservoir into which the water may be pumped during the strong flow of the tide, and used in descending by means of a turbine or other water-wheel. But this method demands an enormous reservoir for a very small acquirement of power, as the losses by friction are so great, in pumping water up and using it in descent, that there is about 90 per cent. of waste. Since the introduction of the electric storage battery, it would appear as if tidal motors might be used to charge batteries, which would accumulate the power and allow it to be used in a regular way from electric motors, but no such arrangement has yet been made a commercial success.

Tid'dledywinks, or **Tid'dlywinks,** *n.* A game in which each player endeavors to snap small disks of bone or ivory into a basket or cup in the center of a table.

Ti'ger-wolf, *n.* (*Zoöl.*) A marsupial quadruped (*Thylacinus cynocephalus*) indigenous to Tasmania, where it is now becoming scarce. It is a dasyure, related to the Tasmanian devil, somewhat larger than a wolf, which it resembles in appearance, except that it has short hair and a long, tapering tail. The general color is grayish-brown, but the hinder part of the back, loins and the base of the tail are marked with transverse black stripes. This wolf is a fierce carnivore, originally preying upon the smaller marsupials and birds of Australasia, over which in past times it seems to have been more widely distributed; and since the settlement of Tasmania it has so persistently attacked the sheep that it has been necessary to exterminate it wherever sheep were pastured.

Til'den, Samuel Jones, statesman and lawyer, was born in New Lebanon, N. Y., in 1814; graduated from Yale, and the University of New York; was admitted to the bar in 1841, began the practice of law in the city of New York, and was for many years chairman of the Democratic State Committee. He served in the State Legislature in 1845, and in the conventions to revise the State Constitution in 1846. In 1848 he became a Free-soiler, and afterward took an active part against the Tweed Ring, and in the reform of the canal management. He served as governor of New York (1875–1876), and received the Democratic nomination for President in 1876, but was not confirmed as President. (See Electoral Commission.) Died Aug. 4, 1886.

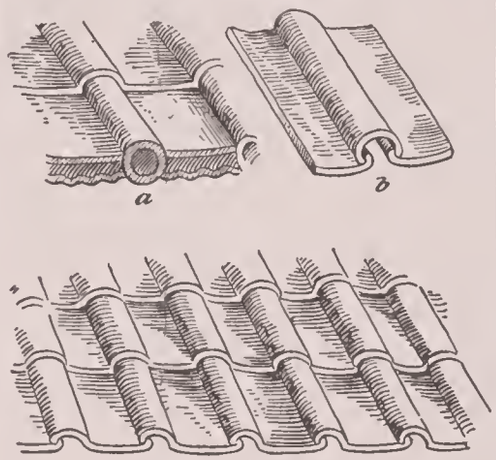


Fig. 3077.—Roofing Tiles.

a, a simple form of eaves-ends; *b*, normal tile: an imbex covering two adjacent tegulæ; *c*, Pan tiles.

Tiles, Roof'ing. (*Building.*) Roofing tiles of terra-cotta have been made and applied since a remote antiquity, and their study develops interesting facts, the foremost of which is the remarkable persistence of certain types. These have been studied by Prof. Edward S. Morse, and described in publications of the Essex Institute. As the roofing tile implies a sloping roof, and this form of shelter arose and prevails only in regions having a considerable rainfall or snowfall, it is probable that it was invented in remoter Asia, and most likely in China, where the fictile art has the highest known antiquity and has reached its greatest development. It then spread westward, but had not reached Greece in Trojan days, since Dr. Schliemann could find no evidence of the use of tiles in and about Ilios, although the art of making other pottery had reached an advanced stage there. The earliest known terra-cotta roofing tiles in Greece were found in the ruins of the temple of Hera at Olympia, dating nearly 1000 B.C. In Japan, Korea and China, the origin of tiles is quite prehistoric; and China to-day excels all other countries in their use, while all the Orientals have ornamented them, and adapted them to decorative effects in a way equalled by no one else except the artists of classic Rome and Greece.

Tiles now form the principal covering for roofs (omitting thatched huts) in all parts of the world, except the wooded regions of northern Russia and Siberia and North America. All tiles, ancient and modern, are classified by Morse, according to form, under three heads: (1) *Normal;* (2) *Pan;* (3) *Flat*. The first is that of the Asiatic Mediterranean countries. It consists of two elements—"a wide tile (*tegula*) either square or rectangular, more or less curved in section, and a narrow semicircular tile (*imbrex*) usually slightly tapering at one end to fit into the wider opening of the one adjoining. The tegula is placed on the roof, concave face upward, and the imbrex, placed concave face downward, covers the lateral joint between two adjacent tegulæ." Sometimes these are arranged in a reversed order—that is, upside down—and various modifications of shape occur. "The *pan tile* is one having a double flexure forming in section the letter ⊂⊃, and is known in some parts of Germany as the S-tile. This tile is an evident adaptation from the normal tile in combining the two elements, imbrex and tegula, in one piece." Its various forms cover the roofs of Belgium, Holland, and bordering regions, including parts of England.

The *flat*, or *plain tile*, is not a tile in the same sense as the other, but is simply a shingle of terra-cotta, nailed or hung to the roof as slates are. One other feature ought to be mentioned, namely, the marginal appendage of the tiles, both tegulæ and imbrices, intended to be placed upon the eaves, which serve to close the ends and give an ornamental finish to the edge of the roof. These often take beautiful and characteristic forms, as is evidenced not only by the tilings of modern Oriental houses, but by the relics of those in use in Mediterranean countries during the classical period. The gradual introduction of vitrified roofing tiles for certain large and ornate buildings in the United States is likely to lead to a more general use of this material, which is at once cheap, durable, easy of application, and capable of great artistic effect.

Til'ton, Theodore, writer, was born in New York city, Oct. 2, 1825. He became editor of the New York *Observer* and then of the *Independent* (1856–71). He was also editorially connected with the Brooklyn *Union* and the *Golden Age*, and was a popular lecturer. In 1883 he settled in Paris.

Tim'by, Theodore Ruggles, inventor, was born at Dover, N. Y., April 5, 1822; in 1862 patented his design for the "revolving tower" that was used in the building of the *Monitor*, and for the use of which the contractors paid him a royalty of $5,000. He also invented the American pattern of the turbine water-wheel, the system of firing guns by electricity, and various designs of use in military engineering.

Time, *n.* A definite moment, or a definite portion of continuous duration.—*Apparent* or *Solar Time* is time deduced from the apparent diurnal motion of the sun, noon being equivalent to the sun's position on the meridian. A truly-placed sun-dial shows apparent time.—*Mean Time*, or *Mean Solar Time*, is the time calculated according to the mean passage of the sun over the meridian at some fixed point, as Greenwich, Eng., or Washington, D. C.—*Sidereal Time* is time calculated by the passage of a fixed star across the vernal equinox, which gives a day somewhat shorter than a mean solar day.—*Astronomical Time* is the time indicated by a clock set to mean solar time, having 24-hour divisions instead of 12, and pointing to 24 at noon.

Fig. 3078.—Map of the United States, showing the Standard Time-Belts.

Time, Stand'ard. A local standard of time adopted by the R.Rs. in the U. S., in Nov., 1883, and accepted universally over the entire country. It divides the U. S.

into four great time divisions, called, respectively, Eastern, Central, Mountain, and Pacific Time, and these correspond respectively to the time of the 75th, 90th, 105th, and 120th meridians west from Greenwich. Because of the daily rotation of the earth upon its axis, sunrise, sunset, and noon vary from place to place just one hour for 15° of Lon.; hence, each standard will be one hour faster than that immediately west of it. Thus, noon at—say Philadelphia, on the 75° of Lon., will be 5 P.M. at Greenwich, 11 A.M. at St. Louis, 90° Lon.; 10 A.M. at Denver, 105°, and 9 A.M. on the 120°, at San Francisco. The time indicated at Philadelphia embraces all the territory included within that meridian, and so on with each of the other meridians. The change from one standard time to another is not made upon arbitrary lines, midway between the standard meridians, but at important points on the route, or at the termini of railways, as may be most convenient. New Brunswick and Nova Scotia have adopted the 60° meridian as the standard, and it is termed Inter-Colonial Time. Under this standard of time no place will vary more than 30 minutes between the local time and the standard. The Naval Observatory at Washington, D. C., furnishes the standard time to the Western Union Telegraph Company every day at noon, and that company clears all its wires at three minutes before noon daily, putting everything in direct connection with Washington. The noon signal reaches the most distant point in about one-fifth of a second, after which general business is resumed. The Western Union derives an income from this by furnishing absolutely correct time to clocks at the rate of $15 a year, and there are some 75,000 regulators in the country that are furnished in this way. Mariners in U. S. ports obtain the benefit of this time for correcting their chronometers by watching the time-balls dropped from some conspicuous point within view of the harbors at noon daily.

Time'-detect'or, *n.* A mechanism connected with a clock, and having some form of registering device for recording the rounds of a night watchman. In large factories and buildings deserted at night it is common to employ a watchman to make regular rounds of the premises, as a safeguard both against fire and thieves. As a further protection, to insure the detection of the watchman, should he spend his time in sleep or otherwise neglect his duty, the time-detector has been invented. There are two types, one consisting of a small clock, which the watchman carries about in his pocket, and winds with keys fastened at various points on his rounds, the winding affecting an inner recording mechanism, so that the dial will show in the morning whether or not he has performed his duty. It is obvious that this system may be cheated by the use of duplicate keys. The other type of time-detectors is based upon a stationary clock-mechanism placed where the watchman has no access to it, and having an inner dial of paper, ruled for receiving a record, as of punched holes made by pressing electric buttons at the different stations on the watchman's rounds. As the paper dial is changed daily, and as it rotates with the hands of the clock, every punch made from every station may be located as to time, showing the moment at which the watchman visited each and every station on his route. This system serves for several watchmen as well as one, since the dial may be enlarged to receive any number of records.

Tin-plate, *n.* Iron or steel plated with tin constitutes by far the greater part of the so-called tin which is in familiar use for so many purposes. In its manufacture, four kinds of plate are known, viz.: *Black plate*, which is the rolled iron or steel sheet, preparatory to being tinned; *terneplate*, which is made of black plate, coated with an alloy of lead and tin; *taggers*, which is very thin plate usually cut to half size, and *tin-plate*, which is properly sheet iron, dipped in pure tin two or three times and polished. The term tin-plate is used, however, as including all these varieties. The method of manufacture in the U. S. is an improvement in many ways over the processes employed in Wales, which is otherwise the principal place of manufacture. A billet of iron or mild steel is specially rolled to the most convenient size, which is in the form of a bar 7 inches wide, and from ½ to ¾ of an inch in thickness, according to the size and thickness of the resultant plate which is to be produced. The bars so made are sheared into lengths of 21¼ inches, so as to admit of later trimming to an exact 20 inches, with true edges. The sheared bars are reheated, and rolled in hot rolls to a length of about 57 inches. Two of these 57-inch sheets are then laid together, while still hot, doubled over in the center, rolled again to a length of 57 inches, so that there remain eight thicknesses, 57 by 21¼ inches. These are then trimmed in a special form of machine to 14 by 20 inches, which is the standard size of plate, weighing almost one pound. Thus 32 sheets are made from the original 7 by 21¼ bar. Occasionally other sizes are made for special use, but the trade find it more convenient to retain this standard. The sheets so made are the black plates mentioned above, and their color is owing to the dark scale covering them, which is a coating of oxide that forms on iron that has been heated, and is commonly called forge-scale or roll-scale. As this scale peels off more or less readily in flakes, it has to be thoroughly removed before tinning. For this purpose pickling in dilute sulphuric acid is employed.

The Leechburg pickling-machine is an American invention, which does this work far more economically than it was formerly accomplished. It has a central tubular column, serving as a support to the remainder of the mechanism, and containing an internal steam-cylinder for raising and lowering a piston or ram which protrudes from the top of the column, and carries three horizontal arms, arranged radially. This arrangement is designed so that bundles of plates may be hung on each of the three arms, and hoisted and swung about into pickling-vats and cleaning water as desired. In operation, a car or truck loaded with plates is run under one arm of the machine, and a bundle of black plates attached to an arm. The steam is then admitted under the ram, and the plates are hoisted 4 or 5 feet, and swung over the pickling-vat. Steam is then admitted, the plates lowered into the vat, and vibrated up and down, with a short stroke of the ram, the vibration aiding the acid in removing the scale. When the scale is well loosened, the plates are again hoisted and swung into a swilling-vat, to be washed with clean water. From the swilling-vat they come back to the car. All the work is performed by the steam, the attendant having simply to set the valves, for obtaining a long stroke of the ram when the plates are to be hoisted into or out of a vat, and for a short stroke when vibration is desired, and to hitch and unhitch the bundles of plate to the arm over the car. It is apparent that the three operations of handling the plates, pickling, and washing go on simultaneously, all three arms of the pickling-machine being continually in use. The plates next go to the annealing-furnace, packed in iron boxes with close lids, with the cracks stopped with sand to exclude the air. They are kept at a dull red heat for a length of time varying from 10 to 24 hours, and are then allowed to cool gradually. The annealing serves to reduce the brittleness of the plates, making them softer and tougher.

In order to give a smooth finish to the plates cold-rolling between rolls of hard chilled iron is resorted to. These rolls are very powerful, and tend to concentrate the metal, and to render the surface more even. A second annealing follows, to further soften and toughen the plate, when it would be ready for tinning were it not that iron tends to oxidize so easily that in the time occupied by these operations a certain amount of oxidation has taken place, which would tend to cause the coating of tin to scale off, were it not removed. A second pickling in a weak acid solution is therefore applied, this being denominated white pickling. Scouring with sand and water by means of hemp pads follows, then a rinsing in water, after which the plates are either greased with palm oil or treated with a solution of chloride of zinc and muriatic acid. The palm-oil treatment is considered the best, though the acid process is slightly cheaper. The molten tin is contained in a melting-pot, covered with palm-oil, or, if terneplate is to be made, the mixture in the pot is 2 parts lead and 1 part tin. In this the plates are dipped, usually 3 times, being brushed between dippings. After the third dipping the plates are rolled in a bath of palm-oil, and set up in racks to cool. A cleaning-machine is next brought into use, to rub the plates with bran and absorb the remains of the oil, after which the plates are hand-polished or dusted, and packed for the market. The quantity of tin-plate manufactured slightly exceeds that of terneplate.

There were in 1900 about 66 firms in the U. S. engaged in the manufacture of tin-plate and terne-plate, operating some 250 black-plate mills and about 500 tinning-sets. Pennsylvania is the center of the industry. The annual capacity is about 7,000,000 boxes of plate, there being 112 plates to the box. This is enough to supply the home demand, and the amount now imported from Wales is trifling, the competition being practically confined to the Pacific coast, where the Welsh article can be brought in about 22 cents per box cheaper than the American product. Even this market is likely to revert to the American manufacturers, who are in a position to undersell the British plate whenever they choose to make a combination for that purpose. About one-quarter of the U. S. consumption of tin-plate comes from the Standard Oil Company and the Armour Packing Company. The remainder is principally used in roofing and the manufacture of tin boxes for special purposes. The development of the tin-plate industry in the U. S. is the direct result of favorable tariff legislation. There being no tin ore here, and labor being cheaper in South Wales, where the bulk of it had been made, there was nothing to induce anyone to engage here in its manufacture. Even the 1870–73 tariff of 25 per cent. failed to induce local manufacture, and the subsequent figures of 15 per cent. and 1⅛ cts. per pound were also uninviting. In 1891, the McKinley tariff of 2 ⅛ cts. per pound (the equivalent of about 60 per cent.) started a number of firms into the business, and mills were erected very rapidly up to 1894, when the tariff protection was reduced nearly one-half. However, the business has become sufficiently well established that it now seems easily able to hold its own, with a moderate protection, and almost as many mills were erected in 1895 and 1896 as in the 2 years preceding. The erection of mills has now practically stopped, those now running supplying about nine-tenths of the home demand.

Tintom'eter, *n.* A device for testing the color of something, as lubricating oils, whose value is reduced by dark tints, often indicating impurities. Lovibond's tint meter was introduced in 1886, and has been improved several times. As made for testing oil, two channels are provided connecting with an eye-piece. In one channel may be adjusted any one of a set of glass slips of graded tints for comparison with 2 inches of oil, which are placed in a rectangular glass cell in the other channel. When the tint is matched, a marking on the glass slip serves to place the value of the oil.

Tisch'endorf, Lobegott Friedrich Konstantin von, an eminent philologist and biblical critic, was born at Lengenfeld, Germany, in 1815. He was educated at Leipzig, was professor there after 1845, and travelled much, comparing the different manuscripts of the New Testament. On one of his Oriental tours he was so fortunate as to discover the Sinaitic manuscript, which is the oldest known copy of the New Testament, and of inestimable worth in textual criticism. Much of his brilliant reputation was due to this discovery, supported as it was by the keenest critical acumen. His revisions have been circulated everywhere, and in Leipzig alone not less than twenty-five of his critical editions have been published. He died in 1874, leaving incomplete a large and comprehensive critical edition of the New Testament.

Tobog'gan, *n.* A simple form of sledge, invented by the Indians of northern North America, consisting of piece of birch-bark, or similar material, having the front end turned up, and a rope attached by which it was dragged over the snow. This was in use throughout Canada, and was adopted and improved by the early white explorers and fur-traders for winter travel in the far north. Later it became a toy in Canadian cities, where it was made of carefully prepared hickory splints, from 5 to 15 feet in length, and was used in the sport of sliding down carefully made tracks of frozen snow, inclined upon a natural hillside, or upon a sloping structure of timbers giving the required impetus at the start, and called a *toboggan slide*. The best toboggans are those made in Quebec.

Toc'coa, in *Georgia*, a post-village of Habersham co., 93 m. N. E. of Atlanta. Here are springs of chalybeate and sulphur waters, and the famous Toccon Falls, 185 feet in height. *Pop.* (1897) 1,190.

Togo, Heihachiro, Japanese admiral, began his career as a sub-officer. When the war with China began, in 1894, he commanded a small cruiser, the *Naniwa*, with which he attacked and sank a Chinese transport, the *Kowshing*, before war was declared. He took part in several other naval events of this war. He began the war with Russia in 1904 by an attack (Feb. 9th) on the Russian fleet at Port Arthur, which was very seriously crippled. He subsequently blockaded this port, sank the Russian flagship *Petropavlovsk*, and rendered the Russian fleet at Port Arthur useless in the war. On May 27-28, 1905, he met a powerful Russian fleet from the Baltic in the Korean Straits, and practically annihilated the entire fleet, with almost no loss to his own side. This is regarded as one of the greatest naval victories in history, and Togo ranks as the leading naval commander of the age.

Tol'stoi, Lyof Nikolaivitch, Count, novelist and reformer, was born at Yasnaia Poliana, in the province of Toula, Russia, Aug. 28, 1828; educated at the University of Kazan, and entered the Russian army (1851), serving in the Crimean War as an officer of engineers; resigned his commission (1856), and gave attention to literature; published his first novel, *War and Peace*, in 1860. Then followed *Anna Karenina*, in 1876. About this time *T.* began to devote himself to the study of the problem of social life, and to develop his peculiarly radical views of religion and morals, which he set forth in *My Religion* (1889). His rule of Christian life is to place himself on a plane with the poorest, to work with his hands, and to own nothing but what he can share with the humblest, and to live the life of a Christian socialist. His peculiar views led him to extraordinary utterances, and sometimes questionable arraignments of society, as in the *Kreutzer Sonata* (1890), with its peculiar theory of marriage and social organization. His writings include a number of other works of radical character.

Tol'tecs, *n. pl.* (*Ethnol.*) A supposed race of Indians, regarded as entirely mythical by many modern ethnologists, said to have inhabited Central America previous to the rise of the Aztecs (who possessed the country at the time of the Spanish conquest). Nothing but vague tradition remains in regard to them; and the place-names connected with these traditions are all expressed in the idiom of the Nahuatl, or language of the Aztecs. Those who believe there really was a Toltec race are inclined also to believe that, when driven from Mexico, about 900 years ago, they settled in the Tehuantepec Isthmus and peninsula of Yucatan, and gave rise to the cultured Maya race.

Tom Green, in *Texas*, a S.W. co.; *area*, 2,940 sq m.; drained by Concho river and the Middle Fork of the Colorado river. *Surface*, mainly prairie, a small portion hilly. One of the finest stock regions in the State. *Cap.* San Angelo. *Pop.* (1897) 7,000.

Tom'ahawk, in *Wisconsin*, a post-village of Lincoln co., 23 m. N. of Merrill. *Pop.* (1895), 2,296.

Tomb'stone, in *Arizona*, a city, cap. of Cochise co., 65 m. S.E. of Tucson; has important mining interests. *Pop.* (1897) 2,000.

Tonkaw'a, in *Oklahoma*, a post-village of Kay co., 14 m. from Ponca City. *Pop.* (1897) 150.

Tooke, Horne, philologist and politician, was born in London, in 1736, and at first known under his real name of John Horne; but in the middle of his life he assumed the name of Tooke. He was educated at Eton and Cambridge, and was vicar of New Brentford until 1773; but, becoming a liberal politician (1765), was involved in agitations and controversies from that time forward. He opposed the American war; was at one time tried and imprisoned for libel, and was tried and acquitted in 1794 on a charge of high treason. In 1801 he entered Parliament, and died in 1812. His *Diversions of Purley* (1786) is a work on philology which has been frequently reprinted.

Henry David Thoreau

1817–1862

Toole, JOHN LAWRENCE, comedian, was born in London, England, March 12, 1832; acted at various London theaters (1854–74); in the U. S. (1874–75); and in Australia (1890). He made a striking success as Walker, in J. M. Barrie's play of *Walker, London*, in 1894. Among his favorite plays are: *The Cricket on the Hearth*, *Through Fire and Water*, and *A Fool and His Money*.

Toombs, ROBERT, politician, was born in Wilkes county, Georgia, July 2, 1810; graduated at Union College, and studied law at the University of Virginia; was elected to Congress in 1844; from 1853–61 was a U. S. Senator; a Southern extremist, favoring secession, and was expelled from the Senate March, 1861. He became a member of the Confederate Congress; was Secretary of State, but resigned to enter the Confederate Army as a brigadier-general. After the war he refused to take the oath of allegiance to the U. S., and so forfeited his citizenship. He was to the end bitterly opposed to the reconstruction policy of the government. Died Dec. 15, 1885.

Toron'to, in *Ohio*, a post-village of Jefferson co., on Ohio river, 9 m. N. of Steubenville; has manufactures of terra cotta, fire brick, etc. *Pop.* (1897) 2,750.

Torpe'do Boats. (*Navy.*) Small, swift vessels for approaching heavy armored battleships, as under cover of darkness, and discharging a destructive torpedo, are known by this name. There are two general types, one a surface boat, with extremely powerful engines, designed for night attacks, and the other a submarine boat, constructed to float either on the surface, or just awash, or entirely submerged. The first type of craft has reached a high degree of development, and all the leading navies of the world comprise fleets of torpedo boats, ranging in speed from 25 knots an hour up to 34 knots, the last-named speed being attained by the *Turbinia*, built in 1897 at the Thornycroft yards in England. The diagrams printed herewith show the plan used in constructing five of the torpedo boats in the Italian fleet.

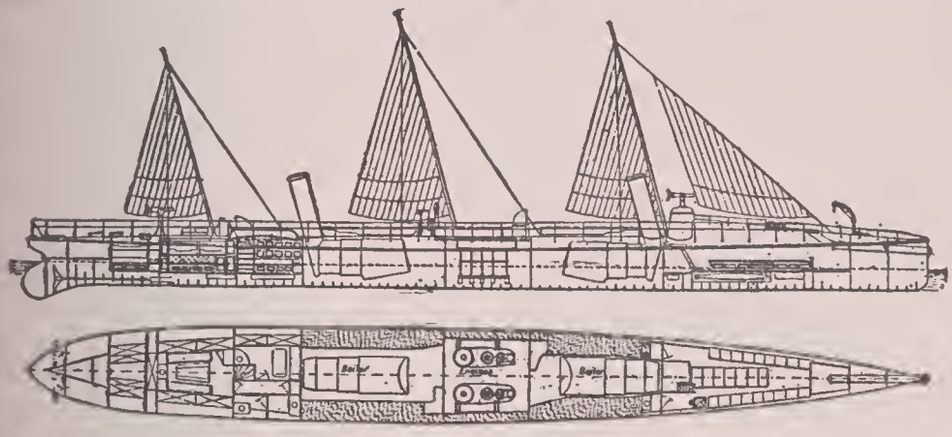
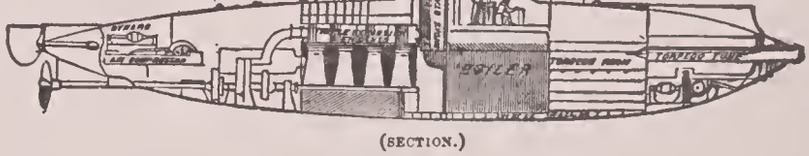


Fig. 3079.—TYPE OF ITALIAN TORPEDO BOAT.

A description of one of these will serve to give a general understanding of the whole class: These boats are 152 feet long, 17 feet wide, and 7½ feet in depth. The hulls are divided into 12 water-tight compartments, and longitudinal bulkheads are also employed. Half the compartments may be filled without sinking one of the vessels. Each craft has two locomotive-type marine boilers, and two sets of triple expansion engines. The cylinders have 17 inches stroke, and the indicated horse power is 2,200. Three-bladed twin screw propellers of 6 feet diameter are used, with the result that speeds varying from 26 to 27 knots an hour were made by the different boats on their trial trips, the speed being maintained in each case for a run of at least three hours. The coal bunkers are arranged so as to enclose the boilers and engines, affording them some protection. The bunkers are made to contain about 40 tons of coal. The weight of one of these boats, with its torpedo-tubes and fittings, Hotchkiss guns, masts, &c., is 62¼ tons; the boilers and engines weigh almost as much, 61 tons; while the crew of 24 men, with their equipments, and a full coal supply, bring the weight up to 170 tons. Great Britain has a considerable number of torpedo boats of the 30-knot class, and since it has been developed that the steam-turbine can be used in these craft to increase their speed, the number of 30-knot boats is likely to increase. (See STEAM-TURBINE.)

The submarine class of torpedo boats are yet in the experimental stage. The principle upon which these are navigated is explained at SUBMARINE BOAT. One of the earliest successful boats of this type was the *Waddington*, built near Liverpool, in 1888. It carried two automobile torpedoes, one on each side, held by grips, and arranged to be released from the interior of the boat, the release starting the propelling motors of the torpedoes into operation. Lieutenant Peral, of the Spanish navy, has attracted considerable attention because of the submarine torpedo boats built under his direction. In France, M. Zédé, chief engineer of the Mediterranean forces, developed the *Gymnote*, in 1888, and its success was such that in 1891 another was ordered on a larger scale, and $225,000 appropriated for its construction. In the U. S., the Holland boat has proved the most successful. J. P. Holland began his first submarine boat in 1877. In 1887 he succeeded in interesting the navy department sufficiently that designs were advertised for, but the specifications were so rigorous that no one was able to meet them at that time. The third and most successful of Holland's boats was tested in Newark bay and New York harbor during 1896, and attracted much notice from the press and public. The illustrations show the general outline and section. It is plated with half an inch of steel, and driven by three screws, with triple-expansion engines, while on the surface. When sunk, it may be driven for a long time by hot water under steam-pressure, and when this gives out, the storage batteries and electric motors are used. Its speed on the surface is 13½ knots; about 11 knots awash, and 6½ knots when totally submerged. A conning-tower is provided, and a periscope, or upright telescope with reflecting mirrors, for enabling the pilot to view the surroundings without other exposure above the surface than a short, dull-colored tube. It is made to carry five locomotive torpedoes, with an air-compressor plant for furnishing power for their discharge. Its dimensions are: Length, 80 feet; diameter, 11 feet; displacement, light, 118·5 tons; displacement, awash, 137·84 tons; displacement, submerged, 138·5 tons; horse power, 1,800.

If necessary to do so, the boat could remain under water for more than six hours without injury to the crew, for 50 cubic feet of compressed air are carried in the air reservoirs. The vessel has sufficient reserve of buoyancy to insure its rising to the surface in case of accident to machinery, and, as a last resort, over two tons of water can be pumped out by hand-pumps. It is built with sufficient strength to resist without leaking a water pressure at a depth of 15 fathoms, and automatic arrangements are made to prevent it from descending below a predetermined depth. Five Kingston valves are placed under the bottom, with connections above decks, by means of which the ballast-chambers can be flooded and the vessel brought to the surface. One Kingston valve is also placed in each auxiliary water chamber.



(SECTION.)

Fig. 3080.—THE HOLLAND SUBMARINE TORPEDO BOAT.

The Holland Company has constructed for the U. S. government a torpedo boat, called the *Plunger*, copying most of the devices in the Holland boat, this vessel being launched at Baltimore, Aug. 7, 1897. It is a trifle larger than the Holland boat. With a length of 85 feet and diameter of 11·5 feet, it has a displacement when floating light of 155 tons, and when down to the load line, or with the superstructure awash, 167 tons. Two sets of motive power are provided, one for the afloat and awash condition, and one for the submerged condition. Twin quadruple expansion engines, with steam furnished from a water-tube boiler, will operate twin screws when afloat or awash; a 70-horse power electric motor, fed from 48 chloride cells, will furnish the power when submerged. The steam power, electric motor and storage cells are so connected as to be readily reversible in their action, thus rendering it possible to recharge the cells by employing the motor as a dynamo, the steam-engine being used as a prime motor. The electric power may also be connected to a propeller shaft placed in the axis of the boat, in addition to the connection with the main propeller shafts. The motor may thus operate a special propeller, in addition to driving the main shafts independently of the steam engines. The capacity of the storage cells is amply large to prevent injury or deterioration while giving out the power required to propel the vessel.

The United States now possesses eight torpedo boats of the Holland type, the *Holland*, *Plunger*, *Adder*, *Grampus*, *Moccasin*, *Pike*, *Porpoise*, and *Shark*. These, with the exception of the *Holland*, are of 120 tons displacement, 160 horse power, and were built at a cost of $170,000 each. Their speed when submerged is estimated at 8 knots per hour. The *Moccasin*, on her trial trip in November, 1902, showed a speed of $7\frac{2.8}{10.5}$ knots, making eight runs, four with and four against tide. These boats carry one torpedo expulsion tube and five Whitehead torpedoes. Several other nations have adopted the submarine boat, which promises to play an important part in future naval warfare.

Torpe'does, Na'val. (*Navy.*) Torpedoes for the destruction of hostile vessels may be divided into those which are dirigible, that is steerable or controllable from the point of departure, and those which are uncontrollable, or continue on a fixed course when once discharged. Of the former class, one of the earliest is the Lay, which came into notice about 1872. The hull of this craft is about 30 feet long and 3 inches wide, cigar-shaped, and formed, water- and air-tight, of iron plates. It is divided into three compartments, one for motive power, another for machinery, and the third for electrical apparatus. The motive power consists in carbonic acid gas, compressed in sufficient quantity to drive a pair of oscillating engines of 8-horse power, and thus operate the screw, for the period of half an hour, during which time the boat is designed to travel some six or eight miles. The machinery is controlled by wires leading to a battery on shore, the opening or closing of the circuit or wire governing the throttle, and the same on the second wire actuating the steering gear. The cable containing the wire is paid out as the boat moves. The vessel is almost entirely submerged, and being painted green, is indistinguishable at short distances by the unaided eye. In the magazine is placed 500 pounds of powder or nitroglycerin, and in the forward portion of the vessel explosive shells are arranged, to be fired by an electric spark passing through a third wire in the cable. The explosion of the shells may be effected without injury to the boat, but that of the magazine necessarily causes its destruction.

The Sims-Edison, also steerable, came out about 1885. The cigar-shaped torpedo contains the explosive in the forward section, while in the next section is a cylindrical case, in which is coiled a controlling electric cable which is paid out as the torpedo progresses. In the center is a little electric motor for driving the propeller-screw, and in the aft part is the steering mechanism. Above the torpedo is a long, boat-shaped float, made buoyant, so as to maintain itself on the top of the waves. From this rise little masts, bearing balls designed to aid the steersman at the directing point in guiding the craft. The masts are hinged, and a sharp nose is given the forward end of the apparatus, so that it may tend to shoot under any logs or other obstacles encountered. The steering device, for use at the point of sending, consists of a powerful electromagnet with pole-changing keys, whose alterations affect the rudder of the torpedo through the controlling cable. When it is desired to explode the torpedo an electric connection is made, igniting a fuse. The Whitehead torpedo is one of the best known of the uncontrollable class. It is cigar-shaped, has a shell of steel or bronze, and is usually about 15 feet in length by 14 inches in diame-

ter. In the conical head is placed from 30 to 75 pounds of gun-cotton. At the front point is an exploding device for firing the charge the instant it strikes. The body of the shell contains an air-chamber, filled with compressed air, for use as a motive power. Next is a balance-chamber, with devices for maintaining a proper position in the water. Next aft is the propelling motor, and in the aft cone is a buoyancy chamber adjusted to secure the proper submergence in the water, the depth being adjustable to from 5 to 20 feet.

This form of torpedo is designed to be discharged from a tube either above or below the water-line, from an armored ship, or from a torpedo boat. As the torpedo leaves its tube its motor is started, and it continues on its course, after the initial energy is spent, by means of its own air-driven motor. The Hall torpedo is very similar to this, using compressed air, a telescopic tube to regulate immersion, and a righting-valve. The Victoria torpedo regulates immersion by horizontal rudders, and preserves balance by a pendulum mechanism. The Patric torpedo is an enormous affair, 40 feet in length, driven by carbonic acid gas, and carrying a float, like the Sims-Edison. The Nordenfeldt torpedo is driven by an electric motor supplied with storage battery accumulators of 120 cells. Two floats are used to maintain a depth of about six feet. The Howell torpedo is designed to be discharged from a gun with powder. It is fired below the water-line at an initial speed of 35 knots. It has the usual devices for controlling submersion and steering.

Touraco (*too-ra'co*), *n.* (*Ornith.*) A bird of the genus *Turacus* (family *Musophagidæ*), closely related to the plantain-eaters, and a native of Africa, of which several species are known. All are brilliantly colored, rich, metallic crimsons and greens predominating, have lofty, erectile crests, and the beak half concealed by hairy feathers projecting forward about the nostrils, and long, flexible tails. They dwell in forests, frequent the highest trees, and live upon fruits, but not much is known of their habits. The commonest species is the lory, of South Africa (*Turacus corythaix*, Fig. 3081), whose plumage is particularly gaudy. Its crest is red, erect, and compressed; sides of the head, ears, and chin, and patch round the eye (which is large, red, and brilliant), white; general plumage green, inclining to bluish on the body and belly; quills rich purple violet; tail rounded; bill yellow; feet grayish-black. When the bird is excited or in action, the crest is elevated in a compressed subconical shape; and when thus erected it gives the head a helmeted air.

Fig. 3081.—TOURACO.

Tourgee', ALBION WINEGAR, journalist and author, was born in Williamsfield, O., May 2, 1838; served in the Union army throughout the Civil War; after the war went to Greensboro, N. C., practiced law, edited the *Union Register*, and entered politics. His experiences and consequent views on the subject of Southern reconstruction were expressed in his books, *A Fool's Errand, by One of the Fools* (1879), *Bricks without Straw* (1880), &c. He also published several books on legal subjects. His latest book is *The Battle of the Standards* (1896).

Tourgenieff', Tourgeneff, Turgenieff, or Turgeneff, IVAN SURGEYEVICH, a distinguished Russian novelist, born in 1818, and educated at the University of Moscow and at St. Petersburg; he subsequently spent some time in foreign travel and study, but returned to Russia to serve in the ministry of the interior in 1840. In 1841 he published *Panasha*, a volume of poems, and in 1844 *Andrei Kolossoff*, his first novel. About 1847 he issued *Annals of a Sportsman*, which were written to help in bringing about the emancipation of the serfs, and which, translated into English, French, and German, gave him reputation as an author. In 1852 he commented on the Russian official system in a way which gave offence, and he was deprived of office, imprisoned, and then for a time banished from the capital into the interior of Russia. After he was allowed to return, in 1854, he spent little time in Russia, living mostly in France and Germany. He was broadly democratic in principle, but his tendency to analysis often made enemies even of those with whom he sympathized. His best-known novels are *Rudin* (1855), *A Nest of Nobles* (1858), *Helene* (in English editions, *On the Eve*) (1860), *Fathers and Sons* (1862), *Smoke* (1867), *Virgin Soil* (1876), and *A Lear of the Steppes*, besides a last poem, *Senilia* (1883). Died Sept. 3, 1883.

Tourjee', EBEN, the founder of the conservatory system of musical instruction in America, was born in Warwick, R. I., June 1, 1834; self-instructed, he became an organist at 13; in 1851 he opened a music store in Fall River, Mass., and in 1853 began teaching music in the public schools, and also organized private classes. This was the beginning of class-teaching in America. In 1859 he established a conservatory of music in East Greenwich, R. I.; in 1863 studied in Europe; in 1864 returned and founded a conservatory in Providence, which was removed to Boston (1867), and became the New England Conservatory of Music. In 1869 he organized the chorus of the Peace Jubilee; in 1872 became dean of the new College of Music in Boston University. Died April 12, 1891.

Tours, BERTHOLD, musician, was born in Rotterdam, Holland, Dec. 17, 1838; received his musical training from his father, the organist of St. Lawrence Church, and at the conservatories of Brussels and Leipsic. In 1861 he settled in London, and became a member of the orchestra of the Royal Italian Opera, and musical adviser for the firm of Novello, Ewer & Co. He has composed many attractive songs, and several hymn tunes and services for the English church, notably his *Servia in F* and the anthem, *God Hath Appointed a Day.*

Tow'er, in *Minnesota*, a city of St. Louis co., 96 m. N. of Duluth; has large manufactures of iron, lumber, and brick. *Pop.* (1895) 1,265.

Tower City, in *Pennsylvania*, a post-village of Schuylkill co., 26 m. S. W. of Pottsville. *Pop.* (1897) 2,120.

Towhee (*tō-hē'*), or GROUND-ROBIN, *n.* (*Ornith.*) One of the most common birds in the Eastern U. S. It is a finch (*Pipilo erythrophthalmus*—Fig. 3082), and spends its time mainly upon the ground, where its loud two-syllabled cry is heard from among the thickets, where it scratches industriously for its insect food. To this cry it owes its names, towhee, joree, chewink, &c.,

Fig. 3082.—TOWHEE.

and to its gay plumage of black, rust-red, and white (in the male, the female being duller) its other names, "ground-robin," and "skuuk blackbird." In the spring the male utters a brilliant song, during the brief mating season, when the female is occupying a domed nest cleverly concealed among the fallen leaves in the woods. Several related species dwell in the western half of the U. S. See Ernest Ingersoll's *Friends Worth Knowing* and *Country Cousins* for a fuller account.

Tow'ner, in *North Dakota*, a N. N. E. co.; *area*, 1,044 sq. m.; drained by small streams and numerous lakes. *Surface*, undulating; *soil*, very fertile. *Products.* The unrivalled No. 1 hard wheat, oats, barley, potatoes, hay, wool; live stock. *Cap.* Cando. *Pop.* (1897) 2,750.

Tow'nsend, ENWARD W., humorist, was born in Cleveland, Ohio, Feb. 10, 1855; began journalism at fifteen years of age; was engaged in the San Francisco *Examiner*; joined the staff of the New York *Sun* in 1892; author of *Chimmie Fadden* (1894); *Chimmie Fadden Explains* (1895); and *A Daughter of the Tenements* (1895). These books portray life on the Bowery and the East Side, and are written in the dialect of that quarter.

Townsend, GEORGE ALFRED, journalist, was born in Georgetown, Del., Jan. 30, 1841; became a war correspondent for the New York *Herald* (1862). He then went to Europe, and delivered lectures on the Civil War in America. Returning to the U. S. he was engaged by the New York *World* as war correspondent in 1864, and became noted for his picturesque descriptions. In 1866 he was in Europe, describing the scenes in the Austro-Prussian War. In 1868 he was correspondent of the Chicago *Tribune*, and then began to use the pen-name "Gath." He has published several books, but is best known by his journalistic work.

Townsend, VIRGINIA FRANCES, writer, was born in New Haven, Conn., in 1836. She edited for a time *Arthur's Home Magazine*, and devoted her life to literary work. Many of her juvenile books have been reprinted as the "Breakwater Series."

Toxo'tes, or ARCHER-FISH, *n.* (*Ichth.*) A genus of fishes, belonging to the family *Toxotidæ*, allied to the surgeon-fish, embracing small, brightly colored forms of East Indian seas, one species of which (*T. jaculator*)

Fig. 3083.—TOXOTES JACULATOR.

was formerly believed able to shoot drops of water from its mouth so straight and forcibly as to knock down flying insects for food.

Tra'cy, BENJAMIN FRANKLIN, statesman, was born in Oswego, N. Y., April 26, 1830; studied law; was district attorney for Tioga co., N. Y. (1853); member of the legislature (1862); organized the 137th and 109th N. Y. Regiments, taking command of the latter. At the close of the war he was brevetted brigadier-general of volunteers; settled in Brooklyn; was U. S. district attorney (1866–1873); filled a vacancy on the supreme bench of New York (1881–83); was secretary of the navy (1889–93), and thereafter resumed his law practice in New York; was Republican nominee for first mayor of "Greater New York" in 1897.

Tra'cy, in *Minnesota*, a post-village of Lyon co., 91 m. W. of St. Peter. *Pop.* (1895) 1,687.

Trade Dol'lar. A silver coin issued in the U. S. in 1873, containing 420 grains, troy, and at the time of issue the metal it contained was worth 102¼ cents. It was intended to take the place in the trade of China and Japan of the popular Mexican dollar, and was not a legal tender in the U. S. These expectations were not fully realized, and coinage and circulation of the coin soon ceased.

Tradu'cianism, *n.* (*Philos.*) The theory that the human soul is derived from the soul of the parents, just as the body is from their bodies. It is opposed to creationism and also to pre-existence—the notion that human souls were in existence before the generation of the bodies with which they are united in this world; a notion anciently, and still, widely spread throughout the East. Athanasius, Gregory Nazianzen, Tertullian, and the Lutheran theologians are traducians, holding, as a general thing, that the parents are the divinely appointed means of a divine act of creation. Augustine evidently leans to this view, without expressing himself positively. During the Middle Ages, however, the orthodox view was creationism, the theory that each soul is a separate creation and joined to the body just after its conception, and this is the prevalent view in the Roman and Protestant churches.

Tra'er, in *Iowa*, a post-town of Tama co., 47 m. W. of Cedar Rapids. *Pop.* (1895) 1,218.

Traill, in *North Dakota*, an E. co., adjoining Minnesota; *area*, 864 sq. m.; bounded E. by Red River of the North, and drained by Goose river. *Surface*, nearly level prairie; *soil*, fertile. *Cap.* Hillsboro. *Pop.* (1897) 12,780.

Train, GEORGE FRANCIS, author and lecturer, was born in Boston, Mass., March 24, 1829; in 1853 he went to Australia and founded the business house of Caldwell, Train & Co.; travelled extensively, and at one time tried, without success, to promote street railroading in Liverpool and Birkenhead, England; began writing and lecturing, and became noted for his sharp criticisms of English society, and for his own personal eccentricities. His home has been in New York city since 1862.

Transcenden'talism, *n.* (*Philos.*) In common parlance, this word is applied to what is disapproved of as abstruse, speculative, obscure, fantastic, and more or less absurd. Transcendent and transcendental, however, are terms employed by some Schoolmen, especially Duns Scotus (*q. v.*), to describe conceptions that, by their universality, rise above or transcend the ten Aristotelian categories. (See ARISTOTELIANISM.) Between the theretofore convertible terms transcendent and transcendental, Kant drew a distinction of considerable importance; at least, for the understanding of his system. (See KANT.) "Transcendental Philosophy" was Schelling's own name for an important part of his system. (See SCHELLING.) The epithets Transcendentalism and Transcendental School have come to be associated in the United States with a group of New England authors and thinkers, who, early in the 19th century, started a reaction, which became widespread, against Puritan prejudices that were time-honored in New England, humdrum orthodoxy, old-fashioned metaphysics, and materialistic philistinism and utilitarianism. The movement was a mixture of idealism, vague pantheism, mysticism, and eclectic orientalism, and at times was beyond contradiction, extravagant, pedantic, and paradoxical. The leader of the movement was Ralph Waldo Emerson. It was also called the "Concord School," because a number of its promoters lived, like Emerson, in the village of Concord, Mass. Carlyle and German philosophical literature had great influence over it. A Transcendental Club was formed, in 1836, in the house of George Ripley (*q. v.*). Emerson taught that the revelations God made to man were within the soul; that the soul was God's temple—a thing of infinite dignity and capacity. It is an experience founded on the immanence of God. Among conspicuous members of the school were Margaret Fuller and Theodore Parker. One outcome of the school was Brook Farm (*q. v.*). Not long before the death of Emerson, there was formed an association calling itself the Concord School of Philosophy, which for several years met annually—generally in the month of August—and listened for several days to the reading of papers, and discussions of various matters, philosophical and otherwise. See O. B. Frothingham's *Transcendentalism in New England* (New York, 1876).

Transmissibil'ity of For'ces. (*Phys.*) A principle in mechanics, which states that a force may be applied at any point in the line of its direction, provided this point be connected with the first point of application by a rigid and inextensible straight line. For example, if a weight be attached by a cord to a spring-balance, the effect will be the same at whatever point in the cord the weight is tied. Similarly, a force may be applied to a body, either directly or by interposition of a rigid rod; and, supposing the rod to be supported independently, the result will be the same. Again, if equal forces are supposed to be acting in opposite directions at the extremities of a string, the string will be in equilibrium, and if we take any point in the string, not an extremity, and transfer one of the forces to it, the forces will be still in equilibrium. Hence we may consider the force applied at one end to be transmitted through the string, and we may suppose two opposite forces at any point equal to the forces at the

extremities. Either of these is termed the *tension* of the string. Suppose the striug to pass round a smooth peg, ring, or surface; in this case also the tension of the string is the same at every point.

Transmis'sion of Pow'er. (*Mech.*) There are four principal systems of transmitting power from motors or engines to machines or mechauisms for performing work: (1) Electricity, which is fully treated under that head; (2) compressed air; (3) mechanical connection by means of belts, ropes or chaius; (4) direct mechanical connection, as by gearing or conuecting-rods. The value of compressed air as a means of distributing power through pipes or hose has been known for a long time, but mechanical conuections have been generally preferred, until within recent years the manifest advautages of electric transmission have resulted in attracting attcution to the couveuieuces connected with the use of compressed air, and this means of transmitting power has been greatly developed. In other words, electricity has opened the way for compressed air, and the two are superseding mechanical connections in many fields. Air is usually com ressed in a machine which is called a compressor, which closely resembles a steam-engine, being usually of the horizontal type, and employiog a cyliuder and piston for pumping the air into tanks, from which it may be led by pipes or tubes to the machines to be driven. The power thus carried may be delivered to the machine by means of motor-cylinders, similar to those of a steam-engine, or the pressure may be used direct to drive a ram, in imitation of the hydraulic press. Many proprietors of railroad shops, Iron mines, and miscellaneous factories prefer compressed alr as a means of transmitting power, as the cost is commonly about the same as electricity, and the air lends itself to a variety of convenient uses to which electricity is not applicable, as for hoisting oil from barrels by turning in a current of air through a hose, or sweeping or dusting railway cars by subjecting the Interior to blasts of air directed with a hose and nozzle, or the cleansing of steam passages, &c. For driving portable tools, compressed air is especially convenient, as it may be carried in a rubber tuho to any convenient point. Rock-drills have long been operated by this means, also power-calkers for steam-boilers and tanks. Riveting operations often have to be accomplished at points to which it is inconvenient to convcy a massive machine; hence portable rivetters driven by compressed air are found convenient. The Liverpool overhead railway was put together with a pneumatic rivetting plant, the power being furnished from an air-compressor mounted on a flat-car and run along on the track as completed. The uso of compressed air for operating street railways is discussed at RAILWAYS.

Transmission by means of leather-belting has been developed in the United Statcs, while transmission by hemp ropes has become more common iu British practice. Each system has its conveniences and advantages. Leather belts wear better than hemp rope, hut give some bother on account of stretchiug. Hemp ropes stretch more than leather helting, but as they are provided with idle pulleys for taking up the slack, the stretching does not trouble the user. The great advantage in using leather belts for transmission is that they can be adjusted to slip when any sudden demand is made upon them, and they thus often save a machine from breakage. For iustance, if a carcless apprentice drops a monkey-wrench into a moving machine that is belt-driven, the machine usually stops, slipping its pulleys within the belts, instead of being forced ahead and breaking some part. The great disadvantage in the use of belts is that they iuvolve somewhat complex arrangements of shafting and pulleys, which absorb a great amount of power by friction. It is not too much to say that in a great many factories it requires as much power to run the shafting and helting as to operate the machiues. With hemp ropes the results are about the same. Wire ropes are very convenient for carrying power across a considerable space, as from one huildiug to another. Their weight on the sheaves, however, entails much friction, which is slightly increased by the coutinual bending of the rope. It has been calculated that cable railways are able to deliver hut 45 per cent. of the power of the steam-engines to the cars that are to he be drawn. For hoisting in mines a flat rope of solid steel is often preferred to the ordinary wire cable, as its form renders easy the coiling around the hoisting-drum. The chain is also often found a convenient means of transmitting power, but is open to the objection that it wears at points all along its length, causing extension, which must usually he compensated for after a time by some means, as by taking out a liuk. Strictly speaking, gearing, connecting-rods and various other mechanical devices are methods of transmitting power, but as theso are commonly used for close connections, they are not usually considered nnder this head, which is generally used with reference to transmission from some distance. For further information hearing on this subject, see NIAGARA FALLS POWER-PLANT.

Trebel'li, ZELIA (GILBERT), opera-singer, was born of German parents in Paris, in 1838; made her début at Madrid under the name of Trebelli (an anagram of the name Gillebert), in 1859. In 1860 she entered upon a series of triumphs in Berlin, and in 1862 repeated these successes in London. She afterward toured in Scandinavia, Russia, and the U. S., and was everywhere recognized as one of the greatest mezzo-sopranos of her day. Died Aug. 18, 1892.

Tree, HERBERT BEERBOHM, actor, was born in London in 1853; educated in England and Germany; made his first stage appearauce in 1878; in 1884 attracted attention by his impersonation of the *Curate* in *The Private Secretary* at the Prince of Wales Theater. In 1894–5 he made a professional tour in the U. S., presenting a miscellaneous repertoire of tragedy and comedy, in which he was supported by his wife, an accomplished actress, as leading lady.

Tre'go, in *Kansas*, a W. central co.; *area*, 900 sq. m.; intersected by Smoky Hill and Saline rivers. *Surface*, rolling prairie; *soil*, fertile. *Cap.* Wakeeney. *Pop.* (1895) 2,166,

Trem'atoids, Trematoda, or **Trematode Worms,** *n. pl.* [Gr. *trema*, a hole.] (*Zoöl.*) A group of semi-parasitic worms—the *flukes*. See DISTOMA.

Tri'ad, *n.* (*Chem.*) Any element or radical that will enter into combination with three atoms of a monad elemeut, or radical, as bismuth, which is a triad because it has a valence of three.

Tricou'pis, CHARILAOS, statesman, was born at Nauplia, Greece, July 23, 1832; son of the Greek statesman and patriot, Spirodion Tricoupis (1788–1873). He was educated in Eugland, Paris and Athens; served in the Greek legatiou in London (1852–63); was chosen deputy to the Greek Legislature from Missolonghi (1863); minister of foreign affairs (1866); and Premier of Greece (1875-95) alternately with his rivals, Coumoundouros and Delyannis. He is recognized as the foremost statesmau of Greecc.

Trig'lidæ, *n. pl.* (*Ichth.*) A family of very eccentric marine fishes, mostly known as gurnards, sea-robins, &c. Their angular heads, "mailed cheeks," aod many curious and ugly knobs and appendages make them well marked and well disliked, although they are uot only harmless, but many species are fit for food. The most peculiar appendages are those of the pectoral fins, by which the fish uot only really walks along the bottom, hut by which it searches for its food, special nerves making these fin-appendages highly sensitive organs of touch. These fishes are distributed all over the warmer parts of the world, dwelling always near shore and on the bottom; more than 40 species are known.

Trinidad', in *Colorado*, a city, cap. of Las Animas co., 90 m. S. of Pueblo; has coke furnaces and other industries. A wool aud cattle shipping point. *Pop.* (1897) 6,150.

Tripp, in *South Dakota*, a S. co.; *area*, 1,800 sq. m.; intersected by the Keyapaha river. Unorganized.

Trol'ley, *n.* Origiually, a small truck or set of wheels, on which a box or car-body uigbt be mouuted; by extension, a grooved wheel (trolley-wheel), mounted for rolling in contact with an electric wire, from which it may take a current, and convey it to the motors of an electric car. In rccent modern usage the word has come to be applied to the car, the railway, and the system of electric transportation in which power is taken from overhead wires by trolleys. A full description of these will be found under ELECTRIO and ELECTRICITY. The word also enters into a number of compouuds, as *trolley-car*, a street railway car arranged for propulsiou by the trolley system; *trolley-hook*, a hook mounted on a long pole, for use in replacing a slipped trolley-wheel; *trolley-line*, a street railway line operated by the trolley system; *trolley-pole*, a pole mounted on a trolley-car, for carrying a trolley-wheel; *trolley-system*, that system of electric propulsion in which a bare overhead wire or wires are used as conductors from which the power is takeu through trolley-wheels.

Trons'dale, in *Tennessee*, a N. co.; *area*, 166 sq. m.; drained by Cumberland river. *Surface*, hilly; *soil*, fertile. *Cap.* Hartsville. *Pop.* (1897) 6,210.

Trout, *n.* (*Ichth.*) Any of several fishes of the family *Salmonidæ* (see SALMO, aud SALMON), and genus *Salmo*, not scientifically distinguished from the "salmons," but popularly separated with much distinctness, chiefly by reason of size and habits, since they are mostly small and dwell in inland waters; certain well-known forms, however, are called salmon-trout, expressing popular doubt as to their exact relationships. They abound in the lakes and rivers of the cooler parts of the world, but those of northern Asia are little known. Many non-migratory species exist in the inland waters of Europe; but it is coming to be believed by naturalists that many of the so-called "species" of all parts of the world are in reality only geographical varieties of a few truly distinct forms whose limits are not accurately known.

The common anglers' lake-trout of Great Britain and northern Europe is *Salmo fario*, which is highly variable in color and other external characteristics. It has been known to reach 21 lbs. in weight. The nearest American approach to it is the rainbow-trout. This species (*Salmo irideus*) is characteristic of the Pacific Coast, frequenting every stream and occurring more rarely even to Alaska, but unknown east of the mountains. It is largest in northern California, attaining there to 6 lbs. "The color, as in all other species, is bluish, the sides silvery in the males, with a red lateral band, and reddish and dusky blotches. The head, back, and upper fins are sprinkled with round black spots. In specimens taken in the sea, this species, like most other trout in similar conditions, is bright silvery sometimes and immaculate." (*Jordan*). It is not so gamy as the Eastern brook trout. The steelhead (*Salmo gairdneri*) is a large trout, little valued, which enters the Columbia and neighboring rivers from the sea with the spring run of salmon, and often weighs 20 lbs.; it is doubtful whether it is specifically diffcrent from the rainbow-trout.

The most widely distributed and important of the Western black-spotted American trout is *Salmo purpuratus*, the red-throated trout, found in every suitable stream of the Rocky Mountain region from New Mexico to Alaska, and about Puget Sound, where it often enters the sea. Ordinarily 5 lbs. is a large weight, but in certain lakes, as Lake Tahoe, it reaches 30 lbs. The Rio Grande trout of the southern Rockies and Utah Basin is probably a variety of the red-throated. A Danubo trout (the *huchen* or *rothfisch*) closely resembles this species; and it may be remarked that in Europe none but these black-spotted salmonoids, represented in America only on the Pacific Slope, are called trout. Tbere the remaining species, also passing in the Eastern Uuited States and Canada as "trout," are called charrs, specifically meaning the red charr, or *sälbling*. This is the Old World representative of the genus *Salvelinus*, of which North America has several species. Best known is the brook-trout (*Salvelinus fontinalis*), the delight of every angler for its gamy quality and delicate flesh, although perhaps the least graceful of its kind. It is found only in streams east of the Mississippi and Saskatchewan, and no farther south thau the Appalachian hills extend; but within these limits once inhabited every river, lake and stream, large or small. It has been sought so persistently, however, and so many of its waters have been ruined by drainage or lumbering operations or otherwise, that it is now to be taken only hy the most skilful anglers and in comparatively remote regions. On the other haud, no fish has been hatched artificially in such immeose numbers, nor with any has greater success in re-stocking streams been obtained. It has even heeu successfully planted in Europe and Australasia.

The Dolly Varden trout (*Salvelinus malma*) closely resembles the brook-trout, and occurs in the streams of the coast mountains from California northward. Here, too, fall the great Mackinaw trout (*Salvelinus namaycush*) (see NAMAYCUSH) and its Lake Superior variety the siscowet, besides several little known, small-sized species of arctic waters. Several marine fishes which belong to entirely different families are carelessly called "trout" or "sea-trout" in the U. S. The only fish to which that name properly helongs is not an American, but a British species, the *Salmo trutta*, sometimes called hull-trout.

Trow'bridge, JOHN TOWNSENN, novelist, was horn at Ogden, N. Y., Sept. 18, 1827; began bis career as a teacher, but in 1846 commenced to write for magazines; became editor of *The Yankee Nation* (1850) and co-editor, with Lucy Larcom and Gail Hamilton, of *Our Young Folks*. He has written continuously, publishing more than thirty volumes since 1853, chiefly novels. Among the number are: *Cudjo's Cave* (1864), *Neighbors' Wives* (1867), *Tinkham Brothers' Tide-Mill* (1884), *The Little Master*, and *His Own Fault* (1887).

Truckee', in *California*, a post-town of Nevada co., 35 m. S.W. of Reno; has abundant water-power, numerous saw-mills, &c. *Pop.* (1897) 1,475.

Trum'bull, HENRY CLAY, author, was born in Stonington, Conn., June 8, 1831; was chaplain of the 10th Connecticut regiment during the Civil War, having beeu ordained a Congregational minister; in 1865 was appointed missionary secretary of the American Sunday-School Union for New England, and in 1872 normal secretary; in 1875 settled in Philadelphia, and became editor and chief owner of the *Sunday-School Times*. He published *Some Army Sermons* (1864), &c., and several volumes relative to Sunday-school work.

Trumbull, LYMAN, statesman, was born at Colchester, Conn., Oct. 12, 1813; removed to Belleville, Ill., in 1837. He became secretary of state (1841), and a justice of the supreme court of the State (1848). Was elected to Congress as a Democrat (1854), aud chosen U. S. senator (1855). In 1860 he joined the Republicans on the anti-slavery principle, and supported Lincolu. He was re-elected to the Seuate, and labored effectively for the passage of the Fourteenth Amendment, and was one of the Republicans who voted against the impeachment of Andrew Johnson. After that occurrence he acted with the Democratic party, being the nominee of that party for governor of Illinois in 1880. Died Juoe 25, 1896.

Trusts, *n. pl.* (*Com.* and *Law.*) In law, trusts are peculiar species of ownership, whereby property, real or personal, is invested in one or more persons for the use or benefit of others. The person who holds the property in trust is a "trustee"; the person for whose benefit he holds is called *cestui que trust* (he that has the benefit of the trust). Such an arrangement was known to the Roman law, and is of great antiquity in England. There courts of equity have long had jurisdiction over trusts, and decisions in regard to them fill a large space in equity reports. Originally, in England, trusts were created in regard to real estate alone. When, however, personal property increased enormously in quantity and variety, trusts were created in regard to such property also, and before the middle of the nineteenth century developed into what are known as commercial trusts, which are great trade combinations ostensibly intended to cheapen expenses, regulate production, aud beat down competition.

Following the example of England, such commercial trusts have been largely created in the U. S. In England, these combinations of capital, directed either to general investment purposes or to the management and control of industry, are regarded in the light of a normal development of industrial forces, like great corporations, and the attitude of the courts toward them has always been very liberal. In the U. S., however, they have for about ten years been regarded by large numbers of persons with suspicion and hostility. These persons apply the term trust to all great trade combi-

nations, irrespective of their form and mode of creation. Used in such a way, the term is wholly a misnomer. A commercial trust is neither more or less a "trust" than any other vesting of property in one person to the use and benefit of another person. The magnitude of the trust is not of the slightest consequence in the eyo of the law. Where the trust is of the normal type, the property of several individuals or corporations being vested in trustees, to be administered for the common benefit, there is nothing in the form, the organization or the methods of the combination to render it obnoxious to the law. It is in all essential particulars a trust of the normal, everyday type, such as are habitually enforced by the courts. It is only in those jurisdictions where the law has been radically altered by legislation that any question can arise as to the validity of trusts of this description and the jurisdiction of equity over them. Thus in New York and several other States, a statute provides that express trusts of real property can be created for certain enumerated purposes only, not including such a use as is contemplated by these commercial trusts.

This difficulty, however, may be successfully obviated by vesting in the trustees, not the real and personal property of the corporations forming the combination, and with which its business is to bo carried on, but the shares of the stockholders of such corporations. Theso shares are always personal property, whether the corporate property they represent be real or personal. Of course, the possession of the shares gives the trustees the actual control, though not the legal ownership, of the property, real as well as personal, of the several corporations composing the "trust."

The enemies of "trusts," however, were not to be dissuaded from giving battle by this device, ingenious and well grounded on law though it be, and tried another mode of attack. Corporations, being "artificial persons" created by the State for specific purposes, have a very much more restricted range of activity than is permitted to the natural man. A corporation which abandons the business for which it was organized, and allows its property to be controlled and its operations to be carried on by a person or group of persons who have no direct relation to it, and who are not its agents, is acting *ultra vires* (beyond its powers) and in violation of its organic law, and thereby forfeits its right to exist at all. Acting upon these principles, a proceeding, in the name and behalf of the people of the State, was instituted by the attorney-general for the forfeiture of the charter of one of the corporations forming the combination. This mode of attack proved successful. In this way the Sugar Trust was broken up in New York, the Standard Oil Company in Ohio, and the Chicago Gas Trust Company in Illinois. (People of the State of New York *vs.* North River Sugar Refining Company, 121 New York Reports, 582; State of Ohio *vs.* Standard Oil Company, 49 Ohio State Reports, 137; People *vs.* Chicago Gas Trust Company, 130 Illinois Reports, 368.) The forfeiture of one charter in each case, with the liability to a similar forfeiture in the case of all the other corporations concerned, operated effectually to dissolve the trust.

But there is nothing in these decisions forbidding individuals or corporations to form trust combinations of precisely the character and type of those passed upon by the courts. They do not impeach the right of corporations or of individuals to enter into far-reaching agreements regulating the rate and character of production, and the prices to be charged for goods and services. They do not deny that many corporations may be consolidated into one, or that one gigantic corporation may acquire all of the property and business engaged in a certain line of industry. So the "trust," after it was driven from one form of organization, easily took refuge in another and different form. The trusts which were "destroyed" by the decisions in New York, Ohio, and elsewhere are all still in operation. They have disappeared as corporate trusts, but all of them now exist as great corporations or as combinations held together by contract. Yet, if the trusts remained alive, those hostile to them remained alive also. They still had left some ammunition, which they have used unsparingly to carry on their campaign. They have brought numerous suits against the trusts on the ground that they are monopolies and conspiracies in restraint of trade, and therefore obnoxious to the law. The decisions have been conflicting, but one principle seems settled: that a contract restraining competition will be decreed to be unlawful if, in the opinion of the tribunals before which it is brought, it is unnecessary and unreasonable so far as the due protection of the parties is concerned, or is prejudicial to the public interests; and that an industrial enterprise will be deemed to be a monopoly when, in the judgment of the courts, it actually becomes a menace to the public and is not justified or required by the existing conditions of trade and industry.

Acting upon this principle, the tendency in most of the States has been to declare against trade combinations; but in the great case against the Sugar Trust (referred to above) the New York Court of Appeals refused to follow the lower courts in ruling that the combination is essentially monopolistic and hostile to the welfare of the State. It is generally thought that, in the absence of legislation, this more temperate and conservative view will ultimately prevail. The warfare in the courts has been supplemented by an epidemic of trust legislation, which has so far produced few conclusive results. There have been legislative investigations by the U. S. House of Representatives, the New York Senate, and the Canadian Parliament. These have been followed by a crop of repressive acts. The act of Congress passed in 1890, and known as the "National Anti-trust Act," is generally regarded as a practically worthless measure in this campaign against monopoly. Anti-trust laws have also been enacted in a number of the States. There have been as yet, however, no decisions under these statutes which have conclusively demonstrated their efficacy and legality.

Tschaikow'sky, PETER ILTITSCH, musical composer, was born at Wolkiusk, in the Ural district, April 25, 1840; graduated at the Conservatory of Music, St. Petersburg (1865), receiving at the same time a medal for his cantata on Schiller's ode *An die Freude;* was professor at the Conservatory of Moscow (1866–78); after this time devoted himself exclusively to composition, producing overtures, symphonies, concertos, marches, besides several operas, among them *Mazeppa* and *The Maid of Orleans.* He visited London in 1889, and again in 1890, appearing in the Philharmonic Concerts each year; also visited America, and conducted the performance of some of his own compositions at the dedication of Carnegie Music Hall, New York city. Died Nov. 7, 1893.

Tschudi (*tshoo'de*), JOHANN JAKOB VON, a Swiss philologist, traveller, and naturalist, was born in Glarus, 1818. In 1838 he went to Peru, where he studied the natural sciences for many years, and from 1861 to 1863 filled the post of Swiss minister at the Brazilian court. Died 1889.

Tsetse Fly. A small fly (*Glossina morsitans*) destructive to cattle and equine animals in large districts of southeast Africa. It is about the size of a house-fly, but longer, somewhat like that of the honey bee.

Tuck'erman, HENRY THEODORE, critic and litterateur, was born in Bostou in 1813. His most prominent writings are: *The Italian Sketch-Book* (1835); *Artist Life, or Sketches of American Painters* (1847); *Biographical Essays* (1857), and *Book of the Artists* (1867). Died Dec. 17, 1871.

Tu'cum, *n.* (*Bot.*) A strong fiber imported from Brazil where it is procured from the young leaves of the palm *Astrocaryum vulgare.* The fine strong threads are much used by Brazilian Indians for cordage hammocks, nets and the like being easily obtained by removing the thin epidermis of the leaf. The fruit also yields a useful oil. Synonyms are Tecum, Ticum, and Tucuma. The name Tucum is also given to *Bactris setosa.*

Tufts Col'lege. (*Educ.*) An educational institution at Medford, Mass. It was founded in 1852, the land being given by Charles Tufts, for whom the college was named, and the endowment by a number of other men, the largest donor being Sylvanus Packer. There are 4 distinct departments, viz.: The College of Letters, the Divinity School, opened in 1867; the Bromfield-Pearson Technical School, and the Medical School, both opened in 1893. The college is under the control of the Universalists. There are ample accommodations in buildings and equipments, and an endowment fund of more than $1,500,000, which, with receipts from all other sources, furnished in 1896 an income of $95,000. In that year the college had 80 instructors, 500 students, with 33,000 volumes in its library.

Tulare (*tu-lä-rē*), in *California,* a post-village of Tulare co., 250 m. S. of San Francisco. Here are the repair shops of the S. Pac. R. R. *Pop.* (1897) 3,100.

Tu'pelo, in *Mississippi,* a post-town, cap. of Lee co., 50 m. S. by W. of Corinth. *Pop.* (1897) 1,620.

Tup'per, SIR CHARLES, statesman, was born at Amherst, Nova Scotia, July 2, 1821; educated in medicine and surgery at Edinburgh, but, returning to Canada, devoted his life to politics; filled many offices, and finally, in 1896, became Premier of Canada, succeeding Sir Mackenzie Bowell. In the general elections of that year his administration was defeated on the issue of the Manitoba schools question, and he was succeeded by the Hon. Wilfred Laurier. He was knighted in 1879, and made a baronet in 1888, in recognition of his services as one of the negotiators of the fisheries treaty with the U. S. (1887–88).

Tupper, MARTIN FARQUHAR, versifier, was born at Marylebone, England, July 17, 1810. He produced some 40 works, of which his *Proverbial Philosophy* is the best known. Died Nov. 29, 1889.

Turbin'idæ, *n. pl.* (*Zoöl.*) The top-shell family, comprising gasteropodous mollusks which have the shell turbinated, and the operculum very small. The shell is brilliant pearly when the epidermis is removed, and the turban-shells (*Turbo*) and top-shells (*Trochus*) are in demand as ornaments. Nearly all these shells inhabit the East Indian seas.

Tur'bot, *n.* (*Ichth.*) A fish, the most valuable European species (*Psetta maxima*) of the flatfishes (see PLEURONECTES). It sometimes reaches 70 to 90 pounds weight. Its form is shorter, broader, and deeper than that of almost any other flatfish. It is of a brown color on the upper surface, which is studded with hard roundish turbercles. It generally keeps close to the bottom of the sea, chiefly on banks where there is a considerable depth of water. Few kinds of fish are more prized for the table than *T.* The *T.* has never been taken on the American coast, where its nearest relatives are useless as food.

Tur'key-corn, *n.* (*Bot.*) Grain-like, yellow tubers born on the subterranean shoots of *Corydalis* (*Dicentra*) *Canadensis.* The plant is found in eastern North America, and the tubers are used as a drug.

Tur'ner, CHARLES YARDLEY, artist, was born in Baltimore, Md., Nov. 25, 1850; a pupil of Bonnat, Jean Paul Laurens, and Munkacsy, in Paris; opened a studio in New York; his specialties are *genre* and landscape.

Tur'ner, in *Illinois,* a suburb of Chicago, in Du Page co.

Turner, in *South Dakota,* a S. E. co.; *area,* 615 sq m.; drained by Vermilion river and Turkey Ridge creek. *Surface,* undulating prairie; well watered; *soil,* very rich. *Cap.* Parker. *Pop.* (1895) 11,837.

Tus'can Straw. (*Manuf.*) The split stems of several varieties of wheat that are cultivated for straw in Italy, and especially in Tuscany. The straw is separated, after bleaching, at the first joint from the top, and the upper portion only is woven into the finest braids and hats.

Tuscaro'ra, in *Nevada,* a post-town of Elko co. *Pop.* (1897) 1,010.

Tuscum'bia, in *Alabama,* a city, cap. of Colbert co., 2 m. from Sheffield; has several educational institutions. Trade center of an agricultural region. *Pop.* (1897) 2,800.

Tut'tle, DANIEL SYLVESTER, clergyman, was born in Windham, N. Y., Jan. 25, 1837; graduated from Columbia College and from the General Theological Seminary, and was ordained a priest of the Protestant Episcopal Church in 1863; was appointed missionary bishop of Montana, Idaho, and Utah (1867); labored for many years in this field, and was influential in securing the effectual suppression of polygamy in Utah. Later he was elected bishop of Missouri.

Tweed, WILLIAM MARCY, politician, was born in New York city, April 3, 1823; was elected aldermau in 1852, and from that date was prominent in municipal affairs. As commissioner of public works he organized the famous "ring" that robbed the city of millions, especially in the construction of public buildings. Samuel J. Tilden and Charles O'Conor headed a reform movement, and caused the arrest of *T.* He was released on a bail-bond of $1,000,000, and was re-elected to the State Senate while the trial was pending. Finally (Nov., 1873) he was found guilty of fraud, and sentenced to 12 years in the penitentiary. The Court of Appeals set the sentence aside; the city then secured judgment against him for $6,000,000, and he was locked up in Ludlow Street Jail in default of a $3,000,000 bond. He escaped and took refuge in Spain, but was returned by the Spanish government and again sent to prison, where he died April 12, 1878.

Two Har'bors, in *Minnesota,* a post-village of Lake co., on Lake Superior, 26 m. E. of Duluth. A lake shipping point for iron ore. *Pop.* (1895) 1,934.

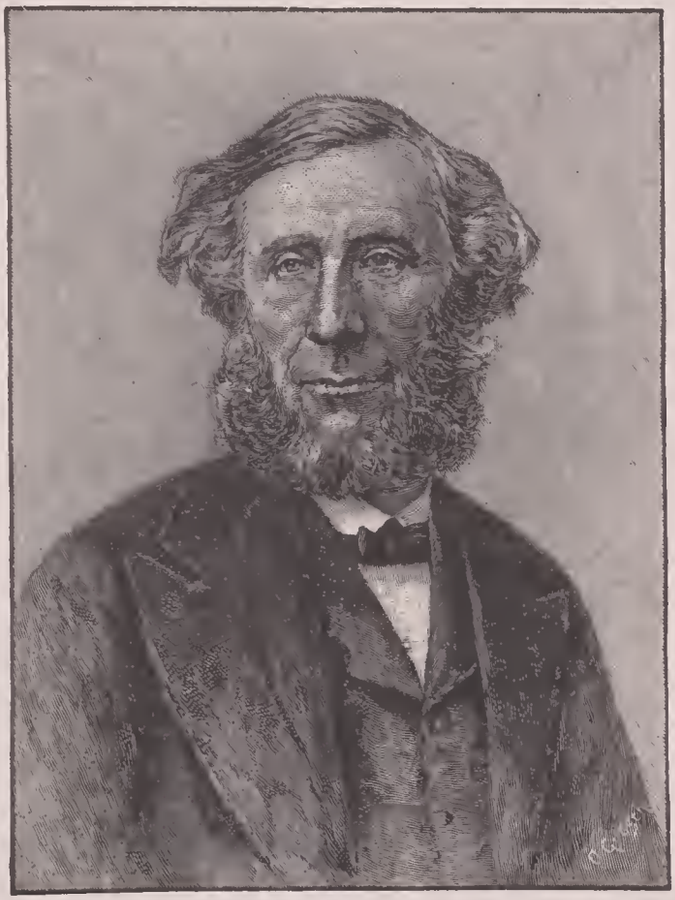
Ty'ler, MOSES COIT, educator, was born in Griswold, Conn., Aug. 2, 1835; graduated from Yale (1857); was ordained pastor of the First Congregational Church of Poughkeepsie, N. Y. (1860); afterward made professor of English Literature at the University of Michigan, where he remained until 1881, when he became professor of American History at Cornell University.

Tyn'dale, WILLIAM, an eminent reformer and martyr, born in England, in 1484. He was ordained priest about 1521, but left England in 1524, having incurred persecution by undertaking a new translation of the Bible. Going to Germany, he was expelled from Cologne, and finally settled in Worms, where he published his first translation of the New Testament in 1526. About 1530 he removed to Antwerp, and in 1533 published two revised translations of the New Testament. In 1535, at English instigation, he was arrested for heresy, and after a long trial was strangled to death in 1536, his body being burned at the stake.

Tyn'dall, JOHN, a distinguished physicist, born near Leighlin Bridge, Ireland, Aug. 21, 1820. After working as an engineer and a teacher from 1844 to 1848 he studied at the University of Marburg (1848–51), became a member of the British Royal Society (1852), and professor of Natural Philosophy in the Royal Institution (1853), succeeding Faraday as its superintendent. In 1856, after conducting investigations on the phenomena of diamagnetism, and on the polarity of the diamagnetic force, including researches on the magneto-optic properties of crystals, and the relation of magnetism and diamagnetism to molecular arrangement, in conjunction with Mr. Huxley, he explored the glaciers of Switzerland, beginning a study which he continued afterward with important results. In 1859 he began researches into the nature of radiant heat. These studies, together with similar investigations of light and aconstics, are the work by which he is chiefly known; he gave their results to the public in a succession of books remarkable for the clearness of their style as well as for their accuracy of thought. Died Dec. 4, 1893.

Tyng, STEPHEN HIGGINSON, clergyman, was born March 1, 1790, in Newburyport, Mass., graduated at Harvard; took orders in the Episcopal Church (1821); was rector of St. George's Church, New York, for 33 years. He was the leading spirit of the Low Church party, and actively interested in furthering evangelical work. He was a famous pulpit orator and platform speaker, and filled a wide field of usefulness in the church. Died Sept. 4, 1885.

Tyng, STEPHEN HIGGINSON, JR., was born in Philadelphia, June 28, 1839; educated at Williams College, and at Alexandria Theological Seminary, graduating in 1861. He was rector of a church in New York; an army chaplain in 1864; organized the Church of the Holy Trinity, New York (1865); was publicly censured for preaching in a Methodist church in New Brunswick without the consent of the Episcopal rectors of that city. He afterward worked in evangelical revival movements in New York city, and fearlessly defended himself against the criticism to which he was subjected by the conservative party. Though not charged with heresy in doctrines, his independence of formal restrictions was a cause of disaffection between rector and



John Tyndall

1820–1893

people, and T. retired. In 1881 he went to Paris, and engaged in the life insurance business, representing a large New York company.

Type'setting Machines'. (*Print.*) The earliest recorded patent on typesetting machinery was filed in the British Patent Office, in 1794. Church, of Connecticut, devised a machine in 1822, having a keyboard, the manipulation of which guided freshly-cast type to a central point. Delacambre and Young, and Clan and Rosenberg, patented forms in 1840; also Joseph Mazzini, in 1843; William Martin, in 1849; Boule, Mitchel, and Carliand, in 1855; Simoncourt and Wiborg, in 1854; Conlon, in 1855; Delacambre and Laden, in 1856. Alden's machine was the first to come into practical use, being employed in New York city for a few years on book work, and setting about 3,000 ems per hour, which is three times as much as a good compositor will accomplish by hand. Several attendants were required, however, and the economy effected was slight. Hattersley produced a machine a little later, which was used to some extent. The type were arranged in rows by the manipulations of a keyboard, and pushed out by pistons to a guide-plate, leading to a central position, where a continuous line was formed, which was taken in sections by an assistant and spaced into lines of the proper length by hand. The distribution was accomplished by pushing the type, a line at a time, from an inclined galley, the nicks on the body of the type, different for each character, determining the channel in which each one was deposited.

The principles of the Alden and Hattersley machines, in improved form, appear in the Thorne and in the Empire (formerly called the Burr) machines, which are in extensive use to-day. The Thorne was the first to obtain a general sale, demonstrating a decided economy over hand-composition. This machine combines the distribution and composition in a single mechanism. Its distinctive feature is an upright cylinder, containing grooves in its periphery, each groove so formed as to admit only the character bearing corresponding nicks. A boy supplies dead matter (*i. e.*, type that has been set and printed from) to the top of the cylinder, and each letter drops into its appropriate groove as the cylinder turns around. Composition is effected by fingering a keyboard, each depression of a key releasing the lowest type in one of the grooves, and allowing it to slide to its position in the line. An assistant, called a justifier, withdraws the type as set with a grab, spaces it into lines, "leads" the matter if desired, and corrects superficial errors. The manufacturers of the Thorne are now completing a mechanism, to be added to their machine, for effecting the automatic justification of the lines, doing away with one attendant. Two men and a boy are now required, and a speed of 4,000 to 5,000 ems an hour is common.

The Empire machine releases the type from upright channels by means of a pusher, so that they slide down an inclined pane of glass, within view of the operator. The keyboard-work and justification are practically similar to the Thorne. The distribution is accomplished by a separate machine, working automatically, and watched by a boy. Speed, 4,000 to 5,000 ems per hour.

The Mergenthaler linotype is not, correctly speaking, a typesetting machine, as it does not set type, but instead assembles matrices in lines, from which a bar, called a linotype, is cast, this being the equivalent of a line of type. It has the advantage over the machines previously mentioned in that it justifies the lines automatically, requiring but one operator, whose speed is limited only by ability to manipulate the

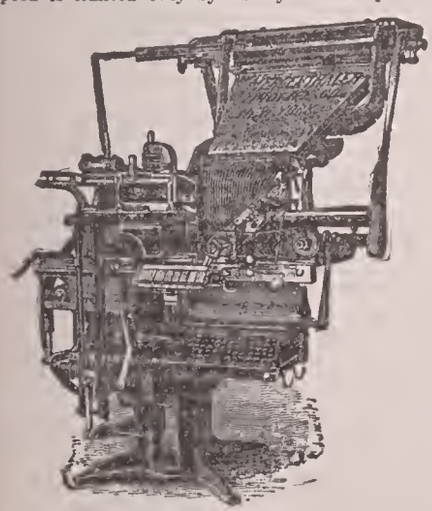


Fig. 3084.—THE LINOTYPE.

keyboard and to decipher copy. The matrices are contained in the upper part of the machine, and are carried down the converging grooves as the keys are touched. When a space-key is struck, a pair of very thin steel wedges, about four inches long, are dropped into the line of matrices. When the line is filled with as many words as it will conveniently contain, the operator touches a lever, and the wedges of the spaces are closed up, spreading the matrices to the exact length of the desired line. The machine then automatically carries the line of matrices to the mould-wheel, where it is made to form the face of the mould, which is cast in a linotype, or solid line of type. The matrices, after being used, are hoisted to the top of the machine, and worked along a conveyor-screw, being suspended by differently grooved teeth in the top of each matrix. These teeth cause them to cling to a distributor-bar until they arrive at the proper groove, when they drop off, and are ready to be used again. It will thus be seen that this machine does not require to be provided with a greater quantity of any one character than may possibly be contained in

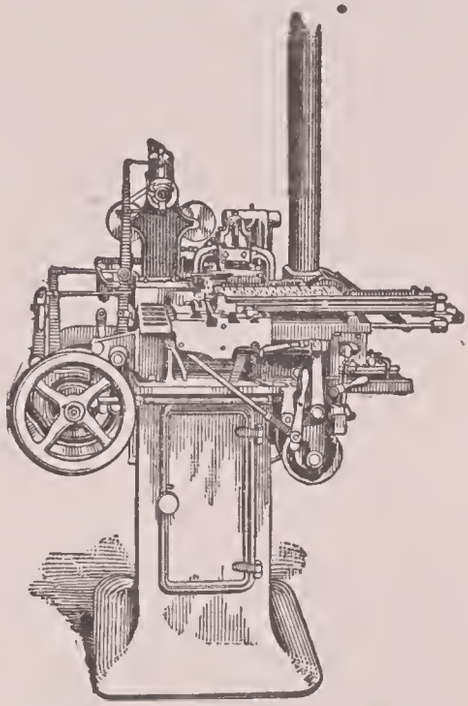


Fig. 3085.—LANSTON MONOTYPE CASTING MACHINE.

three or four lines, which are traversing the machine at the same time. The linotype has come into use in all the large newspaper offices of the world, and is now entering the book and magazine field. The casts obtained are not as perfect as ordinary foundry type, but they have much improved within a few years.

The Rogers typograph is a machine very similar to the linotype, having been introduced in 1890, and stopped owing to infringement of Mergenthaler's patents. The machine is less complicated than the linotype, accomplishing its distribution by simply tipping a top frame and allowing the matrices to slide back on the same wires by which they descended. It is understood that it will be placed on the market again when the linotype patents expire. The monoline machine and several others, making use of a solid bar of metal for a line, have also been projected, and are only waiting the expiration of Mergenthaler's patent to seek a market. The McMillan typesetting machine was brought out in 1893, and consisted of three distinct mechanisms—a distributor, typesetting mechanism, and justifier. For some reason, perhaps because of its complexity, it never came into general use.

The Lanston monotype machine is entirely different in principle from any of those so far described. It is comprised in two parts, viz., the keyboard, and the type-casting and composing machine; the former perforates a record-strip that, when carried to the casting-machine, governs all the movements of the latter, which is a purely automatic machine. This keyboard is made up of three principal parts: a bank of keys, corresponding with the characters in the font of types used; a series of punches, and a scale action, registering the body sizes of the types. The finger-pieces include, with the various characters in the font, three sizes of space-types, subject to variation in body widths at the casting-machine to secure the justification of the lines. The selection of the key representing the character to be used—whether roman or italic, cap or lower-case, or of a space type—and its depression effect the perforation of a paper ribbon in such a manner that, when presented to the casting-machine, they will cause it to center the matrix of the character represented by the key depressed. Prior to working upon a certain measure, the keyboard operator sets an index to the number of ems required per line, a few seconds sufficing to effect change of measure. He next strikes the keys, as he would those of a typewriter, until the line will hold no more words or syllables. Then glancing at the scale, which has automatically calculated the space remaining in the line, he strikes one or more justifying keys, as directed by the scale. These justifying keys cause such punches to be made in the record-strip that, when it goes to the casting-machine, set in motion machinery for making the spaces of the line of the exact extra thickness required to space it perfectly. The perforations made at the keyboard of any selected type are two in number, and when fed through the casting-machine each of these holes puts parts in motion which center the matrix, of which the holes and the key that made them are the representatives. These matrices are carried in a case mounted in a compound slide, the parts of which move at right angles with each other. By an extreme movement of three inches, with a minimum of three-tenths of an inch, any one of these matrices may be centered, and in so doing it will proceed from its normal position to the center in the most direct line. The matrices are all positively held and carried both to and from the center, and can be moved at any rate of speed desired. After being centered, the matrix is seated upon a mould of novel construction, and the type is cast in a vertical position, the flow of metal from the nozzle being directly into the matrix, which is first filled, followed instantly by the occupation of the body of the mould, under pressure, thus ensuring good casts. The types are ejected from the mould into a carrier, and are positively held until placed in the line in the galley, which, upon the completion of any line, advances to receive the next. The speed of the casting-machine, which is automatic, is about 3,800 an hour; but the speed at the keyboard is limited only by the capacity of the operator.

Paul F. Fox, of Chicago, has obtained several patents for a machine of his invention. It is designed to set foundry type, and space it automatically, employing but one operator. At the top is a compartment used as a type reservoir, in which the characters are disposed in channels, from which they may be pushed out by a set of levers as the keyboard is operated. When ejected the types fall on an endless belt, and are carried over a wheel to the line-forming mechanism. A cylindrical case on the left, set at a slight inclination, contains a cylinder filled on its periphery with lengthwise slots, each of which may hold a line of type. There are 28 of these line-holding slots, but only 3 are designed to hold type at one time. One slot is held in position at the top opening until a line of type is set therein, when it moves on to be justified, and moves again to be ejected with a lead onto the galley. The justifying is accomplished automatically through the use of compressible crimped spaces. At the top of the machine on the left is a reel, from which is drawn a strip of metal. This metal is cut off into lengths suitable for spaces, and crimped between toothed jaws. The metal used is quite thin, and it is crimped so as to occupy considerable space in the line. When the operator touches a space-key one of these crimped spaces drops into place. The operator oversets his line until he finishes a word or syllable, then pulls a lever and goes on. This overset line in the slot of the cylinder is then compressed by a sliding piece until it is the exact measure desired. It is obvious that a line so justified must be springy, hence the necessity for "leading" the matter that the width of measure may be maintained in the lock-up. This is why the machine is specially adapted for leaded composition, such as books. If used on a newspaper, the matter would all have to be set leaded or part leaded. The distribution is accomplished by a separate mechanism.

The Calendoli typesetting machine originated in France, but is patented in this country. It is still in the experimental stage. There are 15 alphabets on the keyboard, so arranged that all the common combinations of letters, as found in short words and syllables, as "ence," "ing," "dis," &c., may be found somewhere on the keyboard in proper order, permitting them to

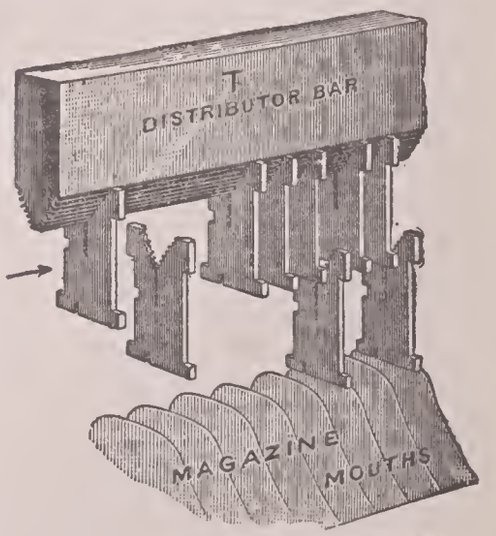


Fig. 3086.—LINOTYPE—DISTRIBUTING MECHANISM.

be struck with a single stroke of the fingers. The keyboard, being so large, is of course hard to memorize, but when learned composition proceeds largely by striking syllables rather than individual letters, so that great speed is expected. The Alden machine, of Brooklyn, also in the experimental stage, likewise aims to enable the compositor to obtain syllables at each touch of the keyboard, having the letters of each combination similarly nicked. Numerous other typesetting machines are recorded in the Patent Office. Probably there are twenty or more not described here.

Type'writing Machines'. Henry Mill, of England, is thought to have been the first to produce a writing machine, his patent being issued in 1714. The first American patent was granted to William A. Burt, in 1829. Other early patents were those of Charles Thurber, of Worcester, Mass., 1843, and A. Ely Beach, of New York, 1856. The first really practical machine was the joint work of three Milwaukee inventors, C. L. Sholes, S. W. Soule, and Carlos Glidden, produced

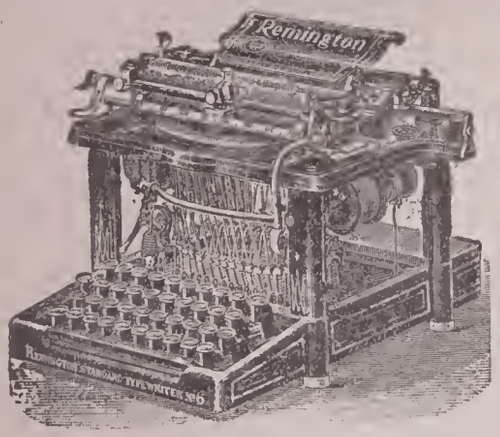


Fig. 3087.—THE REMINGTON TYPEWRITER.

in 1886 and 1887, and subsequently developed into the well-known Remington. The successful machines now in use are of four distinct types: 1. Those which, like the Remington, employ type-bars or levers, printing at a common center, through a shifting ink-ribbon, to the paper, clamped on a cylindrical carriage, and having several characters on each type-bar, the choice of which is regulated at the keyboard by a shift. 2. Those of similar mechanism, but having only one character on each type-bar, and a separate key for each character. 3. Those machines, resembling the second class, which employ an ink-pad instead of a ribbon as an ink supply, the type printing direct on paper. 4. Those machines which employ, instead of type-bars, a type-wheel, or cylinder, or segment of a cylinder, on which the characters are grouped, and printed by bringing the proper portion of the wheel, or cylinder, &c., opposite the paper at the instant that a hammer is depressed to give the impression.

The Remington and Densmore are machines of the first-named class, and a description of the Remington will suffice for them all. The No. 6 model employs 40 keys, two of which are shifts, and a space-bar. The ink-ribbon rolls and unrolls in either direction, and the carriage may be set to any point by the aid of a scale, or may be returned to the starting point, and rotated for the spacing of a line with a single movement. Envelope guides, marginal stops, and a marginal release button are among the minor conveniences. The advantages of this class of machines are a small keyboard, with correspondingly reduced number of type-bars, and slight liability to get out of order.

The Caligraph and Smith-Premier are machines typical of the second class, having a key for every character. The Smith-Premier has a detachable platen, and paper-feeding mechanism, with numerous minor convenient adjustments, besides a line-locking mechanism and carriage stops that are very useful in writing columns of figures and the like. This class of machines presents the advantage of saving the time of manipulating shifts.

The Yost is typical of the third class, resembling the Smith-Premier, but having, in place of a travelling ribbon, through which the type must strike to the paper, a circular ink-pad, on which the type rest when not in use, so that when they are impressed against the paper the printing is direct, securing a clearness of outline not possible on a ribbon machine.

The Hammond is among the best known of the fourth class, having the type-faces on two segments, which are stopped opposite the printing point by the depression of the keys, while a hammer effects the printing through a rubber strip. An ink-ribbon is used, but no scale. Others of this class use an ink-pad. The Crandall, Blickensderfer, &c., use a type-cylinder. All the machines of this class give good alignment, and most of them maintain the writing almost wholly in sight. The type-wheels wear out, however, and have to be replaced. Within a few years several machines, belonging to all of these classes, have made a point of arranging the carriages so as to bring the writing as much as possible into sight, so that the operator can see exactly what he is doing. The Bar-lock and the Williams are conspicuous examples of these. There are also several cheap, almost toy, forms of typewriters, which are operated with one hand, by simple mechanism. These are very slow, but most of them do good printing, and serve to effect legible writing, even if they do not save time.

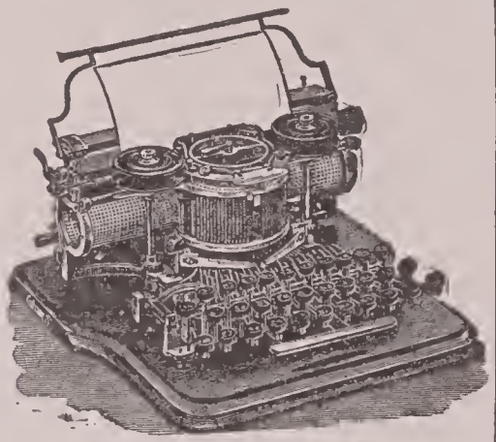


Fig. 3088.—THE HAMMOND TYPEWRITER.

In the earlier machines employing type-bars there was some annoyance because of occasional errors in the alignment of the characters, the type-bars failing to score at the exact center. This has been overcome in some machines by means of guides, and in others by making very wide bearings on which the bars are swung. There is considerable difference in machines as to the amount of noise resulting from working, also in the size of paper which may be handled, some of them taking in any width at all; in the convenience with which the paper can be handled or brought to a certain point for corrections; in accessibility to the type-faces, for cleaning, &c.; in the touch, or extent and force required for depression of the keys; in the possibility of duplicating several copies by means of carbon paper; in the nuisance resulting from striking two keys at once, and in many other details.

Fig. 3089.—THE YOST TYPEWRITER.

The speed maintained on the leading machines is very similar, appearing to depend mainly on the ability of the operator. A few weeks' practice will give almost anyone a speed of 35 or 40 words a minute, but many of the makers claim records of three times this speed. It is safe to assert that the average person can write more than twice as fast with a machine than with the pen, with the added advantage of insuring legibility, and thus avoiding errors. Some typewritists manipulate their keyboards with a single finger of each hand, but it is generally admitted that the greatest speed is to be obtained by using all the fingers and thumbs, distributing them over the keyboard, and playing somewhat as piano keys are played, except that no two characters can be struck at the same instant. The work of the typewriter presents some peculiar differences from ordinary printing. In all machines the travel of the carriage is the same for each letter, and as a result the thin letters, as i and l, occupy the same space as the broad letters, w and m. This has necessitated a somewhat peculiar formation of the characters in the endeavor to produce uniformity of appearance. There is no attempt in any of the machines to space out between the words so that each line shall end evenly, as in type-printing, and the ragged appearance of the lines at the right end has not been considered objectionable. During the past 20 years typewriters have come into common use in business houses, and the great bulk of commercial correspondence is written on the machines, while newspaper writers, authors, and copyists use them to a great extent.

U (*yu*) is the twenty-first letter and fifth vowel of the English alphabet. It bears a close resemblance to the vowel o, being pronounced, like it, by a round configuration of the lips, but in the case of *u*, with a greater extrusion of the under lip. The sound of *u* is short in *tun, tub, must*, but long in *tune, tube*, &c. In some cases it is acute, rather than long, as in *flute, brute*; in others it is obscure, as *nature, venture*. At the beginning of words it is often sounded as if preceded by *y*, as in *union, university*. It frequently interchanges with *a, e, i*, and *o*. *U* and *v* were long regarded as one letter, and were used indiscriminately the one for the other; but, in the beginning of the 16th century, they came to be distinguished, and *u* has since been regarded as a vowel, and *v* as a consonant. As an abbreviation, *U. S.* stands for United States; *U. C*, for *Urbis Conditæ* (*anno*), from the building of the city (Rome); *Ult.*, for *ultimo*, in the last month.

Uanapu, (*oo-a-na-poo'*,) or ANAPU, a river of Brazil, joins the Pará River S. of the Island of Marajo, after a N. course of 400 m.

Uatu'ma, a river of Brazil, prov. of Pará, flows into the Amazons 50 m. N.N.E. of Silves, after a S.S.E. course of 350 m.

Ubatuba, (*oo-ba-too'ba*,) in Brazil, a town of the prov. of São Paulo, 100 m. N.E. of Santos; *pop.* abt. 7,000.

Ubeda, (*oo-bai'da*,) a town of Spain, 26 m. N.E. of Jaen.

Ubera'va, in Brazil, a town of the prov. of Minas-Geraes; *pop.* abt. 8,000.

Uberling'en, a town of Germany, in Baden, on an arm of Lake Constance, 8 m. from Constance.

Ubiquity, (*-bĭk'wĭ-te*,) *n.* [Fr. *ubiquité*, from Lat. *ubique*, everywhere.] Omnipresence; existence in all places or everywhere at the same time; as, the *ubiquity* of God.

Ubrique, (*oo'bre-kai*,) a town of Spain, 45 m. from Cadiz; *pop.* 6,000.

U'chee An'na, now EUCHEE ANNA, in *Florida*, a post-village, former cap. of Walton co.

Ud'der, *n.* [A. S. *uder*; Ger. *euter*; Lat. *uber*; Gr. *outhar*.] The bag, or glandular organ of cows and other female mammalia, in which the milk is secreted and retained for the nourishment of their young.

Uddevalla, (*ood-val'la*,) a town of Sweden, in the prov. of Bohusland, situated on a deep bay of the Cattegat. It has a convenient harbor. *Manuf.* Cotton and linen fabrics, snuff, and leather. *Pop.* 4,500.

Udell', in *Iowa*, a twp. of Appanoose co.; *pop.* in 1869, 820.

Udine, (*oo-de'nai*,) a town of N. Italy, in Venetia, on the canal of La Roja, 75 m. N.E. of Venice, and 40 m. from Trieste. *Manuf.* Silks. *Pop.* 26,116.

Udol'pho, in *Minnesota*, a township of Mower co. *Pop.* (1897) 675.

Udom'eter, *n.* [Lat. *udus*, wet, and Gr. *metron*, measure.] A RAIN-GAUGE, *q. v.*

Ug'lily, *adv.* In an ugly manner.

Ug'liness, *n.* [From *ugly*.] State or quality of being ugly; total lack of beauty; deformity or unsightliness of person: as, old age and *ugliness* have their advantages. — Moral depravity; turpitude of mind; loathsomeness of character; — also, malevolence or peevishness of disposition; as, the *ugliness* of an action.

Ug'ly, *a.* (*comp.* UGLIER; *superl.* UGLIEST.) [A. S. *oga*, dread; Icel. *ógna*, to inspire terror.] Frightful of aspect; deformed in person; unsightly; forbidding to the view; contrary to beauty; hateful or odious to the sight; as, an *ugly* woman. — Cross-grained; malevolent; full of spleen, rancor, or ill-nature; as, an *ugly* temper.

Ugliano, (*ool-ya'no*,) an island of Dalmatia, opposite the city of Zara, in the Adriatic. It is 14 m. long, with a breadth of 2.

Uglitch, (*oog'litch*,) a town of European Russia, govt. of Jaroslav, on the Volga, 60 m. from Jaroslav; *pop.* 9,000.

Uharee, or UWHARIE, (*yu-har'ree*,) a river of *N. Carolina*, rises in Randolph co., and enters the Yadkin River from Montgomery co.

Uhlan, Ulan, (*ōō'lan*,) *n.* [Pol. *hulan*, from Turk. *oglân*, a youth.] The name given to a certain class of militia among the modern Tartars.

(*Mil.*) The term bestowed on a kind of light cavalry employed in the Russian, Austrian, and German armies, armed with lances, and corresponding to the regiments of *lancers* in the English, French, and Belgian services.

Uh'lerville, in *Pennsylvania*, a post-vill. of Bucks co.

Uh'richsville, in *Ohio*, a city of Tuscarawas co., 100 m. N.E. of Columbus. *Pop.* (1897) 4,150.

Uin'ta, in *Wyoming*, a W. co., forming the entire western section of the State, and bordering on Utah, Idaho, and Montana; *area*, 14,830 sq. m. It is traversed by the Rocky Mountains, and at the northern end is the famous Yellowstone Park. It has extensive deposits of excellent coal, which is mined to the extent of about $2,500,000 annually. *Cap.* Evanston. *Pop.* (1897) 8,500.

Uitenhage (*oi'ten-hay*), a town of Cape Colony, South Africa, 18 m. from Port Elizabeth; has an active trade with both it and Graham's Town. *Pop.* unascertained.

Ujheli, or SATORALLIA, a town of Hungary, 9 m. from Zemplin. It is celebrated for its wine. *Pop.* 7,000.

Ukase', *n.* [Rus.] An ordinance of the Emperor of Russia, which has the force of law in his dominions.

Ukiah, in *California*, a post-village and township, cap. of Mendocino co., about 90 m. W. of Marysville.

Ula'c, or Ulloa, in *Wisconsin*, a village of Ozaukee co., about 22 m. N. of Milwaukee.

Ulcerable, (*ŭl'ser-a-bl*,) *a.* That may become ulcerated.

Ul'cerate, *v. a.* [Fr. *ulcérer*; Lat. *ulcero, ulceratus*.] To affect with an ulcer or with ulcers.

—*v. n.* To be formed into an ulcer; to become ulcerous.

Ulcera'tion, *n.* [Fr.] (*Med.*) An unhealthy action, resulting in the formation of an abraded surface secreting pus, more or less pure or healthy. Ulceration of the bones is a disease always sure to result in *necrosis*, or the death of the bone. Ulceration of the soft parts is followed by the formation of an ulcer.

Ul'cerative, *a.* Pertaining or relating to ulcers.

Ulcered, (*ŭl'sĕrd*,) *a.* Having become an ulcer; ulcerated.

Ul'cerous, *a.* [Fr. *ulcéreux*.] Having the nature or character of an ulcer.—Affected with an ulcer or ulcers.

Ul'cerously, *adv.* In an ulcerous manner.

Ul'cerousness, *n.* State or condition of being ulcerous.

Uleofauhach'ee, or ALCOFAUHATCHEE, a river of Georgia, rises in Gwinuett co., and flowing S., enters the Ocmulgee River between Butts and Jasper cos.

Ule, *n.* (*Bot.*) A tree, supposed to be *Castilloa elastica*, order *Artocarpaceæ*, from which caoutchouc is obtained in Mexico.

Uleaborg, (*o'te-a-borg*,) a seaport town of Russian Finland, on the river Ulea, situated on a peninsula running into the Gulf of Bothnia, 70 m. from Tornea; Lat. 65° 18′ N., Lon. 24° 40′ E. It exports tar, pitch, fish, butter, and salted meats. *Pop.* 6,000.

U'lea-Trask', a lake of Finland, 50 m. from Uleaborg, 35 m. long, with an average breadth of 10. It discharges its surplus waters by the river Ulea.

Ule'ma, *n.* [Ar., the wise men, pl. of *alim*, wise.] In Turkey, the college or corporation composed of the three classes of the hierarchy—the *imaums*, or ministers of religion; the *muftis*, or doctors of law; the *cadis*, or administrators of justice. The *Sheikh-ul-Islam*, or mufti of Constantinople, is the president of the whole body.

Fig. 2547. — FURZE. (*U. Europæus.*)

U'lex, *n.* (*Bot.*) A gen. of European prickly shrubs, order *Fabaceæ*. They are distinguished by their two-parted calyx bearing two minute branches at the base, and their turgid few seeded legume. *U. Europæus*, the Common Furze, Whin, or Gorse, is common in England.

Ullage, (*ŭl'laj*,) *n.* (*Com.*) In the gauging of liquors, the quantity which a cask wants of being full.

Ullin, in *Illinois*, a post-village of Pulaski co., 20 m. N. of Cairo.

Ulloa, or ULUA, (*ool-yo'a*,) in Central America, a river of Honduras, flows into the Gulf of Houdnras, after a N.N.W. course of 160 m.

Ulls'water, or Ulleswater, a lake of England, between the cos. of Cumberland and Westmoreland, 9 m. long, with an average width of 1 m. Its S.W. extremity is overlooked by the mountain Helvellyn. It is the second largest city in the famous "Lake District."

Ulm, (*oolm*,) a town of Germany, in Würtemberg, is situated at the base of the Snabian Alps, on a declivity, and on the left bank of the Danube; the city is very strongly fortified, of great age, and has many quaint and curious streets and buildings, many of the tall houses forming the narrow irregular streets being constituted of wood, and most elaborately carved. The cathedral (Fig. 2548) is the great object of admiration, being one of the largest and loftiest Gothic ecclesiastical buildings in Germany. The tombs, stained windows, and shrines, oak carvings, and paintings in oil by the early German masters, which adorn the interior, make the cathedral of Ulm in every respect unique. *Manuf.* Linen, silks, paper, leather, tobacco, porcelain, and playing-cards.

Fig. 2548. — CATHEDRAL OF ULM.

Ulma'ceæ, *n. pl.* [Lat. *ulmus*, the elm.] (*Bot.*) An order of plants, alliance *Rhamnales*, consisting of trees and shrubs with alternate scabrous leaves and perfect or unisexual flowers, chiefly natives of the N. regions of the world. There are nine genera and about 60 species, some being valuable timber trees. See ULMUS.

Ull'mannite, *n.* (*Min.*) A sulphide of nickel and antimony; the latter often partly replaced by arsenic. It generally occurs massive, with a granular structure; or disseminated, and is of a gray color inclining to tin-white or steel-gray; opaque with a metallic lustre.

Ul'mic Acid, *n.* (*Chem.*) Same as HUMIC ACID, *q. v.*

Ulmine, (*ŭl'mĭn*,) *n.* [Fr.] (*Chem.*) See HUMUS.

Ul'mus, *n.* [Lat.] (*Bot.*) The Elm, a genus of plants, order *Ulmaceæ*. The American Elm, or White Elm, *U. Americanus* (Fig. 2549), is a majestic tree, common in the Northern, Middle, and Western States. It is a native of the forest, but often grows spontaneously in open fields, where it is readily distinguished by its long, pendulous branches. The trunk, with a diameter of 3–5 ft., towers to the height of 30, 50, and even 70 ft., perfectly straight and naked, when it divides into 2 or more primary branches. These ascend, gradually spreading, and repeatedly dividing into other long, flexible limbs bending in broad, graceful curves. It is a great favorite as a shade tree, and is frequently seen rearing its stately form and casting its deep shade over the "sweet homes" of our Northern States. Leaves short-stalked, oval-acuminate, doubly denticulate, and 4–5′ long. The veins are quite regular and prominent. Flowers small, purplish, collected into small, terminal clusters, and appearing in April, before the leaves. Fruit flat, fringed with a dense down. The wood is tough and strong, but not easily wrought; used for the naves of wheels, &c. (*Wood.*) — *U. fulva*, the Slippery elm, is also an American species, common in woods and low grounds, in New England and Canada. Its inner bark is employed as a demulcent for both internal and external use. When ground, it forms an excellent emollient poultice.

Fig. 2549. THE WHITE ELM. (*U. Americanus.*)

Ul'na, *n.* [Lat., from Gr. *elene*.] (*Anat.*) The layer of the two bones of the fore-arm (12, Fig. 2375). It forms the joint of the elbow, and is articulated by a species of hinge-joint to the humerus, and to the radius; and below to the radius and to the bones of the wrist.

Ulriel (*ool-rĕ'lse*), HERMANN, a German philosopher and author, born March 23, 1806. He studied law, but early devoted himself to literature and philosophy, and was appointed to a professorship at Halle in 1834, where he remained till his death, Jan. 11, 1884. He wrote numerous works, several of them being studies of Shakespeare.

Ulte'rior, *a.* [Lat. comp. of obsolete *ulter*, beyond.] Being or situated beyond or on the further side of any line or boundary;—opposed to *citerior*, or hither.

—More distant or remote; further; following after; as, *ulterior* measures, *ulterior* propositions.

Ulte'riorly, *adv.* In an ulterior manner.

Ul'timately, *adv.* Finally; at last; in the end.

Ultima'tion, *n.* State of being ultimate; finality.

Ultima'tum, *n.*; *pl.* ULTIMATA. In diplomacy, the final conditions offered by a government for the settlement of its dispute with another; the final propositions, conditions, or terms offered as the basis of a treaty; any final offer, proposition, or condition.

Ul'timo, *n.* [Lat.] The last month before the present; — opposed to *proximo*; as, on the 20th *ultimo*; — commonly abbreviated *ult.*

Ul'tra. A Latin prefix, denoting *beyond, on the other side*, in connection with words having relation to place; as, *ultramontane, ultramarine*, &c.— In other relations, it bears the significance of *extreme, exceedingly, beyond what is common, usual, natural, or proper*; as, *ultra*-conservative, *ultra*-republican, *ultra*-Catholic, &c.

—*a.* Radical; extreme; having a tendency to go beyond others, or past the proper limit; as, *ultra* ideas.

—*n.* An ultraist. ULTRA VIRES (*Law*), beyond one's power.

Ul'traism, (*-izm*,) *n.* [Fr. *ultraisme*.] The principles of those who strive to carry out radical reform, or any extreme measure of civil, domestic, or ecclesiastical policy.

Ul'traist, *n.* One who goes to extremes in anything, especially in political or religious matters; a radical; an ultra.

Ultramarine, (*ul-trā-mā-reen'*,) *n.* A blue pigment, highly valued for the purity, delicacy, and permanency of its color, formerly obtained exclusively from the precious stone *lapis lazuli*, by a tedious process. The stone was first calcined, and broken into pieces about the size of a nut, the heated fragments being quenched in vinegar by which they were rendered more friable. They were next levigated for many days, with a thin syrup of honey and dragon's blood, after which a resinous paste was formed, and the *U.* extracted by suspension in hot water. True *U.* is but rarely used in the present day, being almost entirely superseded by the artificial pigment, which is manufactured in large quan-

tities in France and Germany. The ingredients used by different makers are trade secrets; they, however, consist mainly of china-clay, sulphate of soda, carbonate of soda, sulphur, and carbon, in some form or other, the proportions differing according to the shade of color desired. The chemical composition of *U.* still remains in great obscurity. Many analyses have been published, but all widely differing in their results. One thing, however, seems pretty certain, that the tone of color depends mainly on the amount of combined sulphur in the pigment, the light blue variety containing 6 to 8 per cent., the darker, as much as 10 to 12 per cent. The most probable conclusion come to as to its composition seems to be that of Brunner, who, from very exact analyses of the real and artificial material, considers it to consist of silicate of alumina, colored with variable proportions of sulphide of sodium. Green *U.* is said to be blue *U.* which has not been roasted

Ultramarine ashes. (*Paint.*) The residue of lapis-lazuli from which ultramarino has been extracted, and varying in color from dull gray to blue. Although not equal in beauty, and inferior in strength of color, to ultramarine, they are extremely useful pigments, affording grays much more pure and tender than such as are composed of black and white, or other blues, and better suited to the pearly tints of flesh, foliage, the grays of skins, the shadows of draperies, &c, in which the old masters were wont to employ them. The brighter sorts of ultramarine ashes are more properly pale ultramarines, and of the class of blue; the inferior are called *mineral gray.*

Ultramon'tane, *a.* [Fr. *ultramontain*, from Lat. *ultra*, and *montanus* — *mons*, mountain.] Being beyond the mountain or mountains, that is, specifically, beyond the Alps, as viewed from Rome; thus France, with regard to Italy, is an *ultramontane* country.

(*Eccl.*) Belonging to that party in the Roman Catholic Church which assigns the greatest weight to the papal prerogatives.

—*n.* One who resides beyond the mountains, that is, the Alps; a foreigner; an alien —In an ecclesiastical sense, one of the Ultramontane party.

Ultramon'tanism, (*-izm,*) *n.* [Fr. *ultramontanisme.*] (*Eccl.*) The term applied to the doctrines of those who, in the Church of Rome, maintain the most advanced notions of papal supremacy, as distinguished from the principles of those who hold that the authority of a general council is paramount to that of the Popo; — the name thus used by those living N. of the Alps, is derived from the circumstance that the theologians of Italy, the country *beyond the Alps*, were considered more favorable to ultra-papal doctrine than the Cismontane ecclesiastics of France and Germany. The school opposed to *U.* is called the *Gallican*, and their doctrines *Gallicanism.*

Ultramon'tanist, *n.* One of the Ultramontane party in the Church of Rome; an advocate of Ultramontanism; —also called *Ultramontane.*

Ultramun'dane, *a.* [Lat. *ultra*, and *mundus*, the world. See MUNDANE.] Being beyond the world, or beyond the limits of the mundano system.

Ultra-trop'ical, *a.* [*Ultra* and *tropical.*] Being beyond, or outside of, the tropics or tropical regions; — opposed to *intertropical;* also, denoting a temperature warmer than that of the tropics.

U'lulate, *v n.* [Lat. *ululare.*] To howl, as a dog or wolf. (R.)

Ululation, (*-lū'shun,*) *n.* [Lat. *ululatio.*] The howling, as of a wolf or dog.

Ul'verstone, a town of England, in Lancashire, 18 m. N.W. of Lancaster. *Manuf.* Cottons, linens, ropes, hats, and woollen yarn. *Pop.* 8,000.

Ulysses, (*u-lis'seez.*) [Lat.; Gr. *Odysseus.*] (*Heroic Hist.*) One of the most renowned of the Greek heroes. *U.* was the king of Ithaca, one of the small Ionian isles, the husband of the exemplary Penelope, and father of Telemachus. *U.* was not only a prudent warrior, but a sage counsellor, and was as much honored in the general conference as he was valued in the field for his military skill, ready expedients, and undaunted courage. When the Greeks undertook the Trojan War, *U.*, after long declining to join the alliance, at last consented, and, embarking his small but picked band, set sail for the Phrygian shores. During the war he acted a prominent part; he induced Achilles to return to the camp, slaughtered the sleeping Thracians in their tents, entered Troy in disguise, and carried off the palladium of the Trojans. After the fall of the city he embarked on board his fleet, with his followers, to return to his wife and kingdom; but the gods, enraged at his carrying off the palladium, defeated all his efforts to regain his native country, and for twenty years, by adverse winds and fearful storms, made him the sport of winds and waves. At length, after an absence of thirty years, he regained his island home, and found his faithful and still beautiful Penelope surrounded by a host of importunate suitors. Having by stratagem obtained an entrance into his palace, and put to the sword the riotous suitors, *U.* was restored to his throne, to the arms of his wife, and to his son, whom he had left a child. After a reign of sixteen years, a natural son of *U.*, not knowing Ithaca was part of his father's kingdom, landed in the island at the head of a lawless band, and, beginning to plunder the inhabitants, *U.* hastened to meet the invader; when, in the contest that ensued, he fell by the sword of his son. The adventures encountered by *U.* on his return voyage form the subject of Homer's poem of the *Odyssey*

Ulys'ses, in *New York*, a township of Tompkins co., 9 m. N.W. of Ithaca.

Ulys'ses, in *Pennsylvania*, a post-township of Potter co., 15 m. E.N.E. of Coudersport.

U'mâ, (*Hindoo Myth.*) One of the principal names of the consort of the god Siva. She is also usually designated under the names *Kâli, Durgâ, Devî, Pârvatî, Bhavânî*, &c. The myths relating to this goddess, who is worshipped in various parts of India — particularly, however, in Bengal — are met with in the great epic poems and Purânas, in poetical works, such as the *Kumârasambhava*, and in modern popular compositions; but the text-book of her worshippers is the *Devimâhâtmya*, or 'the majesty of Devi'— a celebrated portion of the *Markandeya Purana*, considered to be of special holiness by the worshippers of this goddess, and in which are narrated the martial feats of the goddess. The latter consisted chiefly in the destruction by her of two demons, *Madhu* and *Kaitabha*, who had endangered the existence of the god Brahman; the demon *Mahisha*, or *Mahishasura*, who having conquered all the gods, had expelled them from heaven; moreover, in her defeating the army of *Chadna* and *Munda*, two demon-servants of *Sumbha* and *Nisumbha*. She is often represented (Fig. 2550) holding the severed head of Chaudain her hand, with the heads of his soldiers formed into a garland suspended from her neck, and their hands wreathed into a covering round her loins — the only covering she has in the image constructed for the *pûjâ*. The worship of *Kali* (*i. e.*, the Black), to which the narrative (of her victory over Chanda and Munda) has given rise, is considered by the Hindoos themselves as embodying the principle of *tamas*, or darkness. She is represented as delighting in the slaughter of her foes, though capable of kindlier feeling to her friends. She is, however, styled the Black Goddess of Terror, frequenting cemeteries, and presiding over terrible sprites, fond of bloody sacrifices; and her worship taking place in the darkest night of the month. See THUG.

Fig. 2550. — KALI, OR UMA.

Umatil'la, in *Oregon*, a N.E. co., bordering on Washington, is washed by Columbia, Umatilla, and John Day rivers, and traversed by the Blue Mountains. *Soil*, productive in the valleys. *Min.* Gold. *Cap.* Pendleton. *Pop.* (1897) 15,000.—A post-village, former cap. of the above co., at the junction of the Columbia and Umatilla rivers, 100 m. N.E. of The Dalles.

Um'bel, *n.* [Lat. *umbella*, dim. of *umbra*, shade; Fr. *ambelle.*] (*Bot.*) See INFLORESCENCE.

Umbel'lales, *n. pl.* (*Bot.*) An alliance of plants, subclass *epigynous exogens.* DIAG. Dichlamydeous polypetalous flowers, solitary large seeds, and a small embryo lying in a large quantity of albumen. The alliance includes 5 orders — APIACEÆ, ARALIACEÆ, CORNACEÆ, HAMAMELIDACEÆ, and BRUNIACEÆ.

Um'bellate, Um'bellated, *a.* (*Bot.*) Umbel-like; producing umbels.

Um'bellet, Um'bullule, *n.* (*Bot.*) A little or partial umbel.

Umbel'lifer, *n.* (*Bot.*) An umbelliferous plant.

Umbellif'eræ, *n. pl.* Same as APIACEÆ, *q. v.*

Umbelliferous, *a.* (*Bot.*) Bearing or producing umbels.

Um'ber, *n.* [Fr. *ombre.*] (*Min.*) Two distinct substances are used as pigments under this name. One is a variety of Peat or Brown Coal, large beds of which are worked near Cologne, and which is said to be largely used in the adulteration of snuff; the other, called *Turkish umber*, is a variety of ochreous iron-ore (Limonite), composed, according to the analysis of Klaproth, of 48 per cent. of peroxide of iron, 20 peroxide of manganese, 12 silica, 5 alumina, and 15 water.

(*Zoöl.*) An African bird, *Scopus umbretta*, of the family *Ardeidæ*, of an umber color, and about the size of a crow. — Also, a fish — the GRAYLING, *q. v.*

—*a.* Relating to, or resembling umber; dark-brown; dark-colored.

—*v. a.* To stain with umber; hence, to shade; to darken.

Um'bery, *a.* Pertaining to, or resembling umber.

Umbil'ic, Umbil'ical, *a.* [Lat. *umbilicus*, the navel.] Pertaining to the navel.

U. cord. (*Anat.*) See NAVEL. — (*Bot.*) (Called also *funicular cord.*) An elongation of the placenta in the form of a small thread, by which the seeds are sometimes attached, as in the hazel pea.

U. region. (*Anat.*) The middle region of the abdomen, in which the umbilicus is placed. — *U. ring*, a fibrous ring which surrounds the aperture of the navel. *Dunglison.* — *U. vesicle.* (*Physiol.*) The name given to the proportionately small vitellicle, or yolk-bag, in man and most mammalia.

Umbil'icate, Umbil'icated, *a.* (*Bot.*) Navel-shaped, as a flower or leaf.

Umbil'icus, *n.* [Lat.] (*Anat.*) The NAVEL, *q. v.*

(*Bot.*) Same as HILUM, *q. v.*

(*Conch.*) The aperture or depression in the centre of a univalve shell, round which the shell is convoluted.

Umbles, (*ŭm'blz,*) *n. pl.* The entrails or intestines of a deer.

Um'bo, *n.* [Lat.] A boss or protuberance, as of a shield.

(*Conch.*) The point of a bivalve shell immediately above the hinge.

Um'bonate, Um'bonated, *a.* [From Lat. *umbo.*] (*Bot.*) Having a projection resembling a boss, as the pileus of many species of *Agaricus.*

Um'bra, *n.* [Lat., a shadow; Fr. *ombre.*] (*Astron.*) The dark cone projected from a planet or satellite on the side opposite to the sun. See ECLIPSE.

Umbrac'uliform, *a.* [Lat. *umbraculum*, a shady place, and *forma*, form.] Umbrella-shaped, as a mushroom.

Umbrage, (*ŭm'braj,*) *n.* [Fr. *ombrage*, shade, mistrust.] Shadow; shade; hence, that which serves to shade, as a bower or a grove of trees. — A gloomy, lurking suspicion; offence taken at another as standing in one's light or way; suspicion of injury; resentment; dissatisfaction; as, a person takes *umbroge* from an imagiuary slight or affront.

Umbrageous, (*-brā'jus,*) *a.* [O. Fr. *ombrageux.*] Shading; forming or constituting a shade; as, *umbrageous* foliage. — Shady; shaded; screened, as from the sun; as, an *umbrageous* recess.

Umbrageousness, *n.* Shadiness.

Umbrel'la, *n.* [Fr. *ombrelle, parapluie;* It. *umbrello*, dimin. of *ombra*, Lat. *umbra*, a shade.] A portable shade, screen, or canopy, which opens and folds, carried in the hand for sheltering from rain or snow, or from the rays of the sun.

(*Zoöl.*) The umbrella-like organ of a medusa or jelly-fish.

Um'bria. A central province of Italy, bounded N. by the Marches; E. the Marches and the Abruzzi; S. the Latium; W. the Tiber River and Tuscany. Chief towns, Perugia (the cap.), Spoleto, and Terni. *Pop.* 549,601.

Umbrif'erous, *a.* [From Lat. *umbra*, and *ferre*, to bear.] Throwing or affording a shade or screen.

Umea, (*oo'me-ō,*) a seaport town of Sweden, in West Bothnia, at the month of the river Umea, 110 m from Hernosand; Lat. 63° 49′ 46″ N., Lon. 20° 4′ E. *Pop.* 1,500.

Um'pirage, Um'pireship, *n.* [from *umpire.*] The power or authority invested in an umpire.—Arbitrament; ruling; decision delivered by an umpire or referee.

Um'pire, *n.* [Said to be corrupted from Lat. *impar*, odd, uneven — *in*, and *par*, even, because an umpire is chosen by two, four, or any even number of arbitrators (on their being equally divided) to give his casting vote.] A person to whom sole decision of a controversy or question between parties is referred; a sole arbiter or arbitrator.

(*Sport.*) In horse-racing, trotting, coursing, &c.. one of two or more appointed to decide which animal has won; — in cases wherein they are not able to agree, a third person may be applied to as *sole referee.*— In base-ball one umpire is usually required, though sometimes there are two, one of whom decides the points relating to base-running.

(*Law.*) A third, or odd, person called in to decide a question or controversy submitted to arbitrators, when the latter do not agree in opinion, and are equally divided in their award.

Ump'qua, a river of *Oregon*, formed by the junction of the N. and S. Forks, 8 m. W. of Roseburg, in Douglas co., and flowing N.W., enters the Pacific Ocean at Umpqua City.—A village of Douglas co.

Un. [A. S. *un*, or *on.*] A prefix derived from the Anglo-Saxon, having its equivalent in the Latin prefix *in*, and denoting negation, depreciation, privation, or contrariety. *Un* is prefixed to adjectives with their derivatives, as *unapt, unaptly, unaptness;* and to passive participles, as in *unhurt, unfavored:* it is also prefixed to participial adjectives, as in *unpleasing*, but rarely in the verbal sense expressing action; thus, we cannot say, the arrow flew *unwounding*, though we say, the man escaped *unwounded.* — The distinction between the use of *in* and *un* may be defined thus: to words of purely English origin, we prefix *un*, as in *unfit;* to words borrowed in the positive sense, but made negatives by ourselves, we also prefix *un*, as in *ungenerous.* In cases where both terms are borrowed, we retain the Latin *in*, as in *inelegant, injudicious.* Before nouns having the English termination *ness*, it is proper to prefix *un*, as in *unfitness, ungraciousness.* When they have such terminations derived from the Latin as *tude, ice*, or *ence*, and for the most part when they end in *ty*, the negative *in* is placed before them, as in *inaptitude, injustice, inadvertence, infidelity.*

(NOTE. The application of this prefix in the formation of compounds is so manifold and general, and the majority of such terms are in themselves so sufficiently obvious in their meaning, that we have considered it needless to give them in every case; but, rather, to confine our vocabulary of such compounds to those which are indispensable, or in most frequent use, or which demand something of an elaborate definition and elucidation.)

U'na, a river of Brazil, forms part of the boundary between the provs. of Alagoas and Pernambuco, and enters the Atlantic 12 m. N. of Barra-Grande, after an E. course of 150 m.

Unabat'ed, *a.* Not diminished in strength or violence.

Unable, (*-ā'bl,*) *a.* Not able; lacking sufficient strength or means; impotent; weak in power or poor in substance; not having adequate knowledge or skill.

Unaccept'able, *a.* That may not be accepted; not pleasing or welcome.

Unaccount'able, *a.* Not subject to account or control; not liable to answer; irresponsible; as, an *unaccountable* agent.—Inexplicable; not to be solved by reason or the light possessed; mysterious; as, an *unaccountable* mistake.

Unaccount'ably, *adv.* Strangely; in a manner not to be explained

Unadil'la, in *New York*, a river which rises on the border of Madison and Otsego cos., and flowing S., enters the E Branch of the Susquehanua River at Unadilla.—A post-village and township of Otsego co., abt. 100 m. W.S.W. of Albany.

Unadil'la, in *Michigan*, a post-village and township of Livingston co., abt. 33 m. S.E. of Lansing.

Unadil'la Centre, in *New York*, a post-village of Otsego co., abt. 30 m. S.W. of Cooperstown.

Unadil'la Forks, in *New York*, a post-village of Otsego co., abt. 85 m. N.W. of Albany.

Unadvisable, (*-vīz'a-bl,*) *a.* Not to be recommended; inexpedient; uot prudent.

Unadvised', *a.* Not advised; indiscreet.—Rash; imprudent; done without due consideration; as, an *unadvised* step.

Unaffect'ed, *a.* Not moved; not having the heart or passions touched.—Plain; natural; real; not labored, artificial, or hypocritical; simple; as, *unaffected* sorrow.

Unaffect'edly, *adv.* Really; in sincerity; without disguise, or attempting to produce false appearances; as, he was *unaffectedly* glad to see me.

Una'ka (or UNIKA) **Mountains.** That portion of the Appalachian range extending S.W. between N. Carolina and Tennessee, from the Little Tennessee River to Fannin co., Georgia.

Unal'ienably, *adv.* In a manner not admitting of alienation.

U'nalist, *n.* [From Lat. *unus*, one.] (*Eccl.*) The holder of a single benefice;—the opposite of *pluralist*.

Unalloyed', *a.* Not reduced by foreign admixture;—hence, pure; simple; unmixed; as, *unalloyed* satisfaction.

Una'miable, *a.* Not adapted to gain affection; lacking the power of conciliating love or esteem.

Unanim'ity, *n.* [Fr. *unanimité*; Lat. *unanimitas.*] State of being unanimous; concord; agreement of a number of persons in opinion or determinatiou.

Unan'imous, *a.* [Lat. *unanimus*—*unus*, one, and *animus*, mind.] One-minded; of one accord; agreeing in opinion or determination; harmonious; as, the people were *unanimous*.—Formed with, or expressing, unanimity; as, a *unanimous* vote.

Unan'swerable, *a.* Not susceptible of refutation; cogent beyond cavil or dispute; as, an *unanswerable* argument.

Unappro'priated, *a.* Not applied, or directed to be applied to any specific object, as money or property; not granted or given to any person, company, etc.

Unapt', *a.* Dull; not ready or propense; not disposed to learn; unfit; not qualified; (with *to* before a verb, and *for* before a noun); improper; unsuitable.

Una're, a river of Venezuela, enters the Caribbean Sea, 40 m. W. of Barcelona, after a N. course of 120 m.

Unarmed', *a.* Without arms or weapons; not equipped; as, an *unarmed* man.—Without scales, spines, prickles, or other defence, as animals and plants.

Unascertain'able, *a.* That cannot be ascertained or reduced to a certainty; that cannot be positively known.

Unassign'able, *a.* That cannot be transferred by assignment or indorsement, as a bill of exchange.

Unassim'ilated, *a.* Not made to assimilate with or resemble; not united with, and actually made a part, either of the proper fluids or solids of the body; uot animalized, as food.

Unassum'ing, *a.* Without assumption; not bold or forward; modest; not arrogant; exhibiting no lofty pretensions; as, a gentleman is known by his *unassuming* manner.

Unassured', *a.* Lacking assurance or confidence.—Not insured against loss; as, an *unassured* life.

Unattached', *a.* Not attached to by ties of duty; as, an *unattached* officer of the army.—Not arrested, as a person against whom a writ has issued.—Having no fixed interest.—Not united by ties of affection; as, an *unattached* couple.

Unattain'able, *a.* Not to be gained, obtained, or possessed.

Unau', *n.* (*Zoöl.*) The Two-toed Sloth, which, like the *Ai*, or common Three-toed Sloth, is an inhabitant of the dense forests of the tropical portion of S. America, and has all the singularities of conformation and habits which distinguish that species.

Unauthorized, *a.* Not warranted by proper authority; not duly commissioned.

Unavail'able, *a.* Not having sufficient power to produce the intended effect; not practicable; vain; useless; as, *unavailable* securities.

Unavail'ing, *a.* Not having the effect desired; ineffectual; useless; as, *unavailing* efforts.

Unavoid'able, *a.* That cannot be avoided; not to be shunned; inevitable; certain; as, an *unavoidable* necessity.—Incapable of being made null or void, as a legal act.

Un'aware, *a.* Giving or taking no heed; inattentive; without thought; as, he is *unaware* of the consequences of his own folly.

Un'aware, Un'awares, *adv.* Suddenly; unexpectedly; without notice or warning; with premeditated design or previous preparation; as, I was quite taken *unawares*,

Unbal'anced, *a.* Lacking balance or poise; not in equipoise, as a scale.—Not restrained by equal power; unsteady; unsound; not sane; as, an *unbalanced* mind. (*Com.*) Not settled; not brought down to an equality of debit and credit; as, *unbalanced* accounts.

Unballast'ed, *a.* Not furnished with ballast;—hence, unsteady; cranky; as, an *unballasted* mind.

(*Naut.*) Without ballast on board;—said of a ship.

Unbar', *v. a.* To open; to unfasten; to remove a bar or bars from; as, to *unbar* a gate.

Unbarbed', *a.* (*Nat. Hist.*) Not having barbs, hairs, or plumes, as a plant.

Unbecom'ing, *a.* Not befitting; unsuitable; indecent; indecorous; improper for the person or character; as, *unbecoming* conduct.

Unbelief', *n.* [A. S. *ungelēofa.*] Incredulity; the withholding of belief; as, "*unbelief* is blind." (*Milton.*)—Particularly, infidelity; disbelief of divine revelation; scepticism of the truth of the gospel; rejection of Christ as the Saviour of men, and of the doctrines he taught; distrust of God's promises and faithfulness, &c.; as, atheistical *unbelief*.

Unbeliev'er, *n.* An incredulous person; a doubter.—Especially, an Infidel; one who professes no faith in divine revelation, or in the principles or doctrines of Christianity; a sceptic.

Unbeliev'ing, *a.* Incredulous; sceptical.—Discrediting divine revelation, or the mission, character, and doctrines of the Redeemer; as, "the *unbelieving* Jews."

Unbend', *v. n.* (*imp.* and *pp.* UNBENT.) To become unbent or relaxed; to rid one's self of constraint; to act with freedom; as, the sternest men are apt to *unbend* in the privacy of home.

—*v. a.* To free from curvature or flexure; to make straight; as, to *unbend* a bow.—To relax; to set at ease for a time; to remit from a strain, or from exertion;—also, to relax effeminately; as, "When ease your soul *unbends*." *Dryd.*

(*Naut.*) To take the sails from their yards and stays;—also, to cast loose, as a cable from the anchor;—also, to untie or detach, as one rope from another.

Unbend'ing, *p. a.* Not suffering flexure or curvature; as, "*unbending* corn." (*Pope.*)—Rigid; inflexible; unyielding; resolute; determined; stern;—applied to persons.—Constrained; firm; unyielding; inflexible;—said of things; as, *unbending* facts.—Devoted to relaxation or pleasure; as, an *unbending* hour.

Unbent', *pp.* of UNBEND, *q. v.*

Unbid', Unbidden, *a.* Not bid or bidden; not commanded.—Self-produced; spontaneous; as, "Roses *unbid*." (*Dryden.*)—Uninvited; not requested to attend; as, *unbidden* guests.

Unbind', *v.n.* (*imp.* and *pp.* UNBOUND.) To remove a band, tie, or shackle from; to untie; to loosen; to unfasten; as, to *unbind* the hair, to *unbind* a prisoner's limbs.

Unbit', *v. a.* To remove the bridle from, as a horse.

(*Naut.*) To loose the turns from off the bits; as, to *unbit* a cable.

Unblem'ished, *a.* Pure; not stained; free from turpitude, reproach, or deformity; spotless; intact; as, an *unblemished* reputation.

Unblest', *a.* Excluded from blessing or benediction; as, an *unblest* undertaking.—Wretched; unhappy; miserable; as, an *unblest* lot in life.

Unblush'ing, *a.* Impudent; bare-faced; without sense of shame; as, an *unblushing* liar.

Unbolt', *v. a.* To open by drawing back the bolt; to unfasten; as, to *unbolt* a door.

Unbolt'ed, *a.* Unsifted; not having the fine and coarse parts separated; as, *unbolted* meal.

Unborn', *a.* Not brought into life;—hence, yet to come; future; as, children yet *unborn*.

Unbos'om, *v. a.* To disclose freely, as one's secret feelings or ideas; to reveal in confidence.

Unbound'ed, *a.* Without bound, confine, or limit; measureless in extent; illimitable; infinite; interminable; as, *unbounded* space.—Unrestrained; owning no check or control; as, the *unbounded* license of a woman's tongue.

Unbreech', *v. a.* To remove the breeches of.—To free from its fastenings or coverings, as the breech of a cannon.

Unbri'dled, *p. a.* Loosed from the bridle, or as from something resembling a bridle;—hence, licentious; unrestrained; without check; as, *unbridled* insolence, *unbridled* passions.

Unbrok'en, *a.* Not broken, crushed, or weakened; as, an *unbroken* spirit.—Not violated or infringed; as, an *unbroken* vow.—Not tamed; untaught; not accustomed to the saddle, harness, or yoke; as, an *unbroken* colt.

Uncase', *v. a.* To disengage from a case or covering; as, to *uncase* goods.

(*Mil.*) To display or present to view; as, to *uncase* the colors.

Un'casville, in *Connecticut*, a post-village of New London co., abt. 6 m. N. of New London.

Unceas'ing, *a.* Without cessation; not intermitting; continual; as, *unceasing* attentions.

Uncer'tain, *a.* Questionable; doubtful; without certainty; not positively known; equivocal; as, an *uncertain* event.—Insecure; not to be depended on; not sure or reliable; as, a person of *uncertain* temper.—Not possessing certain knowledge; not assured; dubious; as, "Certain pain, *uncertain* of relief." (*Granville.*)—Not sure of the direction or the consequence; as, my future movements are *uncertain*.

Uncer'tainty, *n.* State of being uncertain; absence of certainty; doubtfulness; dubiousness; as, their safety is still a matter of *uncertainty*.—Contingency; possible chance; as, "slippery *uncertainties*." (*South.*)—Lack of exactness or precision; as, the *uncertainty* of the signification of words. (*Locke.*)—Something unknown or indefinite; as, he is unwise who abandons a certainty for an *uncertainty*.

Unchar'itable, *a.* Deficient in charity or benevolence; contrary to charity, as the universal love prescribed by Christianity; harsh, severe, or censorious in judgment; as, an *uncharitable* bigot.

Unchris'tian, *a.* Not evangelized; not converted to the Christian faith; infidel; as, an *unchristian* thinker.—Contrary to the laws or principles of Christianity; as, an *unchristian* temper.

Uncia, (*ŭn'shī-ah,*) *n.*; *pl.* UNCLÆ. [Lat.] Among the ancient Romans, a twelfth part, as of the coin called *as*.

Un'cial, *a.* [Fr., from Lat. *uncialis*—*uncia*, the twelfth part of a thing, an ounce, an inch.] Pertaining to an ounce or an inch.—Pertaining, or having reference to, letters of a large size, as if an inch in length, used in ancient Latin and Greek manuscripts.

—*n.* An uncial letter;—also, a letter that stands for a word in inscriptions, epitaphs, and the like, as C for *consul*.

Uncia'tim, *adv.* [Lat.] Ounce by ounce, or inch by inch.

Unciform, (*ŭn'se-,*) *a.* [Fr. *unciforme*; Lat. *uncus*, a hook, akin to Gr. *angkos*, a bend or hollow.] Hook-like; presenting a curved or hooked form.—*Unciform bone.* (*Anat.*) The last bone of the second row of the wrist bones; so called from its hook-like process in man, which projects toward the palm of the hand, and gives origin to the great ligament which binds down the tendons of the wrist.

Un'cinate, *a.* [From Lat. *uncinus*, a hook.] (*Bot.*) Furnished with hooked spines, as a capsule.

Uncivil, *a.* Not civil or conformed to civilization; as, an *uncivil* state of man.—Deficient in civility; impolite; not complaisant or courteous in manners or deportment; rude; churlish; as, *uncivil* behavior.

Uncivilized, *a.* Not civilized; unreclaimed from a state of savagery or barbarism; rude; as, the *uncivilized* aborigines of Dahomey.—Coarse; indecent; vulgar; not refined or elegant; as, *uncivilized* language. (R.)

Uncle, (*ung'kl,*) *n.* [Fr. *oncle*; contracted from Lat. *avunculus*, dimin. of *avus*, a grandfather.—Literally, a lesser grandfather.] The brother of one's father or mother.—*Great uncle*, one's father's or mother's uncle.—*Uncle-in-law*, the brother of a wife's or husband's father.—*My uncle*, a cant term for a pawnbroker.

Unclean', *a.* Foul; filthy; dirty; lacking in cleanliness; as, an *unclean* skin.—Sinful; morally foul or impure; as, an *unclean* act.

(*Jewish law.*) Ceremonially impure; not cleansed by ritual practices.

Unclean'ness, *n.* Want of cleanliness; filthiness; dirtiness, as of the body.—Moral impurity; defilement by sin; sinfulness; lewdness; incontinence.

(*Jewish law.*) Absence of ritual or ceremonial purity.

Unclose', *v. a.* To open; to break the seal of, as a letter.—To disclose; to make known; to reveal; to lay open; as, to *unclose* one's thoughts.

Uncock', *v. a.* To lower the cock of; as, to *uncock* a gun.—To open out, or spread about from; as, to *uncock* hay.

Uncomeat'able, *a.* Inaccessible; not to be reached or come at; as, an *uncomeatable* solution of a mystery. (Colloq.)

Uncome'liness, *n.* Lack of comeliness; want of beauty or grace; uncomliness; as, *uncomeliness* of person, dress, or manners.

Uncom'fortable, *a.* Lacking in comfort; affording no comfort; gloomy; as, an *uncomfortable* home.—Causing trouble or uneasiness; as, an *uncomfortable* seat or situation.

Uncom'mon, *a.* Not common; unusual; out of the ordinary state or nature of things; rare; not frequent; seldom seen, known, or experienced;—hence, strange; remarkable; peculiar; as, an *uncommon* plant, an *uncommon* hard winter, an *uncommon* degree of daring.

Uncom'promising, *a.* Not admitting, or open to compromise; not agreeing to terms: uncomplying; granting no concessions; unyielding; inflexible; as, an *uncompromising* opponent.

Un'concern, *n.* Lack of concern; freedom from care or solicitude; absence of heedfulness or anxiety; as, the *unconcern* of indifferent persons.

Unconcerned', *a.* Not manifesting concern; feeling no solicitude; having or expressing no interest in; indifferent; heedless; carelessly secure; over-confident; as, he is quite *unconcerned* about his fate.

Uncondi'tional, *a.* Without a condition or conditions; not limited by any conditions or contingencies; without reserve; absolute; peremptory; as, an *unconditional* surrender.

Uncondi'tionally, *adv.* Without conditions, terms of limitation, or any reservation whatsoever; as, he gave the required promise *unconditionally*.

Uncondi'tioned, *a.* Without being subject to conditions or restrictions.

(*Metaph.*) Illimitable; infinite; hence, incogitable; inconceivable.

Unconfirmed', *a.* Weak; raw; not fortified by resolution; lacking force; as, *unconfirmed* troops.—Not strengthened by additional or conclusive evidence or testimony; as, an *unconfirmed* statement.—Not confirmed according to the ritual of the Church; as, an *unconfirmed* Christian.

Unconform'able, *a.* Wanting conformity; not consistent; not agreeable; not conforming or agreeing; as, an action *unconformable* to duty.

(*Geol.*) See CONFORMABLY.

Uncon'scionable, *a.* Not guided or influenced by conscience.—Unreasonable; inordinate; excessive; being beyond the limits of any reasonable claim or just expectation; as, an *unconscionable* demand, an *unconscionable* price.—Vast; enormous; immense; as, a thing of *unconscionable* size.

Uncon'scious, *a.* Without consciousness.—Imperceptible; not rendered the object of consciousness; as, he made an *unconscious* tool of himself.

Unconstitu'tional, *a.* Not conformable to, or authorized by, the constitution; contrary to constitutional laws or principles: as, an *unconstitutional* edict.

Unconstrained', *a.* Acting voluntarily; not proceeding from constraint.

Uncontrol'lable, *a.* That cannot be controlled; ungovernable; that cannot be restrained, resisted, or diverted; as, *uncontrollable* passions. — Indisputable; irrefragable; as, the sovereign's *uncontrollable* title to the English throne.

Uncouple, *v. a.* To let slip, as dogs, from their couples; as, to *uncouple* hounds.—Hence, to part; to disjoin: as, to *uncouple* husband and wife.

Uncouth, (*-kooth',*) *a.* [A. S. *un,* and *cuth,* pp. of *cunnan,* to know.] Strange; unusual; odd; unhandy; ungraceful; clumsy; ungainly; not rendered pleasing by familiarity; as, an *uncouth* person, an *uncouth* sight.

Uncover, *v. a.* To lay bare; to divest of covering; to lay open; to disclose; to unroof, as a building; to strip off, as a veil or anything that conceals; as, to *uncover* a statue, to *uncover* a treasonable plot. — To take off the head covering; to bare the head in token of respect; as, to stand *uncovered.*

Uncreated, *a.* Not yet created; as, progeny *uncreated.*—Not produced by creation; as, the idea of God is that of a being *uncreated.*

Unction, (*ŭngk'shun,*) *n.* [Fr. *onction;* Lat. *unctio,* from *ungo, unctus,* to anoint with any fatty substance or unguent.] A rubbing or smearing with fat, grease, or oil; act of anointing, as with oil; act of anointing medically, or as a symbol of consecration; as, the *unction* of the tabernacle. (*Hooker.*)—Unguent; ointment. (R.)—Hence, something soothing, softening, or lenitive.

"Mother, . . . lay not that flattering *unction* to your soul." *Shaks.*

—Hence, also, that which excites piety and devotion; richness of gracious affections; divine or sanctifying grace; also, sometimes, simulated, factitious, or unnatural fervor; as, he makes a joke with irresistible *unction.*

Extreme unction. (*Eccl.*) See EXTREME UNCTION.

Unctuosity, Unctuousness, *n.* [Fr. *onctuosité.*] Quality of being unctuous, greasy, or oleaginous; fatness; greasiness: oiliness.

Unctuous, (*ŭngk'tū-ŭs,*) *a.* [Fr. *onctueux.*] Fat; oily; greasy; having a resemblance to oleaginous substances; as, an *unctuous* priest.

Unscotomed, *a.* Not subjected to custom-house duties. — Not having paid duty, or been charged with customs, as goods.

Uncut', *a.* Not separated or divided by cutting or otherwise; — used in especial reference to the leaves of new books when they have not been cut during the process of binding; as, an *uncut* novel.

Undated, *a.* [From Lat. *unda,* a wave.] (*Bot.*) Waved, as a leaf.

—Bearing no date; as, an *undated* letter.

Undaunted, *a.* Not daunted by danger; not subdued or depressed by fear; disdaining peril; intrepid; dauntless; bold; as, a man of *undaunted* courage.

Undecagon, *n.* (*Geom.*) Same as HENDECAGON, *q. v.*

Undecennary, (*-sĕn-,*) *a.* [From Lat. *undecim,* eleven — *unus,* one, and *decem,* ten.] Eleventh; hence, occurring once in every eleven years.

Undecennial, *a.* Belonging to, or occurring once in, every eleven years.

Undemonstrative, *a.* Not exhibiting an outward manifestation of feeling; reserved whether from diffidence, modesty, or policy; as, an *undemonstrative* person.

Undeniable, *a.* That is beyond denial; irrefutable; obvious; palpably true or actual; as, an *undeniable* fact.

Under, *prep.* [A. S.; Ger. *unter.*] Indicating a lower position with respect to place; so as to be overtopped, overhung, or covered by; so as to have something over or above; lower than; below; beneath; — opposed to *over, above, on, upon;* as, he stood *under* a gateway, to sink *under* water; a ship *under* full sail; to place anything *under* a cover. — Hence, figuratively: (1.) In a state of pupilage or subjection to; in relation to some thing or person imposing liability, obligation, subordination; in a state of bearing, or of being loaded or burdened; in a state of oppression or subjection to; noting the state in which one is considered as bearing or having anything laid upon one; as, to be *under* the eye of the authorities; to labor *under* difficult circumstances; to have patience or fortitude *under* pain, misfortune, or oppression; to stagger *under* a heavy load; to be *under* the necessity of doing one's duty; to be *under* recognizances to keep the peace, &c.; to sign a document *under* protest. — In a less degree than; for less than; in a relation of the less to the greater; in a degree, state, or rank inferior to; noting rank, class, or order of precedence; noting inferiority in size, weight, number, and the like; as, he weighs something *under* twenty stone; his pay is *under* a thousand dollars yearly; marquises take precedence *under* dukes; — hence, it is sometimes used as an equivalent for *at, with, for, less than;* as, I shall not part with the goods *under* the top market price. — Indicating relation to something designative or representative, comprehensive or inclusive; with the pretence of; in the state of bearing, or being known by; with the cover or pretext of; during the time of; as, *under* the name of patriotism; the Civil War commenced *under* Mr. Lincoln's presidency; *under* this head may be mentioned so-and-so; he passed *under* the name of Jones. — Not having reached or arrived; as, a minor *under* legal age.—Attested by; signed by; as, *under* my signature, a document *under* the seal of the court. — Ruled or influenced by; — in a moral sense; as, his wife keeps him *under* her finger and thumb.—In a state of being humbled, treated, or discussed, or of being the subject of active treatment, regard, manipulation, and the like; as, the troops advanced *under* a heavy fire; a question *under* discussion; a patient *under* the doctor's hands; a scheme *under* consideration, &c. — *To knock under.* See KNOCK. — *Under arms.* (*Mil.*) Drawn up in a position to use arms, as troops. — *Under fire,* exposed to the enemy's shot; as, the volunteers behaved well *under fire.* — *Under ground,* beneath the surface of the ground. — *Under sail.* (*Naut.*) In motion; moving by impulsion of the sails, as a ship. — *Under sentence.* sentenced; having sentence pronounced against. — *Under the breath,* in an undertone; with low breath; almost inaudibly; as, to speak *under the breath.* — *Under the lee.* (*Naut.*) To the leeward; as, *under the lee* of the land. — *Under the rose.* See ROSE. — *Under water,* beneath the surface of the water. — *Under way.* (*Naut.*) In a condition to proceed; hence, having started; in progress or course of proceeding; as, the business was got well *under way.*

—*adv.* In a lower or subordinate manner; in inferiority or subjection: — used only in a few phrases; as, to *keep under,* to control; to hold in subjection; as, refractory children should be *kept under;* also, to *bring under,* to reduce to subjection or subserviency; as, they were *brought under* the yoke.

—*a.* Lower in rank, class, station, or degree; subject; subordinate; inferior; as, an *under*-sheriff.

(NOTE. *Under* forms the prefix to a great number of compounds, mostly self-explanatory, and all, more or less, indicating that which is less than is right, usual, or proper, or which is inferior, subordinate, or subject to some other thing.)

Under-action, (*-ak'shun,*) *n.* Subordinate action; by-play.

Under-agent, *n.* A sub-agent; an inferior agent.

Underbear', *v. a.* (*imp.* UNDERBORE; *pp.* UNDERBORNE.) To support; to endure.

Under-bearer, *n.* One who upholds, supports, or sustains; especially, at a funeral, one who aids in bearing the coffin.

Underbid', *v. a.* (*imp.* and *pp.* UNDERBID.) To bid or offer less than, as at auctions.

Underbrace', *v. a.* To brace or bind together below.

Under-bred, *a.* Low-bred; of inferior manners or breeding.

Underbrush, *n.* Same as UNDERGROWTH, *q. v.*

Underchaps, *n. pl.* The lower jaws.

Undercharge', *v. a.* To charge less than is usual or expedient.

Undercharged mine. (*Mil.*) A mine whose vent is not as wide at top as it is deep.

Under-clay, *n.* (*Geol.*) The clayey layer (or bed of finer clay) usually underlying a coal bed.

Under-cliff, *n.* A lesser cliff formed on a shore by debris from the higher cliff above.

Undercliff, or UNDERCLIFFE, a maritime tract of England, in the Isle of Wight, extending along its S. coast from Niton 5 m. E. to Bonchurch. Its average width is ¾ of a mile, and it has been formed by a landslip from a range of chalk cliffs which buried it on the land side. (See Fig. 367.)

Under-clothes, Under-clothing, *n.* Garments worn under others for warmth or cleanliness.

Under-croft, *n.* A crypt; a subterranean vault or apartment.

Under-crust, *n.* The inner crust; as, the *under-crust* of a pie; — hence, the lower classes, being the substratum of society; — opposed to *upper-crust;* as, a man who rose from the *under-crust.*

Under-current, *n.* A current below the surface of the water, or beneath another current usually flowing in an opposite direction.

Underdo', *v. a.* (*imp.* UNDERDID; *pp.* UNDERDONE.) To do less than is required or expected; — hence, to cook in an insufficient degree, as meat.

Underdone, *pp.* Done less than is requisite; moderately or imperfectly cooked; as, *underdone* roast beef; —hence, rare.

Under-drain, *n.* A drain or trench below the surface of the ground.

—*v. a.* To drain by cutting a covered passage below the surface, as of land.

Under-estimate, *v. a.* To appraise at too low a figure; to set too small a value upon; as, to *under-estimate* a contract.

Underfoot, *adv.* Beneath.

—*a.* Trodden down; miserable; base; abject.

Under-furrow, *v. a.* To plough in, as under a furrow.

Undergird', *v. a.* To bind below or beneath; to gird round the bottom.

Undergo', *v. a.* (*imp.* UNDERWENT; *pp.* UNDERGONE.) To bear, support, sustain, suffer, or endure, as something burdensome or painful to the body or the mind; to pass through; to sustain without yielding, sinking, or failing; as, the political geography of Europe has *undergone* many changes; he *underwent* an operation for the stone, &c.

Under-gown, *n.* A gown worn under another; a petticoat.

Undergraduate, *n.* A student or member of a university or incorporated college who has not taken his first degree.

Underground, *n.* A place or space beneath the surface of the ground.

—*a.* Being below the earth's surface; as, an *underground* railway.

—*adv.* Beneath the surface of the earth.

Undergrowth, Underbrush, Underscrub, *n.* Shrubs or small trees growing among large ones.

Underhand, *a.* Under cover of the hand; — hence, secret, surreptitious; clandestine; — usually implying meanness or fraud, or both; as, *underhand* proceedings.

—*adv.* In a clandestine or stealthy manner; by secret or surreptitious means.—By fraud, or illegal means.

Underhanded, *a.* Underhand; clandestine; surreptitious. — Short-handed; scantily provided with hands or workmen.

Underhew', *v. a.* (*imp.* UNDERHEWED; *pp.* UNDERHEWED or UNDERHEWN.) To hew less than is usual or proper; especially, to hew as a piece of timber which should be square, in such a manner that it appears to contain a greater number of cubic feet than it really does.

Underhill, in *Vermont,* a post-township of Crittenden co., 23 m. N.W. of Montpelier.

Under-jaw, *n.* The lower chap or jaw.

Underlay', *v. a.,* (*imp.* and *pp.* UNDERLAID.) To lay beneath; to support by something laid under.—In some parts of England, to sole, or mend the sole of a shoe.

—*v. n.* To incline from the perpendicular; — said of a vein or lode in a mine.

—*n.* (Also written UNDERLIE.) (*Mining.*) The inclination of a vein or lode from the perpendicular.

(*Typog.*) A thickness of paper or pasteboard placed under a cut or part of a cut, or stereotype plate, to bring it up to the proper height, so as to secure the right impression.

Underlayer, *n.* One who, or that which, underlays; a lower layer.

(*Mining.*) A perpendicular shaft sunk to cut the lode at any required depth.

Under-lease, *n.* (*Law.*) An alienation by a tenant of a part of his lease, reserving to himself a reversion. It differs from an *assignment,* which is a transfer of all the tenant's interest in the lease.

Underlet', *v. a.,* (*imp.* and *pp.* UNDERLET.) To let below the true value.—To let under a lease; to let or lease at second-hand; to sub-let.

Under-letter, *n.* One who lets under a lease.

Underlie', *v. a.,* (*imp.* UNDERLAY; *pp.* UNDERLAIN.) To lie or be situated under; as, a stratum of lime *underlying* other strata. — To form the support, basis, or foundation of; as, a nation *underlying* a monarchical government.—To be liable, or answerable to or responsible for.

Underlie, *n.* See UNDERLAY.

—*v. n.* To lie below, under, or beneath.

Underline', *v. a.* To underscore; to mark with a line below the words, to arrest the attention; as, to *underline* a passage in a letter.

Underling, *n.* A subordinate person or agent; a hireling; an understrapper; — usually employed in a disparaging sense, as being equivalent to a mean, sorry fellow.

Under-lock, *n.* A lock of wool depending from a sheep's belly.

Underlying, *a.* Lying beneath or subordinate in position, — said of *strata.*

Under-masted, Under-sparred, (*-spärd',*) *a.* (*Naut.*) Having masts or spars of less than the ordinary dimensions; as, an *under-masted* ship.

Undermine', *v. a.* To mine under or below; to sap; to excavate, as the earth beneath, for the purpose of suffering to fall, or of blowing up; as, to *undermine* a building. — To remove, as the foundation or support of anything by clandestine means; to ruin or destroy in an underhand manner; as, dissipation has *undermined* his constitution.

Undermost, *a.* Lowest in place beneath others; lowest in place, state, rank, class, degree, or condition; — opposed to *uppermost.*

Underneath', *adv.* Below; beneath; in a lower or subordinate place; as, the river flowed *underneath.*

—*prep.* Under; beneath; as, "*Underneath* this sable hearse." — *Ben Jonson.*

Underpin, *v. a.* (*imp.* and *pp.* UNDERPINNED, (*-pĭnd.*) To lay stones under, to form a rest for the sills of a building. — To place something beneath to form a foundation or support.

Underpinning, *n.* Act of one who underpins. — The stones on which a building immediately rests.

Underplot, *n.* A subordinate plot in a drama; by-play. — An underhand plot; a clandestine scheme.

Underrate', *v. a.* To undervalue; to rate or appraise below the real value.

Underrun', *v. a.* To run or pass under; particularly, to pass along and under, as a cable or hawser, for the purpose of taking in, as for stowing away or inspection.

To underrun a tackle. (*Naut.*) To separate the parts of a tackle, and put them in order.

Under-sail', *adv.* (*Naut.*) With anchor up, and under the influence of sails; also, with sails set, though the anchor is down.

Underscore', *v. a.* To draw a mark or line under.

Undersell', *v. a.* (*imp.* and *pp.* UNDERSOLD.) To sell cheaper than; as, to *undersell* the market.

Undertset, *n.* (*Naut.*) A current of water below the surface, especially when moving in a direction contrary to that of the wind.

Undersetting, *n.* A foundation; a prop, support, or pedestal.

Undershapen, *a.* Low-sized; under the usual shape; small.

Under-sheriff, *n.* A sheriff's deputy.

Undershot, *a.* Worked by water passing underneath.

Undershot-wheel, *n.* (*Hydraul.*) A wheel with a number of flat wash-boards, which receive the impulse of the water conveyed to the lowest part of the wheel by an inclined sluice or canal; — correlative to *overshot* wheel.

Undershrub, *n.* (*Bot.*) The designation of a woody plant of small size, the ends of whose branches perish every year.

Undersign, (*-sīn',*) *v. a.* To write, as one's name at the foot or end of a letter or any legal instrument. — *The undersigned,* the subscriber, or subscribers; the person or persons whose names are written at foot; as, "We, the *undersigned.*"

Undersized', *a.* Of less than the ordinary size; as, an *undersized* man.

Un'der-soil, *n.* Same as SUB-SOIL, *q. v.*

Un'der-song, *n.* The burden, chorus, or refrain of a song. — Accompaniment; underlying meaning.

Un'der-sparred, (*-spärd,*) *a.* See UNDER-MASTED.

Understand', *v. a.* (*imp.* and *pp.* UNDERSTOOD.) [A. S. *understandan.*] To support or hold in the mind; to apprehend; to comprehend; to perceive; to know; to have just and adequate ideas of; to have the same ideas as the person who speaks, or the ideas which a person intends to communicate; to receive or have, as the ideas expressed or intended to be conveyed in a writing or book; to know the meaning; to have knowledge by experience or intuition; as, to *understand* a foreign language; to *understand* a problem in Euclid; to *understand* a book, a nod, or a shrug of the shoulders; to *understand* a woman is not easy. — To be informed or apprised of; as, I *understand* that you are going abroad. — To interpret, at least mentally; to hold in opinion with conviction; to know, or conceive to know, as the meaning of another; to ascribe intention or signification to; as, my meaning is not so to be *understood.* — To mean without expressing; to know, as what is not expressed; to imply; as, "War open, or *understood.*"
Milton.

—*v. a.* To be an intelligent and conscious being; to have the use of the intellectual faculties. — To learn from, or be informed by, another.

Understand'ing, *p. a.* Knowing; intelligent; skilful; as, an *understanding* man.

Understand'ing, *n.* (*Phil.*) That faculty by which man derives ideas from sensations. The impressions received from the outward world by means of the senses are regarded as the basis of all knowledge, and a creature destitute of perception would be incapable of learning or understanding. According to Aristotle, the one sense which is an indispensable condition for the acquisition of knowledge is that of touch. To the ideas formed immediately from perception, he gave the name of *phantasms,* this power of perceiving being the imagination, which with memory constitutes the whole intellectual nature of brutes, while in man it furnishes only the groundwork for the operation of the intellect, which, working on these sensations, reaches first simple and then more complex and general notions. — Act of a person who understands anything (in the various senses of the word); knowledge; interpretation; belief; discernment; exact comprehension. — Agreement of minds; union of sentiments; adjustment of differences; intelligence between two or more persons; anything mutually understood or agreed upon.

Understand'ingly, *adv.* In an understanding manner; with full or complete knowledge, intelligence, or apprehension; as, to judge *understandingly.*

Understate', *v. a.* To state or represent with less force or fulness than the truth will permit.

Un'der-statement, *n.* A statement less than the truth.

Understood', *imp.* and *pp.* of UNDERSTAND.

Un'derstrapper, *n.* A subordinate agent or employé; a petty official; hence, generally, a mean, contemptible hireling; a jack-in-office.

Un'der-stratum, *n.; pl.* UNDER-STRATA, or, sometimes, UNDER-STRATUMS. Same as SUB-SOIL, *q. v.*

Undertake', *v. a.* (*imp.* UNDERTOOK; *pp.* UNDERTAKEN.) To take under one's charge, care, or management; to engage in; to take in hand; to enter upon; to set about; to begin to perform or execute; as, to *undertake* the conduct of a business. — Specifically, to covenant or contract to perform or execute; to take upon one's self to do; to enter into stipulations, or place one's self under obligations; as, to *undertake* the construction of a line of railroad.

—*v. n.* To take upon one's self, or assume any business or promise. — To promise; to be bound; as, I *undertake* to say he is wrong with respect to this matter. — *To undertake for,* to become bail or surety for.

Undertak'er, *n.* One who undertakes anything; one who engages in any enterprise or business. — One who stipulates, covenants, or contracts to carry out the performance of work for another. — One who conducts the management of funerals.

Undertak'ing, *n.* That which is undertaken or entered upon; any business, work, or project, which a person engages in, or attempts to perform; an enterprise; as, the laying of the Atlantic Cable was a gigantic *undertaking.* — Specifically, the business of an undertaker, in the conduct or management of funerals.

Un'der-tenancy, *n.* Tenancy or tenure under a tenant or lessee.

Un'der-tone, *n.* A low tone; a tone or utterance lower than is usual.

Undertook', *imp.* of UNDERTAKE, *q. v.*

Un'der-tow, *n.* A current of water below, differing or deviating from, that on the surface.

Under-valua'tion, *n.* Act of valuing or appraising below the true or real worth.

Undervalue, *v. a.* To value, rate, or estimate below the true or real worth; as, to *undervalue* an estate. — To hold in light esteem; to treat as of little worth or consequence; to despise; to disparage.

—*n.* Low rate, price, or estimation; a valuation lower than the real worth.

Underwent', *imp.* of UNDERGO, *q. v.*

Un'derwood, *n.* The low woody growths produced among timber trees, sometimes called *coppice wood,* though the term *coppice wood* is more especially applied to woods in which low growths of shrubs, or the woods of trees, are more abundant than timber trees.

Underwork', (*-wurk,*) *v. a.* (*imp.* and *pp.* UNDERWORKED or UNDERWROUGHT.) To execute work at a lower price; as, one man *underworks* another of the same trade. — To undermine; to subvert or destroy by clandestine measures.

—*v. n.* To work for a less price than is usual or proper. — To operate clandestinely or surreptitiously.

—*n.* Subordinate work; petty affairs.

Un'derworker, *n.* One who underworks another or others. — An inferior or petty workman.

Under-world, (*-wurld,*) *n.* The lower or inferior world. — The lower or inferior part of mankind. — The opposite side of the world; the antipodes. (R.)

Underwrite, (*-rīt',*) *v. a.* (*imp.* UNDERWROTE; *pp.* UNDERWRITTEN.) To subscribe; to write under, as something else. — To subscribe, as one's name for insurance; to set, as one's name to a policy of insurance, for the purpose of becoming responsible for loss or damage, in consideration of a certain premium per cent.; to take a risk; as, the ship was *underwritten* at Lloyds'.

—*v. a.* To practise insuring or underwriting.

Un'derwriter, *n.* An insurer; one who underwrites his name to the conditions of a policy of insurance; as, he has a claim on the *underwriters.*

Un'derwriting, *n.* Act or practice of insuring ships, goods, houses, &c., against loss or damage.

Undeter'mined, (*-mīnd,*) *a.* Not determined, settled, resolved, or decided; as, I am *undetermined* whether to go or not. — Not fixed, defined, or regulated; unlimited; undeterminate; as, "In circuit *undetermined,* square or round." (*Milton.*) — (*Math.*) Not known.

Unde'viating, *a.* Not deviating; not digressing or departing from the way or course, or from a rule, principle, plan, or purpose; regular; steady; persistent; as, *undeviating* rectitude of mind. — Not erring, wandering, or crooked.

Undid', *imp.* of UNDO, *q. v.*

Undig'nified, *a.* Lacking dignity or self-respect; mean; low; common; as, *undignified* submission.

Undine, (*un-dēn',*) (sometimes written ONDINE,) *n.* [From Lat. *unda,* a wave.] A naiad; a fabled spirit of the waters; a water-nymph.

Undirect'ed, *a.* Lacking guidance or direction; left without direction. — Misled; misguided; misdirected. (R.) — Wanting address or superscription; as, an *undirected* letter.

Undiscerning, (*-diz-zern'-,*) *a.* Lacking discernment; not making apt or just distinctions; wanting judgment or the power of discrimination; as, an *undiscerning* mind.

Undisciplined, (*-dis'si-plīnd,*) *a.* Wanting in discipline; not duly instructed or exercised; not trained into habits of regular order; as, *undisciplined* militia. — Untaught; lacking teaching or experience; as, an *undisciplined* mind.

Undisguised, (*-gīzd,*) *a.* Without disguise; not covered with a mask, or with a false or pretentious appearance; open; frank; plain; candid; artless; as, *undisguised* sympathy or antipathy.

Undistinguishable, (*-tĭng'gwish-a-bl,*) *a.* That cannot be marked or distinguished by the eye; not to be distinctly seen; — hence, not to be known or distinguished by the intellect, or by any peculiar property.

Undistin'guished, *a.* Lacking distinction; not so marked as to be distinctly known from each other; not separately seen or described; not plainly discerned; having no intervenient space; — hence, not marked by any particular property; not treated with any particular respect; not distinguished by any particular eminence.

Undisturbed, (*-tŭrbd',*) *a.* Free from interruption or disturbance; not molested or hindered; free from mental perturbation; calm; tranquil; placid; serene; quiet; not agitated, stirred, or moved; as, *undisturbed* peace.

Undivid'ed, *a.* Not divided, separated, or disunited; unbroken; whole; integral; as, grant me your *undivided* attention. — Not set off or apart by division; as, an *undivided* half of a share in a business.

(*Bot.*) Entire, as a leaf.

Undo, (*-doo',*) *v. a.* (*imp.* UNDID; *pp.* UNDONE, (*-dun.*) To reverse what has been done; to bring to naught; to annul, as any transaction; as, to *undo* a marriage by divorce. — To loose; to open; to unfasten; to unravel; to untie; to take to pieces; as, to *undo* a knot. — To ruin; to impoverish; to bring to penury or destitution; to ruin, in a moral sense; to blast in reputation; to bring to everlasting destruction and misery; as, "Some men *undo,* and some are themselves *undone.*" — *Denham.*

Undock', *v. a.* To take out of dock, as a ship.

Undoer, (*-doo'-,*) *n.* One who reverses or annuls what has been done; one who brings poverty or destruction; one who blasts or destroys the reputation of another; — also, a seducer.

Undoing, (*-doo'-,*) *n.* The reversal or annulling of what has been done. — Ruin; destruction; downfall; fatal mischief.

Undone', *pp.* of UNDO, *q. v.*

Undoubted, (*-dout'-,*) *a.* That may not be doubted or called in question; indisputable; indubitable; irrefragable; as, an *undoubted* proof.

Undoubt'edly, *adv.* Without doubt or question; indubitably.

Undress', *v. a.* To strip; to divest of dress or clothes. — To deprive of ornaments or frippery; to assume a negligee; as, "*Undress'd* at evening . . . she changed her look." — *Prior.*

(*Med.*) To remove the dressing or covering from, as a wound.

—*n.* A loose, negligent style of dress; — opposed to *full dress.*

(*Mil.* and *Nav.*) Regulation dress of officers, soldiers, sailors, &c., but not full uniform.

Undue', *a.* Not due; not yet demandable by right: as, a bill *undue.* — Not right; not legal; improper; as, an *undue* proceeding or precedent. — Excessive; out of just proportion; not agreeable to a rule or standard, or to duty; as, *undue* severity in the execution of law

Un'dulate, *v. a.* [Fr. *onduler,* from Lat. *undula,* a little wave.] To cause to play or move, as waves; to move back and forth, or up and down, like waves; to cause to vibrate; as, to *undulate* the voice.

—*v. n.* To wave; to vibrate; to move back and forth; as, *undulating* air.

Un'dulate, Un'dulated, *a.* Resembling waves in form or motion; undulatory.

(*Bot.*) Wavy, as a leaf or corolla.

Un'dulating, *p. a.* Wavy; rising and falling like waves; resembling waves in form or motion; as, an *undulating* gait, *undulating* ground.

Undulation, (*-lā'shun,*) *n.* [Lat. *undulatio.*] Act of undulating; a waving motion or vibration; fluctuation; as, the *undulations* of a woman's figure.

(*Mus.*) Same as BEAT, *q. v.*

(*Surg.*) Same as FLUCTUATION, *q. v.*

(*Phys.*) A wavy appearance; a liquid, aërial, or luminous wave.

Point of undulation. (*Geom.*) A point at which a curve is met by its tangent in four consecutive points. A point of undulation of higher order, is one at which the curve is met by its tangent in any even number of consecutive points.

Undula'tionist, *n.* A scientist who adopts the undulatory theory of light.

Un'dulatory, *a.* [Lat. *undulatorius.*] Moving in the manner of waves; or, resembling the motion of waves, which successively rise, or swell, and fall. See UNDULATORY THEORY, in SECTION II.

Unduly, *adv.* In an undue manner; not according to duty, justice, or propriety; lacking proper proportion; excessively; inordinately; as, your nerves are *unduly* strained.

Undy'ing, *a.* Not dying or perishing. — Immortal; not subject to death.

Unearth', *v. a.* To drive from the earth, or from a burrow; as, to *unearth* a fox. — Hence, to uncover; to disclose; to bring to light; as, to *unearth* a mystery.

Unearth'ly, *a.* Supernatural; not earthly or terrestrial; as, an *unearthly* visitant.

Uneasily, (*-ēz'i-le.*) *adv.* With uneasiness or pain; in a troubled or uncomfortable manner; with difficulty; not readily.

Uneasiness, *n.* Quality or state of being uneasy; a moderate degree of pain; restlessness; lack of ease; disquiet; perturbation of mind; moderate anxiety; disquietude. — That which occasions trouble, disquiet, or restlessness; as, the *uneasiness* of a journey.

Uneasy, (*-ēzy,*) *a.* Hard; difficult; not easy; as, "the road will be *uneasy* to find." (*Scott.*) — Not at ease; experiencing some degree of restlessness and anxiety; feeling some sense of pain, trouble, and the like; disturbed in mind; morbidly apprehensive of evil; unquiet; as, "*Uneasy* lies the head that wears a crown." (*Shaks.*) — Stiff; awkward; not composed or graceful in manner; constrained; betraying gaucherie; as, he seemed quite *uneasy* among such grand people. — Constraining; cramping; causing want of ease or self-possession; giving some pain or chagrin to others; unpleasing; disagreeable; as, an *uneasy* seat in the saddle; *uneasy* rules or regulations.

Unembarrassed, (*-băr'rast,*) *a.* Without embarrassment, confusion, or perplexity of mind. — Free from pecuniary difficulties, obligations, or encumbrances; as, his estates are quite *unembarrassed.* — Free from entanglement or complicated matters; as, I am *unembarrassed* with domestic responsibilities.

Unembod'ied, *a.* Disembodied; free from corporeal entity; as, *unembodied* spirits. — Not formed or collected into a body; as, *unembodied* army reserves.

Unequal, (*-ē'kwal,*) *a.* Not equal; not even; not paired; unmatched; not of the same size, dimensions, quantity, quality, age, station, degree, &c.; hence, interior; insufficient; inadequate; unadapted; as, an *unequal* marriage. — Disproportioned; ill matched, pitted, or balanced; hence, unjust; unfair: one-sided; partial; as, an *unequal* struggle. — Not equable, regular, or uniform; as, "So strong, yet so *unequal,* pulses beat." *Dryden.*

(*Bot.*) Without symmetrical arrangement of the two sides, or the parts.

Unequalled, (*-ē'kwald,*) *a.* Not to be equalled or excelled; unrivalled; unparalleled; — either in a good or bad sense; as, *unequalled* goodness, *unequalled* villany.

Une'qually, *adv.* Not equally; in different degrees; irregularly; without symmetry or proportion to each other; as, a loaf *unequally* divided.

Unequally pinnate. (*Bot.*) Pinnate, but having an odd number of leaflets.

Unequivocal, (*-e-kwiv',*) *a.* Not admitting of doubt or equivocalness; clear; evident; palpable; as, *unequivocal* testimony. — Not bearing dubious signification; without ambiguity; not admitting different interpretations; as, *unequivocal* language.

Unequiv'ocally, *adv.* In an unequivocal manner.

Unerr'ing, *a.* Incapable of error; committing no mistake; as, the *unerring* laws of nature. — Sure; certain; exact; accurate; incapable of miss or failure; as, an *unerring* shot with the rifle.

Unessential, (*-sĕn'shal,*) *a.* Not essential, indispensable, or absolutely necessary; not of prime or paramount importance; not constituting the essence. — Void of real being.

Unevangelical, (*-jel'-,*) *a.* Not evangelical; not according to orthodoxy, or to the gospel.

Uneven, (*-ē'vn,*) *a.* Not even; not level; not uniform in surface; rough; undulating; as, *uneven* ground. — Not equable; not of equal length; as, *uneven* feet in poetry.

Uneven number, an odd number, as 3, 5, 7.

Une'venness, *n.* Quality or state of being uneven; inequality or ruggedness of surface; irregularity; want of uniformity or smoothness; as, the *unevenness* of a road. — Changeableness; turbulence; variableness; as, *unevenness* of temper.

Unexam'pled, *a* Without precedent; unparalleled; having no example or similar case; unique; unprecedented; as, God's *unexampled* mercy.

Unexceptionable, (*-sĕp'shun-a-bl,*) *a.* Not open to any exception, cavil, or objection; unobjectionable; faultless; excellent; as, an *unexceptionable* match.

Unexpect'ed, *a.* Not looked for; coming without notification or warning; not anticipated; not provided against; sudden; as, *unexpected* guests.

Unexpe'rienced, *a.* Same as INEXPERIENCED, *q. v.*

Unfail'ing, *p. a.* Not failing, nor liable to fail; not liable to become exhausted; reliable; certain; as, *unfailing* hope.

Unfair', *a.* Without fairness or impartiality; not honest or straightforward, disingenuous, using or comprehending trick, quibble, or artifice; unjust; unequal; proceeding from treachery or dishonesty; as, to take an *unfair* advantage of a woman's confidence.

Unfair'ness, *n.* State or quality of being unfair; employment of trick, quirk, or artifice; injustice; want of equitableness; dishonest or disingenuous conduct or practice; as, the *unfairness* of favoritism.

Unfaith'ful, *a.* Deficient in faithfulness; not observant of promises, vows, allegiance, or duty; violating trust or confidence; treacherous; perfidious; not performing the proper duty assigned and belonging to; negligent of ties of honor; as, an *unfaithful* subject, citizen, soldier, servant; an *unfaithful* wife, a man *unfaithful* to his word.

Unfash ionable, *a.* Out of the fashion.

Unfath'omable, *a.* That cannot be fathomed; not to be sounded with a line of ordinary length; very deep; as, *unfathomable* depths, an *unfathomable* intellect.

Unfa'vorable, *a.* Not favorable; unpropitious; inauspicious; not disposed or adapted to countenance, encourage, or support; not kind or obliging; repellent; discouraging; as, *unfavorable* tidings.

Unfa'vorably, *adv.* Unpropitiously; in an unfavorable manner.

Unfeel'ing, *a.* Insensible; cold; destitute of feeling or sensibility. — Lacking warmth or sensibility of heart or disposition; not having kind feelings or sympathies; hard-hearted; callous; cruel; as, an *unfeeling* person.

Unfeigned, (*-fānd,*) *a.* Not feigned, counterfeited, put on, or pretended; not hypocritical or assumed; real; genuine; sincere; veritable; as, *unfeigned* sorrow.

Unfet'ter, *v. a.* To loose from fetters, chains, bonds, or shackles; as, to *unfetter* a captive. — To free from restraint or duress; to allow free vent to; as, to *unfetter* the intelligence.

Unfinished, (*-fin'ishd,*) *a.* Not finished; incomplete; not brought to an end or conclusion; imperfect; wanting the remainder; requiring the last hand or touch; as, an *unfinished* house, an *unfinished* work of art, an *unfinished* letter.

Unfit', *a.* Not fit, proper, or suitable; unqualified; inadmissible; as, a man *unfit* for his duties.

—*v. a.* To make unfit or unsuitable; to disable; to divest of the proper surroundings for anything; as, noise *unfits* a man for reflection. — To disqualify; to deprive of the necessary qualification demanded by the case; as, intoxication *unfits* one for ladies' company.

Unfit'ness, *n.* State or condition of being unfit.

Unfix', *v. a.* To remove the fastening, shackle, or bond from; to set free from any restraint; to detach from something that holds; to unhinge; to unsettle; as, to *unfix* a misplaced affection. — To dissolve; to fluidize, as snow or ice.

Unfold', *v. a.* To lay open the folds of; to spread out; to expand; as, to *unfold* a napkin. — To lay open to view or contemplation; to disclose; to reveal; to declare; to tell; to display; to illustrate; as, to *unfold* a mystery, to *unfold* one's mind to another, to *unfold* the characteristic features of a doctrine, &c. — To set free from a fold or pen; as, to *unfold* sheep.

—*v. n.* To open; to become disclosed, displayed, or developed.

Unformed', *p. a.* With the form maimed or destroyed; decomposed or resolved into parts. — Not having received form; deficient in systematic shape, order, or relationship.

Unformed star. (*Astron.*) A star not included in any of the constellations.

Unfor'tunate, *a.* Wanting in good fortune; unprosperous; unsuccessful; unlucky; untoward; attended with mishap, calamity, or trouble; as, an *unfortunate* man, an *unfortunate* event.

Unfound'ed, *a.* Not founded or based; not built or established. — Hence, by analogy, without basis or bottom; having no foundation; idle; vain; empty; as, an *unfounded* rumor, *unfounded* expectations.

Unfre'quented, *a.* Seldom, or rarely, visited, or resorted to by people at large; as, an *unfrequented* island.

Unfriendly, (*-frĕnd'-,*) *a.* Not on terms of friendship, kindliness, or benevolence; antagonistic; inimical; as, *unfriendly* relations. — Unfavorable; unpropitious; not adapted to promote the well-being of any object; as, *unfriendly* weather at sea.

Unfrock', *v. a.* To strip off the frock; — hence, specifically, to divest of sacerdotal character or privilege; as, an *unfrocked* ecclesiastic.

Unfruit'ful, *a.* Not prolific; not producing offspring; barren; as, an *unfruitful* wife. — Not yielding fruit; not fructiferous; as, an *unfruitful* tree. — Infertile; not productive; sterile; as, an *unfruitful* soil. — Unproductive of good effects, works, or consequences; as, an *unfruitful* career.

Unfruit'fulness, *n.* State or quality of being unfruitful.

Unfurl', *v. a.* To expand; to spread out; to loose and unfold; as, to *unfurl* sails, to *unfurl* a standard, or regimental color.

Ungain'ly, *a.* [A. S. *ungægne.*] Inexpert; lacking grace or dexterity; clumsy; awkward; uncouth; as, a man of *ungainly* figure.

Unga'va (or SOUTH) **Bay,** in British N. America, an inlet of the Atlantic, in the N. of Labrador, S. of Hudson's Strait.

Ungear', *v. a.* To unharness; — also, to throw out of gear, as machinery.

Ungenerous, (*-jĕn'er-ŭs,*) *a.* Deficient in generosity; illiberal; lacking noble or gentle instincts; ignoble; unkind.

Ungod'liness, *n.* State or quality of being ungodly; impiety; profanity, wickedness; godlessness; disregard of God and religious ordinances; want of reverence.

Ungod'ly, *adv.* Neglecting the fear and worship of God, or violating his commands; not pious or goodly; irreligious; wicked; sinful; as, an *ungodly* reprobate. Polluted by sin or wickedness; as, "an *ungodly* day."

Unghvar, (*oong'var,*) a town of Hungary, on the river Ungh, 82 m. from Debreczin; *pop.* 8,500.

Ungov'ernable, *a.* Deficient of government or control; that cannot be brought under subjection; that cannot be ruled or restrained: licentious; unbridled; wild; furious: as, a woman of *ungovernable* temper, a man of *ungovernable* passions.

Ungrace'ful, *a.* Lacking grace and harmony; deficient in ease and dignity; wanting beauty or elegance; without good breeding or politeness; without polish or refinement; awkward; gauche; clumsy; as, *ungraceful* manners.

Ungracious, (*-grā'shus,*) *a.* Deficient in grace or graciousness; manifesting no amenity of disposition, or kindness of heart; unacceptable; brusque; uncivil; disagreeable; offensive; unpleasing; not favored; as, to meet an *ungracious* reception.

Ungrate'ful, *a.* Wanting in gratitude for favors; not making returns, or making ill returns, for favor or kindness; as, an *ungrateful* mind. — Disagreeable; harsh; producing an ill effect; as, discordant sounds are *ungrateful* to the ear.

Ungual, (*ung'gwal,*) **Unguic'ular,** *a.* [From Lat. *ungais,* a nail, claw, hoof.] Pertaining, or having reference, to a nail, claw, or hoof. — Having a process in the form of a nail, hoof, or claw, as certain bones of the feet.

Unguent, (*ang'gwent,*) *n.* [Lat. *unguentum,* an ointment.] A soft composition, in the form of ointment, of a consistence more or less analogous to that of lard. They are used chiefly as local applications to ulcers and wounds, but are sometimes rubbed upon a part in cutaneous affections, and especially when it is desired that the constituents of the ointment shall be absorbed.

Unguic'ulate, Ungnic'ulated, *a.* Possessing claws.

(*Bot.*) Furnished with a claw, forming a slender base, as the petals of soap-wort.

Unguiferous, *a.* [Lat. *unguis,* nail, claw, and *ferre,* to produce.] Producing, possessing, or supporting claw-like processes.

Un'guiform, *a.* [Lat. *unguis,* and *forma,* form.] Claw-shaped.

Unguinous, (*-gwin'us,*) *a.* [Lat. *unguinosus.*] Oily; unctuous; oleaginous; consisting of, or resembling, fatty matter.

Unguis, (*ung'gwis,*) *n.* [Lat., nail, claw, hoof.] The nail of the foot or finger; the hoof of a beast; the claw of a bird.

(*Bot.*) The narrow part, or *claw,* of the base of a petal, taking the place of the footstalk of a leaf, of which it is a modification; — also written *ungula.*

Os unguis. (*Anat.*) A small, quadrilateral, very thin, and semi-transparent bone, which has been compared to a human nail, and is situate at the anterior and inner part of the orbit. It aids in the formation of the lachrymal gutter and the nasal duct.

Un'gula, *n.* [Lat., a claw, hoof.] (*Surg.*) A kind of hooked instrument for extracting a dead fœtus from the womb.

(*Bot.*) See UNGUIS.

(*Geom.*) A solid formed by cutting off a part from a cylinder, cone, or other solid of revolution by a plane passing obliquely through the base. — *Spherical ungula,* a part of a sphere bounded by two planes intersecting in a diameter and by a lune of the surface.

Un'gulate, *a.* [Lat. *ungalatus.*] Hoof-shaped. — Having hoofs; as, *ungalated* quadrupeds.

Unhal'lowed, (*-lōd,*) *a.* Not hallowed or eanctified; hence, impure; profane; wicked; as, *unhallowed* lust.

Unhand'y, *a.* Not handy, expert, or dexterous awkward; as, an *unhandy* workman. — Inconvenient; as, an *unhandy* position for reporting.

Unhang, *v. a.* To strip of hangings, as an apartment. — To take from its hinges, as a gate.

Unhap'py, *a.* Not happy, prosperous, or fortunate; unlucky; as, things have taken an *unhappy* direction. — Causing a degree of misery or wretchedness; as, his absence makes her *unhappy.* — Characterized by infelicity; bringing calamity; evil; untoward; as, an *unhappy* marriage.

Unhar'ness, *v. a.* To loose from gear or harness; as, to *unharness* a horse. — To divest of armor or accoutrements; as, to *unharness* a mailed knight.

Unhead', *v. a.* To remove the head from; as to *unhead* a barrel.

Unhealth'iness, *n.* State or condition of being unhealthy; unsoundness; habitual weakness or indisposition; — used in respect to persons. — Want of vigor; lack of stamina; as, the *unhealthiness* of plants or vegetation. — State of being unpropitious or unfavorable to health; insalubrity; as, the *unhealthiness* of a climate.

Unhealth'y, *a.* Destitute of health, soundness, or vigor; wanting tone; constitutionally weak or infirm; as, an *unhealthy* person, *unhealthy* vegetation. — Rife with disease or malaria; sickly; injurious to the possession of health; as, the *unhealthy* slume of a great city. — Insalubrious; unwholesome; adapted to generate disease; as, an *unhealthy* country. — Morbid; not proceeding from natural health, vigor, or soundness; as, an *unhealthy* mind.

Unheard', *a.* Not heard; not caught by the ear; not vouchsafed an audience; as, their cries were *unheard,* his petition was *unheard.* — Obscure; unknown by fame; not in vogue, as a man of genius.

Unheard-of, unprecedented; strikingly novel or unique; as, an *unheard-of* prodigy.

Unhes'itatingly, *adv.* Without hesitation or doubt; promptly.

Unhinge, (*-hinj',*) *v. a.* To take from the hinges, as a door or gate.

—To throw out of place by violence; to loosen by convulsion; as, "hills *unhinged.*" *Blackmore.* — To derange; to upset; to unsettle; to render unfixed or wavering; as, troubles *unhinge* the mind.

Unho'ly, *a.* Not sacred or holy; unhallowed; not revered or sanctified; profane; impious; wicked; not consecrated; not ceremonially purified.

Unhoped, (*-hōpt,*) *a.* Not expected; not so probable as to excite hope.

Unhoped-for, not anticipated with hope; unlooked for; as, *unhoped-for* success.

Unhurt', *a.* Not hurt; free from harm or injury; safe and sound; as, to come off *unhurt.*

Uniax'al, Uniax'ial, *a.* [Lat. *unus,* one, and *axis,* an axis or axle.] (*Crystallog.*) Having only one axis of double refraction, as certain crystals.

Unicap'sular, *a.* (*Bot.*) With one capsule only to each flower.

Unicel'lular, *a.* Possessing, or consisting of, but one cell; as, a *unicellular* animal.

U'nicorn, *n.* [Lat. *unicornis* — *unus,* one, and *cornu,* a horn.] A beast so called in the English version of the Old Testament (Heb. *ram*), and now commonly understood to be the rhinoceros. The unicorn of Pliny, however, has the head of a hart, the feet of an elephant, the tail of a boar, while the rest of the body resembles a horse. Aristotle, Ælian, and all the classical writers on animals, mention the unicorn. The traveller Ludovicus Romanus asserts that he saw *two* unicorns kept alive in the temple of Mecca. Many strange virtues were attributed of old to the horn of the *U.*, particularly against poison; but the horns preserved in collections, and to which that name was given, belonged either to the rhinoceros, or to the narwhal or sea-unicorn.

(*Her.*) A fabulous animal, having the figure of a horse, with a single horn issuing from its forehead; — frequently represented as a supporter, as in the royal arms of Great Britain, (Fig. 1194.)

Unicorn'ous, *a.* [Fr. *unicorne;* Lat. *unicornis.*] One-horned.

U'nicorn-root, *n.* (*Bot.*) See HELONIAS.

Unie, (*oo'ne,*) an island in the Adriatic Sea, 15 m. from Istria. It is 6 m. long, with a breadth of 2. *Pop.* unascertained.

Unieh, (*oo'ne-ai,*) (anc. *Ænoe,*) a seaport of Asia Minor, on the coast of the Black Sea, 25 m. from Sameoun. The inhabitants consist of Turks, Greeks, and Armeniane, who carry on a considerable trade with Constantinople and the Crimea. *Pop.* unascertained.

Unifacial, (*-fā'shal,*) *a.* Having one face or front only, as certain corals.

Unific, *a.* Unifying; making one.

Unification, (*-kā'shun,*) *n.* Act of unifying, or state of being unified; as, the *unification* of a people.

Unifi'lar, *a.* [Lat. *unus,* one, and *filum,* a thread.] One-threaded.

Uniflorous, (*-flō'rus,*) *a.* (*Bot.*) Bearing but a single flower.

Unifo'liate, *a.* (*Bot.*) Bearing a single leaf; one-leaved.

U'niform, *a.* [Fr. *uniforme;* Lat. *uniformis* — *unus,* one, and *forma,* form.] Having invariably the same shape, form, manner, or characteristic qualities; as, heat maintained at a *uniform* temperature. — Consonant; partaking of the same form with others; conforming to one rule or mode; not variable; as, *uniform* habits or practices. — Undeviating; regular; constant; always self-consistent; not different; alike; as, my political opinions have always been of a decided and *uniform* cast. — *Uniform matter,* homogeneous matter. — *Uniform motion,* equal motion.

—*n.* A dress of the same kind with others; especially, the particular dress worn by persons belonging to the army, navy, or any body of men incorporated by authority; as, regimental *uniform,* in undress *uniform,* an officer in naval *uniform,* &c. — *In full uniform,* wearing the whole of the regulation uniform; not in undress; as, an officer *in full uniform.* — *Uniform sword,* an officer's sword of the regulation pattern prescribed for the army or navy.

Uniformita'rian, *n.* (*Geol.*) One who believes that the causes now in operation are sufficient to account for all geological changes.

Uniform'ity, *n.* [Fr. *uniformité.*] Quality of being uniform; even tenor; absence of difference or varia-

tion; self-resemblance at all times.—Conformity to a pattern, rule, or example; resemblance, agreement, or consonance; as, the *uniformity* of speech-making at public dinners.—Sameness; correspondence; consistency; as, the *uniformity* of national prejudices.—Likeness between the constituent parts of a whole; as, the *uniformity* of sides in a quadrangle.—Continued or unvaried sameness or similitude.

(*Fine Arts.*) Resemblance in shape between the correspondent parts of a subject.

Act of Uniformity. (*Eng. Hist.*) An Act of Parliament, passed in 1661, regulating the form of public prayers, administration of the sacraments, and other ceremonials of the Church of England.

U'niformly, *adv.* In a uniform manner; with even tenor; without variation; without diversity of one from another; maintaining consistency throughout; as, a disposition *uniformly* amiable.

U'nify, *v. a.* [Lat. *unus*, one, and *facere*, to make.] To make one; to unite; to form into a unit. (R.)

Unigenitus, (*yu-ni-jen'e-lus.*) [Lat., only-begotten.] (*Eccl. Hist.*) The name of a celebrated papal bull issued by Clement XI. in 1713, and so called from its commencing *Unigenitus Dei Filius*. It was directed against the "Moral Reflections on the New Testament," by Père Quesnel, a celebrated Jansenist, and produced a great commotion in France, many of the clergy refusing to accept of it.

Unijugate, *a.* [Lat. *unus*, one, and *jugum*, yoke.] (*Bot.*) Applied to pinnate leaves whose petiole bears one pair of leaflets.

Unilabiate, *a.* [Lat. *unus*, and *labium*, a lip.] (*Bot.*) Noting irregular, monopetalous corollas having only one lip.

Unilateral, *a.* [Lat. *unus*, and *latus*, *lateris*, a side.] Belonging or relating to one side.

(*Bot.*) Arranged on, or turned towards, one side only; one-sided.

Unilit'eral, *a.* [Lat. *unus*, and *litera*, a letter.] Consisting of one letter only.

Unilocular, *a.* [Lat. *unus*, and *loculus*, a cell.] (*Bot.*) Noting seed-vessels not separated into cells.

(*Conchol.*) Applied to cells which are not divided into chambers.

Unimpeach'able, *a.* That cannot be impeached; free from stain: blameless; irreproachable; as, a person of *unimpeachable* character.

Unimproved, (*-proovd'*,) *a.* Wanting in improvement; not made better or wiser; not advanced in knowledge, manners, or excellence.—Not used or employed.—Not put to the best advantage: as, he let his chance pass *unimproved*.—Not placed under tillage or cultivation; as, *unimproved* land.

Unincumbered, *a.* Without burden, incumbrance, or drawback.

(*Law.*) Free from any mortgage, rent-charge, or other debt or incumbrance; as, an *unincumbered* property.

Uninterested, *a.* Not interested; having nothing at stake either to win or to lose; as, he is *uninterested* in the business.—Without having the mental or emotional faculties engaged; as, I am *uninterested* in this book.

Uninterrupted, *a.* Without break or interruption; not disturbed by intrusion or avocation; continuous; incessant; as, a life of *uninterrupted* prosperity.

Unio'la, *n.* (*Bot.*) A genus of plants, order *Graminaceæ*. They are N. American herbs of no agricultural value, but of extraordinary beauty, found on the seacoast, from Long Island, N. Y., to Virginia and southward. They are 2–3 feet high, and have tough perennial roots, from the creeping root-stocks of which issue tall erect culms, with flat, lanceolate, broad leaves, and broad many-flowered spikelets of closely appressed flowers.

Union, (*yoon'yun.*) *n.* [Fr. and Sp.; It. *unione;* L. Lat. *unio*, from *unus*, one.] Oneness; unity; act of joining two or more things into one, and thus forming a compound body or a mixture; or, the junction or coalition of things thus united; combination.—Concord; agreement and conjunction of mind, will, affections, or interest; harmony; solidarity; as, *union* is strength.—A federal pact; a confederation; a league; a consolidated body; that which is formed by a combination or coalition of parts or members; as, the American *Union*.—The upper inner corner of an ensign, as distinguished from the rest of the flag, which is known as the *fly*. The *union* of the American flag consists of a blue field dotted with white stars, properly, equal in number to that of the States. The *union* of the British ensign is a similar field emblazoned with the combination crosses of St. George, St. Andrew, and St. Patrick, emblematic of the union of the three kingdoms of England, Scotland, and Ireland;—also called *union-jack*.

(*Theol.*) See HYPOSTATIC.

Legislative Union. (*Eng. Hist.*) The union of the kingdoms of Great Britain and Ireland in 1800.—*Union*, or *Act of Union*, the act by which the kingdoms of England and Scotland were incorporated into one in 1707.

Union by the first intention. (*Surg.*) See INTENTION.

Union down. (*Naut.*) A signal of distress made by reversing the flag, or turning its union downwards.

Union, The American. The federated republic of States known as the UNITED STATES (*q. v.*).

Union, in *Alabama*, a post-village of Greene co., 33 m. S.S.W. of Tuscaloosa.

Union, in *Arkansas*, a S. co., bordering on Louisiana; *area*, 1,138 sq. m. *Rivers.* Washita; also Sulphur creek, and the North Fork of Bayou D'Arbonne. *Surface*, hilly; *soil*, productive. *Cap.* El Dorado. *Pop.* (1897) 15,850.—A township of Ashley co.—Also the name of 11 townships in Conway, Fulton, Greene, Independence, Izard, Jackson, Lee, Marion, Newton, Van Buren, and White counties.

Union, in *California*, a township of Humboldt co.

Union, in *Connecticut*, a post-township of Tolland co., 33 m. N. E. of Hartford.

Union, in *Georgia*, a N. county, bordering on North Carolina; *area*, 325 sq. m. *Rivers.* Hiawassee, Notley, and Toccoa. *Surface*, traversed by the Blue Ridge; *soil*, fertile in the valleys. Among its remarkable features is Pilot Mountain. Indian corn, grass, and pork are the staple products. *Min.* Gold, iron, granite, and marble. *Cap.* Blairsville. *Pop.* (1897) 8,850.

Union, in *Illinois*, a S. county, bordering on the Mississippi; *area*, 400 sq. m. It is drained by Clear creek. *Surface* is undulating or hilly, and is extensively covered with forests of the ash, hickory, oak, maple, tulip-tree, &c. The soil is fertile. Indian corn, wheat, oats, pork, and grass are the staple products. This county is intersected by the Illinois Central and the Chicago & Texas Railroads. *Minerals.* Iron, lead, copperas, stone-coal, chalk, alum, and porcelain-clay. *Capital.* Jonesboro. *Pop.* (1897) 23,230.

—A township of Fulton co.

—A township of Livingston co.

—A post-village of McHenry co., 62 m. N.W. of Chicago.

Union, in *Indiana*, an E. county, bordering on Ohio; *area*, 170 sq. m. It is traversed by the East Fork of Whitewater River. *Surface*, level in the E. and undulating in the W.; *soil*, very fertile. *Min.* Limestone. *Cap.* Liberty. *Pop.* (1897) 9,100.—A township of Adams county.—A township of Bartholomew county.—A township of Clarke county.—A township of Crawford county.—A township of De Kalb county.—A township of Delaware county.—A township of Elkhart county.—A township of Fulton county.—A township of Hendricks county.—A township of Howard county.—A township of Huntington county.—A township of Johnson county.—A township of La Porte county.—A township of Madison county.—A township of Marshall county.—A township of Miami county.—A township of Montgomery county.—A township of Ohio county.—A township of Parke county.—A township of Perry county.—A township of Porter county.—A post-village of Randolph county, 47 m. N.W. of Dayton Ohio.—A township of Rush county.—A township of St. Joseph county.—A township of Shelby county.—A township of Union county.—A township of Vanderburg county.—A township of Wells county.—A township of White county.—A township of Whitley county.

Union, in *Iowa*, a S.S W. county.; *area*, 432 sq. m. *Rivers.* Grand and Platte. *Surface* is undulating or nearly level, and is diversified with prairies and woodlands. The soil is fertile. Indian corn, oats and hay are the staple products. This county is traversed by the Chicago, Burlington & Quincy Railroad. *Cap.* Creston. *Pop.* (1895) 17,043.—A township of Appanoose county.—A township of Benton county.—A township of Boone county.—A township of Dallas county.—A township of Davis county.—A township of Delaware county.—A township of Des Moines county.—A township of Floyd county.—A post-village and township of Hardin county.—A township of Harrison county.—A township of Jackson county.—A township of Johnson county.—A township of Louisa county.—A township of Lucas county.—A township of Mahaska county.—A township of Marion county.—A township of Monroe county.—A township of Poweshiek county.—A township of Story county.—A township of Union county.—A township of Van Buren county.—A township of Warren county.—A township of Wayne county.

Union, in *Kansas*, a village and flourishing township of Rush co., 15 m. S.W. of Lacrosse.

Union, in *Kentucky*, a N.W. county, bordering on the Ohio River; *area*, 380 sq. m. It is bordered on the S.W. by Tradewater creek, and on the N. E. by Highland creek. *Surface* is partly hilly, and in some parts nearly level. The soil is fertile. Indian corn, tobacco, wheat, cattle, and pork are the staple products. This county has plenty of timber. *Min.* Bituminous coal and sulphur. *Cap.* Morganfield. *Pop.* (1897) 19,160.

Union, in *Louisiana*, a N. parish, bordering on Arkansas; *area*, 905 sq. m. *Rivers.* Washita; also D'Arbonne and Lutre bayous. *Surface* is moderately hilly, and a large part of it is covered with forests of pine, oak, hickory, and other trees. The soil is fertile. Cotton, Indian corn, cattle, and pork are the staple products. *Cap.* Farmersville. *Pop.* (1897) 18,180.

Union, in *Maine*, a post-town of Knox county, 28 m. S.E. of Augusta.

Union, in *Michigan*, a township of Branch county.

Union, in *Minnesota*, a township of Houston co., about 10 m. S.W. of La Crosse.

Union, in *Mississippi*, a N. county; *area*, 424 sq. m. It is drained by the Tallahatchee River and Oldtown creek. The surface is extensively covered with forests of the beech, hickory, magnolia, oak, tulip-tree, &c. The soil is fertile. Cotton and Indian corn are the staple products. *Cap.* New Albany. *Pop.* (1897) 16,060.

Union, in *Missouri*, a post-village, cap. of Franklin county, 55 m. W. of St. Louis.—A township of Iron county.—A township of Marion county.—A township of Monroe county.—A township of Randolph county.—A township of Washington county.

Union, in *New Jersey*, a N.E. county; *area*, 102 sq. m. It is bounded on the E. by Newark Bay and Staten Island Sound, and on the N.W. by the Passaic River. It is drained by the Rahway River. The surface is nearly level, except in the N.W. The soil is fertile. Butter, hay, Indian corn, and potatoes are the staple products. This county is intersected by the Central Railroad of New Jersey and the Pennsylvania Railroad. *Cap.* Elizabeth. *Pop.* (1895) 85,404.—A village and township of Hudson county.—A township of Hunterdon county.—A township of Ocean county.—A post-village and township of Union county, about 46 m. N.E. of Trenton.

Union, in *New York*, a post-village and township of Broome county, 224 m. N.W. of New York city.

Union, in *North Carolina*, a S. county, bordering on South Carolina; *area*, 640 sq. m. It is drained by Richardson and Warsaw creeks. *Surface*, hilly; *soil*, only partially productive. *Min.* Gold. *Cap.* Monroe. *Pop.* (1897) 22,590.

Union, in *Ohio*, a W. central county; *area*, 445 sq. m. It is drained by Boques, Darby, Mill and Rush creeks. *Surface*, level, and heavily timbered; *soil*, fertile. *Min.* Limestone. *Cap.* Marysville.—A township of Anglaize county.—A post-township of Belmont county.—A township of Brown county.—A township of Butler county.—A township of Carroll county.—A township of Champaign county.—A township of Clermont county.—A township of Clinton county.—A township of Fayette county.—A township of Hancock county.—A township of Highland county.—A township of Knox county.—A township of Lawrence county.—A post-township of Licking county.—A township of Logan county.—A township of Madison county.—A township of Mercer county.—A township of Miami county.—A township of Morgan county.—A township of Muskingum county.—A township of Pike county.—A township of Putnam county.—A township of Ross county.—A township of Scioto county.—A township of Tuscarawas county.—A post-township of Union county.—A township of Van Wert county.—A village and township of Warren county.—A township of Washington county.

Union, in *Oregon*, a N.E. county, bordering on Idaho. *Rivers.* Grande Ronde, and Lewis or Snake River. *Surface*, hilly; *soil* in the valleys is fertile, and adapted to pasturage. *Min.* Gold. Volcanic rocks are found in this county. *Cap.* Union. *Pop.* (1897) 13,200.

Union, in *Pennsylvania*, an E. central county; *area*, 300 sq. m. *Rivers.* Susquehanna and its W. Fork; also, Buffalo, Penn and White Deer creeks. *Surface*, traversed by the Buffalo, Jack, Nittany and Shade ridges of the Allegheny Mountains; *soil*, fertile in the valleys. There are extensive forests of the oak, hickory and other trees. *Minerals.* Iron and limestone. *Cap.* Lewisburg.—A township of Adams county.—A township of Bedford county.—A township of Berks county.—A township of Centre county.—A township of Clearfield county.—A township of Erie county.—A township of Huntingdon county.—A township of Jefferson county.—A township of Lawrence county.—A township of Lebanon county.—A township of Luzerne county.—A township of Mifflin county.—A township of Schuylkill county.—A township of Tioga county.—A village and township of Union county.—A village and township of Washington county, about 15 miles S. of Pittsburgh.

Union, in *Rhode Island*, a village of Providence county abt. 15 m. N.W. of Providence.

Union, in *S. Carolina*, a N. district; *area*, 500 sq. m. *Rivers.* Broad, Ennoree, Pacolet and Tyger. *Surface*, hilly; *soil*, productive. *Min.* Gold, iron and granite. *Cap.* Union. *Pop.* (1897) 26,630.

Union, in *West Virginia*, a post-village, cap. of Monroe co., about 200 m. S. of Wheeling.

Union, in *Tennessee*, a N.N.E. county; *area*, 230 sq. m. *Rivers.* Clinch and Powell. *Surface*, hilly; *soil*, generally fertile. *Cap.* Maynardville. *Pop.* (1897) 12,150.

Union, in *Utah*, a post-village of Salt Lake county, 12 m. S.E. of Salt Lake City.

Union, in *Wisconsin*, a township of Pierce county.—A post-village and township of Rock county, 22 m. S.E. of Madison.—A township of Vernon county.—A township of Waupaucca county.

Union, in *Central America*, a seaport-town of San Salvador, on the W. of Conchagua Gulf, 70 m. E.S.E. of San Salvador.

Union Centre, in *New York*, a post-village of Broome county.

Union Centre, in *Wisconsin*, a post-village of Juneau county, abt. 60 m. N.W. of Madison.

Union City, in *Iowa*, a post-village of Union county, abt. 15 m. S.W. of Afton.

Union City, in *Michigan*, a post-village of Branch county, 115 m. S.W. of Detroit.

Union City, in *Ohio*, a village of Darke county.

Union Corners, in *Iowa*, a village of Van Buren county, 90 m. S.S.W. of Iowa City.

Union Cross Roads, in *New Jersey*, a village of Gloucester county, abt. 4 m. S.E. of Woodbury.

Union Depot, in *Pennsylvania*, a post-village of Dauphin county, abt. 30 m. N. of Harrisburg.

Union Falls, in *New York*, a post-village of Clinton county, abt. 160 m. N. of Albany.

Union Furnace, in *Pennsylvania*, a village of Union county.

Union Hall, in *Virginia*, a post-village and township of Franklin county, 200 m. W.S.W. of Richmond.

Union'idæ, *n. pl.* (*Zoöl.*) The Pond and River Mussel family, embracing a large number of bivalve mollusca, distinguished by having two teeth in each valve.

Union Island, in the British W. Indies, one of the Grenadines, 5 m. N. of Carriacou.

U'nionist, *n.* An advocate or supporter of union or unity; particularly, a federalist, or upholder of a confederation of States.

Unionist'ic, *a.* Pertaining to, or done in the character of federal loyalty; tending to support, promote or preserve union: confederative.

U'nionite, *n.* [From Unionville, in Pennsylvania, where it occurs.] (*Min.*) A white lime-epidote, resembling soda-spodumene in general appearance.

Un'ion-jack, *n.* (*Naut.*) A small flag containing only the union without the fly, and usually hoisted at the ship's bowsprit; — the word *jack* is probably derived from the surcoat or *jacque* of the English man-at-arms, which, during the Middle Ages, was usually emblazoned with the red cross of St. George. See UNION.

Union-joint, *n.* A joint in the form of the letter T, for uniting pipes of iron, &c.

Union League, *n.* (*Am. Hist.*) A political organization formed during the late Civil War in most of the cities of the North, to assist pecuniarily and otherwise the cause of the Union. In New York, Philadelphia, and other large cities they have handsome club-houses, with a social as well as political organization.

Union Mills, in *Indiana*, a post-village of La Porte co., 11 m. S.S.W. of La Porte.

Union Mills, in *Iowa*, a post-village of Mahaska co., abt. 10 m. W. of Oskaloosa.

Union Mills, in *Maryland*, a post-village of Carroll co., 65 m. N.N.W. of Annapolis.

Union Mills, in *New York*, a post-village of Fulton co., 40 m. N.W. of Albany.

Union Mills, in *Pennsylvania*, a post-village of Erie co., 22 m. S.E. of Erie.

Union Mills, in *Virginia*, a post-village of Fluvanna co., 75 m. N.W. of Richmond.

Union Pacific Railroad, a railway crossing the W. part of the N. American continent from Omaha City, Nebraska, to Ogden, a distance of 1,032 m., and by connecting lines forming a direct course of communication between the Atlantic and Pacific Oceans. This great work, commenced in 1863, was completed in May, 1869. The entire length of the road between Omaha and San Francisco, is 1,914 m. The obstacles presented during its construction were found to be less than had been anticipated, the gradients not exceeding 96½ feet per mile in the mountainous sections, and that only for short distances, while an altitude of over 8,000 feet is attained by gradual ascent. Omaha City, the starting-point E., is 760 feet above sea-level, while Cheyenne, 516 m. westward, is 5,921 feet, so that the total rise is 4,961 feet in 516 m., or an average of 96 feet per mile. Practically, the road from Omaha to Cheyenne is a straight line with gradients ruling below 30 feet, and averaging about 10 feet per mile. The highest point attained on this route is at Sherman Station, 8,235 feet above the sea. The only difficulty to be apprehended in the regular working of the line is from snow-drifts in the mountainous regions; so far, however, no impediment has arisen from this source, and ample protection is secured against exposure to such drifts by the erection of immense snow-sheds. Jan., 1880, the Union Pacific, the Kansas Pacific, and the Denver Pacific Companies were consolidated into one, to be known as the UNION PACIFIC RAILWAY COMPANY. The length of the lines controlled by this co. was reported, in 1897, at 4,442 m., of which 1,822·59 m. belonged to the *U. P.* proper.

Union Point, in *Geo.*, a p. v. of Greene co.

Unionport, in *Ohio*, a p. v. of Jefferson co.

Union River, in *Maine*, flows into the Atlantic, opposite Mount Desert Island, from Hancock co.

Union Springs, in *Alabama*, a post-vill. and twp. of Bullock co., 40 m. S.E. of Montgomery.

Union Springs, in *New York*, a post-village of Cayuga co., 10 m. S.W. of Auburn.

Union Square, in *New York*, a post-village of Oswego co., 12 m. E. of Oswego.

Union Square, in *Pennsylvania*, a post-village of Montgomery co., 92 m. E. of Harrisburg.

Un'iontown, in *Alabama*, a post-village of Perry co., 60 m. S. of Tuscaloosa.

Uniontown, in *California*, a village of El Dorado co., 8 m. N.W. of Placerville.

Uniontown, in *Iowa*, a post-village of Delaware co., abt. 8 m. S. of Delhi.

Uniontown, in *Kentucky*, a post-village and township of Union co., 244 m. S. of Louisville.

Uniontown, in *Maryland*, a post-village of Carroll co., 40 m. N.W. of Baltimore.

Uniontown, in *Ohio*, a post-village of Belmont co., 114 m. E. of Columbus.

—A village of Stark county, 132 m. north-east of Columbus.

Uniontown, in *Pennsylvania*, a post-borough, cap. of Fayette county, about 45 miles southeast of Pittsburg. *Pop.* (1897) 6,890.

Uniontown, in *Pennsylvania*, a village of Lycoming co., 12 m. S. of Williamsport.

Union Vale, in *New York*, a township of Dutchess co., 12 m. E. of Poughkeepsie.

Union Village, in *New York*, a village of Broome co., abt. 20 m. N.W. of Binghamton.

—A village of Washington co., about 35 miles N.N.E. of Albany.

Union Village, in *Vermont*, a post-village of Orange co., 46 m. S E. of Montpelier.

Union Village, in *Virginia*, a post-village of Northumberland co., 88 m. E.N.E. of Richmond.

Un'ionville, in *Connecticut*, a post-village of Hartford, co., abt. 14 m. W. of Hartford.

Unionville, in *Georgia*, a post-village of Monroe co., 55 m N W. of Milledgeville.

Unionville, in *Indiana*, a post-village of Monroe co., abt. 9 m. N.E. of Bloomington.

Unionville, in *Iowa*, a post-town of Appanoose co., about 120 m. S.W. of Iowa City.

Unionville, in *Maryland*, a post-village of Frederick co., 67 m. N.W. of Annapolis.

Unionville, in *Missouri*, a post-town, cap. of Putnam county.

Unionville, in *Nevada*, a village, former cap. of Humboldt county, about 165 miles north-east of Carson City.

Unionville, in *New Jersey*, a village of Atlantic co., abt. 13 m. E.N.E. of May's Landing.

Un'ionville, in *New York*, a post-village of Orange co., abt. 120 m. S.S.W. of Albany.

Unionville, in *Ohio*, a post-village of Lake co., 184 m. N.E. of Columbus.

Unionville, in *Pennsylvania*, a borough of Center co., 6 m. W. of Bellefonte.—A post-village of Chester co., 35 m. S.W. of Philadelphia.—A village of Lehigh co., 9 m. S. of Allentown.

Unionville, in *South Carolina*, a village, former cap. of Union co., 70 m. N.N.W. of Columbia.

Unionville, in *Tennessee*, a post-town of Bedford co., 46 m. S.S.E. of Nashville.

Unionville Centre, in *Ohio*, a post-village of Union co., 25 m. N.W. of Columbus.

Uniop'olis, in *Ohio*, a post-village of Auglaize co., abt. 27 m. N W. of Bellefontaine.

Uniov'ulate, *a.* (*Bot.*) Having one ovule only.

Unip'arous, *a.* [Lat. *unus*, and *pario*, to bear.] Producing only one at a birth.

U'niped, *a.* [Lat. *unus*, and *pes*, *pedis*, a foot.] One-footed.

Uniper'sonal, *a.* Existing in a single person, as the Deity.

(*Gram.*) Used in one person only, particularly in the third person; as, a *unipersonal* verb.

Unip'licate, *a.* [From Lat. *unus*, and *plica*, fold.] Having, or consisting of, only one fold.

Unique, (*yu-neek'*,) *a.* [Fr., from Lat. *unicus* — *unus*, one.] Single in kind or excellence; without like, match, or equal; sole; as, a *unique* edition of a book.

—*n.* A thing without a match. like, or counterpart; as, "The phœnix, the *unique* of birds."

Unira'diated, *a.* [Lat. *unus*, and *radius*, ray.] One-rayed.

Unise'rial, *a.* With one row or series.

Unise'riate, *a.* [Lat. *unus*, and *series*, a row.] Possessing but one line or series.

Unisex'ual, *a.* (*Bot.*) Same as DICLINOUS, *q. v.*

U'nison, *n.* [Fr. *unisson*, from Lat. *unus*, one, and *sonus*, sound.] Accordance; consonance; agreement; harmony; concord; union.

(*Mus.*) Perfect agreement or identity in pitch of two or more musical notes; a consonance of two sounds equal to each other in gravity or acuteness, i. e., sounding the same note. — Absence of harmony, as in a piece or passage for several instruments or voices all performing the same part. — *In unison*, together; in agreement or accordance; as, to sing *in unison* with another.

—*a.* Sounding alone; as, "Voice, choral, or *unison*." *Milton.*

(*Mus.*) Sounded as one; as, a *unison* passage in a musical score.

Unison, in *Virginia*, a post-village of Loudoun co., 16 m. S.W. of Leesburg.

Unisonance, (*-nis'o-nans*,) *n.* Coincidence of sounds.

Unis'onant, *a.* [Lat. *unus*, and *sonans*, from *sono*, to sound.] Being in unison; having a coincident degree of gravity or acuteness.

Unis'onous, *a.* Being in unison or accordance.

U'nit, *n.* [Fr. *unité*; Lat. *unitas*, oneness, from *unus*, one.] One, or the least whole number, represented by the figure 1. — A single thing or person.

(*Math.*) A magnitude or number considered as a whole; — otherwise called *interval unit*.

Abstract unit. (*Arith.*) The unit of numeration; the discrete number expressed by 1, as distinguished from a *concrete* or *denominate* unit. — *Duodecimal unit*, a unit in the scale of numbers adding or reducing by twelves. — *Fractional unit*, the unit of a fraction; as, for example, ¼ is the *unit* of the fraction ¾. — *Unit of measure*, the quantity of the same kind with which a quantity is compared; thus the unit of measure of lines is a line of known or assumed length, as one inch, one yard, &c. (*Davies & Peck.*) — *Unit of power*, in steam-engines, a horse-power, or the power required to raise 33,000 lbs. per foot per minute. — *Unit of work.* (*Mech.*) The measure of any amount of work, calculated by a pressure of 1 lb. per foot, the pressure acting in the direction in which the space is described.

Unit'able, *a.* That may be united by growth or other means.

Unitarian, *n.* In philosophy, science, &c., one who opposes *dualism*.— A monotheist.

—*a.* Pertaining or having reference to Unitarians, or to their doctrines; as, *Unitarian* worship. — Pertaining or relating to a system of philosophy, science, &c., which is opposed to *dualism*.

Unita'rianism, (*-izm*,) *n.* The doctrine of Unitarians, who deny the divinity of Christ.

Unita'rianize, *v. a.* To conform, or cause to conform, to Unitarian views in theology.

Unita'rians, *n. pl.* (*Eccl. Hist.*) A sect of religionists who believe in the existence of only one great and supreme Being, possessed of the glory and attributes of divinity, as opposed to the *Trinitarians*, or those who hold that there are three persons in the Godhead. The *U.* differ greatly in the opinions which they hold regarding the nature of Christ. Some believe him to be the greatest of all created beings, endowed with great power and dignity, and existing before all worlds; others consider him to have had no existence previous to his birth on this earth, and to have been simply a man approved of God by miracles and wonders and signs, which God did in him. His mission, they generally consider, was to introduce a new moral dispensation, and his death they look upon, not as a sacrifice or atonement for sin, but as a martyrdom in defence of truth. They thus deny the necessity of an atonement, relying through obedience upon the mercy of God alone for salvation. Many of the modern *U.* hold that all mankind will be ultimately saved. Sabellius, in the 3d, and Arius in the 4th cent., held and propagated Unitarian notions. In the 16th century again, Faustus Socinus was very successful in diffusing similar doctrines; and in 1553, Servetus was burned by the instigation or counsel of Calvin, for holding such views. In England, in the 16th and 17th centuries, similar sentiments prevailed, and in the beginning of the 18th many of the Presbyterian ministers embraced these opinions. In a short time their congregations generally adopted the same views, and thus many of the old Presbyterian chapels and endowments have become the property of Unitarians. Unitarianism in this country is substantially indigenous. After 1740, Arian views of the person of Christ were pretty widely diffused among the New England clergy; and in 1787 took place the first secession from the Episcopal Church, on the ground that those parts of the liturgy which imply a belief in the Trinity could not be any longer employed. From the first, the New England churches were remarkably free from the restraints of tests and creeds, and were thus prepared for the adoption of a liberal theology. By imperceptible degrees, many of them glided into Unitarianism; but it was not until about 1815 that the name began to be much used. At that time, the influence of Dr. Channing was thrown into the scale; and since then, Massachusetts, and particularly Boston, has been the stronghold of Unitarianism in America. Their form of government is essentially congregational, each congregation ruling itself, without regard to courts or synods. Since 1865, however, the churches have been brought into closer relations by means of national conferences. The denomination has now about 400 societies and 450 ministers in the States, and Divinity schools at Cambridge, at Meadville, Pennsylvania, and also at Cleveland, Ohio, beside a preponderating social, intellectual, and moral influence over Harvard; two weekly religious papers, two monthly magazines, a publishing house in Boston, which issues abt. 20,000 vols. of books a year; a leading interest in many charities and philanthropic associations; and it supports a number of home missionaries, and has two in India. But it has not confined its labors within its own lines, and its people generally feel little denominational zeal, but are rather proud of showing their interest in other denominations, and still more in objects of public concern and human welfare. It is this, in connection with the literature and high culture of the body, which has given it an interest which does not attach to its numbers.

U'nitary, *a.* Of the nature of a unit; characterized by a unit or units; single; not double.

Unite', *v. a.* [Fr. *unir*; It. *unire*, from Low Lat. *unio*, *unitus*, from *unus*, one.] To join into one; to combine; to connect, as two things to form a whole; to attach; to make to adhere; as, to *unite* bricks by mortar. — To join in affection, fellowship, or interest; to conjoin; to associate; to cause to agree; to make uniform; to make to adhere; to connect by any moral or legal tie, as families by marriage, nations by treaty, states by confederation, men by consonance of opinions, &c.

—*v. n.* To become a unit or one; to be consolidated; to coalesce; to grow together; to combine by adhesion or mixture; as, the lips of a wound *unite* in healing. — To act in concert; to concur; to join in an act; as, "*United* we stand — divided we fall." — *Morris.*

Unit'ed, *p. a.* Joined; attached; connected; allied.

United Brethren, *n. pl.* Same as MORAVIANS, *q. v.*

United Brethren in Christ, a Protestant Church, having no ecclesiastical connection with the Moravians, with whom they are frequently confounded. They arose among the Germans in Pennsylvania about 1760. They have but one grade of ministers, are Arminian in theology, and supply their churches with preaching on the itinerant plan. They have quarterly, annual, and general conferences. The highest ecclesiastical body is the General Conference, which meets every 4 years, and is composed of delegates from the conference districts elected by ballot, every member of the Church being entitled to vote. No adhering member of any secret combination, and no manufacturer, seller, or drinker of intoxicating liquors, can be a member of the Church. They regard a change of heart as an indispensable condition of membership. Baptism is administered by either sprinkling, pouring, or immersion, each member being permitted to exercise his own judgment in regard to the mode; infants are baptized when it is desired. Open communion at the Lord's table is practised. No manufacturer, seller, or drinker of intoxicating liquors can be a member of the church. In 1897 this denomination had about 250,000 members, and owned several institutions of learning, viz.: Lebanon Valley College, Annville, Pa.; Otterbein University, Westerville, O.; the Union Biblical Seminary, Dayton, O.; Hartsville University, Hartsville, Ind.; Green Hill Seminary, Poolsville, Indiana; Roanoke Seminary, Roanoke, Indiana; Western College, Western, Iowa; Lane University, Lecompton, Kansas; and Philomath College, Philomath, Oregon, &c.

Unit'ed Prov'inces. See HOLLAND.

Unit'edly, *adv.* With union or joint efforts; jointly; combinedly.

Unit'ed States of America, The, a republic of N. America, occupying the entire width of the central portion of the continent, between Lat. 24° 30' and 49° N., and between Lon. 66° 50' and 124° 30' W. It is bounded on the N. by Canada, from which it is partly separated by the St. Lawrence river and the Great Lakes; S. by Mexico and the Gulf of Mexico; E. by the Atlantic, and W. by the Pacific Ocean. Its greatest

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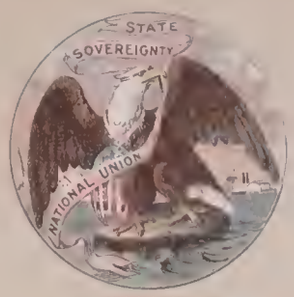
COATS-OF-ARMS OF THE STA

OHIO

INDIANA



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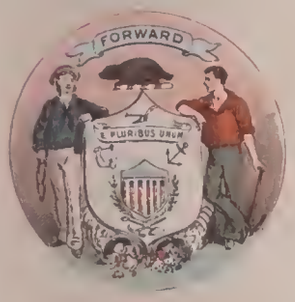

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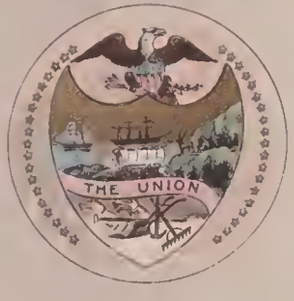

OREGON

NEVADA

WASHINGTON

IDAHO

UTAH

MONTANA

WYOMING

COLORADO

ES OF THE AMERICAN UNION

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breadth, from Cape Cod on the Atlantic to the Pacific near the parallel of Lat. 42°, is about 2,600 m., and its greatest length from Madawaska in Maine to Key West in Florida, is about 1,600 m., its mean length being about 2,400 m., and its mean breadth about 1,300. The area of this immense territory, excluding Alaska, is given in the latest determinations of the Census Bureau as 3,032,049 sq. m. The area of Alaska is estimated at 590,884 sq. m., making a total for the whole country of 3,622,933, being about 50,000 sq. m. larger than the entire continent of Europe. This great area is divided into 46 States, 1 district, and 4 Territories (including Hawaii). In addition the U. S. now possesses the Philippine archipelago, Porto Rico, Guam, and part of the Samoan group, this new territory adding about 144,000 sq. m. to its area, with a population approximating 8,500,000. The following table gives the population and areas of its organized divisions for 1900:

Political Divisions.	*Date of Adm.*	*Area in Sq. Miles.*	*Population.*
Alabama	1819	52,250	1,828,697
Arkansas	1836	53,850	1,311,564
California	1850	158,360	1,485,053
Colorado	1876	103,925	539,700
Connecticut	1788	4,990	908,420
Delaware	1787	2,050	184,735
Florida	1845	58,680	528,542
Georgia	1788	59,475	2,216,331
Idaho	1890	84,800	161,772
Illinois	1818	56,650	4,821,550
Indiana	1816	36,350	2,516,462
Iowa	1845	56,025	2,231,853
Kansas	1861	82,080	1,470,495
Kentucky	1792	40,400	2,147,174
Louisiana	1812	48,720	1,381,625
Maine	1820	33,040	694,466
Maryland	1788	12,210	1,188,044
Massachusetts	1788	8,315	2,805,346
Michigan	1837	58,915	2,420,982
Minnesota	1858	83,365	1,751,394
Mississippi	1817	46,810	1,551,270
Missouri	1821	69,415	3,106,665
Montana	1889	146,080	243,329
Nebraska	1867	77,510	1,066,300
Nevada	1864	110,700	42,335
New Hampshire	1788	9,305	411,588
New Jersey	1787	7,815	1,883,669
New York	1788	49,170	7,268,894
North Carolina	1789	52,250	1,893,810
North Dakota	1889	70,795	319,146
Ohio	1802	41,060	4,157,545
Oklahoma	1906	70,430	790,391
Oregon	1859	96,030	413,536
Pennsylvania	1787	45,215	6,302,115
Rhode Island	1790	1,250	428,556
South Carolina	1788	30,570	1,340,316
South Dakota	1889	77,650	401,570
Tennessee	1796	42,050	2,020,616
Texas	1845	265,780	3,048,710
Utah	1896	84,970	276,749
Vermont	1791	9,565	343,641
Virginia	1788	42,450	1,854,184
Washington	1889	69,180	518,103
West Virginia	1863	24,780	958,800
Wisconsin	1848	56,040	2,069,042
Wyoming	1890	97,890	92,531
Territories.			
Alaska	. . .	590,884	63,592
Arizona	. . .	113,020	122,931
District of Columbia	. . .	70	278,718
Hawaii	. . .	6,449	154,001
Indian Territory	. . .	31,400	392,060
New Mexico	. . .	122,580	195,310
Oklahoma	. . .	39,030	398,331
Persons in military and naval service abroad	. . .		91,219
New Mexico	. . .	122,580	195,310
Persons in military and naval service abroad	. . .		91,219
TOTAL	. .	3,622,213	76,303,387

The entire territory belonging to the *U. S.* is divided into four great regions: 1st, the Atlantic slope; 2d, the vast basin of the Mississippi and Missouri; 3d, the country between the Rocky Mountains and the Sierra Nevada; and, 4th, the Pacific slope. These divisions are formed by three mountain ranges, the Appalachian chain towards the E., the Rocky Mountains in the centre, and the Sierra Nevada on the W. The first extends from the State of Mississippi, N. E. through the States of Alabama, Georgia, Tennessee, N. Carolina, Virginia, Pennsylvania, New York and Vermont, for about 1,200 m., and consists of several parallel ranges of an average aggregate breadth of about 100 m. The mean height of the Alleghanies is not more than from 2,000 to 3,000 feet, about half of which consists of the elevation of the mountains above the adjacent plains, and the rest of the elevation of the latter above the sea. The White Mountains, in New Hampshire, which belong to this chain, reach a height of 6,226 feet. The Rocky Mountains are a prolongation of the great Mexican cordillera. Their average height may be about 8,500 ft. above the ocean, but some of their summits attain to from 12,000 to nearly 15,000 ft. About 10° or 12° W. from the Rocky Mountains is the great coast-chain of the Sierra Nevada, or Snowy Mountains, which extends, under different names and with different altitudes, from the peninsula of California to Alaska. It is of still greater elevation than the Rocky Mountains; some of its passes (within the *U. S.*) being about 9,000 ft., and some of its summits 16,000 ft. above the level of the sea. The region between these two vast mountain ranges comprises the E. and most extensive and sterile portion of Oregon and Washington; and also the great inland basin of Upper California, elevated from 4,000 to 5,000 ft. above the Pacific; and the country drained by the great river the Colorado and its affluents. W. of the Sierra is the Pacific slope. The country extending from the Atlantic nearly to the E. bank of the Mississippi was, in its native state, almost covered by a continuous forest; and a great part of it still remains in the same primitive condition. The portion of the basin of the Mississippi and Missouri, on their right bank, is by far the most extensive. It comprises: 1st, a tract of low, flat, alluvial, and well-wooded land, lying along the rivers, and stretching inwards from 100 to 200 m. or more; and 2d, the prairie and wild region, extending from that last mentioned, by a pretty equal ascent, to the Rocky Mountains. The prairies are of immense extent; but they are not, as is commonly supposed, level. Their surface, on the contrary, is rolling or billowy, sometimes swelling into very considerable heights. They are covered with long rank grass, being interspersed in Texas and the S. States with clumps of magnolia, tulip, and cotton trees, and in the N. States, with oak and black walnut. The prairies gradually diminish in beauty and verdure as they stretch towards the W., and become more elevated, till at length they imperceptibly unite with, and lose themselves in, a barren zone or belt skirting the foot of the Rocky Mountains. The Pacific slope, comprising the country W. of the Sierra Nevada, includes maritime California and the best and most fertile portions of the States of Oregon and Washington. Like the Atlantic coast, it is, for the most part, heavily timbered.—*Rivers.* The rivers of the *U. S.* are of prodigious magnitude and importance. Of those flowing S. and E. the principal are the Mississippi and Missouri, which with their tributaries, the Ohio, Arkansas, and Red River, give to the interior of the *U. S.* an extent of inland navigation, and a facility of communication, unequalled, perhaps, and certainly not surpassed, in any other continent. The Alabama and Appalachicola flow, like the Mississippi, into the Gulf of Mexico; the Savanna, Roanoke, Potomac, Susquehanna, Delaware, Hudson, Connecticut, and Penobscot, into the Atlantic; and the Oswego, Cuyahoga, and Maumee, into the great lakes of the St. Lawrence basin. Of the rivers which have their sources W. of the ridge of the Rocky Mountains, and their embouchure in the Pacific, or in some of its arms, the principal are the Columbia, which falls into the Pacific; the San Joaquin and Sacramento, which fall into the great bay of San Francisco; and the Colorado, which, with its tributaries, after draining a vast extent of country, falls into the Gulf of California. Next to the great lakes, in the basin of the St. Lawrence, the largest lake within the limits of the *U. S.* is the Great Salt Lake, located in Utah. Lake Champlain, between New York and Vermont, is also of considerable dimensions. Numerous small lakes occur in New York, Maine, and especially in Wisconsin and Minnesota. The coast of the Atlantic is indented by many noble bays, as those of Passamaquoddy, Massachusetts, Delaware, and Chesapeake; and several extensive and sheltered inlets are formed by the islands off the coast, the principal of which are Long Island Sound, near New York, and Albemarle and Pamlico Sounds, in N. Carolina. The coast of the Gulf of Mexico has also many valuable inlets and back waters, and there are some, though fewer, on the shores of the great lakes. The great bay of San Francisco, in California, on the Pacific, is one of the finest basins anywhere to be met with. Altogether, the *U. S.* is furnished with some of the best harbors in the world.—*Climate.* In a country extending through 24 degrees of lat., and nearly 60 of lon., the climate must, of necessity, vary considerably. In the N., along the British frontier, the winter is very severe; during this season the snow is sufficiently abundant in the New England States to admit of the use of sledges, and the ice on the rivers strong enough to bear the passage of horses and wagons. In the summer, on the contrary, the heat is proportionately oppressive. As far S. as New York, Pennsylvania, and New Jersey, the thermometer falls in winter below zero; rising, in summer, to nearly 100° Fahr. The climate of the Atlantic coast between Lat. 41° and 45° is colder in winter, and warmer in summer by nearly 10°, than the parts of Europe under the same parallels; and even at New Orleans, where the summer heats are intense, a winter seldom passes without frost. Snow, however, rarely falls further S. than Lat. 30°, nor is it often seen S. of the Potomac river, except on mountains. The mean annual temperature of Albany is about 49° Fahr.; of New York and Cincinnati, nearly 51°; of Philadelphia, 54°; of Natchez, 65°, and of Cantonment Brooke, in Florida, 72°. The prevalent winds are from the N.W., S.W., and S.E. The first is by far the driest and coldest, and predominates in winter; the second prevails throughout the basin of the Mississippi for most part of the year, except during about 2 months of the winter season. The N.E. wind brings moisture, particularly in the N. part of the Union. The temperature in the country along the Pacific is a good deal higher than along the corresponding latitudes on the E. coast. The year is there divided into two seasons: the *wet*, extending from April to November; and the *dry*. In the former, the rains are frequent and heavy. In the S. parts of the coast the dry season commences sooner and continues longer than in those more to the N.—*Vegetable prod.* The forests of the E. section of this great territory comprise 140 different kinds of trees, of which about 80 attain the height of 60 feet and upward. Among them are numerous species of oak, ash, pine, the hickory and tulip tree, American cypress, the plane, and several kinds of magnolia and walnut. Apples, pears, cherries, and plums flourish in the N.; peaches, melons, and grapes, in the Middle States; and pine-apples, pomegranates, figs, almonds, and oranges, in the S. Maize is grown from Maine to Louisiana, and wheat throughout the Union; tobacco, as far N. as about Lat. 40°, and in the W. States S. of Ohio. Cotton is not much raised N. of 37°, though it grows to 39°. Rice is cultivated in S. Carolina, Georgia, Louisiana, and as far N. as St. Louis, in Missouri. The sugar-cane grows as high as 33°, but does not thoroughly succeed beyond 31° 30′. The vine and mulberry-tree grow in various parts of the Union; oats, rye, barley, in all the N., and the mountainous parts of the S. States; and hemp, flax, and hops, in the West and Middle States.—*Zoöl.* The animal kingdom includes as its largest representative the bison, popularly known as the buffalo, which formerly occupied the vast prairies W. of the Mississippi in immense numbers, but now exists only in parks and private enclosures, where considerable herds are now reared. (For details as to this industry, see BUFFALO.) Among the other quadrupeds are the moose, or American elk, the prong-horned antelope, the Virginian deer, cougar, black and grizzly bears, American fox, (*Vulpes fulvus,*) raccoon, opossum, beaver, skunk, and glutton. Among the birds are the white-headed eagle, several vultures, and a great many birds common to the whole world, though few of the wading species resemble those of Europe. The alligator is a native of the S. States, but does not occur N. of the Carolinas and the Red River. Cod, mackerel, and salmon abound on the shores; and shell-fish are particularly abundant in the rivers of the Mississippi basin.—*Geol. and Min.* The White Mountains consist of granite, which is also very prevalent in the greater part of New Hampshire and Maine. The Rocky Mountains and the Sierra Nevada consist principally of granite intermixed with volcanic matter. Sienite, porphyry, and greenstone occur in the N.W. part of the Appalachian chain; gneiss forms the upper regions in New York and New Jersey; most of the mountain summits S. of the Juniata river consist of silicious sandstone; and talcose mica, chlorite, and other slates, with crystalline limestone and serpentine, lie along the W. side of the primary belt, in the middle and S. parts of the Union. Blue-limestone, red-sandstone, shales, anthracite, coal-measures, and other transition formations, flank these rocks in many places. Secondary strata occupy by far the largest portions of the

Fig. 3076.—ARMS OF THE UNITED STATES.

U. S.; but little trace is found of strata corresponding in date with the new red-sandstone or oölitic groups of Europe. Tertiary formations, many of which abound with fossil remains, have been found in many parts of the Atlantic slope, in Alabama, and in the S. part of the Mississippi basin; and, in common with Cretaceous, occur widely through the region W. of the Mississippi, where they are of interest for the abundance and remarkable character of their fossil remains. The most extensive alluvial tract is that bordering the Mississippi. If we except a few small isolated fields, all the bituminous coal in the *U. S.* lies W. of the Appalachian chain, where a vast series of coal-beds stretch from the mountains W. through Ohio, Indiana, and Illinois, and parts of Kentucky and Alabama, into the State of Missouri, and even as far as 200 m. beyond the Mississippi. Anthracite coal, or that best suited for fuel, lies at the N. extremity of this great field, in Pennsylvania. Pennsylvania and several other States also contain immense deposits of mineral oil, or petroleum. Iron is found abundantly in Pennsylvania, Ohio, West Virginia, Tennessee, Alabama, and other Appalachian States; also in Michigan, Missouri, and other regions of the West. Lead is found in Missouri, Wisconsin, and Illinois, and in several of the Rocky Mountain range of States. In some parts of Wisconsin the lead-ore is so rich as to yield from 60 to 70 per cent. of lead. Copper has been found in large deposits in Michigan, in the peninsula which stretches into Lake Superior. Immense sheets or walls of native copper occur in some of the mines in this district; and it is a curious fact that, though only recently re-discovered, they had evidently been opened and wrought, at a remote period, by the Indians. Gold has been found in small quantities in certain parts of Virginia, the Carolinas, Georgia, and Tennessee, and on a large scale in the States and Territories W. of the Rocky Mountains, and in Alaska. Silver is a very abundant metal in Nevada and Colorado, and occurs in considerable abundance in Arizona, Idaho, Nevada, and

Utah. With it are associated large quantities of copper and lead. Quicksilver, tin, zinc, manganese, and many other mineral products occur somewhat plentifully.—*Agriculture* is referred to under each State, and we need only give here a summary of some of the leading crops. The cereal returns of Indian corn, wheat, and oats, in 1905 were as follows: Indian corn, acres planted, 94,011,369; yield, 2,707,993,510 bushels; wheat, acreage, 47,854,079; yield, 692,979,489 bushels; oats, acreage, 28,046,746; yield, 953,216,197 bushels. The yield of cotton in 1904–05 was 13,557,000 bales; of sugar in 1905, 1,400,000,000 pounds; of tobacco, 633,033,719 pounds.—*Manuf. and Com.* Protected by duties on foreign importations, manufactures have had, during the last few years, remarkable development. The principal are hollow-ware, rolled iron, steel, Bessemer and other kinds; steam-engines and machinery, carriages, agricultural implements, cotton and woollen goods, silks, leather, boots and shoes, harness, pottery, &c., India-rubber goods, paper, oil-cloth, &c. The leading exports of the *U. S.* are cotton, animals, meat products, breadstuffs, tobacco, petroleum, and manufactures of cotton, wool, iron and steel, copper, leather, wood, &c. Imports: tea, coffee, sugar, tobacco, chemicals, rubber, hides, silk, wool, and manufactures of flax, iron and steel, leather, silk, wool, wood, &c. Of recent years there has been a rapid increase of exports and decrease of imports, making a large balance of trade in favor of the *U. S.*

Government. The several States of the Union, so far as their internal affairs are concerned, are sovereign and independent, while for the common interests of all, they delegate a portion of their powers to a central government, whose edicts and laws, so long as they are not in conflict with the Constitution (see CONSTITUTION), are paramount to State authority. The government consists of three branches, the legislative, executive, and judicial. The executive power is vested in a president (see PRESIDENT, and ELECTOR). The national legislature consists of a Congress, composed of a Senate and a House of Representatives (see CONGRESS). The judiciary consists of a Supreme Court, with 1 chief-justice and 8 assistant-justices, appointed by the President for life, and district judges in each district. The Supreme Court has jurisdiction in all cases arising under the Constitution, laws, and treaties of the *U. S.*; causes affecting ambassadors and consuls, of admiralty and jurisdiction; controversies to which the *U. S.* is a party, or as between a State and the citizens of another State, citizens of different States, or citizens and foreign States. It has *original* jurisdiction in State cases, or those affecting ambassadors or consuls—in others *appellate*. A person may be tried for treason, both against the Federal government, and against the State of which he is a citizen. The President can reprieve or pardon a person condemned by a Federal court; but has no power to interfere with the judgments of State tribunals. Besides the Supreme Court, there are CIRCUIT COURTS, DISTRICT COURTS, and a COURT OF CLAIMS, *q. v.*; all the other courts are established by the authorities of the several States, and their organization differs according to the State laws.—*Education and Religion.* Public instruction is nowhere more extensively diffused than in the Union; and the education in the common schools is of the best description. The attention paid to the education of the people, and the liberal provision made to insure that grand object, is most creditable to American legislation. Almost everywhere the primary schools are supported by a property tax, and almost all the States have school funds in addition, the income of which is distributed among the towns in proportion to the number of pupils educated. The total number enrolled in the public schools is over 16,000,000, and the total expenditures for school purposes over $200,000,000. The college attendance is about 200,000. The press is very active, and in no country, perhaps, are periodical publications (which numbered over 23,000 in 1900) so widely circulated. Religion is free from any interference of either the Federal or State government, and all denominations exist in entire freedom upon the voluntary principle. Under the heads of the respective States will be found religious and educational statistics: and also an account of the benevolent, literary, and scientific institutions of the *U. S.*, which are generally State institutions. The exceptions are the Smithsonian

Fig. 2551.—THE CAPITOL AT WASHINGTON.

Institute (*q. v.*), American Association for the Advancement of Science, and military and naval academies and hospitals.—*Army.* Relying upon volunteers in case of emergency, the policy of the country has ever been contrary to the maintenance of a strong military force in time of peace. The national army, under the command of the President, consisted, in 1790, of 1,260 men. In 1861, its numbers were 14,000, and those who took part with the Confederates, or were disbanded in the Confederate States, reduced the number to about 5,000. April 15, 1861, 75,000 volunteers were called out: May 4, 64,000; July and Dec., 1861, 500,000; July 1, 1862, 300,000; August 4, 1862, 300,000; summer of 1863, 300,000; Feb. 1, 1864, 500,000;—total, 2,039,748. This vast army was raised by volunteering, by enlistment in the regular army, and by drafts or conscriptions; and in some measure by bounties of $300 to $1,000 to each volunteer. The negro troops recruited in the seceded or slave States, in Oct., 1863, numbered 38,707, and increased in numbers to the end of the war. According to statistics in the Adjutant-General's office, the casualties in the Union Army during the Civil War, from April 15, 1861, to the close, were: killed or died of wounds, officers, 6,365; men, 103,673; total, 110,038. Died of disease, officers, 2,795; men, 223,791; total, 224,586. Total deaths from various causes, officers, 9,584; men, 349,912; total, 359,496. Actually killed in action, officers, 4,142; men, 62,996. The statistics of deaths in rebel prisons are not com-

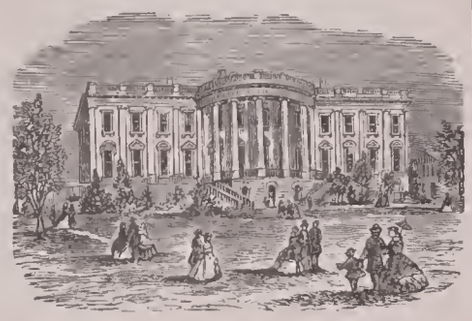


Fig. 2552.—THE WHITE HOUSE (WASHINGTON).

plete, but they are estimated at not less than 30,000. By an Act of Congress passed July 15, 1870, the army was reduced to the limit of 30,000 men, which has since been increased to about 60,000 men. A new Army Bill was passed by Congress February 14, 1903, under which the office of Lieutenant-General commanding was dropped, the command of the army resting with the President. By this bill a Staff Corps of eminent officers was created, with a Chief of Staff, to be appointed by the President.—*Navy.* After the close of the Civil War, the U. S. navy was considerably reduced, and for a number of years remained neglected, becoming weak and inefficient. In 1882 there were 140 vessels on the navy list, but of these 25 were mere tugs, while a large number of others were antiquated and useless. This state of affairs, so strongly contrasted with the rapid progress in naval construction in Europe, aroused the attention of the people and the government, and the building of a new navy shortly afterward began, and has continued with accelerating rapidity to the present time. At present the *U. S.* navy, while surpassed in strength by those of several European nations, contains a considerable number of coast-defence vessels and cruisers of the highest grade, and most complete and effective armament, while the defensive qualities of their armor are unsurpassed. The navy now in commission or under construction includes 28 battleships, of strong armor and powerful batteries; 12 armored cruisers of great speed; 10 armored monitors, valuable chiefly for coast defense; 1 armored ram; 30 unarmored steel vessels; 30 gunboats; 37 torpedo boats; 16 destroyers; 11 submarine boats; and auxiliary vessels bought during the war with Spain. Of the above force a considerable number of vessels remain to be completed.—*Finances.* The public debt of the *U. S.* reached its ultimate height in 1866, as a result of the expenditure for the Civil War, its amount on July 1 of that year being $2,773,236,173. On December 1, 1906, the interest-bearing debt aggregated $925,159,190 (the interest varying from 2 to 4 per cent.); the debt bearing no interest aggregated $399,521,550; the gold and silver certificates, Treasury notes, &c., in circulation, $1,112,089,869. Total indebtedness, $2,429,370,613. The last given item of indebtedness was offset by cash in the Treasury, while the Treasury held in addition a gold reserve of $150,000,000, a net cash balance of $231,470,287, and other assets amounting to $112,809,640, leaving a net balance of public debt of $923,000,247. In addition to the *U. S.* debt, there exists a large state and local indebtedness, which, as estimated for 1902, amounted to a grand total of $1,864,195,826. Of this aggregate the State debts footed up $234,314,190; the debts of cities, counties, and minor civil divisions, $1,629,881,636. The debt of the *U. S.* is not a heavy burden, and has been reduced with gratifying rapidity since 1866. That of the States and smaller communities is also easily borne, it amounting in 1902 to a per capita sum of $23.72, while that of the *U. S.* at the same date was $12 per capita. This is greatly below the per capita indebtedness of the principal nations of the world. The total assessed valuation of real and personal property in the *U. S.* in 1900, per the census returns, was $41,104,278,000, having increased $15,000,000,000 during the preceding decade. The revenue of the *U. S.* for the year 1906 was as follows: From customs, $300,657,413; internal revenue, $249,063,868; public lands, $7,585,524; other resources, $37,607,910; total revenue, $594,914,715. The expenditures were: Civil and miscellaneous expenses, $120,000,627; war department, $93,659,462; navy department, $110,956,167; Indians, $12,746,512; pensions, $141,034,081; interest on public debt, $24,310,326; total, $568,727,565. This shows a balance of over $26,000,000 in favor of receipts, but during the past years there has been an increase in the net debt, a state of affairs which did not exist until long after the war, and which may not continue. The treatment of its invalided soldiers by the *U. S.* government has been unprecedented in liberality, there being at present, more than 40 years after the war, nearly 1,000,000 pensioners on the list (soldiers, widows, &c.) in small part from the Spanish war. The highest sum paid (1893) was $158,155,342. Pension payments in 1906, $138,864,409. This constitutes a severe drain on the resources of the country, but one now rapidly decreasing. There were at the end of 1906, 1 widow and 3 daughters of Revolutionary soldiers still on the list.—*Statistics.* On July 1, 1905, there remained of public lands subject to entry under the homestead laws a total of 817,527,157 acres, of which 258,151,044 acres had been surveyed. The total area appropriated to that date was 808,295,475 acres; area reserved for public purposes, 183,717,208 acres.—The total number of patents granted in sixty-nine years, 1837–1905, was 1,409,504; in 1905, 30,399. There are in the *U. S.* 65,000 post offices, with 478,000 miles of post roads, the mails being carried at an annual loss of several millions of dollars. The total number of immigrants entering the *U. S.* since 1820 has aggregated 24,700,000, mainly from northern Europe until 1880, since when large numbers have come from southern and eastern Europe, China, &c. The annual total passed the million mark in 1905, being 1,027,421.—In 1906 it reached 1,100,735.—*Hist.* The settlements and early history of the various colonies which now constitute this Republic will be found under the head of the different States and Territories. (See also AMERICA.) The first effort at a union of the colonies was in 1643, when the settlements in Massachusetts, New Hampshire, Rhode Island, and Connecticut formed a confederacy for mutual defence against the French, Dutch, and Indians, under the title of *The United Colonies of New England.* They experienced the benefits of united action in 1754, when an English grant of lands to the Ohio Company brought on the French and Indian war. George Washington was sent on his first expedition, to remonstrate with the French authorities; and the colonies being advised to unite for general defence, a plan for a general government of all the English colonies was drawn up by Benjamin Franklin; but it was rejected by both the colonies and the British government—by the colonies, who wished to preserve their separate independence, and by the crown from a jealousy of their united strength. The colonists, however, took an active part in the war. Under Major Washington, they joined General Braddock in his unfortunate expedition against Fort Du Quesne, now Pittsburg; and they powerfully aided in the reduction of Louisburg, Ticonderoga, Crown Point, and Niagara. In 1761, the enforcement of the Navigation Act against illegal traders, by general search-warrants, caused a strong excitement against the English government, especially in Boston. In 1765, the passing of an act of parliament for collecting a colonial revenue by stamps caused general indignation, and led to riots. In 1766, the Stamp Act was repealed; but in 1767, duties were levied on glass, paper, printers' colors, and tea. This renewed attempt met with a general resistance, and cargoes of tea were thrown into the harbor of Boston. To punish this measure, Parliament passed the Boston Port Bill, 1774, by which the chief town of New England was no longer a port of entry, and its trade transferred to Salem. To enforce the act of the govt., a fleet conveying 10,000 troops was sent from England, while the colonists prepared to resist the unconstitutional assumptions of the mother country. The first encounter took place at Lexington, April 19, 1775. A congress of the colonies assembled at Philadelphia, which resolved to raise an army of 20,000 men, and appointed George Washington commander-in-chief. June 17, Bunker Hill, in Charleston, near Boston, where 1,500 Americans had hastily intrenched themselves, was taken by assault by the British troops, but with so heavy a loss (1,054) that the defeat had for the Provincials the moral effect of a victory. After a winter of great privations, the British were compelled to evacuate Boston, carrying away in their fleet to Halifax 1,500 loyal families. The British government now put forth a strong effort to reduce the colonies to submission. An army of 55,000 men, including 17,000 German auxiliaries ("Hessians"), was sent, under the command of Sir William Howe, to put down this "wicked rebellion." On the 7th of June, 1776, Richard Henry Lee, of Virginia, offered a resolution in Congress, declaring that "the united colonies are, and ought to be, free and independent States; that they are absolved from all allegiance to the British crown; and that all political connection between them and the state of Great Britain is, and ought to be, totally dissolved." This resolution, after an earnest debate, was adopted by the votes of 9 out of 13 colonies. A committee, consisting of Thomas Jefferson, John Adams, Benjamin Franklin, Roger Sherman, and Robt. R. Livingston, was instructed to prepare a declaration in accordance with the above resolution; and on the 4th of July, 1776, the *Declaration of Independence* (q. v.) received the assent of the delegates of the colonies, which thus dissolved their allegiance to the British crown, and declared themselves free and independent States, under the general title of the *Thirteen United States of America.* The first campaign of the war was disastrous for the Americans, and for the moment the prospects of the cause of freedom looked gloomy. But so

UNITED STATES

Scale of Miles
0 50 100 200 300 400

Railroads Canals

UNITED STATES.

Area sq. m. 2,970,230
Pop.1900. 75,994,575

Alabama.....J 4
Area sq.m.51,540
Pop.....1,828,697

Arizona.....D 4
Area sq. m. 112,920
Pop.....122,931

Arkansas.....G 4
Area sq.m.53,045
Pop.....1,311,564

California ...B 3
Area sq. m. 156,172
Pop .. 1,485,053

Colorado.....E 3
Area sq. m. 103,645
Pop.....539,700

Connecticut...L 2
Area sq. m..4,845
Pop 908,429

Delaware.....L 3
Area sq. m 1,960
Pop.....1,188,044

District of Columbia....K 3
Area sq. m ...60
Pop 278,718

Florida .....K 5
Area sq.m.54,240
Pop.....528,542

Georgia..... J 4
Area sq.m.58,980
Pop 2,216,331

Idaho. .....C 2
Area sq.m 84,290
Pop.....161,722

Illinois.....H 3
Area sq.m.56,000
Pop 4,821,550

Indiana..... J 3
Area sq.m.35,910
Pop. 2,516,462

Indian Ter....G 3
Area sq.m.31,000
Pop.....392,060

Iowa .....G 2
Area sq.m.55,475
Pop. 2,231,853

Kansas..... F 3
Area sq.m.81,700
Pop 1.470,495

Kentucky .....J 3
Area sq.m.40,000
Pop.....2,147,174

Louisiana.....G 4
Area sq.m.45,420
Pop. 1,381,625

Maine .....M 2
Area sq.m.29,895
Pop.....694,466

Maryland .....L 3
Area sq.m..9,860
Pop ... 1,188,014

Massachusetts M 2
Area sq.m..8,040
Pop.....2,805,346

Michigan..... J 2
Area sq.m.57,430
Pop. 2,420,982

Minnesota ...G 1
Area sq.m.79,205
Pop 1,751,394

Mississippi ...H 4
Area sq.m.46,340
Pop.....1,551,270

Missouri.....G 0
Area sq m.68,735
Pop....3,106,665

Montana.....D 1
Area sq. m. 145,310
Pop.....243,329

Nebraska.....F 2
Area sq.m.35,010
Pop.....2,516,462

Nevada..... B 3
Area sq m. 109,740
Pop.....42,335

New Hampshire M 2
Area sq.m..9,005
Pop.....411,588

New Jersey.. L 2
Area sq.m..7,525
Pop 1,883,669

New Mexico...E 4
Area sq. m. 112,460
Pop... ..195,310

New York.....L 2
Area sq m.47,620
Pop..... 7,268,894

North Carolina K4
Area sq.m.48,580
Pop 1,893,810

North Dakota F 1
Area sq.m.70,195
Pop 319,146

Ohio..... J 2
Area sq.m.40,760
Pop. 4,157,545

Oklahoma ....F 3
Area sq.m.38,830
Pop.....398,331

Oregon.....B23
Area sq.m.94,560
Pop. 413,536

Pennsylvania.K 2
Area sq.m.44,985
Pop. ... 6,302,115

Rhode Island M 2
Area sq.m..1,053
Pop 428,556

South Carolina K4
Area sq.m.30,170
Pop.....1,340,316

South Dakota. F 2
Area sq.m.76,850
Pop. 401,570

Tennessee .....J 3
Area sq.m.41,750
Pop.....2,020,616

Texas.....F 4
Area sq. m. 262,220
Pop.....3,048,710

Utah ..... D 3
Area sq.m.82,190
Pop. 276,749

Vermont..... L 2
Area sq. m.0,135
Pop.....343,641

Virginia .....K 3
Area sq.m.40,125
Pop.....1,854,184

Washington ..B 1
Area sq.m 66,880
Pop... ...518,103

West Virginia.K 3
Area sq.m 24,645
Pop.....958,800

Wisconsin ....H 2
Area sq.m.54,450
Pop.....2,069,042

Wyoming.... D 2
Area sq.m.07,575
Pop.....92,531

the midst of the general despondency, Washington, sustained by the firmness of Congress, maintained his fortitude and confidence in final success. Carefully watching the opportunity to retrieve the credit of the American army, he defeated the British forces at Trenton, Dec. 25, 1776; and his exploits in the following campaigns revived the spirit of the nation, and confounded and dismayed the enemy. In 1780, England sent an additional force of 35,000 troops, and a strong effort was made to subjugate the Carolinas, where the war became of a bitter partisan character, and was conducted with spirit by Sumter, Marion, and other Southern chieftains. Lord Cornwallis, with a large army, marched from Charleston, through North Carolina, and arrived in Virginia, where he was confronted by Lafayette, Wayne, and Steuben. In the meantime, Admiral de Terney had arrived upon the coast with a powerful French fleet, and 6,000 soldiers of the élite of the French army, under Count de Rochambeau. Cornwallis was obliged to fortify himself at Yorktown, blockaded by the fleet of Count de Grasse, and besieged by the allied army of French and Americans, waiting for Sir Henry Clinton to send him relief from New York. October 19, 1781, he was compelled to surrender his army of 7,000 men—an event which produced such a change of feeling in England as to cause the resignation of the ministry, and the dispatch of General Sir Guy Carleton to New York with an offer of terms of peace. The preliminaries were signed at Paris, November 30, 1782; and on September 3, 1783, peace was concluded between England and France, Holland, and America. The independence of each of the several States was acknowledged, with a liberal settlement of territorial boundaries. In April, a cessation of hostilities had been proclaimed, and the American army disbanded; New York, which had been held by the English through the whole war, was evacuated, November 25th; and on December 23d, General Washington took leave of his companions in arms, and resigned into the hands of Congress his commission as commander. In 1787, a national convention met at Philadelphia, May 14, and after four months' deliberation adopted the present Constitution of the *U. S.*, and submitted it to the people for ratification. After a thorough discussion, lasting in some of the States for 2 or 3 years, the Constitution was accepted by all of them; first by Delaware, December 7, 1787, and lastly by Rhode Island, May 27, 1790. During the war which, at the beginning of this century, raged against France, the commerce of this Republic was highly prosperous, her ships enjoying much of the carrying-trade of Europe; but in May, 1806, England declared a blockade from Brest to the Elbe, and Napoleon, in November, decreed the blockade of the coasts of the United Kingdom. American vessels were captured by both parties, and were searched by British ships for British subjects; and men, suspected of having been born on British soil were—in accordance with the doctrine, once a subject always a subject—impressed into the naval service. Even American men-of-war were not excepted from this process. The British frigate *Leopard* meeting the American frigate *Chesapeake*, demanded four of her men, and on refusal, fired into her, and the surprised *Chesapeake* struck her flag. British ships were hereupon forbidden *U. S.* harbors. The French decrees, prejudicial to neutral commerce, were revoked in 1810; but those of the English continued, a source of loss and irritation, while hundreds of American citizens were in forced service in British vessels. The feeling was increased by a night encounter between the American frigate *President* and the British sloop-of-war *Little Belt*, May 16, 1811. The indignation aroused by these events led, on June 18, 1812, to a declaration of war against Great Britain, for which Congress voted to raise 25,000 enlisted soldiers, 50,000 volunteers, and 100,000 militia. (See MADISON). The treaty of Ghent, Dec. 24, 1814, put an end to this war, which, from the beginning, had been very distasteful to the majority of the people of New England; but before the news of peace could cross the Atlantic, a British army, 12,000 strong, landed in Louisiana and made an attack on New Orleans, defended by Andrew Jackson with 5,000 men, chiefly militia. The attack was repulsed, January 8, 1815, with a loss to the British of 2,000 killed, wounded, and prisoners, while the entire American loss was but 71. From that time, and without excepting the period of the Mexican war (1845–48), for which see MEXICO and TEXAS, the history of this country was one of almost uninterrupted prosperity till the breaking out of the great Civil War, at the commencement of the year 1861, for which see SECESSION. This gigantic struggle was brought to an end in 1865, at an immense cost of blood and treasure. But great as was the struggle has also been its fruit, since it resulted in the total abolition of slavery, and the opening of a nobler career than ever before entered upon by the American people. The events subsequent to the civil war include a rapid increase in wealth and population, and an extraordinary development of the internal resources of the country. The railroad extension has been enormous, including several lines to the Pacific coast, while the extensive Rocky Mountain and Pacific section has been settled by a numerous and thriving population which has greatly developed the rich agricultural and mining interests of that region. Alaska, purchased from Russia, has been added to the national area, and has proved of great wealth in fisheries, timber, and mineral products, rich gold deposits having been recently found. The period in question has been marked by two severe commercial depressions, beginning respectively in 1873 and 1893; a number of displays of the national wealth and resources, in particular that of the World's Columbian Exposition, at Chicago, in 1893; the gradual development of a reformed system of civil service, based on ability instead of political activity; an immense development of wealth, progress of internal improvements, and growth of cities; an extraordinary increase in commercial activity; in short, a progress in almost every direction, which have raised the *U. S.* to one of the most prominent places among the nations of the earth, and given it a leading position in the councils of the world. In 1898 war broke out with Spain, in consequence of the inhumanity shown by the government of that country to the people of Cuba, during the effort to put down the insurrection on that island. For an account of the causes of this war, and its events in its place of origin, see CUBA. The war, however, extended beyond the limits of Cuba, and its progress elsewhere needs to be here epitomized. In addition to her West India possessions, Spain held the important Philippine archipelago and the lesser groups of the Ladrone and Caroline islands in the Pacific ocean. The city of Manila, on the island of Luzon, was much the most important centre of commerce and population in these islands, and immediately after the declaration of war the American fleet at Hong Kong, under Commodore Dewey, was ordered to Manila Bay, to "capture or destroy" the Spanish fleet at that point. On May 1 the American fleet entered the bay, and immediately attacked the fleet of Spain, more numerous but of less strength. After a few hours' battle the Spanish fleet was totally destroyed, with the loss of nearly a thousand of its crew, while the American vessels were practically uninjured, and not a single man was killed. It was an extraordinary event, only matched by that at Santiago de Cuba. (See CUBA.) Subsequently, Dewey held the port of Manila under blockade until he had received a sufficient reinforcement of ships and soldiers, when on August 13 the city was attacked and taken. On July 25 an army under General Miles landed in the island of Porto Rico, in the West Indies, and took steps for the conquest of that island. The campaign here, which was progressing satisfactorily, was brought to an end by the signing of the terms of peace on August 12. During the war, an important addition was made to the territory of the United States, in the annexation of the Hawaiian Islands, consummated by Act of Congress on July 6, 1898. The peace protocol added other islands to the territory of the United States, Porto Rico and all smaller Spanish islands in the West Indies and one of the Ladrone Islands in the Pacific being ceded by Spain. Cuba was to be evacuated by the Spanish troops, and Manila to be held by the *U. S.* until the future of the Philippines should be determined by a definite treaty of peace between the *U. S.* and Spain. It was understood that Cuba would be occupied by *U. S.* soldiers until it had established a stable form of independent government. A body of American and Spanish peace commissioners met at Paris on October 1, for the purpose of concluding a treaty of peace, which was completed December 12, and ratified in the spring of 1899. We have here given only a summary of matters pertaining to the country as a whole, as all subjects relating to the *U. S.* have been exhaustively treated in the body of this work. 1790, *pop.* 3,929,827; 1800, *pop.* 5,305,937; 1810, *pop.* 7,239,811; 1820, *pop.* 9,638,191; 1830, *pop.* 12,866,020; 1840, *pop.* 17,069,453; 1850, *pop.* 23,191,876; 1860, *pop.* 31,445,080; 1870, *pop.* 38,555,983; 1880, *pop.* 50,155,783; in 1890, *pop.* 62,622,250; in 1900, *pop.*, including Hawaii, 76,303,387—an increase of 13,681,137 within a period of ten years.

PRESIDENTS OF THE UNITED STATES.

1789. George Washington.	1853. Franklin Pierce.
1797. John Adams.	1857. James Buchanan.
1801. Thomas Jefferson.	1861. Abraham Lincoln.
1809. James Madison.	1865. Andrew Johnson.
1817. James Monroe	1869. Ulysses S. Grant.
1825. John Quincy Adams.	1877. Rutherford B. Hayes.
1829. Andrew Jackson.	1881. Jas. Abram Garfield.
1837. Martin Van Buren.	1881. Chester A. Arthur.
1841. Wm. Henry Harrison.	1885. S. Grover Cleveland.
1841. John Tyler.	1889. Benjamin Harrison.
1845. James Knox Polk.	1893. S. Grover Cleveland.
1849. Zachary Taylor.	1897. Wm. McKinley.
1850. Millard Fillmore.	1901. Theodore Roosevelt.

U'nitize, *v. a.* To reduce to a whole; to form into a unit.

U'nity, *n.* [Fr. *unité*; Lat. *unitas*, from *unus*, one.] The state of being one; oneness.—Coucord; conjunction; oneness of sentiment, affection, opinion, or behavior; agreement; uniformity; as, *unity* of parties, *unity* of doctrine.

(*Math.*) The abstract expression for any unit whatsoever.

(*Fine Arts.*) That proper balance of composition or color in a work of art which produces a perfectly harmonious effect, and to which all parts of the work conduce.

(*Law.*) An agreement or coincidence of certain qualities in the title of a joint-estate or an estate in common. In a joint estate there must exist four unities: that of *interest*, for a joint-tenant cannot be entitled to one period of duration or quantity of interest in land, and the other to a different; one cannot be a tenant for life, and the other for years; that of *title*, and, therefore, their estates must be created by one and the same act; that of *time*, for their estates must be vested at one and the same period, as well as by one and the same title; and, lastly, the unity of *possession*: hence, joint-tenants are seized *per my et per tout*, or by the *half* or *moiety* and by *all*: that is, each of them has entire possession as well of every *parcel*, as of the *whole*. Co-partners must have the unities of interest, title, and possession. In tenancies in common, the unity of possession is alone required.

U'nivalve, *a.* [Lat. *unus*, one, and *valva*, valves.] (*Zoöl.*) Having one valve only;—a term applied to those molluscs the shell of which is composed of one piece, and which is generally convoluted spirally, as in the snail. *U.* shells are mostly thin.

U'nivalve, *n.* [Lat. *unus*, and *valva*, a valve.] (*Zoöl.*) A shell which consists of only one piece. The name given in the science of Conchology to those mollusks whose shell is in a single piece, known as the Gasteropoda, as opposed to the Lamellibranchiata, or bivalves, whose shell is in two pieces. Some of the cephalopods also have univalve shells, as the nautilus and argonaut; but these are differently constructed, and the animals possessing them are not classed with the univalves. The shells of the univalve, or gasteropod mollusks, are composed of carbonate of lime, extracted by the animal from the sea-water, and laid, in the great majority of cases, in spiral whorls around the body, which are added to steadily during the growth of the animal. These shells vary greatly in shape, size, and color, many of them being graceful in shape, beautifully ornamented with spires, ridges, &c., and colored in varied designs, and with considerable diversity of hues. A familiar example is the land-snail. There are many land and fresh-water forms, but the great bulk of univalve mollusks dwell in ocean waters.

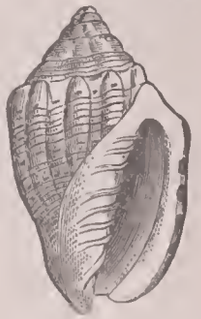


Fig. 2553. VOLATA MUSICA (½ size).

Univers'al, *a.* [Fr. *universel*; Lat. *universalis*—*unus*, and *verto*, *vertus*, to turn.] Extending to, or comprehending the whole number, quantity, or space; unlimited; as, *universal* prosperity.—Combined into one whole; pertaining to all or the whole; total; constituting or considered as a whole; as, the *universal* Church, i. e., the Church of God throughout the world.

(*Log.*) Applied to a proposition in which what is predicated is declared to apply to everything comprehended in it; as, all men are mortal. A *U.* proposition may be either affirmative or negative; as, all men are subject to death; no man is perfect. It is opposed to a particular, which asserts or denies something of some, implying that the others are, or may be, left unspoken of; as, some men are handsome; some animals cannot live in this country.—*n.* (*Log.*) A general notion framed by the human intellect and predicated of many things, on the ground of their possessing common properties,—as *animal*, which may be predicated of man, horse, lion, &c.

Universa'lian, *a.* Pertaining or having reference to Universalism.

Univers'alism, *n.* (*Theol.*) The doctrine or belief held by the Universalists.

Univers'alists, *n. pl.* (*Eccl. Hist.*) A religious denomination whose principal tenet consists in the universality of the atonement, or that all men will finally be saved, as opposed to those who hold the doctrine of eternal punishment. The grounds on which their faith in the final salvation of all men rests are derived, they believe, from reason and from Scripture; and when they appeal to the latter, it is, they say, to the spirit and design of the Gospel as well as to particular passages. They argue, that when an infinitely wise, holy, and benevolent God resolved to create man, it could only be with a view to his everlasting good; that if he did allow him to be tempted and fall, it must have been because he foresaw that through sorrow and suffering man could rise to higher degrees of perfection; that therefore all punishment (or what, with our limited knowledge, we conceive to be such) is of necessity designed as a remedial agent, and not intended to satisfy God's indignation as a sovereign at the disobedience of his subjects; that no other view of the subject is compatible with the scriptural, and especially the New Testament representation of God as "Father," or with the oft-repeated declaration (in various terms) that Jesus Christ was a propitiation for the sins of the whole world. *U.*, it may be observed, generally differ from the prevalent bodies of Christians in other important doctrines, though it is not because of such differences that they have received their name, nor is it necessary to merit the name that one should share these differences. Most of them agree with Unitarians—but there are eminent examples to the contrary—in rejecting the doctrine of the Trinity; they are also Pelagian in the matter of original sin, and reject the notion that the new birth is something supernatural. The *U.* believe that their main doctrine is found in the earliest Christian writings—and during the three first centuries of the Christian æra was the prevailing belief of the Christian Church, and it had supporters in most of the countries into which the Reformation penetrated. Nor has it wanted illustrious adherents belonging to the Church of England, and to the French Protestant and German churches;—Indeed it may safely be asserted that the *free* mind in all ages is disposed to look favorably upon the doctrine of universal restoration to holiness and happiness of all fallen intelligences, whether human or angelic. In the year 1770, the Rev. John Murray became a propagator of Universalist views; and since his time, an organized body has sprung up, which contains many able, learned, and pious divines. There are now in the U. S. about 1,280 societies, owning about 1,000 churches, and ministered to by about 750 preachers. These societies have under their patronage 11 institutions of learning, in-

cluding 3 colleges and 8 academies, and they support 17 periodicals. Various missionary, tract, and Sunday-school associations are also employed in teaching and propagating their views, that in the end, "God shall be all in all."

Universal'ity, Univers'alness, *n.* [Fr. *universalité.*] State or quality of being universal; the state of extending to, and comprehending, the whole; unlimited reach or application; as, the *universality* of sin.

Univers'alize, *v. a.* To make universal; to generalize.

Univer'sally, *adv.* In a universal manner; in a manner to reach to and include all, without exception; with extension to the whole.

U'niverse, *n.* [Fr. *univers*, from Lat. *universus* — *unus*, and *verto*, *versus*, to turn.] The world; the collective name of heaven and earth, and all that belongs to them; the whole system of created things.

Univer'sity, *n.* [Fr. *université*; Lat. *universitas*, the whole of anything, as contrasted with its parts.] This name, in Europe, usually denotes an establishment for the purpose of instruction in some or all of the most important branches of science and literature, and having the power of conferring certain honors or dignities termed *degrees*. (See DEGREE.) About the beginning of the 12th century, Paris became the resort of learned men, who, by means of teaching and public lectures, infused new life into the existing schools. The brilliant lectures of Abelard and Lombardus attracted immense crowds from all parts of Europe, and local immunities and other advantages came to be accorded to the teachers and pupils by the city, which well appreciated the advantages of this great resort. The continually increasing number of teachers and students rendered it expedient to adopt some form of government, in order that their labors might be carried on with some degree of regularity; and, accordingly, the university appears to have been incorporated towards the end of the 12th century. At first it comprised only the faculty of arts; but subsequently those of divinity, canon law, and medicine arose. The papal and royal privileges subsequently conceded did not create the faculties which they then publicly protected; but in this way the universities came to form integral parts of the Church and State, and subject to their control. Philip Augustus, by his ordinance of 1200, granted to the *U.* exemption from the ordinary tribunals, and prohibited the citizens, under the severest penalties, from molesting the students. Subsequent kings of France conferred additional privileges, and by various enactments, teachers and students were exempted from all customs, taxes, or personal burdens; were not liable to arrest, to seizure or confiscation of goods, and were especially exempted from being summoned out of Paris on any legal process. Nor were the popes behind the kings in their gifts to the university; and Innocent IV. declared that no sentence of excommunication, suspension, or interdict against the university, or any of its members, should have effect without special license of the Apostolic See. It thus soon became the most distinguished seminary of education in Europe, and was resorted to by students from all parts. In 1453 the number of students amounted to 25,000, and when Joseph Scaliger was a student, it had reached 30,000. When the teachers and students came to form one body, the division into *nations* originated, which division must have been of great benefit at the time when students came from all parts of Europe to one *U.* At the head of each nation was a procurator, selected from among themselves, whose duty it was to protect their rights and privileges, and see that all its regulations were duly observed. The four nations of the Paris *U.* were: — 1. The French, including Spaniards, Italians, Greeks, &c.; 2. The Picard, comprising the N.E. of France and the Netherlands; 3. The Norman; and 4, The English, called afterwards the German, including English, Scotch, Irish, Germans, Poles, &c. The university of Bologna contests the palm of antiquity with that of Paris. It first became famous through the teaching of Irnerius in the early part of the 12th century. His lectures on Roman law attracted a great number of pupils, and he is considered to have originated a grand revolution in the legislation of Europe. His successors were men of ability, and for several centuries after, the university of Bologna continued to be celebrated for its legal learning, and to be flocked to by students from all parts. The first universities founded in Germany were those of Prague, 1348, and Vienna, 1365. Universities were now expressly established, and not left to grow up of themselves, as before. For several centuries the popes continued to found these institutions, and exercise the right of protecting and superintending them. Monarchs who wished to establish a university requested the papal confirmation, and submitted to the authority which the Roman See arrogated over them. The unhappy Thirty Years' War did much injury to the German universities; but since that period they have made rapid advances, beyond those of any other country. The character of life at the German universities is such that the student ever after recalls it with fondness. An amount of freedom and liberty is enjoyed there to which they are afterwards strangers, and the students are very jealous of their privileges. The liberal principles which have from time to time animated Germany have been manifested in a particular degree by the students at the universities; and there have not been wanting attempts on the part of the governments to curtail their liberties. In a German university there are usually ordinary and extraordinary professors, and *docentes* or licentiates. The ordinary professors are those who form the great body of the teaching staff. In most universities they are appointed by the government, have general jurisdiction over the students, and make the provisions respecting instruction. They divide themselves into four faculties, each having a dean chosen by themselves from their own number. The whole constitute the senate, at the head of which is the rector, who is chosen annually. The extraordinary professors are usually persons who have distinguished themselves in some particular branch or branches, and whose services the government wishes to retain. They receive small salaries, and are the persons looked to to fill vacancies among the ordinary professors. The *docentes* are those who, after undergoing an examination, have obtained liberty to teach. Any person may request to be examined in this way, and if found qualified, is entitled to be licensed. The *docentes* receive no salaries; but from among them the extraordinary professors are usually selected. Every person in these three classes can lecture upon whatever subject he pleases, the professors being only obliged to deliver lectures also in the branches for which they are specially appointed. Hence, very often three or four courses of lectures are delivered on the same subject, and theologians will be found lecturing on politics, philosophers on questions in theology, and so on. The German student is usually left at full liberty to choose the lectures which he will attend; and he is subject to no official examination during his term of study. The only regulation is, that, in case of most sciences, he is required to attend certain lectures, and to study full three years, if he wishes to practise a profession, &c. The student's examinations commence after he has finished his course of study, or on entering on a profession; and are very severe for one wishing to become a clergyman, physician, lawyer, statesman, or teacher of a superior school. These examinations are both oral and written, and the successive steps of promotion are attended with new examinations. The English universities were founded on the model of the *U.* of Paris. The two most celebrated have been spoken of under their respective names. (See CAMBRIDGE and OXFORD.) In the U. S. the title university is very loosely applied, often to a college where the course of study is not advanced, while in other cases the title college is given to an institution with several faculties, and therefore answering to the European conception of a *U.* Of the nearly 500 collegiate institutions in the U. S., a considerable number have some claim to the title of *U.*, while a still larger number are simply high-schools, though some of these seek dignity under the title of university. Several American institutions are universities in the fullest sense, and in their breadth of study will bear comparison with any of those of Europe. The State universities, endowed by grants of government land for educational purposes, differ from the older institutions in being free from denominational control, the chief original purpose of most American colleges having been to train men for the ministry. Canada possesses 16 degree-granting colleges and universities, every province, except British Columbia, having at least one. See HARVARD, YALE, CORNELL, &c.

Univ'ocal, *a.* [Fr. *univoque*; Lat. *unus*, one, and *vox*, *vocis*, a voice, a word.] Having one meaning only, as a word; — correlative to *unequivocal*. — Having one unison of sound. — Certain; regular; pursuing always one tenor; as, *univocal* conformity.

Univ'ocally, *adv.* In an univocal manner; in one term; in one sense. — In one tenor.

Unjoint', *v. a.* To disjoint; to sever or dislocate, as the joints.

Unjust', *a.* Acting contrary to justice, or to the standard of right established by the divine law; as, an *unjust* person. — Not equitable; wrongful; contrary to justice and right; as, an *unjust* act.

Unjus'tifiable, *a.* That cannot be justified or proved to be right; not to be vindicated or defended.

Unjust'ly, *a.* In an unjust manner.

Unkempt', *a.* Uncombed; dishevelled. (o.)

Unken'nel, *v. a.* To drive from a kennel, hole, or covert, as a fox. — To release from a kennel or kennels, as hounds. — To start from secrecy or hiding, as a mystery.

Unkind', *a.* Wanting in kindness or benevolence; not favorable or obliging; cruel; harsh; unnatural; as, *unkind* treatment.

Unkind'ly, *a.* Not kind or complaisant. — Unfavorable; unpropitious; malignant; as, *unkindly* weather.

— Unnatural; contrary to natural laws; as, an *unkindly* crime.

— *adv.* Without kindness, complaisance, or affection; harshly; cruelly; as, he treats his wife *unkindly*. — Unnaturally; in a manner contrary to nature; as, "Works of nature . . . *unkindly* mixed." — *Milton.*

Unkind'ness, *n.* Absence of kindness; quality of being unkind; want of natural sympathy or affection; disfavor; disobliging treatment; harshness.

Unknown, (*-nōn',*) *a.* Not having knowledge of; as, an *unknown* place or person. — Greater than is imagined; as, an *unknown* advantage. — Not having cohabited with; as, "I am yet *unknown* to woman." (*Shaks.*) — Without communication; as, I did this *unknown* to anybody.

Unlace', *v. a.* To loose from lacing or fastening by a cord or string passed through loops and holes; as, to *unlace* a pair of boots. — To loose, as a part of a dress; as, to *unlace* a woman's stays. — To divest of ornament; as, "You *unlace* your reputation." — *Shaks.*

(*Naut.*) To loose and take off, as a bonnet from a sail, or to cast off, as any lacing in any part of the rigging of a ship.

Unlade', *v. a.* (*imp.* UNLADED; *pp.* UNLADED or UNLADEN.) To unload; to take the cargo out of; as, to *unlade* a ship. — To discharge; to remove, as a load or burden.

Unlaid', *a.* Not fixed; not laid or placed; as, "The first foundation being yet *unlaid*." (*Hooker.*) — Not allayed; not pacified; not suppressed; as, an *unlaid* ghost. — Not laid out; as, an *unlaid* corpse.

Unlaw'ful, *a.* Illegal; not according to law; contrary to, or not permitted by, law; as, *unlawful* traffic.

Unlawful assembly. (*Law.*) See RIOT.

Unlay', *v. a.* (*imp.* and *pp.* UNLAID.) (*Naut.*) To untwist, as the strands of a rope.

Unlearned, (*-lĕrn'd',*) *a.* Ignorant; illiterate; not learned or instructed; as, an *unlearned* man. — Not gained by study; not known; as, to learn things that were better *unlearned*. — Not suitable to a learned man; as, *unlearned* verses. — *Shaks.*

Unless', *conj.* [The imper. of A. S. *onlesan*, *onlysan*, to unloose, to relieve, to dismiss.] Excluding the case that; if not; supposing that not; as, I will go to New York next week, *unless* something shall prevent me.

Unlicked, (*-likt,*) *a.* Shapeless; not formed; uncultivated; rough; — derived from an old and vulgar opinion that the bear licks her young into shape; as, that young fellow is an *unlicked* cub.

Unlike', *a.* Having no resemblance; dissimilar; diverse; as, the son is quite *unlike* his father.

Unlike quantities. (*Math.*) Quantities expressed by different letters, or by different powers of the same letter: thus *a*, *b*, a^2, and *a b* are all unlike quantities. — *Unlike signs*, the signs *plus* (+) and *minus* (—).

Unlike'lihood, Unlike'liness, *n.* Improbability; state of being unlikely.

Unlike'ly, *a.* Having no likelihood; improbable; such as cannot be reasonably expected; as, an *unlikely* occurrence. — Not promising success; with a probability of failure; as, he has made an *unlikely* beginning.

Unlim'ited, *a.* Having no bounds or limits; illimitable; as, God's *unlimited* mercy. — Undefined; not bounded by proper exceptions; as, *unlimited* credit. — Unconfined; not restrained.

Unlimited problem. (*Math.*) A mathematical problem which is susceptible of an indefinite number of different solutions.

Unliquidated, (*-lik'wi-,*) *a.* Not settled; unpaid; unadjusted; as, an *unliquidated* account.

Unliquidated damages. (*Law.*) Penalties or damages not ascertained.

Unload', *v. a.* To disburden of a load; to discharge of a load or cargo; to unlade; as, to *unload* a ship or a wagon. — Hence, by analogy, to relieve from that which troubles or oppresses; as, to *unload* pent-up sorrow.

Unlo'cated, *a.* Not fixed in a place or location. — Not having been surveyed, or designated by marks, limits, or boundaries, as appropriated to some individual, company, or corporation; as, *unlocated* lands.

Unlock', *v. a.* To unfasten that which is locked; as, to *unlock* a drawer. — Hence, generally, to lay open; as, to *unlock* one's secret thoughts.

Unlook'ed-for, *a.* Not looked for; not expected; unforeseen; as, this is an *unlooked-for* happiness.

Unlovely, (*-luv'le,*) *a.* Lacking in loveliness; unamiable; unattractive; disagreeable; unsightly; destitute of the qualities that charm, or possessing the qualities that repel.

Unluck'y, *a.* Deficient in, or destitute of, luck; wanting success or good fortune; subject to frequent misfortunes; as, an *unlucky* man, an *unlucky* speculation, &c. — Unpropitious; ill-omened; without happy auspices; as, he was born under an *unlucky* star. — Mischievously inclined; waggish; frolicsome; as, an *unlucky* wight.

Unmake', *v. a.* (*imp.* and *pp.* UNMADE.) To destroy the make, form, or qualities of; to deprive of qualities before possessed; to uncreate; as, to make or *unmake* a king.

Unmal'leable, *a.* Without the property of malleability.

Unmalleabil'ity, *n.* State or quality of being unmalleable.

Unman', *v. a.* (*imp.* and *pp.* UNMANNED, (*-mand.*) To deprive of the distinctive qualities of a human being, as reason, &c.; as, "What, quite *unmann'd* in folly?" *Shaks.* — To emasculate; to deprive of the procreative power. — To deject; to depress; to dishearten; to break into irresolution; to deprive of manly courage and fortitude; as, it was a sight that quite *unmanned* me. — To remove men from; as, to *unman* a fortified post, or a ship.

Unman'ageable, *a.* Not manageable; not easily restrained, governed, or directed; not controllable. — Not easily wielded.

Unman'ly, *a.* Not becoming a man or a human being; as, *unmanly* cruelty. — Effeminate; unsuitable to a man; as, *unmanly* tenderness. — Ignoble; base; ungenerous; pusillanimous; as, *unmanly* fear.

Unman'nerly, *a.* Wanting good manners; ill-bred; rude in bearing or behavior; unpolished; not according to the rules of politeness; as, an *unmannerly* speech.

Unmean'ing, *a.* Conveying no meaning; having no signification; destitute of sense or substance; as, *unmeaning* compliments. — Not indicative of life or intelligence; inexpressive; immobile; vacant; as, an *unmeaning* face.

Unmen'tionables, *n. pl.* A humorous name for the breeches, or pantaloons, as being a garment not to be named in the vernacular.

Unmer'ciful, *a.* Destitute of mercy; cruel; not disposed to spare or forgive; inhuman to such beings as are in one's power; as, an *unmerciful* judge. — Exorbitant; unconscionable; as, *unmerciful* demands upon one's purse.

Unmind'ful, *a.* Not mindful, heedful, or attentive; careless; regardless.

Unmistak'able, *a.* That cannot be mistaken or misunderstood; plain; clear; evident; pronounced: as, *unmistakable* proofs.

Unmit'igated, *a.* Without mitigation; not lessened;

not softened in severity or harshness; as, *unmitigated* rancor.

Unmixed', Unmixt', *a.* Without mixture; unmingled; pure; unadulterated; not vitiated by foreign or extraneous admixture; unalloyed; as, *unmixed* liquor, *unmixed* pleasure.

Unmoor', *v. a.* (*Naut.*) To loose from anchorage, as a ship; as, "All hands *unmoor, unmoor!*" (*Dibdin.*)—To bring to the state of riding with a single anchor, after having been moored by two or more cables, said of a ship

Unmoved, (*-moovd',*) *a.* Not moved; not transferred from one place to another; as, *unmoved* chess-men. — Firm; unshaken; not changed in purpose; as, *unmoved* determination. — Not affected; not having the emotions or passions excited; not touched or impressed; stoical; as, *unmoved* to pity. — Not altered by mental perturbance; as, an *unmoved* face.

Unmuffle, (*-muf'fl,*) *a.* To uncover, as the face.—To remove the muffling of; as, *unmuffled* drums.

Unna, (*oon'na,*) a town of Prussian Westphalia, 19 m. from Arnsberg. Near it are the famous salt-works of Königsborn. *Pop* 6,826.

Unnat'ural, *a.* Contrary to the laws of nature; not in conformity to nature; antagonistic to the natural instincts or feelings; not agreeable to the real state of persons or things; as, an *unnatural* crime. — Acting without the affections of our common nature; as, an *unnatural* parent or child.

Unnecessarily, (*-nes'-,*) *adv.* Without necessity; needlessly.

Unnecessary, (*-nes'-,*) *a.* Not required by the facts or circumstances of the case; free from necessity; needless; useless; as, to take *unnecessary* trouble.

Unneighborly, (*-nā'bur-ly,*) *a.* Not kind or friendly; not well disposed or obliging; not becoming persons living near each other; as, *unneighborly* exclusiveness. —*adv.* In a manner contrary to the kindness and friendship which should subsist among neighbors.

Unnerve', *v. a.* To deprive of nerve, force, or strength; to enervate; to weaken: to enfeeble.

Unobjectionable, (*-jĕk'shun-a-bl,*) *a.* Not liable to objection; that need not be condemned as faulty, false, or improper.

Unobserv'ant, *a.* Not observant or attentive; heedless.

Unobstruct'ed, *a.* Without obstruction or impediment; not filled with obstacles; not hindered or estopped; as, an *unobstructed* course.

Unoc'cupied, (*-kū-pīd,*) *a.* Not in occupation or possession; not engaged in business; being at leisure; not employed or taken up, as time.

Unoffend'ing, *a.* Not giving offence; not sinning; free from fault or transgression; harmless; innocent; as, an *unoffending* person.

Unofficial, (*fĭsh'ul.*) *a.* Not official; not pertaining to office; not proceeding from the proper officer or from due authority; as, an *unofficial* report.

Unopposed, (*-pōzd',*) *a.* Not opposed or resisted; not meeting with any check or obstruction; as, the bill passed *unopposed.*

Unor'ganized, *a.* Same as INORGANIZED, *q. v.*

Unostentatious, (*-tā'shus,*) *a.* Without boasting or ostentation; not exhibiting show or parade; modest; unassuming; not pretentious, as, an *unostentatious* manner of living. — Not glaring or showy; as, *unostentatious* coloring.

Unpacked, (*-păkt',*) *a.* Not packed; not collected by unlawful artifices; as, an *unpacked* jury.

Unpaid', *a.* Not paid; unliquidated; not discharged, as a debt; not having received his due, as a workman.

Unpal'atable, *a.* Unsuited to the palate; disagreeable to the taste: not such as to be relished; as, *unpalatable* food, *unpalatable* advice.

Unpar'alleled, (*-leld,*) *a.* Having no parallel or equal; unmatched.

Unpar'donable, *a.* Not to be pardoned or forgiven; that cannot be remitted, as a sin.

Unparliament'ary, *a.* Contrary to the usages or rules of proceeding in, or the constitution of, parliament. Contrary to the course of proceeding prescribed by any legislative assembly; as, *unparliamentary* language.

Unpass'able, *a.* Impassable, as a road, river, mountain, &c. (R.) — That will not pass current in common payment; as, *unpassable* coin.

Unpeople, (*-pē'pl,*) *v. a.* To depopulate; to deprive of people or inhabitants.

Unphilosoph'ically, *adv.* In a manner contrary to the principles of sound philosophy or right reason.

Unpin', *v. a.* (*imp.* and *pp.* UNPINNED (*-pĭnd*). To remove the pins of; to unfasten, as that which is held together by pins; as, to *unpin* a ticket, to *unpin* the frame of a building.

Unpleasant, (*-plez'ant,*) *a.* Not affording pleasure; disagreeable.

Unpol'ished, (*-ĭsht.*) *a.* Not made smooth or bright by attrition; as, *unpolished* wood. — Not refined in manner; uncivilized; rude; plain; as, *unpolished* people.

Unpop'ular, *a.* Not popular; not enjoying the public favor or esteem; not in good repute; disliked by the people; disposing to public disfavor; as, an *unpopular* statesman, an *unpopular* measure.

Unpractised, (*-prăk'tĭst,*) *a.* Not having been taught by practice; raw; unskilful; inexperienced.

Unprecedented, (*-pres',*) *a.* Without precedent or example; not preceded by a similar case; new; novel; not fortified with authority of prior example.

Unprejudiced, (*-prej'u-dĭst,*) *a.* Without prejudice; free from undue bias or prepossession; impartial; as, an *unprejudiced* mind. — Not warped by prejudice; as, *unprejudiced* opinions.

Unpremed'itated, *a.* Not previously meditated or prepared in the mind; not priorily purposed or intended; not done by design; as, an *unpremeditated* crime.

Unprepared, (*-pārd',*) *a.* Wanting preparation; not ready; not fitted or furnished by previous measures; not prepared, by holiness of life, for the event of death and a happy immortality.

Unprepossessing, (*-poz-zes'-,*) *a.* Not having a prepossessing, winning, or attractive appearance.

Unprin'cipled, *a.* Deficient in, or destitute of, principle; without settled principles. — Destitute of virtue or good moral principles; profligate; not restrained by conscientious objections; as, an *unprincipled* man.

Unproduc'tive, *a.* Not productive; sterile; infertile; not producing large crops; barren; as, an *unproductive* soil.—Bringing no profit; not yielding profitable returns for labor; not productive of profit or interest, as capital; as, *unproductive* stock.—Inefficient; not producing substantial results.

Unprofitable, *a.* Bringing no profit; producing no gain beyond the labor, expenses, and interest of capital; yielding no gain, improvement, or advantage; not useful to others; serving no end or purpose; as, an *unprofitable* business, *unprofitable* study, *unprofitable* land, an *unprofitable* life.

Unprom'ising, *a.* Not affording a favorable prospect of gain, advantage, success, excellence, &c.; as, an *unpromising* season.

Unqualified, (*-kwŏl'i-fīd,*) *a.* Not fit or qualified; not possessing the needful talents, abilities, or accomplishments; as, an *unqualified* practitioner. — Not having taken the necessary oath or oaths; as, an *unqualified* member of Congress. — Not modified or restricted by conditions, exceptions, or stipulations; absolute; as, *unqualified* censure.

Unquestionable, (*-kwĕst'yun-a-bl,*) *a.* That cannot be doubted or called in question; indubitable; certain.

Unquestioned, (*-kwĕst'yund,*) *a.* Not doubted or called in question; as, *unquestioned* authority. — Not examined or interrogated; having no questions asked; as, an *unquestioned* witness. — Indisputable; not to be opposed; as, *unquestioned* pleasure.

Unquiet, (*-kwī'et,*) *a.* Not quiet, calm, or tranquil; restless; uneasy; agitated; unsatisfied; disturbed; as, an *unquiet* house, an *unquiet* conscience.

Unravel, (*-răv'l,*) *v. a.* To free from a ravelled state; to disentangle; to disengage or separate, as threads that are knit; as, to *unravel* a knot. — Hence, to free; to clear from complication or difficulty; to unfold; to clear up, as the plot or intrigue of a play; as, to *unravel* a mystery. — To separate, as connected or united parts; to throw into disorder; as, "*unravelling* the principles of reason and religion." — *Tillotson.*

Unread, (*-rĕd',*) *a.* Not read or perused, as a book or writing. — Not recited or rehearsed; as, an *unread* drama. — Untaught; illiterate; not learned in books; as, an *unread* man.

Unready, (*-rĕd'y,*) *a.* Not ready or prepared; not fit; not prompt or quick; awkward; ungainly.

Unreason, (*-rē'zn,*) *n.* Want of reason; nonsense; absurdity.

Abbot of Unreason, a mock abbatial character in the old English Christmas revels.

Unreasonable, (*-rē'zn-a-bl,*) *a.* Not agreeable to reason; irrational; as, an *unreasonable* prejudice. — Exceeding the bounds of reason; claiming or insisting on more than is fit; as, an *unreasonable* exaction. — Exorbitant; immodorate; inordinate; as, an *unreasonable* love of money.

Unrea'sonableness, *n.* State or quality of being unreasonable; inconsistency with reason; as, the *unreasonableness* of intemperate language. — Exorbitance: excess of claim, demand, and the like; as, the *unreasonableness* of a proposition.

Unreconcilable, (*-sĭl'a-bl,*) *a.* That cannot be reconciled, or made consistent; irreconcilable; as, two *unreconcilable* accounts. — Implacable; incapable of being appeased or made amicable; as, *unreconcilable* enemies.

Unredeemed', *a.* Not redeemed or ransomed; unpaid; not recalled into the treasury or bank by payment of the value in money, as bills, notes, or stock; as, *unredeemed* American securities.

Unreeve', *v. a.* (*imp.* UNROVE.) (*Naut.*) To withdraw or take out, as a rope from a block, thimble, and the like.

Unrefined', *a.* Not refined or purified, as liquors, metals, &c. — Without ease, elegance, or polish of mind or manners; ill bred; as, *unrefined* people.

Unrelent'ing, *a.* Not relenting; feeling no pity or compunction; hard; cruel; vindictive; as, *unrelenting* cruelty. — Impassibly strict; inflexibly rigid; not bending to circumstances; as, an *unrelenting* law.

Unreli'able, *a.* Not to be relied on; not trustworthy; unworthy of dependence upon; as, *unreliable* testimony.

Unremit'ting, *a.* Without remission or abatement; not relaxing temporarily; incessant; continued; as, *unremitting* toil.

Unrepealed, (*-pēld',*) *a.* Not repealed, revoked, or abrogated; remaining in force, as a law or custom.

Unrepresent'ed, *a.* Having no one to act in one's stead.

Unreserved, (*-zervd',*) *a.* Without retention or reserve. — Not limited; full; without restraint; not withheld in part; as, *unreserved* faith. — Without reticence or retention; concealing or keeping back nothing; free; frank; open; undisguised; as, an *unreserved* bestowal of confidence.

Unreserv'edly, *adv.* Frankly; without disguise or concealment; with open disclosure; without limitation or reservation; as, he spoke his mind *unreservedly.*

Unrest', *n.* Absence of rest or repose; disquietude; uneasiness; anxiety; restlessness; as, "Distress with sad *unrest.*" —*Daniel.*

Unrestrained', *a.* Without check or restraint; uncontrolled; not confined: not hindered; loose; licentious; not limited; as, *unrestrained* pleasures.

Unrig', *v. a.* (*imp.* and *pp.* UNRIGGED, (*un-rĭgd.*) To strip, as a ship, of both standing and running rigging, &c.

Unrighteous, (*-rī'chus,*) *a.* [A. S. *unrihtwis*, not right-wise.] Not righteous or just; not conformed in heart and life to the divine law; wicked; evil; as, an *unrighteous* man.—Contrary to law and equity; unjust; as, an *unrighteous* sentence.

Unripe', *a.* Not ripe; lacking maturity; not brought to a state of perfection; as, *unripe* fruit.—Not yet proper; not seasonable; as, *unripe* vengeance. (*Dryden.*) — Not prepared; not completed; crass; immature; as, an *unripe* conspiracy.

Unrivalled, (*-rī'vald,*) *a.* Without a rival; peerless; having no equal or competitor; as, a woman of *unrivalled* beauty.

Unroll', Unrol', *v. a.* (*imp.* and *pp.* UNROLLED, (*-rōld,*) To open that which is rolled or convoluted; as, to *unroll* carpeting.—To lay open; to display.

Unroof', *v. a.* To strip off, as the roof or covering of a building.

Unroot', *v. a.* To uproot; to extirpate; to eradicate; as, to *unroot* a tree, to *unroot* a prejudice.

Unru'liness, *n.* State, quality, or condition of being unruly; licentiousness; turbulence; refractoriness; disregard of restraint; as, *unruliness* of disposition.—Practice of breaking or leaping over fences.

Unru'ly, *a.* [From *rule.*] Disregarding restraint; licentious; not submissive to rule or command; refractory; ungovernable; turbulent; disposed to violate the laws and order; as, an *unruly* mob. — Accustomed to break from inclosures; apt to break or leap fences; as, an *unruly* beast.

Unsad'dle, *v. a.* To take the saddle from, as a horse.—To throw from the seat or saddle; as, to *unsaddle* an antagonist in a tournament.

Unsat'isfactory, *a.* Not giving satisfaction; not affording content; not convincing the mind or senses; as, an *unsatisfactory* plea, an *unsatisfactory* dinner.

Unsat'isfied, *a.* Not satisfied; not having, or having had, enough; not filled, or gratified to the full; as, an *unsatisfied* appetite. — Discontented; not pleased; as, an *unsatisfied* disposition. — Not settled in opinion; not resting in confidence of the truth of anything; not fully convinced or persuaded; as, an *unsatisfied* inquirer.— Not fully paid; as, an *unsatisfied* debt or creditor.

Unsa'vory, *a.* Having no savor; insipid; tasteless; as, *unsavory* food.—Having a bad taste or smell; offensive; nauseating; as, an *unsavory* odor.

Unsay', *v. a.* (*imp.* and *pp.* UNSAID.) To recant or recall, as that which has been spoken; to retract; to deny something declared; as, to say, and straight *unsay.*

Unscientifically, *adv.* In a manner contrary to the rules and principles of science.

Unscript'ural, *a.* Not according to the Scriptures; not warranted by divine authority; as, an *unscriptural* tenet.

Unscru'pulous, *a.* Not restrained by scruples; unprincipled; ruthless; as, an *unscrupulous* villain.

Unseal', *v. a.* To open, as what is sealed; to break or remove the seal of; as, to *unseal* a letter, to *unseal* one's lips.

Unseasonable, (*-sē'zn-a-bl.*) *a.* Not being in the proper season; ill-timed; untimely; as, to call upon a person at an *unseasonable* hour. — Late; being beyond the usual or suitable time; as, he goes to bed at an *unseasonable* time. — Unfit; unadapted; not suited to the time or occasion; as, an *unseasonable* remark. — Not agreeable to the time of the year; as, an *unseasonable* temperature.

Unsea'worthy, (*-wur-,*) *a.* Not seaworthy; not fit for a voyage; not able to encounter the perils of the sea, as a ship.

Unseem'ly, *a.* Not fit, proper, or becoming; indecent; as, *unseemly* conduct.

Unser'viceable, *a.* Useless; not affording advantage, service, profit, or convenience.

Unset'tle, *v. a.* To move or loosen from a settled or fixed state; to unfix; to make uncertain or fluctuating; to unhinge; to move from a place; as, a man of *unsettled* opinions.

Unset'tled, *a.* Not settled, fixed, or determined, as doctrines, questions, opinions, and the like.— Not established; irregular; as, an *unsettled* state of things.— Unequal; changeable; variable; as, an *unsettled* temper.— Having no fixed position, or definite place of abode; as, to be *unsettled* in life.— Having no inhabitants; not occupied by permanent residents; as, an *unsettled* country. —Turbid; not having deposited its lees or dregs, as liquor.

Unshackle, (*-shăk'l,*) *v. a.* To loose from shackles or bonds; to unfetter; — hence, to liberate from restraint; as, to *unshackle* the will.

Unshak'en, *a.* Not shaken, agitated, or moved; firm; fixed; resolute; as, *unshaken* belief or confidence. — Firm; steady; not subject to vibration or concussion; as, an *unshaken* edifice.

Unship', *v. a.* (*imp.* and *pp.* UNSHIPPED, (*-shĭpt.*) To discharge from, or take out of, a ship or other craft; as, to *unship* goods.— To remove from the place where it is fixed or fitted; as, to *unship* the oars.

Unsight'liness, *n.* Disagreeableness to the sight deformity; ugliness.

Unskil'ful, *a.* Deficient in skill; awkward; bungling inexpert; clumsy; lacking the knowledge and dexterity which are acquired by observation, practice, and experience; as, an *unskilful* pilot.

Unskil'fully, *adv.* Without skill, knowledge, or dexterity; clumsily.

Unskilled, (*-skĭld',*) *a.* Short of skill; destitute of

readiness or dexterity in performance; without practical knowledge; as, an *unskilled* mechanic.

Unsling', *v. a.* (*imp.* and *pp.* UNSLUNG.) (*Naut.*) To release from the slings; as, to *unsling* the yards.

Unsociable, (*-sō'sha-bl,*) *a.* Not suited or suitable to society; not having the qualities which are proper for society, and which render it agreeable; not apt to converse; not free in social intercourse; reserved; exclusive; as, an *unsociable* individual.

Unsocial, (*-sō'shal,*) *a.* Not adapted or beneficial to society.

Unsophisticated, (*-fis'-*) *a.* Without sophistication; genuine; pure; simple; as, an *unsophisticated* mind.—Pure; not adulterated by mixture; not spurious; as, *unsophisticated* liquors.

Unsort'ed, *a.* Not sorted, or separated into sorts; not distributed according to kinds or classes; as, *unsorted* nails.

Unsound', *a.* Not sound; defective; as, *unsound* timber.—Sickly; infirm; radically weak; as, an *unsound* constitution.—Unorthodox; deficient; as, *unsound* doctrine.—Not honest, just, or upright; not sound or trustworthy in character; deceitful; as, a man of *unsound* principles.—Not true, real, palpable, or substantial; as, *unsound* delights. (*Spenser.*)—Not of close or compact texture or substance; as, *unsound* cheese.—Not solid; not material; as, an *unsound* substance.—Insincere; not true, staunch, or faithful; as, *unsound* affection.—Not strong; not capable of bearing pressure; as, *unsound* ice.—Sophistical; delusive; erroneous; fallacious; wrong; as, an *unsound* argument or proposition.—Not fast; not deep; not calm; as, *unsound* sleep.—Not well established; doubtful; questionable; as, an *unsound* reputation, *unsound* credit.

Unspar'ing, *a.* Not parsimonious; generous; liberal; profuse; lavish; as, *unsparing* munificence.—Inexorable; vindictive; harsh; not merciful or forgiving; as, *unsparing* animosity.

Unspeak'able, *a.* That cannot be spoken or uttered; that cannot adequately be revealed or expressed; unutterable; inexpressible; as, *unspeakable* joy or sorrow.

Unspot'ted, *a.* Free from spot, stain, or blemish; as, an *unspotted* skin.—Untainted with guilt, or any moral stain or blemish; unvitiated; immaculate; as, an *unspotted* good name.

Unst, the most southern of the Shetland Islands, in Lat. 60° 45′ N., separated on the S. side from Yell, by Blue Mull Sound, 1 m. across. It is 11 m. long, with an average breadth of 3½ m. There are numerous tumuli, a chain of Scandinavian dunes, and the ruins of upwards of 20 ancient chapels. *Pop.* 3,000.

Unstained', *a.* Not stained, dyed, or tinctured; as, *unstained* paper.—Not tarnished, polluted, or dishonored; as, an *unstained* pedigree.

Unsteadily, (*-stĕd'-,*) *a.* Without steadiness; in a wavering, vacillating manner; inconstantly; variously; mutably.

Unstead'y, *a.* Not steady; as, an *unsteady* posture.—Irresolute; fickle; mutable; changeable; not in the same manner at different times; as, an *unsteady* mind.—Dissipated; not adhering constantly to the serious concerns of life; as, the best of us are *unsteady* at times.

Unstring', *v. a.* (*imp.* and *pp.* UNSTRUNG.) To deprive of a string or strings; as, to *unstring* a violin.—To relax the tension of; to loosen; as, *unstrung* nerves.—To remove from a string; as, to *unstring* beads.

Unsuccess'ful, *a.* Without success; not producing the desired effect, nor having a happy issue; not fortunate.

Unsuit'able, *a.* Unfit; not suitable or adapted; as, the man is *unsuitable* for the place.—Improper; unbecoming; not in accordance; as, the electoral franchise is *unsuitable* for women.

Unsuspicious, (*-pish'us,*) *a.* Entertaining no suspicion; not indulging the imagination of evil or wrongdoing in others; as, an *unsuspicious* nature.—Not to be suspected; irrefragable; as, *unsuspicious* testimony.

Unsymmet'rical, *a.* Wanting symmetry or harmonious proportion of parts; as, an *unsymmetrical* figure. (*Bot.*) Not symmetrical;—said of the segments of the calyx and corolla, the sepals and petals, and also the stamens when they are not regular and similar.

Unsystemat'ic, Unsystemat'ical, *a.* Not having regular or systematic order, distribution, or arrangement of parts.

Untaint'ed, *a.* Not tainted or rendered impure by admixture, or by impregnation with foul matter; as, *untainted* air.—Not rendered distasteful or unsavory by putrescence; as, *untainted* meat.—Not accused; as, he is yet *untainted*.—Not sullied or stained; unblemished; spotless; as, a man of *untainted* honor.

Untax', *v. a.* Not taxed; not having taxes imposed on; as, an *untaxed* people.—Not accused; as, a person suspected but *untaxed*.

Unten'able, *a.* That cannot be held in possession; that cannot be maintained or supported; not defensible; as, an *untenable* fort, an *untenable* argument.

Unterwalden, (*oon'ter-val-den,*) a canton of Switzerland, bounded N. by the Lake of Lucerne, E. by the Canton of Uri, S. by Berne, and W. and N.W. by Lucerne. It is divided into Upper *U.* (Oberwalden), cap. Sarnen, and Under *U.* (Niederwalden), cap. Stanz, each division forming an independent republic, with its own administration. Both have a *landesgemeinde*, or citizen congress, composed of all the inhabitants 20 years of age, which assembles in the open air late in the spring, when it passes new laws, imposes taxes, and appoints the executory officers. The greater part of *U.* is occupied by mountains, whose heights range between 3,000 and 10,000 feet above sea-level. The remainder consists of 4 principal valleys, which have a general slope towards the lake on the N. frontier, into which the chief rivers, the Melch and the Aar, discharge nearly all the drainage of the canton. There are several small lakes, and abt. ¼ of the area of Lake Lucerne (Fig. 2554) belongs to *U.*

Fig. 2554.—VIEW ON THE LAKE OF LUCERNE, FROM THE UNTERWALDEN SIDE.

The inhabitants are nearly all Roman Catholics; they speak German; and pastnrage is their chief occupation. They are exceedingly simple in their habits. *Pop.* 24,902, divided into abt. equal parts between the 2 half cantons. *U.* formed, with Uri and Schwyz, early in the 13th cent., the nuclens of the Confederation, in which it holds the 6th place.

Unthink'ing, *a.* Thoughtless; inconsiderate; not with thought or heed; as, an *unthinking* man.—Not indicating thought or reflection; as, "With round *unthinking* face."—*Pope.*

Unthread, (*-thrĕd',*) *v. a.* To draw or take out a thread from; as, to *unthread* a needle.—To loose the ligaments or threads of.

Untie', *v. a.* To loosen or free from being tied; to disengage, as the parts that form a knot.—To unbind; to free from any fastening; to let loose; as, "to *untie* the winds." (*Shaks.*)—To loosen from convoluted intricacies; as, "snakes *untied*." (*Pope.*)—To loose; to separate something attached; as, a woman's *untied* tongue.—To resolve; to clear; to unfold, as difficulties or perplexities.

Until', *prep.* [See TILL.] Into; to; till; as far as;—in relation to time, place, or degree;—seldom used in modern acceptation, except with reference to time; as, keep this in mind *until* the day shall come.

—*conj.* That is;—having reference to an event mentioned, or to the time of it; to the point or place of; to the degree that; till; as, "Treasons are never believed . . . *until* they come to act."—*Denham.*

Untime'ly, *a.* Happening before the usual time; unseasonable; taking place before the natural or proper time; premature; as, his *untimely* fate.

—*adv.* Before the natural or ordinary time; prematurely.

Untir'ing, *a.* Not becoming tired or exhausted; patient; enduring; as, *untiring* zeal.

Un'to, *prep.* [A. S. *on, an, in, into,* and *to.*] To;—rarely used except antiquatedly, formally, or scripturally.

Untold', *a.* Not told, spoken, related, or revealed; as, grief *untold*.—Not numbered or told over; as, wealth *untold*.

Untoward, (*-tō'ard,*) *a.* Froward; perverse; refractory; not easily guided or taught.—Awkward; ungainly; ungraceful; as, *untoward* words or manners.—Inconvenient; troublesome; unmanageable; as, an *untoward* pledge.

Unto'wardly, *a.* Awkward; perverse; froward; as, *untowardly* tricks or vices.

—*adv.* In an untoward, perverse, or froward manner; awkwardly; ungainly.

Untravelled, (*-trăv'eld,*) *a.* Not travelled; not trodden by wayfarers or passengers; as, *untravelled* wilds.—Not having seen the world; not having visited foreign countries.

Untrue', *a.* Lacking truth; false; contrary to the fact; as, your account of the matter is *untrue*; not faithful to another; not fulfilling duties or obligations; false; disloyal; inconstant; as, she is *untrue* to her husband.

Un'truth, *n.* Falsehood; contrariety to truth; want of veracity or fidelity; disloyalty; treachery.—That which is untrue; a lie; a falsehood; a false assertion; as, he is notorious for uttering *untruths*.

Untune', *v. a.* To render incapable of harmony; to put out of tune or tone; as, "*Untun'd* the music, and disus'd the voice." (*Prior.*)—To disorder; to throw into confusion; as, *untuned* senses.

Untwist', *v. a.* or *n.* To separate and bring apart, as threads twisted; or, to turn back that which is twisted; as, "The twine that *untwisteth, untwisteth* the twist." (*Wallis.*)—To open; to disentangle; as intricacy; as, "*untwisting* his deceitful clew"—*Spenser.*

Unusual, (*-yu'zhu-al,*) *a.* Not usual, common, or ordinary; rare; as, a person of *unusual* accomplishments.

Unusually, *adv.* Not commonly, ordinarily, or frequently; rarely.

Unutterable, *a.* That cannot be uttered or expressed; ineffable; as, "She sighed, and looked *unutterable* things."—*Thomson.*

Unvar'nished, (*-nĭsht,*) *a.* Not overspread with varnish.—Not artfully embellished; plain; as, an *unvarnished* tale.—*Shaks.*

Unwarped, (*-warpt',*) *a.* Not warped; unbiassed; not turned from the true direction; impartial; as, an *unwarped* judgment.

Unwar'rantable, *a.* Not warranted; not defensible.

Unweighed, (*-wād,*) *a.* Not having the weight ascertained.—Not deliberately considered and examined, negligent; as, *unweighed* evidence.

Unwell', *a.* Sick; indisposed; not in good health; ailing; somewhat ill.—Affected with, or having catamenial or menstrual discharges, as a woman.

Unwholesome, (*-hōl'sum,*) *a.* Not wholesome; not favorable to health; insalubrious; as, *unwholesome* food.—Injudicious; distasteful; as, *unwholesome* counsel.

Unwhole'someness, *n.* State or quality of being unwholesome, or injurious or noxious to health; insalubrity; as, the *unwholesomeness* of a climate.

Unwieldy, (*-wēld'-,*) *a.* That is moved with difficulty; unmanageable; bulky; ponderous; as, an *unwieldy* body.

Unwill'ing, *a.* Not willing; loth; disinclined; reluctant; as, an *unwilling* witness.

Unwind', *v. a.* (*imp.* and *pp.* UNWOUND.) To loose or separate, as that which is wound or convolved; as, to *unwind* a ball of thread.—To disentangle; as, to *unwind* the affections from an object.

Unwise, (*-wīz',*) *a.* Not wise; not choosing the best means for the end; defective in wisdom or sound judgment; not dictated by prudence; injudicious; foolish; indiscreet; as, *unwise* measures, *unwise* delay, an *unwise* man.

Unwise'ly, *adv.* Not characterized by wisdom; injudiciously; without prudence or discretion; as, *unwisely* liberal.

Unwit'tingly, *adv.* Without knowledge or consciousness; ignorantly; as, I have *unwittingly* offended him.

Unwont'ed, (*-wunt,*) *a.* Not wonted; unaccustomed; unused; not made familiar by habit or practice; as, "Sea-calves *unwonted* to fresh waters lie." (*May.*)—Infrequent; uncommon; unusual; as, an *unwonted* change.

Unworthily, (*-wur'thi-ly,*) *adv.* In an unworthy manner; without due regard to merit; not in accordance with desert; as, I have been treated *unworthily*.

Unwor'thy, *a.* Deficient in worth or merit; undeserving; as, an *unworthy* person.—Vile; base; worthless; as, *unworthy* money.—Not suitable; inadequate; unbecoming;—preceding *of*; as, he is *unworthy of* credit, this article is *unworthy of* his pen.

Unwritten, (*-rit'tn,*) *a.* Verbal; oral; not written; not reduced to, or conveyed in, writing; as, *unwritten* tradition.—Blank; containing no writing; as, a rude, *unwritten* blank.

Unwritten doctrines. (*Theol.*) Oral or traditional doctrines.

Unwritten laws, laws, such as belong to the early and barbarous European nations, handed down by tradition or minstrelsy.—*Unwritten law.* (Lat. *lex non scripta.*) That portion of English and American law not having had derivation from express legislative enactment.

Unyielding, (*-yēld'-,*) *a.* Not yielding to force or persuasion; unbending; unpliant; stiff; firm; obstinate; not giving place; inexorable: as, an *unyielding* temper.

Unyoke', *v. a.* To loose or free from a yoke, as cattle.—To part; to disconnect; to disjoin; as, to *unyoke* man and wife.

Up, *adv.* [A. S. *up, upp, uppe.*] Aloft; on high; above; in a higher position; in a state of elevation or exaltation;—correlative to *down*.—Hence, in various derived applications; as, (1.) From a lower to a higher position, whether literally or figuratively, as from a state of concealment or recumbence; in a state of climbing or ascending; from a dependent or inferior condition; from younger to older years;—connected with motory verbs indicated or implied; as, to get *up* from bed; he worked himself *up* to his present prosperity; my temper is quickly *up*.—(2.) In a state of being increased or raised; in a state of advance or proficiency; in a condition of elevation, prominence, and the like; in the state of being built or constructed; in the state of having arisen; in a higher position, literally or figuratively;—having application with verbs indicative of condition, situation, repose, &c.; as, he has just *got up*; so soon as the sun is *up*; the people were *up* in arms: those people who are *up* in the world are apt to forget the time when they were low; the honorable member is *up*.

—In a state of approaching; to or in a condition of equal progression or equality; not less advanced than; not short of; not back of, or away from;—in most cases preceding *to* or *with*; as, to come *up with* the front rank; to live *up to* one's income; to be *up to* the middle in water; to act *up to* our duty.—To or in a state of thoroughness or completion; entirely; wholly; quite; completely; as, he ate *up* his dinner; to burn *up* a letter; to sum *up* evidence;—in an elliptical sense, *up* is used as equivalent to *get up*, expressing a command or advisory intimation.

"*Up! up!* my friend, and quit your books."—*Wordsworth.*

It is all up with him, it is all over, or ended, with him. *The time is up*, the appointed or allotted time is come.—*To blow up.* See BLOW.—*To come up with.* See COME.—*To draw up*, to arrange in proper order; to put in suitable form; as, *to draw up* a memorial.—*To grow up*, to grow to maturity; as, a *grown up* youth.—*Up to snuff.* See SNUFF.—*Up and down*, backward and forward; from one place, state, or position to another; as, to pace *up and down* a street.

—*n.* State or condition of being up or above.—*Ups and downs*, alternate states of elevation and depression, of prosperity and adversity; as, Life's *ups and downs*. (Colloq.)

Up, *prep.* From a lower to a higher place on or along; at the top of; as, to walk *up* a hill. — *Up sound.* (*Naut.*) From the sea.—*Up stream,* against the stream.—*Up the country,* in the direction toward the head-waters of a stream or river.

U'pas, *n.* [Malay, poison.] (*Bot.*) See AROTOCARPACEÆ.

Upbar', *v. a.* To bar up, or fasten with a bar.

Upbear, (*-bair',*) *v. a.* (*imp.* UPBORE; *pp.* UPBORNE.] To bear up or aloft: to raise; to lift; to elevate; to sustain aloft; to support in an elevated position.

"Swift as on wings of wind *upborne* they fly."—*Pope.*

Upbraid', *v. a.* [A. S. *up-gebredan,* to charge, reproach.] To reproach: to charge with something wrong or opprobrious; to cast in the teeth of; — preceding *with* or *for* before the thing imputed; as, to *upbraid* a man *with* his illegitimacy of birth. — To reprove or admonish with severity; to chide energetically; to bring reproach on.

Upbraid'er, *n.* One who reproves, chides, or reproaches.

Upbraid'ingly, *adv.* In an upbraiding manner.

Upbreed', (*imp.* and *pp.* UPBRED,) *v. a.* To rear, breed, or bring up; as, *upbred* at homs.

Upcast', *a.* Cast upward; thrown heavenward; — opposed to *downcast;* as, *upcast* eyes.

—*n.* (*Games.*) In bowling, a throw; a cast.

(*Mining.*) See DOWNCAST.

Upcoiled', *a.* Made into a coll; as, *upcoiled* hair.

Upheav'al, *n.* Act of upheaving; a heaving or lifting up.

Upheave', *v. a.* To heave or lift up from beneath.

Upheld', *imp.* and *pp.* of UPHOLD, *q. v.*

Upher, (*ŭ'fer,*) *n.* (*Arch.*) One of a set of fir piles, chiefly used in scaffolding, and running from 20 to 40 ft. in length, with a diameter of from 4 to 7 inches.

Uphill', *a.* Ascending; tending upward; as, an *uphill* path. — Difficult; like the act of ascending a hill; as, *uphill* work.

Uphold', *v. a.* (*imp.* UPHELD; *obs.* UPHOLDEN.) To hold up; to lift aloft or on high; to elevate; as, to *uphold* the hands. — To sustain; to keep from slipping or falling; to keep from declension; to support in any state; to continue; to maintain, as, to *uphold* the authority of the law. — To keep or continue in being; to defend; to invest with moral support or countenance; as, to *uphold* the claims of an injured person.

Uphold'er, *n.* One who, or that which, upholds, supports, sustains, or defends. — Formerly, an upholsterer; also, an undertaker for funerals.

Uphol'sterer, *n.* One who fits up dwelling-houses with furniture, beds, hangings, and the like; — formerly written *upholder.*

Uphol'stery, *n.* Furniture supplied by upholsterers.

Uphroe, (*yoov'rō,*) *n.* (*Naut.*) An oblong block, without sheaves, and having several holes. Its use is to hold ropes temporarily extended, the formation preventing the rope from slipping.

Up'land, *n.* [*up* and *land.*] High land; land on hills and steep declivities, which in general requires a different kind of management from lands in plains or plateaux; they are generally kept in pasture or underwood, and are for the most part dry: — opposed to *meadow, marsh, swamp,* &c.

—*a.* Higher in situation; being on upland; as, an *upland* tract. — Pertaining to uplands; as, *upland* grazing. — *Upland sumach.* (*Bot.*) The *Rhus glabra.* See RHUS.

Upland, in *Pennsylvania,* a village of Chester co., 38 m. S.W. of Philadelphia.—A post-borough of Delaware co., 14 m. S.W. of Philadelphia. *Pop.* (1897) 2,980.

Up'lander, *n.* An inhabitant of the uplands.

Upland'ish, *a.* Dwelling on high lands or mountainous slopes; hence, rustic; rude; as, *uplandish* people.(R.)

Uplift', *v. a.* To raise up; to lift aloft; to elevate; to place on high or higher; as, with *uplifted* head.

—*n.* (*Geol.*) Strata, although generally in horizontal position, when formed, are, in most regions, at the present time, *tilted,* or inclined, and the inclinations vary from a small angle to verticality, or even beyond verticality. They have been raised into folds, each fold often many inches in sweep, and equal to a mountain-ridge in extent. They have been crumpled up into groups of irregular flexures, one fold or flexure succeeding to another, till like a series of wrinkles on the earth's surface. Every mountain-region possesses examples of these flexures or uplifts, and most intermediate plains have at least some undulation, in conformity with the system in the mountains. In connection with all this uplifting, there have been fractures on a great scale; and strata thus broken have been displaced or dislocated by a sliding of one side of such a fracture through varying distances from a few feet to miles—one side dropped down to this extent, or the other side shoved up. — A *dislocation* or *uplift* is called *fault,* when the dislocation of the strata is in the plane of a fracture.

Up'-line, *n.* In England, that line of track of a railway which leads in the direction of the chief terminus; — opposed to *down-line.*

Up'most, *a.* Highest; topmost: — little used, UPPERMOST (*q. v.*) being preferred.

Upon', *prep.* [A. S. *uppan, uppon* — *on,* and *up,* high, exalted.] On: — used in all the senses of that word, with which it is interchangeable, and opposed to *under.* See ON. — *To take upon,* to assume; to undertake; as, he *took upon* himself the responsibility.

To assume upon. (*Law.*) To promise; to undertake.

Up'per, *a.* (*comp.* of UP, *q. v.*) Higher in place; further up: — used literally or figuratively; superior in rank, dignity, position, and the like; as, the *upper* lip, the *upper* classes of society, the *upper* deck of a ship, the *upper* house of the legislature.

Upper case. (*Print.*) The higher one of a pair of compositors' cases, in which are kept capitals, small capitals, and references. — *Upper ten,* or *upper ten thousand,* a colloquialism for the ten thousand highest in rank or wealth; in other words, the ton; the aristocracy; the upper class; the fashionable world. (Vulgar U. S.)—*Upper works.* (*Naut.*) Those parts of a ship's hull which are above the water-line when she is fully laden and placed in sailing trim.

Up'per, in *Arkansas,* a township of Sebastian county.

Upper, in *New Jersey,* a township of Cape May county.

Upper, in *North Carolina,* a township of Chowan county.

Upper, in *Ohio,* a township of Lawrence county.

Upper Al'len, in *Pennsylvania,* a township of Cumberland co.

Upper Al'loway's Creek, in *New Jersey,* a township of Salem county, 72 miles south-west of Trenton.

Upper Al'ton, in *Illinois,* a city of Madison co., 1½ m. E. of Alton. *Pop.* (1897) 2,050.

Upper Aquebogue, in *New York,* a post-villags of Suffolk co., 75 m. N.E. of New York city.

Upper Angus'ta, in *Pennsylvania,* a township of Northumberland co.

Upper Bern, in *Pennsylvania,* a post-township of Berks co.

Upper Chich'ester, in *Pennsylvania,* a township of Delawars co.

Upper Cove, in *Georgia,* a district of Walker county.

Upper Creek, in *N. Carolina,* a precinct of Burke co.

Up'per-crust, *n.* The top or raised crust, as of a pie.—Hence, a cant term for the upper class of society.

Upper Dar'by, in *Pennsylvania,* a post-township of Delaware co., 9 m. W. of Philadelphia.

Upper Dick'inson, in *Pennsylvania,* a township of Cumberland co.

Upper Dub'lin, in *Pennsylvania,* a post-twp. of Montgomery co., 15 m. N. of Philadelphia.

Upper Fair'field, in *Pennsylvania,* a township of Lycoming co.

Upper Fork, in *N. Carolina,* a precinct of Burke county.

Upper Free'hold, in *New Jersey,* a township of Monmouth co.

Upper Gloucester, (*-glos'ter,*) in *Maine,* a post-village of Cumberland co., abt. 25 m. N. of Portland.

Upper Grove, in *Iowa,* a post-village of Hancock co., abt. 42 m. N.E. of Fort Dodge.

Up'per-hand, *n.* Superiority; advantage; asceudancy; as, to get and keep the *upper-hand.*

Upper Han'over, in *Pennsylvania,* a township of Montgomery co.

Upper Hom'ing, in *N. Carolina,* a township of Buncombe co.

Upper Hunt'ing Creek, in *Maryland,* a village of Caroline co., 57 m. E. of Annapolis.

Upper Iowa River, rises in Freeborn co., Minnesota, and flowing E., enters the Mississippi in Allomakee co.

Upper Lea'cock, in *Pennsylvania,* a township of Lancaster co.

Upper-leather, (*-lĕth'er,*) *n.* [Often abbreviated to *upper.*] The leather used in making the vamps and quarters of shoes.

Upper Macun'gy, in *Pennsylvania,* a township of Lehigh co., abt. 10 m. S.W. of Allentown.

Upper Mahantan'go, in *Pennsylvania,* a post-twp. of Schuylkill co.

Upper Maho'noy, in *Pennsylvania,* a township of Northumberland co.

Upper Make'field, in *Pennsylvania,* a township of Bucks co.

Upper Marl'borough, in *Maryland,* a post-village, cap. of Prince George co., 17 m. E.S.E. of Washington.

Upper Mer'ion, in *Pennsylvania,* a township of Montgomery co., on the Schuylkill River, opposite Norristown.

Upper Mid'dleton, in *Pennsylvania,* a post-village of Fayette co., 40 m. S.E. of Pittsburg.

Upper Mil'ford, in *Pennsylvania,* a township of Lehigh co.

Up'permost, *a.* Upmost; furthest up; highest in place, power, position, or authority; supreme; as, "'Tis all one to the common people who 's *uppermost.*" *L'Estr.*

Upper Mount Bethel, in *Pennsylvania,* a township of Northampton co.

Upper Naz'areth, in *Pennsylvania,* a township of Northampton co.

Upper O'kaw, in *Illinois,* a township of Coles county.

Upper Ox'ford, in *Pennsylvania,* a twp. of Chester co.

Upper Pax'ton, in *Pennsylvania,* a twp. of Dauphin co.

Upper Penn's Neck, in *New Jersey,* a township of Salem co.

Upper Pitts'grove, in *New Jersey,* a township of Salem co.

Upper Prov'idence, in *Pennsylvania,* a post-twp. of Delaware co.—A township of Montgomery co., 25 m. N.W. of Philadelphia.

Upper Red Hook, in *New York,* a post-village of Dutchess co., abt. 15 m. S. of Catskill.

Upper Sal'ford, in *Pennsylvania,* a township of Montgomery co.

Upper Sandus'ky, in *Ohio,* a post-village, cap. of Wyandot co., 63 m. N.W. of Columbus. *Pop.* (1897) 3,590.

Upper Sau'con, in *Pennsylvania,* a township of Lehigh co

Up'per St. Clair, in *Pennsylvania,* a post-twp. of Allegheny co., abt. 9 m. S.W. of Pittsburg.

Upper Stras'burg, in *Pennsylvania,* a post-village of Franklin co., abt. 10 m. N.N.W. of Chambersburg.

Upper Swata'ra, in *Pennsylvania,* a township of Dauphin co.

Upper-ten', *n. pl.* See UPPER.

Upper-ten'dom, *n.* The aristocracy; the upper classes of society. (Colloq. U. S.)

Upper Towamen'sing, in *Pennsylvania,* a township of Carbon co.

Upper Tulpehock'en, in *Pennsylvania,* a township of Berks co.

Upper Tur'keyfoot, in *Pennsylvania,* a township of Somerset co.

Upper Uwch'lan, in *Pennsylvania,* a township of Chester co.

Up'perville, in *Virginia,* a post-village of Fauquier co., 135 m. N.W. of Richmond.

Up'per-world, (*-wurld,*) *n.* The atmosphere; the ethereal world of space. — Heaven; the celestial world. — This world, in distinction from the *under-world.*

Up'pish, *a.* [From *up.*] Proud; arrogant; self-conceited; snobbish. (Colloq.)

Up'pishly, *adv.* Proudly; petulantly.

Up'pishness, *n.* Purse-pride; vulgar arrogance; snobbism; vulgar imitation of good style or aristocratic manners; assumed air of superiority. (Low.)

Upraise', *v. a.* To raise or lift up; to elevate.

Uprear', *v. a.* To rear or raise up; to bring up; as, to *uprear* a family.

Upright, (*ŭp'rīt,*) *a.* Straight up; pointing directly upward; perpendicular or vertical to the plane of the horizon; erect; as, an *upright* posture, an *upright* pillar. — Just; honest; possessing rectitude; adhering to, or not deviating from, correct moral principles; as, an *upright* man, an *upright* mind. — Conformable to moral truth and equity; as, *upright* conduct.

—*n.* That which stands erect or perpendicular.

(*Arch.*) An elevation, as of a building

Up'rightly, *adv.* Perpendicularly; with erectness; in an upright manner. — Without deviation from rectitude or integrity; equitably; honestly.

Up'rightness, *n.* State of being upright.

Uprise, (*-rīz',*) (*imp.* UPROSE; *pp.* UPRISEN, (*-rĭz'n,*) *v. a.* To rise; to get up; to bestir, as from rest or recumbency.

Uprising, (*-rīz'-*) *n.* Act of rising; also, an ascent: an acclivity; a steep place.

Up'roar, *n.* [Swed. Goth. *upror* — *up,* and *röra,* to move.] Great tumult or noisy commotion; violent disturbance, hustle, and clamor.

Uproar'ious, *a.* Making uproar; accompanied by great clamor, or noise and tumult; as, *uproarious* laughter. (Low.)

Uproot', *v. a.* To tear up by the roots, or as if by the roots; to eradicate; to extirpate; as, *uprooted* trees; to *uproot* heresy.

Uprouse', *v. a.* To rouse, as from sleep; to stir up.

Up'sal, an ancient city of Sweden, 45 m. from Stockholm, on the small river Sala. The cathedral, in which the Swedish kings used to be crowned, is a large structure. The university, founded in 1476, has faculties of law, philosophy, theology, and medicine. It is governed by a chancellor, assisted by 31 professors; and has a library containing about 200,000 volumes, an observatory, &c.

Upsend', *v. a.* (*imp.* and *pp.* UPSENT.) To throw, send, or cast up.

Upset', *v. a.* (*imp.* and *pp.* UPSET.) To set up or place upright. — To set upside down. — To overturn or overset; as, to *upset* a tray, carriage, &c. — To make thicker and shorter, by hammering on the end of a piece of heated metal set up endwise, as the tire of a wheel.

—*v. n.* To become thickened and shortened, as a piece of iron by end-hammering.

—*a.* Set up; having reference to something that is set up for sale; as, an *upset* price, that is, the lowest price at which anything can be sold at auction.

—*n.* Act of upsetting; also, an overturn; a spill, as of a carriage or other vehicle.

Up'shot, *n.* Final issue or result; end; conclusion, ultimate consequences.

Up'shur, in *Ohio,* a post-village of Preble co.

Upshur, in *Texas,* a N.E. co.; *area,* 520 sq. m. *Rivers.* Sabine and Big Cyprus bayou. *Surface,* level; *soil,* fertile. *Cap.* Gilmer. *Pop.* (1897) 13,730.

Upshur, in *West Virginia,* an E. co.; *area,* 350 sq. m. *Rivers.* Buchauan and the West Fork of the Monongahela. *Surface,* hilly; *soil,* fertile. *Cap.* Buckhannon. *Pop.* (1897) 14,100.

Up'side, *n.* The upper side or uppermost surface.—*Upside down,* topsy-turvy; with the upper part undermost; hence, in complete confusion or disorder.

Up'son, in *Georgia,* a W. central co.; *area,* 321 sq. m. *Rivers.* Flint; also Potato creek. *Surface,* diversified; *soil,* fertile. *Cap.* Thomaston. *Pop.* (1897) 13,930.

Up'sonville, in *Pennsylvania,* a post-village of Susquehanna co., 180 m. N.N.E. of Harrisburg.

Upstairs', *adv.* In or toward the upper story of a building.

Upstart', *v. n.* To start or spring up suddenly.

—*n.* That which springs, starts, or shoots up suddenly; specifically, a parvenu; a snob; one who has risen by a sudden stroke of fortune from a low condition of life to rank, wealth, power, or importance; as, a vulgar *upstart.*

—*a.* Suddenly raised to prosperity, prominence, or importance.

Up'stroke, *n.* The fine line or stroke made by a pen or pencil when moving upward, in distinction from the *downstroke,* which is thicker and more prominent.

Up'ton, in *Maine,* a post-twp. in Oxford co.

Up'ton, in *Massachusetts*, a post-township of Worcester co., 33 m. W.S.W. of Boston.

Upton, in *Missouri*, a twp. of Texas co.

Upton, in *Pennsylvania*, a post-village of Franklin co., 13 m. S.W. of Chambersburg.

Up-town', *a.* Situated in, or belonging to, the upper part of a town; as, *up-town* society.

—*adv.* Toward, or in, the upper part of a town.

Up'-train, *n.* In England, a railway-train proceeding toward the main terminus.—In the U. S., a railroad train going toward the direction conventionally denoted by *up*.

Upturn', *v. a.* To turn or direct upward.

U'pupa, *n.* (*Zoöl.*) The Hoopoe, *q. v.*

Up'ward, *a.* Ascending; directed to a higher place.

Up'ward, Upwards, *adv.* Toward a higher place; in a direction from lower to higher;—opposed to *downward* or *downwards*; as, looking *upward*, we saw the summit of the peak.

—Above; with respect to the higher or upper parts; as, the *upward* half of the body.— Yet more; with a tendency to a higher or greater number; as, two years' or *upward*, of incessant labor.—*Upward* or *upwards of*; more than; above;—hence, about; nearly; as, I have known him *upwards of* twenty years.

Ur. (*Script.*) See Orfah.

Ural, or **Oural,** (*oo-ral*,) a river of Russia, rising near Minsk, on the E. side of the Ural chain, and considered with the Ural Mountains to form the E. boundary of Europe. After an estimated course of about 1,800 m. it enters the Caspian Sea, 180 m. from Astrakhan.

U'ral or (**Ou'ral**) **Mountains,** an extensive mountain range extending nearly under the same parallel from the N. border of the Sea of Aral to the shores of the Arctic Ocean, or from Lat. 28° to 69°, and forming during the greater part of its course the boundary between Europe and Asia. Its breadth varies from 1 to 5 m., and its highest peak is 6,400 ft. It is rich in gold, copper, and iron.

Uralsk', a town of Russia, on the Ural, 150 m. from Orenberg. It is the residence of the hetman of the Cossacks. *Pop.* 14,000.

Ura'nia. (*Myth.*) One of the Muses, daughter of Jupiter and Mnemosyne; she presided over astronomy. She is represented as a virgin, with a crown of stars, draped in garments spangled with stars, holding in her left hand a celestial globe.

(*Astron.*) An asteroid discovered by Hind in 1854.

Fig. 2555.—URANIA.

Uran'ic, *a.* (*Chem.*) Noting salts whose base is uranic acid or sesqui-oxide of uranium.

U'ranite, *n.* (*Min.*) See Uranium.

Ura'nium, *n.* (*Chem.*) A metal discovered by Klaproth in 1789, who named it after the planet Uranus, discovered about that time. It occurs in the minerals *uranium ochre* UO_3H_2O; *pitch blende*, which consists of the black oxide U_2O_5, associated with silica, lead, and iron; *chalcolite*, *uran-glimmer*, or *uran-mica*, which consists of the phosphate of copper and uranium, $CuO,2UO_3,P_2O_5,8H_2O$; and *uranite*, which is the phosphate of lime and uranium, $CaO,2HO_3P_2O_5,8H_2O$. Uranium is a very hard, but moderately malleable metal, sp. gr. 18·33, and resembles nickel or iron in color and luster. The salts of the oxides of uranium are of a green or yellow color; the persalts have been most examined. Ferrocyanide of potassium produces in them a very characteristic rich brown precipitate, not unlike that formed by the persalts of copper. They are also precipitated brown by the infusion of galls. Peroxide of uranium is used to give a green or greenish-yellow color to glass, and a suboxide (U_2O_5) is somewhat extensively used in porcelain painting for the production of an intense black. *Equiv.* 240; *Symbol* U.

Uranog'raphy, Uranol'ogy, *n.* [Gr. *ouranos*, the heavens, *grapho*, to describe, and *logos*, treatise.] A description of the heavens.

Uranos'copy, *n.* [Gr. *ouranos*, heaven, and *skopein*, to view.] Contemplation of the heavens or heavenly bodies.

Uranos'copus, *n.* (*Zoöl.*) The Star-gazers, a genus of fishes, family *Percidæ*, so called by Linnæus because both eyes were placed on the superior surface of the head, which presents a nearly cubical form. The mouth is cleft vertically at the anterior part of the head, and, like the eyes, is directed upwards. *U. onoplos* (Fig. 2556), 2 in. or more in length, is found on the S.E. coast of the U. States.

Fig. 2556. — STAR-GAZER. (*U. onoplos.*)

Ura'nus, *n.* [Heaven, the most ancient of the gods. Symbol, H, the initial of Herschel, with a planet suspended from the cross-bar.] (*Astron.*) Uranus, which for 65 years was considered the frontier planet, is the third of the outer group, and seventh in the order of distance from the sun. It was accidentally discovered by Sir William Herschel on March 13, 1781. Its period is 84 years. It follows that since this discovery it has completed one revolution and is well advanced on another. When found it did not occur to Herschel that it was a planet, but a new and a curious comet, in appearance totally unlike all comets hitherto known. When its planetary character was ascertained, and search made of previous records by different observers, it was seen that M. Le Monier had previously observed it on 12 successive nights, without a suspicion of its planetary character. A sharp, youthful eye, under favorable seeing conditions, can, if its place be known, see it without a telescope. As the inclination of its equator to its orbit (on which the character of a planet's seasons depends) is unknown, no conclusions can be formed regarding its seasons except that the poles must be alternately in light and darkness for 42 of our years. If thermal conditions are the same there as here, the sun's heating power must be nearly 400 times less than our planet enjoys. The orbit of *U.* is inclined to the ecliptic (earth's orbit) the least of any of the major planets (46′ 28″). It is so far away the variation in its distance from us produces but little difference in its apparent brightness. *U.* has four satellites—not six, as Herschel supposed. They revolve retrograde, nearly north and south. See Planet, Solar System, &c.

U'rate, *n.* (*Chem.*) A compound of uric acid and a base.

Ur'ban, *a.* [Lat. *urbanus* — *urbs*, *urbis*, a walled city, from *orbis*, a circle.] Pertaining, or having reference, to a city; as, an *urban* population.

Ur'ban I., Pope, succeeded Calixtus I. in 222, and suffered martyrdom in 230.

Urban II. (*Odo of Lagny*,) succeeded Victor III. in 1088. He caused Guibert, who had been supported as anti-pope under the title of Clement III., to be driven out of Rome; preached the first crusade in 1095, and convoked the councils of Bari, Clermont, and Rome. D. 1099.

Urban III., (*Herbert Crivelli*,) archbishop of Milan, was the successor of Lucius II., and was elected to the papal chair in 1185. He endeavored to send assistance to the Christians in the East, who were being sorely pressed by Saladin; but his death took place before he could effect his object. D. 1187.

Urban IV., became Pope in succession to Alexander IV. in 1261. He excommunicated Maufred, king of Naples, and offered the crown to Charles, count of Provence and Anjou, and brother to Louis IX. of France, which led to the subsequent wars of the Anjous for the possession of Sicily and Naples. D. 1265.

Urban V., succeeded Innocent VI. in 1362. He restored the papal seat from Avignon to Rome, founded many churches, and reformed numerous abuses. D. 1370.

Urban VI., (*Bartolommeo Prignano*,) succeeded Gregory XI. in 1378. The cardinals afterwards chose Robert of Geneva, who took the name of Clement VII., and took up his residence at Avignon. Thus was originated the famous "Western Schism," which endured for nearly fifty years. D. at Rome, 1389.

Urban VII. succeeded Sixtus V. in 1590, but d. in less than a fortnight afterwards.

Urban VIII., (*Maffeo Barberini*,) b. 1568, ascended the pontifical throne in 1623. He condemned the Jansenists, revised the hymns of the Roman Catholic Church, and was the author of some Latin and Italian poems. D. 1644.

Urba'na, in *Iowa*, a village and township of Monroe co., 10 m. S.E. of Albia.

Urbane', *a.* Citizen-like; civilized; hence, courteous; polite; affable; elegant in address or manners.

Urbane', in *Illinois*, a village of Jackson co., abt. 50 m. S.S.E. of Kaskaskia.

Urban'ity, *n.* [Lat. *urbanitas*, from *urbs*, a city.] Quality of being urbane; civility; courtesy; elegance of deportment; blandness of speech; politeness.

Urbino, (*oor-be'no*,) a town of Italy, in the former States of the Church, 20 m. from Pesaro. *Manuf.* Pins, &c. It is the birth-place of Raphael. *Pop.* 8,146.

Ur'ceolate, *a.* [Lat. *urceolus*, dim. of *urceus*, a pitcher.] (*Bot.*) Pitcher- or urn-shaped. It differs from *campanulate* in being more contracted at the orifice, and having the limbs erect.

Ur'chin, *n.* (*Zoöl.*) The Hedge-hog, *q. v.*

—A child or small boy;—used jocosely or in contempt; as, a mischievous *urchin*.

Ure, Andrew, a Scottish chemist, b. in Glasgow, 1778. After lecturing with some success upon chemistry, natural philosophy, and materia medica, at Glasgow, he was nominated to the post of astronomer, upon an observatory being established in that city. In 1821 he produced a valuable work, entitled a *Dictionary of Chemistry*. He took up his residence in the metropolis in 1830, and was four years afterwards appointed analytical chemist to the Board of Customs. In 1831 he produced his *Dictionary of Arts, Manufactures, and Mines*, a work of immense labor and research, which has gone through many editions, and also been translated into the leading continental languages. D. 1857.

Urea, (*yu-re'a*,) *n.* One of the few organic bases of animal origin. It forms an essential constituent of the urine of all animals, and is most abundant in that of the mammalia, particularly so in the case of the carnivora. It is the principal outlet of nitrogen from the system, after the materials which compose the animal tissues have experienced oxidation under the influence of inspired air. A person in good health secretes about an ounce of *U.* daily. Dumas made several fruitless attempts to form *U.* from the azotized constituents of the body, but Bechamp has recently succeeded in doing so, by subjecting albumen to the oxidizing action of permanganate of potash. *U.* does not appear to be formed in the kidneys, these organs appearing to act more as filters in separating it from the mass of blood in which it is formed before it reaches them; perhaps it is produced in the liver. *U.* may be formed artificially in several ways, and was one of the first organic products made from inorganic materials. The easiest method of procuring it is by heating together 56 parts of ferrocyanide of potassium with 28 of black oxide of manganese, and washing the residue obtained. The cyanate of potash thus formed is transformed into the ammonia salt by dissolving it in 41 parts of sulphate of ammonia. The cyanate of ammonia may be dissolved out by alcohol, and slow evaporation converts it into *U.* It crystallizes in white, slender, striated prisms, which are slightly deliquescent. Its solution has a cool, bitterish taste, and is neutral to test-paper. It is very soluble in water and hot alcohol, but sparingly so in ether. It does not appear to form a definite hydrate. It melts at about 248° Fahr., and at a temperature a little above this, it is decomposed into ammonia, carbonate of ammonia, and metameric acid. A solution of *U.*, heated in a sealed tube, takes up four equivalents of water, and is converted into carbonate of ammonia. The same change takes place in stale urine; hence its ammoniacal odor after keeping it a few days. Although forming salts with certain of the acids, *U.* does not possess well-marked basic properties. With nitric and oxalic acids it forms crystallizable salts. With certain metallic oxides and salts, such as the oxides and nitrates of silver and mercury, it forms definite crystalline compounds. *U.* constitutes about one and a half per cent. of the urine of a healthy person, or about one-third of its solid constituents. The hydrogen in *U.* may be replaced by compound radicles, such as ethyl, phenyl, &c., giving rise to numerous compounds, known as the compound *U.* It also combines with other radicles, forming compounds known as *ureides*.

Ure'do, *n.*; *pl.* Uredinaceæ. [From Lat. *urere*, to burn, scorch.] (*Bot.*) A genus and order or family of *Fungales*, parasitical on plants, particularly on grasses, and notable for the great abundance of dark-colored spores which they throw off. They produce the diseases of corn and other cultivated plants called blight, rust, burnt-ear, &c.

Ure'ter, *n.* [Fr. *uretère.*] (*Anat.*) A long, membranous, pipe-like canal (Figs. 368 and 1478), which, extending from the kidney to the bladder, conveys into that organ the secretion distilled from the other. The *U.* on either side proceeds from the pelvis of the kidney, of which it is the continuation, and, descending through the abdomen, enters the bladder at the fundus of that organ, and near what is called the *trigon*.

Ureteri'tis, *n.* [Lat.] (*Med.*) Inflammation of the ureter.

Ure'thra, *n.* [Lat., from Gr. *ourethra*, from *ourein*, to make water.] (*Anat.*) See Bladder.

Ure'thral, *a.* Pertaining, or having reference, to the urethra.

Uret'ic, *a.* Stimulating the discharge of urine; urinary; diuretic.

Urfé, Honoré D', (*oor'fai*,) a French romance writer, b. 1567, at Marseilles, was author of the romance of *Astræa*, which was once exceedingly popular in France. D. 1625.

Urge, (*ĕrj*,) *v. a.* [From Lat. *urgeo*, *urgere*, to press upon, drive.] To press, push, or drive; to impel to action; to force onward; as, to *urge* a horse to speed.— To provoke; to exasperate; as, "*Urge* not my father's anger." (*Shaks.*)— To press, as an argument or objection; to importune; to solicit; as, he *urged* her to elope with him.— To follow closely; to press hard upon; as, "Heir *urges* heir, like wave impelling wave." (*Pope.*)— To press on the attention; to present to the mind in an urgent manner; as, to *urge* a plea in one's justification. — To apply violent or forcible treatment to; as, to *urge* an ore with intense heat.

—*v. n.* To press on or forward; as, "he strives to *urge* upward."—*Donne.*

Ur'gency, (*-jen-se*,) *n.* Quality of being urgent; entreaty; solicitation; importunity; as, the *urgency* of a petition or request.— Pressure of difficulty or necessity; as, the *urgency* of a case or occasion.

Ur'gent, (*-jent*,) *a.* [Fr., from Lat. *urgens*, *urgere.*] That urges; pressing; importunate; impelling; vehement; violent; demanding instant or immediate attention; as, *urgent* business.

Ur'gently, *adv.* In an urgent manner.

Ur'ger, *n.* One who urges, presses, or importunes.

Urgin'ea, *n.* (*Bot.*) A genus of plants, order *Liliaceæ*, including the officinal Squill, (*U. scilla*,) a native of the sandy shores of the Mediterranean, the bulb of which is sometimes as large as a child's head, and contains a viscid juice so acrid as to blister the fingers if much handled, while the vapor arising from it irritates the nose and eyes. It was by the ancients, and is still now, used as a diuretic and expectorant, and occasionally as an emetic; but it must be recollected that in moderately large doses it acts as a narcotic irritant poison, 24 grains having proved fatal.

Uri, (*oo're*,) a canton in the central part of Switzerland, bounded N. by the canton of Schwyz, E. and S.E by Glarus and Grisons, S. by Ticino, and W. by Valais, Bern, and Unterwalden; *area*, 418 sq. m. The surface is very mountainous, many of the summits being from 8,000 to above 10,000 feet above sea-level. The best known is that of St. Gothard, though by no means the most elevated summit. The only practicable outlets from the canton are by the road to Italy, which leads over the pass of St. Gothard, 6,700 feet above the sea (Fig. 2557), and by the Lake of Lucerne. The principal river is the Reuss. The climate is cold, and the soil generally unfertile. *U.* is governed as the canton of Unterwalden. The inhabitants are Roman Catholic, and speak German. *Cap.* Altorf. *Pop.* 15,145.— The *Lake of Uri*

forms the S. extremity of the Lake of Lucerne, and receives the river Reuss.

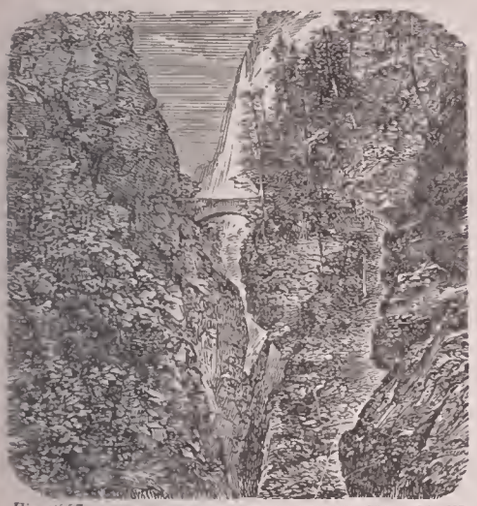


Fig. 2557. — A BAIDOE ON THE ROAD FROM SWITZERLAND TO ITALY, ACROSS THE ST. GOTHARD.

Uric Acid, (*yu'rik,*) *n.* (*Chem.*) A very important excrementitious product, which occurs in small quantities in human urine, to the extent of rather less than one per cent. of the solid matter contained in it. It is met with in much greater abundance in the excrement of birds and reptiles, that of the boa consisting almost entirely of urate of ammonia. Guano also contains large quantities of it, and has been most extensively employed as its source in the now almost extinct manufacture of murexide dyes. When excess of *U. A.* is secreted in the system, it deposits hard crystallizing grains in the bladder, which, if retained, gradually form concretionary calculi, and grow into the disease known as *gravel* or *stones.* In *gouty* patients, *U. A.* accumulates round the joints, forming white friable concretions, known improperly as *chalk-stones. U. A.* is generally prepared by dissolving the dried excrement of the boa in water, and converting the urate or ammonia into nitrate of potash by adding excess of potash, and boiling until the whole of the ammonia has been set free. Hydrochloric acid is then added, and the acid separates in minute crystals, which are thoroughly washed and dried. Pure *U. A.* is a white crystalline powder, requiring 10,000 parts of water for solution, to which it imparts a very feeble acid reaction. It is insoluble in alcohol and ether, but dissolves in concentrated sulphuric acid, which deposits it in a hydrated condition or dilution. The urates of the alkalies are much more soluble than the acid itself. *U. A.* is dibasic, giving rise to acid and neutral salts. By being submitted to heat, *U. A.* breaks up into a number of compounds; but the remarkable number of definite and crystallizable substances with it give rise to, when treated with various oxidizing agents, present the highest physiological interest, inasmuch as the great changes which occur in the animal economy under the influence of vitality are always accompanied by oxidation.

U'rim, *n.* [Heb.] (*Script.*) A word connected in its signification with the word *thummim*, being the plural of the Hebrew *aur*, a light, a luminary; whence it has come to signify fire. *Thummim*, which is the plural of *thom* or *tam*, means *fulness* or *perfection.* The two words conjointly signify *light* and *perfection;* but the Septuagint renders it literally δήλωσις καὶ ἀλήθεια, *manifestation and truth.* The *urim* and *thummim* are described as the precious stones on the high-priest's breastplate, which were supposed to make known the will of God by casting an extraordinary lustre, and thus to *manifest* the success of events to those who consulted them.

U'rinæ, *n. pl.* (*Zoöl.*) The Guillemots, a sub-family or group of sea-birds, fam. *Alcidæ.* Their bill is firm, strong, and pointed; the upper mandible slightly bending near the end, and the base covered with soft short feathers: tongue long slender; legs placed far backwards; and no hind toe. The Black Guillemot, *U. grylle* (Fig. 2558), of the N. Atlantic, is 13 inches long, and the wing 6½ inches.

Fig. 2558.
BLACK GUILLEMOT.—(Winter plumage.)
(*Uria grylle.*)

U'rinal, *n.* [Fr.; Lat. *urinalis.*] A bottle in which urine is kept for inspection. — A public or private receptacle or reservoir for urine.

U'rinary, *a.* Pertaining, or having reference to urine; as, *urinary* calculi. — Resembling, or partaking of the characteristic properties of urine.

U. calculi. (*Med.*) By this term is understood the various kinds of deposits from the urine found in the human bladder, or in the urine of those persons subject to this kind of disease. Surgeons have divided urinary calculi into three varieties: — first, *the pulverulent* or *amorphous sediment*, always existing in a state of solution, and only thrown down as the urine begins to cool, when it is precipitated in the form of a fine brown or pink powder, and consists of the lithates of ammonia, soda, and lime; this is commonly known as the red or pink sand. Secondly, *crystalline sediment*, or *gravel.* This is generally voided in the form of minute grains or crystals, and is either composed of lithic acid, of triple phosphate of ammonia and magnesia, or of oxalate of lime. This sediment has received the name of white sand. Thirdly, *solid concretions*, or calculi proper, formed of an aggregation of these sediments. Calculi are sometimes, but not frequently, formed in the kidneys, and are occasionally found there and in the ureters, on their way to the bladder, where they attain their full size. *U. C.* are of all sizes, shapes, and colors. The average dimension of a calculus may be taken as that of a chestnut, though sometimes exceeding the bulk of a large egg. Some are of extreme density and remarkably hard; others are so soft that they crumble to pieces under the slightest pressure. The symptoms of calculi, or stone in the bladder, begin with weight in the loins and back, and a dragging pain, gradually extending to the groin in females, and to the testicle in males, with an irritation felt at the point of the penis in the latter, often relieved by pulling the foreskin; frequent desire to make water, the operation being attended with pain and smarting; the urine is often bloody, and the stream in voiding is frequently arrested by the stone getting before the pipe of the *urethra.* Motion, especially of a jolting nature, such as riding in vehicles, greatly increases the pain, while rest and the horizontal position always afford relief. Sometimes a small calculus is voided with the water, or a discharge of gravel takes place, in which case there is always a cessation of the symptoms for some time afterward; but, in general, there is no radical cure for stone but by an operation, for which see LITHOTOMY and LITHOTRITY.

U. organs. (*Physiol.*) Under this head are comprised two secreting organs (*the kidneys*); one receiving organ (*the bladder*); two connecting tubes, between the springs and the reservoir (*the ureters*); and one canal, or outlet (*the urethra*). Space will not permit here any description of the diseases of the *U. O.* or of urine, a subject of so great interest to the physician that many volumes have been devoted to it. When the secretion of urine is very abundant, it may constitute either the symptom *diuresis*, or the disease *diabetes;* when painful, it is called *dysuria;* when suppressed, *ischuria;* and when drop by drop, with pain, burning, and spasm, *strangury;* when the secretion cannot be retained, it is called *incontinence.* — See BLADDER, BRIGHT'S DISEASE, DIABETES, GOUT, ISCHURIA, URINARY CALCULI, &c.

U'riate, *v. a.* [Lat. *urinare.*] To piss; to discharge urine; to make animal water.

Urination, (*-ā'shun.*) *n.* Act of pissing or urinating.

U'rinative, *a.* Provoking the discharge of urine.

U'rinator, *n.* [Lat. *urinor*, to dive.] A pearl-diver.

Urine, (*yu'rin.*) *n.* [Fr., from Lat. *urina.*] (*Chem. and Med.*) A highly complex fluid secreted from the blood by the kidneys. In a healthy person when recently voided, it is a clear limpid fluid, of a pale yellow or amber-color, with a peculiar, faint aromatic odor, which becomes pungent and ammoniacal when decomposition takes place. Often, however, as it cools, it becomes opaque and turbid from the deposition of part of its constituents previously held in solution; and this may be consistent with health. Healthy *U.* may, however, be nearly colorless, or of a brownish or deep-orange tint, and may present every shade of color between these extremes. The quantity secreted in 24 hours depends upon the amount of fluid drank, and the quantity secreted by the skin; but generally it is about from 30 to 40 fluid ounces. Its specific gravity varies in health from 1·015 to 1·030, but 1·020 is the average standard. It is acid in its reaction, and contains some mucus and epithelium. In 1,000 parts of ordinary *U.* there are 933 parts of water and 67 parts of solid matter. The following analysis is given of the solid contents of *U.*, but the proportion of the materials is liable to very great variation, depending on food, exercise, and other conditions: — Urea, 49·68; uric acid, 1·61; extractive matters, ammoniacal salts, and chloride of sodium, 28·95; alkaline sulphates, 11·58; alkaline phosphates, 5·96; phosphates of lime and magnesia, 1·50. Medical men distinguish three kinds of *U.*, — 1. *urina sanguinis*, or that which is secreted from the blood at times when neither food nor drink has been recently taken, as in the morning before breakfast; 2. *urina potus*, or that which has been secreted after any considerable quantity of fluid has been taken into the body; and 3. *urina cibi*, or that secreted during the period immediately succeeding a meal of solid food. The last of these contains a larger quantity of solid matter than either of the former, both of which are largely diluted with water. The first, or morning *U.* is the best for analysis; it is from it that we are best enabled to learn the state of the kidneys, and of the system in general.

Uriniferous, *a.* [Lat. *urina*, and *ferre*, to bear.] Conveying urine.

Urinometer, *n.* [Lat. *urina*, and Gr. *metron*, measure.] (*Med.*) A small hydrometer for determining the specific gravity of urine.

Urinose', U'rinous, *a.* Pertaining to, or resembling, urine.

Urn, *n.* [Fr. *urne*, from Lat. *urna*, from *urinor*, to plunge under water.] A kind of vase, or vessel of a roundish form, but swelling in the middle like the common pitcher; a vessel for holding water; especially, a utensil employed to keep water boiling at the tea-table. — A vessel in which the ashes of the dead were formerly preserved after incremation.

(*Bot.*) A spore-case, or THECA, *q. v.*

— *v. a.* To inclose in an urn, or as if in an urn.

Urn'al, *a.* Pertaining to an urn.

Urocera'ta, *n.* (*Zoöl.*) The Boring Saw-fly family, comprising comparatively rare and large hymenoptera. They have the body elongated, nearly cylindrical, and the binder abdomen ends in a horny point. From beneath the abdomen projects a long, saw-like, and powerful borer, with which they bore holes into trees, in which to lay their eggs. The larvæ are borers into the trunks of trees.

Urod'ela, *n.* (*Zoöl.*) An order of *Batrachian reptiles*, comprising those which preserve the tail through all the stages of their existence, as the Salamanders, Sirens, &c.

Uro-genital, (*-jĕn'-,*) *a.* [Gr. *ouron*, urine, and Eng. *genital.*] (*Med.*) Pertaining or relating to the urinary and genital organs.

Urol'ogy, Uronol'ogy, *n.* [Gr. *ouron*, and *logos*, description.] (*Med.*) That branch of medicine which treats of urine.

Ur'ry, *n.* [Ir. *uir*, clay.] A sort of blue or black clay, found in proximity to coal.

Ur'sa, *n.* [Lat., a female bear.] (*Astron.*) The name of two constellations. — 1. *Ursa Major*, the Great Bear, one of the 48 constellations of Ptolemy, in the N. hemisphere, and near the pole. It is often mentioned in the most ancient histories, sacred and profane, under the various denominations of Arcturus, Boötes, Helix, Callisto, Megisto, the Wagon, the Plough. It contains seven very conspicuous stars, called *septentriones;* whence *septentrio*, the north. — 2. *Ursa Minor*, the Little Bear. This constellation also consists of seven stars disposed in a manner closely resembling that of the Great Bear, but in a contrary direction, the polar star being placed in the corner of the triangle, which is farthest from the quadrangle. The Greeks called it Cynosura or Dog's Tail; at the tip of this imaginary tail the polar star is situated.

Ursa, in *Illinois*, a post-village and township of Adams co., 114 m. W. of Springfield.

Ur'sidæ, *n. pl.* (*Zoöl.*) A family of carnivorous mammalia; comprising the true Bears, the Badgers, the Raccoons, and the Wolverines. They are characterized by a plantigrade step, or walk on the whole sole of the foot: grinders more or less tuberculated; stature generally large; carnivorous and frugivorous; claws formed for digging; tail generally short. The typical genus is *Ursus*, the BEAR, *q. v.*

Ur'siform, *a.* [Lat. *ursus, ursa*, a bear, and *forma*, form.] Having the shape of a bear.

Ursine, (*ur'sīn.*) *a.* Pertaining to, or resembling, a bear.

Ursins, ANNE MARIE DE LA TREMOUILLE, PRINCESS DES, (*oor'să,*) a celebrated name in Spanish history, b. in France abt. 1643. She was married in 1659, to the Prince de Talleyrand-Chalais, and in 1675 to the Duke de Bracciano, chief of the Orsini family. After the death of the latter, she was attached to the court of Spain, and really governed the country during the early part of the reign of Philip V. In 1714, however, she was banished the kingdom, and subsequently kept house for the "Old Pretender," Prince James Stuart. D. 1722.

Ur'son, *n.* (*Zoöl.*) The Canada Porcupine. See PORCUPINE.

Ur'sula, (**St.**) a celebrated virgin and martyr, and a saint of the Roman calendar, supposed to have been a daughter of a British prince, and to have been put to death at Cologne at a date which varies from 384 to 463. There is a legend that 11,000 virgin martyrs suffered with her, which some have explained by supposing that she had a companion named *Undecimilla.* It is pretty certain, however, that many were put to death at the same time. She is especially honored in Germany, and particularly at Cologne, which is the reputed place of her martyrdom.

Ur'suline, *a.* [Fr.] Pertaining or having reference to the order of Ursulines.

Ursulines, *n. pl.* (*Eccl. Hist.*) A Roman Catholic religious order of females, founded for aiding the poor, and instructing females, by Angela di Brescia, abt. 1537. The order took its name from Saint Ursula (*q. v.*) when the institution was confirmed by Pope Paul III. in 1544. Madame de Sainte Beuve established the first house of the order at Paris in 1604. They have about 20 houses in the U. States and Canada.

Ur'tica, *n.* (*Bot.*) The Nettle, the typical gen. of the nat. ord. *Urticaceæ.* The species are well known for their stinging hairs. Some yield useful fibres; thus Caloce hemp, or Rhea fibre, is obtained from two Asiatic species.

Urtica'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Urticales.* DIAG. Small, flat stipules, limpid juice, a solit., erect ovule, a straight albuminous embryo, and superior radicle. — They are herbs or trees, with a watery juice. Leaves alternate, usually rough or with stinging hairs. Flowers small, unisexual, or rarely perfect, scattered or arranged in heads or catkins. There are 23 genera and 300 species distributed over the globe.

Urtica'les, *n. pl.* (*Bot.*) An alliance of plants, subclass *Diclinous Exogens.* DIAG. Scattered monochlamydeous flowers, single superior carpels, and a large embryo lying in a small quantity of albumen. The alliance includes 7 orders, — ST'LAGINACEÆ, UATICACEÆ, CERATOPHYLLACEÆ, CANNABINACEÆ, MORACEÆ, ARTOCARPACEÆ, and PLATANACEÆ, *q. v.*

Urtication, (*-kā'shun,*) *n.* (*Med.*) The stinging of the skin with nettles. A name given to the inflamed appearance produced on the skin by flipping it with a bunch of nettles — a practice sometimes adopted by medical men in cases of paralysis of the leg, arm, or any particular part of the body, in the hope of restoring animation to the torpid muscles, and vigor to the sluggish circulation.

Urubam'ba, a town of Peru, 40 m. N.W. of CUZCO; *pop.* abt. 4,000.

Urubu', or URUBU-DE-CIMA, (*oo-roo-boo-da-see'ma,*) in Brazil, a town of the prov. of Bahia, on the São Francisco, 120 m. N.W. of Rio de Contas.

Urubucuara, or URUBUQUARA, (*oo-roo-boo-kwa'ra,*) a river of Brazil, prov. of Para, rises in the Serra Velpa, and flowing S. expands into a lake of the same name, near Oriteiro, 20 m. S. of which it enters the Amazons.

Urucaia, (*oo-roo-ki'a,*) a river of Brazil, enters the São Francisco, 16 m. N. of São Romão, after an E. course of 200 m.

Urucau'ga, a river of Brazil, rises in the W. of the prov. of Santa Catharina, and flows E. into the Atlantic.

Uruguay, (*oo-roo-gwī,*) a river of S. America, rises in the N.E. of the prov. of Rio Grande do Sul, Brazil, Lat. 28° S., and flows N.W. 100 m., and afterwards S.S.W. uniting with the Parana to form the Rio de la Plata, Lat. 34° S., Lon. 61° 40′ W. Its entire course is 800 m., of which it is navigable for sailing-vessels to the Great Falls, 40 m. S. of the Ibicui, and above the fall for small boats almost to its source. The country along its banks is fertile, but poorly cultivated.

Uruguay, or BANDA ORIENTAL, a republic of S. America, bounded on the N. and N.E. by Brazil, E. and S.E. by the Atlantic Ocean, S. by the Rio de la Plata, and W. by the Uruguay, which last-named rivers separate the state from the Argentine Confederation. *U.* lies between 30° 5′ and 34° 56′ S. Lat., and Lon. 53° 10′ and 58° 20′ W.; and has an extreme length of 350 miles by a breadth of 320; *area*, 66,716 sq. m. *Pol. Div.* The republic is divided into 13 depts., viz.: — Cerro Largo, Colonia del Sacramento, Durazno, Florida, Guadalupe, Maldonado, Minas, Montevideo, Paysandú, Salto, San José, Soriano, and Tacuarembo. *Chief Towns.* Montevideo (the cap.), Maldonado, Colonia, and San José. *Gen. Desc.* The coast to the N. of Cape Santa Maria is low and sandy, but S. and W. of it, and on the æstuary of the Plata, it is more bold and indented, presenting some fine bays and harbors. The most important rivers in the interior are the Rio Negro, with its numerous affluents, and the Arapey, Daiman, Yaguaron, and Sebollati. The greater portion of the surface consists of an elevated plateau, penetrated by many fertile valleys along the S. coast-line. The surface of this table-land presents a series of extensive plains, traversed by occasional ranges of hills of no great elevation, the whole being almost destitute of trees. *Clim.* Remarkably mild and salubrious. *Min.* Copper, potter's earth, umber. *Soil.* Generally rich and fertile. *Prod.* Wheat, maize, barley, rice, pulse, flax, hemp, cotton, and sugar. Fruits are produced in abundance. *Zoöl.* Among the wild animals are the tapir, deer, ounce, monkey, paca, rabbit, and fox; and large packs of wild dogs roam over the plains. There are also many varieties of birds and water-fowl. Vast droves of horses and horned cattle run

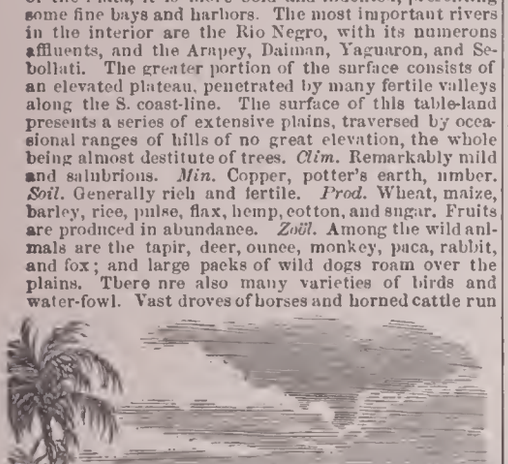


Fig. 2559. — MONTEVIDEO.

wild on the pampas, the latter furnishing the jerked and salted beef, tallow, hides, horns, and hair, which constitute the great bulk of the exports of the country. The imports of the republic are principally from Great Britain and the U. States. *Govt.* Theoretically, the constitution of *U.* is liberal and representative, but, like the majority of the S. Amer. States, it has degenerated into a mere military despotism, and the president, usually some general who has achieved success by violence or intrigue, in reality possesses absolute power. *Relig.* The established religion is Roman Catholic; other forms of worship are, however, tolerated. *Pop.* (1857) est. 750,000. The inhabitants are chiefly Creoles of Spanish descent, the Indians and negroes being a comparatively small number. *Hist.* The territory forming the present republic of *U.* was originally settled by a party of Spanish colonists from Buenos Ayres, and its possession caused a subsequent war between Spain and Portugal, during which it was several times occupied by both. Eventually, however, the country remained in the hands of Spain, who annexed it to the viceroyalty of Buenos Ayres, under the name of *Banda Oriental*. On the outbreak of the war of independence, the state espoused the side of Buenos Ayres against the mother country, but soon separated from that republic. Annexed by Brazil in 1821, a war ensued, 1826-8, which was terminated by a treaty of peace, effected through the agency of Great Britain in the latter year, by which the N. part of the territory, known as the Seven Missions, was ceded to Brazil, and the S. portion declared an independent state under the style and title of *Republica del Uruguoy Oriental*. Intestine commotions resulted, followed by a war between *U.* and Buenos Ayres. England and France being called upon to interfere, an allied fleet blockaded Montevideo, 1848–9, and peace was restored in 1851. In 1860 a revolution took place under Flores, who was defeated in 1863, but reinstated by Brazil in 1865, and assassinated in 1868. Senhor Idiarte Borda was elected President in March, 1894.

Urumea, URUMIYAH, or OORMIAH, (*oo-roo-me'a.*) [Ar. *Kupanta*, from *kapoit*, blue.] The principal lake of Persia, in Azerbijan, 35 m. from Tabriz. It has a number of small islands, and receives several rivers; but its waters are so salt that none but the lowest kind of animal life can exist in them. It has a circumference of 300 miles.—Also the name of a town, 12 m. from the lake, the reputed birthplace of Zoroaster. It is the see of an Armenian bishop. *Pop.* Unascertained; perhaps abt. 20,000.

Urus, *n.* (*Zoöl.*) See BUFFALO.

Us, *pron.* [A. S.] The objective case of WE, *q. v.*

Usable, (*ūz'a-bl,*) *a.* That may be used.

Usage, (*ūz'oj,*) *n.* [Fr., from Lat. *utor, usus*, to use.] Act or manner of using or treating; treatment; behavior towards a person or thing; as, ill *usage*.—Long-continued practice; received method; custom; habit; use; as, according to the *usages* of the country.—Customary application, as of a word in a particular sense or signification, or the signification itself.

Usance, (*ū'zons,*) *n.* [Fr.] (*Com.*) A certain period of time allowed, one, two, or three months, according to the respective usages of countries, for the payment of a bill of exchange.

Us'becks, (*ūz'bĕks.*) See TURKISTAN.

Use, (*yooz,*) *n.* [Lat. *usus*, from *utor.*] Act of employing any person or thing to any purpose; state of being employed to any purpose; application; conversion to an act or purpose; as, the *use* of a spade in digging; the *use* of a clerk in business. — Need; necessity; occasion for employment; as, to have no further *use* for a person's services.—Advantage received or derived; benefit; utility; usefulness; power of yielding service.

"'Tis *use* alone that sanctifies expense."—*Pope.*

—Customary or continued act or practice; usual employment; usage; custom. — Income, common occurrence; habitual experience; as, these things are beyond all *use*. (*Law.*) See TRUST.

Cestui que use. (*Law.*) See CESTUI. —*Contingent use*, a use contingent or dependent on a future event. — *In use*, in operation or employment; in constant practice or customary observance; as, an article *in* common *use*. —*Of use*, useful; profitable; yielding benefit or advantage. —*Out of use*, obsolete; not applied or in employment; no longer used.

Secondary or *shifting use*, a use susceptible of change by circumstances. —*To put to use, to make use of*, to derive service from; to use; to employ to advantage.

Use, (*yūz,*) *v. a.* [Lat. *utor, usus.*] To put to use; to make use of; to avail one's self of; to employ; to apply; to act with or by means of; as, to *use* a knife and fork at table; to *use* water for irrigation; to *use* one's legs in walking. — To act or behave towards; to treat; as, you have *used* me well. — To practise customarily; as, "*Use* hospitality one to another." (1 *Pet.* iv. 9.) — To inure, to accustom; to habituate; to render familiar by application or practice; as, a people long *used* to tyranny lose by degrees the idea of liberty.

To use up, to leave nothing remaining of; to consume or exhaust totally; as, to *use up* provisions; — to weary; to tire out; to exhaust the force or use of; as, excessive fatigue has *used* me *up*.

—*v. n.* To be accustomed; to be wont; to practise customarily or habitually; as, so he *used* to say.

Usedom, (*oo'zch-dom.*) an island of Prussia, in Pomerania, formed by the Baltic and several inland waters, 9 m. from Rügen; ar , 150 sq. m. *Pop.* 13,500.

Use'ful, *a.* Valuable for use, application, or employment; conducive or helpful to any end; suited or adapted to any purpose; promoting the end or objects in view; profitable; serviceable; beneficial; advantageous.

Use'fully, *adv.* In a useful manner.

Use'fulness, *n.* State or quality of being useful.

Use'less, *a.* Being without use; unserviceable.

Use'lessly, *adv.* In a useless or unprofitable manner.

Use'lessness, *n.* State or quality of being useless.

User, (*uz'r,*) *n.* One who uses, treats, or occupies.

Ush'ant, (Fr. *Ouessant,*) an island on the N.W. coast of France, in the dept. of Finistère, 25 m. from Brest, being, though very small, the largest of a group of islets called the *Iles d'Ouessant*.

Ush'er, *n.* [Fr. *huissier*, a door-keeper, corrupted from Lat. *ostium*, a door.] One who has the care of the door of a court, hall, &c.; hence, an officer whose business is to conduct or introduce strangers into the presence of a dignitary or distinguished personage; as, a gentleman-*usher* at a royal court. — A subordinate teacher in a school or academy.

Usher of the Black Rod. (Eng.) An officer of the order of the Garter, who has the custody of the chapter-house of the order. He is also the chief gentleman-usher to the sovereign of Great Britain.

—*v. a.* To introduce, as a forerunner or harbinger; as, "With due honors *usher* in the May." —*Dryden.*

Ush'er, JAMES, an Irish prelate and theologian, B. in Dublin, 1580. Receiving his education at Trinity College, Dublin (his native place), he was, in 1607, chosen professor of divinity in his college, and, also, Chancellor of St. Patrick's Cathedral. In 1620, *U.* became Bishop of Meath, and, in 1624, being translated to the archiepiscopal see of Armagh, he became Primate of Ireland. On the breaking out of the Irish insurrection, in 1644, he sought refuge in England, where he became preacher to Lincoln's Inn, and, dying in 1656, was buried in Westminster Abbey. Among his many contributions to theological literature may be mentioned *De Ecclesiarum Christianarum Successione et Statu* (Lon., 1613); *De Romanæ Ecclesiæ Symbolo* (Lon., 1647); and *Chronologia Sacra* (1667). A complete edition of Archbishop *U.'s* works has been published by the University of Dublin in 17 vols.

Ush'erdom, Ush'ership, *n.* Office or position of an usher.

Us'kup, or SCOPIA, a town of European Russia, on the Vardar, 120 m. N.W. of Salonica. *Manuf.* Leather. *Pop.* 11,000.

Uspallata, (*oos-pal-ya'ta,*) in the Argentine Republic, a table-land, containing silver mines, 40 m. N.W. of Mendoza.

Usquebaugh, (*ŭs'kwe-baw,*) *n.* [Ir. *uisge*, water, and *beathu*, life; literally, water of life.] A name sometimes given to Irish or Scotch whisky indiscriminately; poteen.—A liquor compounded of brandy, raisins, cinnamon, and other spices.

Ussel, (*oos-sel,*) a town of France, dept. of the Corrèze, 20 m. from Tulle; *pop.* 4,946.—Also a town in the island of Corsica; *pop.* 5,000.

Us'tica, (anc. *Euonimo,*) an island in the Mediterranean, off the N. coast of Sicily, 42 m. from Palermo.

Ustula'tion, *n.* [From Lat. *ustulare*, to scorch.] (*Chem.*) The roasting of ores, to separate the arsenic, sulphur, and other volatile substances combined with the metal.

Usual, (*yū'zhu-ol,*) *a.* [Fr. *usuel*, from Lat. *usualis* — *usus.*] Customary; common; frequent: ordinary; general; habitual.

U'sually, *adv.* In a usual manner.

Usucaption, (*-kop'shun,*) *n.* [Fr., from Lat. *usucapio.*] (*Civil Law.*) Same as *prescription* (*q. v.*), but restricted to movables only.

Usufruct, (*yu'zhoo-frukt,*) *n.* [Fr. *usufruit*, from Lat. *usus*, use, and *fructus*, fruit.] (*Civil Law.*) The right of using and reaping the fruits of things belonging to others, without destroying or wasting the subject over which such right extends.

Usufruct'uary, *n.* [Fr. *usufruitier.*] One who enjoys a usufruct.

—*a.* Pertaining or relating to a usufruct.

Usumasin'ta, a river of Central America, rises in Guatemala, dept. of Vera Paz, and joins the Tobasco, near its mouth, after a N.W. course of 400 m.

Usurer, (*yū'zhoo-rer.*) *n.* [Fr. *usurier*, from Lat. *usurarius.*] One who practises usury; one who lends money upon interest; — commonly used of one who takes exorbitant or illegal interest.

Usu'rious, *a.* Practising usury, or money-lending on exorbitant or illegal interest; as, a *usurious* person. — Pertaining or relating to, or consisting in usury; as, *usurious* interest on money.

Usu'riously, *adv.* With usury.

Usu'riousness, *n.* State or quality of being usurious.

Usurp, (*ū-zerp',*) *v. a.* [Lat. *usurpo, usu-rapio* — *usus*, use, and *rapio*, to seize.] To seize and hold by force, and without right; to assume fraudulently; as, to *usurp* the royal prerogative.

—*v. n.* To be or act as a usurper; as, a *usurped* throne.

Usurpation, (*-pā'shun.*) *n.* [Fr., from Lat. *usurpatio.*] Act of usurping; forcible, illegal seizure, possession, or assumption, as of regal or supreme power.

Usurp'atory, *a.* Characterized by usurpation.

Usurper, (*ū-zerp'r,*) *n.* One who usurps; one who seizes or occupies the power or property of another without right.

Usurp'ingly, *adv.* By usurpation.

Usury, (*yū'zhoo-ry,*) *n.* [Fr. *usure*, from Lat. *usura* — *utor*, to use.] Money paid for the use of money; especially, illegal interest, or higher interest than is allowed by law, in countries where such laws exist. See INTEREST.

Ut. (*Mus.*) The French name of the first of the musical syllables referring to the note which we call C. The Italians, for the sake of softening the sound, use the syllable *do* instead of *ut* in the modern solfeggi.

Utah (*yū'táh*), a State of the American Union, lying N. of Arizona, W. of Colorado and the Rocky Mountains, E. of Nevada, and S. of Idaho and Wyoming; has a maximum length of 345 m. by a breadth of 275. *Area*, 84,970 sq. m.—*Gen. Desc.* It is intersected from N. to S. by the Wasatch Mountains, the region E. of which is drained by the Colorado of the West. The altitude of the surface is similar on both sides of the dividing range, the valleys and lakes lying from 4,000 to 6,000 ft. above sea-level, and the mountains rising to an elevation of from 6,000 to 13,000 ft., the tops of the highest peaks being above the line of perpetual snow. In common with the riparian system of Nevada, the section W. of the Wasatch range contains no outlet to the ocean for its numerous streams, or its lakes of salt and fresh water, many of the former being of great size, especially the largest, Great Salt Lake (*q. v.*). Several rivers, rising principally in the Wasatch Mountains, empty into this lake, among which are the Jordan, Bear, and Weber. The only other bodies of water of considerable magnitude are the fresh-water Bear and Utah Lakes, respectively N.W. and S. of Great Salt Lake, to which they are tributary. Utah Lake is 30 m. in length by 10 in width, and abounds in fish of considerable size and excellent flavor. It is connected with Great Salt Lake by the Jordan river. Besides the tributaries to Great Salt Lake, the only stream of importance west of the Wasatch Mountains is the Sevier, which passes by a circuitous route into the deserts, where it sinks. It formerly flowed into

UTAH

SCALE OF MILES

0 10 20 30 40 50 60

State Capital ☆ County Seats ·

Military Reservation Boundaries

Indian " "

Forest Reserve " "

Places of 10,000 and over — SALT LAKE CITY

" " 3,000 to 10,000 — Park City

" " 1,000 to 3,000 — St. George

" " 500 to 1,000 — Midway

Hammond's 8 x 11 Map of Utah
Copyright, 1904, by C.S. Hammond & Co., N.Y.

Longitude from Greenwich

UTAH.

Land surface, Sq. m. 82,190
Water surface, Sq. m. 2,780
Pop. 1900....276,749
White.....272,465
African.....672
Indian.....2,623
Chinese.....572
Japanese. ...417
Native-born, 222,972
Foreign-born, 53,777
Males.....141,687
Females..135,062

COUNTIES.

Beaver.....A 5
Boxelder.....A 2
Cache .....C 2
Carbon.....D 4
Davis .....B 2
Emery .....D 5
Garfield.....C 6
Grand.. .....E 4
Iron .....A 6
Juab .....A 4
Kane .....B 6
Millard.....A 4
Morgan .....C 2
Piute .....B 5
Rich .....C 2
Salt Lake .....B 3
San Juan..... E 6
Sanpete .....C 4
Sevier ..... C 5
Summit.....D 3
Tooele ..... .A 3
Uinta .....E 3
Utah ... .C 3
Wasatch .....D 3
Washington ..A 6
Wayne .....C 5
Weber .....B 2

CITIES-TOWNS

Pop. Thousands.

53 Salt Lake City C 3
16 Ogden..... C 2
6 Provo .....C 3
5 Logan .....C 2
3 Park City .. C 3
3 Springville. C 3
3 Eureka .....B 4
2 Brigham ... B 2
2 Spanish Fork C 3
2 American Fk. C 3
2 Lehi .....C 3
2 Payson.....C 3
2 Manti.....C 4
2 Mt. Pleasant C 4
2 Mercur... . B 3
2 Nephi.....B 4
2 Ephraim ... C 4
1 Richfield....B 5
1 Kaysville....C 2
1 Beaver .....B 5
1 Hyrum .....C 2
1 St. George..A 6
1 Heber .....C 3
1 Smithfield.. C 2
1 Bountiful ...C 3
1 Cedar.....A 6
1 Moroni .....C 4
1 Tooele .....B 3
1 Spring City. C 4
1 Fairview ....C 4
1 Richmond...C 2
1 Grantsville..B 3
1 Monroe .....D 5
1 Parowan....B 6
1 Fillmore ....B 5
1 Sandy .....C 3
1 Huntsville ..C 2

Pop. Hundreds.

9 Farmington B 3
9 Wellsville.. B 2
8 Santaquin...C 4
8 Panguitch..B 6
8 Salina .....C 5
8 Gunnison ...C 4
8 Randolph...C 2
8 Coalville ....C 3
7 Fountain Green C 4
7 Midway .....C 3
7 Kanab.....B 6
6 Vernal.....E 3
6 Huntington.C 4
6 Goshen.....C 4
6 Scofield .... C 4
6 Elsinore.....D 5
6 Moab ..... E 5
6 Morgan .....C 2
5 Willard.....B 2
5 Scipio ..... B 4
5 Castledale...C 4
5 Price .....D 4
5 Washington A 6
4 Mendon ....C 2
4 Redmond ...C 4
4 Loa.....C 5
4 Newton.....C 2
4 Glenwood...B 5
3 Bear R. City B 2
3 Corinne.....B 2
2 Junction ....B 5
1 Monticello ..E 6

Sevier Lake, but its waters are now so extensively used for irrigation that the lake has disappeared. The section lying E. of the mountains contains no lakes, its entire water-system being composed of the Colorado of the West and its tributaries, including Grand, Green, San Juan, and White rivers. These streams frequently intersect the mountain ridges of the country, running in cañons of immense depth with nearly vertical sides; debouching from these cañons as the lower plains or valleys are reached, the streams become broad and shallow, running in beds but slightly depressed below the surface of the earth, and sometimes dividing their waters into numerous rivulets, which wind over the surface of broad, fertile meadows, irrigating the soil and producing luxuriant vegetation. The celebrated Grand Cañon of the Colorado commences in *U.* below the magnificent valley in which Green and Grand rivers unite to form the Colorado, and extends a distance of over 400 m. into Colorado and Nevada. The Uintah Mountains, a broad range extending E. from the Wasatch, has elevations of nearly 14,000 ft. W. of the Wasatch lies the Great Basin, an elevated and arid region, whose surface presents an alternation of broad desert valleys and narrow, abrupt ranges of mountains, which rise sharply from the valleys. The mountains rob the westerly winds of their moisture, the only waters which reach the plains and valleys being those coming from the melting of the winter snows. It may be here stated that the E. slope is more mountainous than the portion lying within the Great Basin, and contains more numerous streams; but the high cañons intersecting the mountain ridges as channels for the water-courses prevent the availability of the waters for irrigation, although not interfering with the business of stock-raising on the surrounding hills and elevated plains. The timber lands of *U.* are comprised in about 2,000,000 acres of pine, fir, and similar evergreens, on the slopes of the mountains, and extensive copses of willow, box-elder, birch, cottonwood, spruce, and dwarf-ash, in the river bottoms, added to large tracts of the soil of both valleys and hillsides, which have been planted with varieties of hard-wood in order to supply the natural deficiency; the young artificial forests thriving vigorously, and promising soon to equal the requirements of the settlers with regard to such timber.—*Soil, Agric.*, &c. The most important industries of *U.* are agriculture and horticulture, accompanied with irrigation, the facilities for which have been carried forward to a condition of great perfection, under the pursuance of a course of strenuous and systematic energy and perseverance inaugurated by the earliest settlers at Salt Lake City in 1847. Wealth and plenty have, accordingly, followed their labors, the result exceeding the anticipations of the most sanguine, in the certainty and abundance of the crops. The construction of reservoirs and canals has been prosecuted until a perfect network of irriguous channels extends over the settled portions of the valleys, supplying the only requisite naturally wanting for exceeding fertility, the soil being principally formed of disintegrated feldspar rock mixed with detritus of the limestone (entering so largely into the composition of the surrounding mountains), along with decomposed vegetable matter, and friable clay. The crop of cereals produced in this manner is considerably over a million bushels per annum, supplying the requirements of the local population as well as that of adjacent mining regions, 50 and 60 bshs. of wheat to the acre being a frequent crop. Barley, oats, rye, buckwheat, flax, and hemp succeed equally as well as wheat, and are extensively grown; but the nights are generally too cold for large crops of maize, except in the S.W. part near Rio Virgen, where corn and sorghum thrive, and cotton is found to produce such excellent yields, as to induce considerable immigration to that section specially to engage in its culture. Potatoes, hops, garden vegetables, melons of all kinds, and all the fruits of the temperate zone are produced in abundance. Cattle-breeding and wool-growing is carried on to a limited extent. The settled portion of *U.* lies mainly along the western base of the Wasatch range and in its valleys, in which flowing streams render irrigation of the fertile soil available. The population is principally located in the northern part of the State, and there are also considerable settlements near the southern boundary, in the valleys of the Virgin river. There were in 1890 10,517 farms, containing 1,223,705 acres, of which 548,223, or about 1 per cent. of the entire area of the State, were improved. Of the cereal crops the principal is wheat, the yield of which is about 2,500,000 bushels per annum.—*Minerals.* The mineral products are numerous, including gold, silver, copper, iron, lead, zinc, coal, salt, sulphur, alum, borax, asphalt, &c. Of these products, the most important are silver and lead, the mining of which is almost exclusively in the hands of the Gentile population, while the farmers are principally Mormons. The annual product of gold, silver, copper, and lead is valued at over $10,000,000. There is a considerable yield of coal, the most important deposits being in the vicinity of Coalville, in Summit co., and at the foot of the Wasatch range, in Sanpete co. Iron occurs in abundance, of the red hematite variety, and in Millard co. is an extensive deposit of sulphur. Salt is abundant, rock-salt occurring plentifully in various sections of the Wasatch Mountains, while the salt lakes yield salt of a superior quality.—*Manuf.* Manufacturing industries, of a somewhat varied character, have been developed to some extent, there being, in 1890, 531 establishments, with an output of products valued at $8,911,047.—*Railroads. U.* is well supplied with railroads. The Union and Central Pacific roads meet near Ogden, in its northern section, and furnish communication east and west. From Ogden a branch road runs north to Montana and another south to Salt Lake City, and thence southward through the State. The Denver and Rio Grande Western connects Salt Lake City with Pueblo, in Colorado. In addition, there are numerous short branches in the mountains.—*Pol. Div. U.* is divided into 27 counties, viz.:

Beaver,	Grand,	Rich,	Uintah,
Boxelder,	Iron,	Salt Lake,	Utah,
Cache,	Juab,	San Juan,	Wasatch,
Carbon,	Kane,	Sanpete,	Washington,
Davis,	Millard,	Sevier,	Wayne,
Emery,	Morgan,	Summit,	Weber.
Garfield,	Piute,	Tooele,	

The chief towns are Salt Lake City (the capital), Ogden, Provo, and Logan. There are numerous smaller places, making a large aggregate of city and village population. This comes from the policy of the Mormon Church, which favors the gathering into villages of the farming population.—*Climate.* The climate is mild and equable, and generally more uniform than in the Eastern States. It is very cold in the mountains in winter.—*Hist.* The region embracing *U.* was acquired by the U. S. from Mexico in 1848, and the Territory of *U.* was organized in 1850, its boundaries extending much beyond those of the present State. The subsequent formation of Colorado, Wyoming, and Nevada reduced it to its present limits. The Mormons, led by Brigham Young, had begun to settle in Salt Lake Valley in 1847, and they rapidly occupied the fertile valleys of the Territory, few Gentiles settling in *U.* until the extension of railroads made it more easily accessible. At a later period the Gentile population rapidly increased, and vigorously opposed the supremacy of the Mormons, who managed to control all governmental positions. A bill passed by Congress in 1882 disfranchised all polygamists and annulled the act of the Territorial legislature extending the franchise to women. In 1887 a still more drastic bill was passed, which confiscated the property of the Mormon Church and the Perpetual Emigration Fund, with the exception of the church buildings and parsonages, and devoted it to the support of public schools in the Territory. Since then the Mormons have renounced polygamy, it being officially forbidden by the Mormon Church in 1890, and the Mormons are beginning to abandon their policy of exclusiveness. For a considerable time previously efforts had been made to have *U.* admitted as a State, but this was not acceptable to Congress until after the abolishment of polygamy. A bill was passed in Dec., 1893, making *U.* a State. It was not finally consummated, however, until Jan. 4, 1896, when it entered into Statehood as the 45th State of the Union, under the proclamation of President Cleveland. *Pop.* (1890) 207,905; (1900) 276,749.

U'tah, in *Utah*, a central co.; *area*, 2,100 sq. m. It is drained by the Timpanogos or Provo river, and contains Utah Lake. *Surface*, mountainous; *soil*, fertile in the valleys. *Cap.* Provo City. *Pop.* (1895) 29,229.

U'tica. (*Anc. Geog.*) A city of Africa, on the river Bagradas, near the Bay of Carthage, a little N.W. of the present city of Tunis. It was founded by the Tyrians, abt. B. C. 1165, and is mentioned as an ally of Carthage, B. C. 348. Scipio besieged it, B. C. 204. Curio was defeated and slain near this city, by Varus and Juba, B. C. 49. Cato the younger, and many of the partisans of Pompey who escaped from Pharsalia, assembled here, B. C. 47. Cato formed his little senate, and opposed Julius Cæsar; and here he committed suicide, B. C. 46. It was destroyed by the Saracens about 700. Its site is now occupied by the little village of Duar.

Utica, in *Illinois*, a post-village of La Salle co., 5 m. E. of La Salle.

Utica, in *Indiana*, a post-vill. and twp. of Clarke co., on the Ohio River, 7 m. N. of Lonisville, Ky.

Utica, in *Iowa*, a twp. of Chickasaw co.

Utica, in *Michigan*, a post-village of Macomb co., 20 m. N. of Detroit.

Utica, in *New York*, a flourishing city, semi-cap. of Oneida co., on the Mohawk River, 95 m. W.N.W. of Albany; Lat. 43° 6′ 49″ N., Lon. 75° 13′ W. It is pleasantly situated, with regular and wide streets, and well-built houses. There are numerous and important manufactories of flour, starch, organs, pianofortes, clothing, carriages, machinery, carpets, oil-cloth, cotton and woollen fabrics, &c. *U.* was founded on the site of old Fort Schuyler, built to guard the settlements against the French and Indians. *Pop.* (1897) 47,450.

Utica, in *Ohio*, a post-village of Licking co., 12 m. N. of Newark.

Utica, in *Pennsylvania*, a post-borough of Venango co., 9 m. N.W. of Franklin.

Utica, in *Wisconsin*, a township of Crawford co.

—A township of Winnebago co.

Utile, (*yū'til*,) *a.* [Fr., from Lat. *utilis*.] Useful. (R.)

Utilita'rian, *a.* [Formed from *utility*.] Consisting in, or having reference to, or connection with, utility; belonging to utilitarianism; — sometimes used in a reproachful sense, as implying a certain degree of sordidness; as, *utilitarian* ideas.

—*n.* One who holds the doctrine of utilitarianism.

Utilita'rianism, (*-izm*,) *n.* The doctrine, presented by Jeremy Bentham, that the value of all institutions or pursuits is to be tested by the principle of utility; that is, the promotion of the greatest happiness of the greatest number. — The doctrine that utility is the sole standard or criterion of moral conduct.

Util'ity, *n.* [Fr. *utilité*; Lat. *utilitas*, from *utor*, to use.] State or quality of being useful or utile; usefulness; production of good, benefit, or advantage; profitableness to some valuable end; as, the *utility* of medicines in diseases.

Utiliza'tion, *n.* Act of utilizing; state of being utilized (R.)

Utilize, (*yu'til-iz*,) *v. a.* [Fr. *utiliser*; It. *utilizzare*.] To render useful; to put to use or application; to employ for some profitable purpose; as, to *utilize* time

Util'la, or UTILLE, an island in the Caribbean Sea, Bay of Honduras, 7 m. long, and 3 m. wide; Lat. 16° 5′ N., Lon. 86° 50′ W.

Uti Posside'tis, *n.* [Lat., as you possess.] (*International Law.*) A phrase used to signify that the parties to a treaty are to retain possession of what they have acquired by force during the war.

Ut'most, *a.* [A. S. *utmæst, utmost* — *ut*, out, and *mæst*, most.] Being most or farthest out; most distant; extreme; as, the *utmost* extent of human sagacity. — Being in the highest, greatest, or superlative degree; as, they live together in the *utmost* harmony.

—*n.* The most that can be; the greatest or most supreme power, degree, or effort; as, I have done my *utmost*.

Uto'pia, *n.* [From Gr. *ou*, not, and *topos*, place.] An imaginary island, represented by Sir Thomas More, in his work entitled *Utopia*, as enjoying the utmost perfection in morals, laws, and polity. — Hence, a position or place of ideal perfection.

Utopia, in *Ohio*, a vill. of Clermont co.

Uto'pian, *a.* Ideal; chimerical; fanciful; not well founded; as, *utopian* ideas.

Uto'pianism, *n.* A chimerical project in theory or practice; quality of being utopian.

Uto'pist, *n.* One who entertains chimerical ideas, or practises visionary schemes.

Utra'quists, *n. pl.* [From Lat. *uterque*, both.] (*Eccl. Hist.*) The Hussite sect called Calixtines were, in 1420, also called *U.*, because they received the Eucharist in both forms.

Utrecht, (*u-trekt'*,) a city of Holland, cap. of a prov. of same name, on the Old Rhine, which divides it into two parts, 20 m. S.E. of Amsterdam; Lat. 52° 5′ N., Lon. 5° 7′ E. The town is approached by several fine avenues, and was formerly strongly fortified, but its ramparts are now laid out in pleasant walks; the houses are nearly all built in the Gothic style, giving it a most romantic appearance (see Fig. 1300); its chief buildings are the stadhuis, or town-house, in which, in 1579, the union of the Provinces was signed, and the treaty of Utrecht, which in 1713 gave peace to Europe; next are the mint, arsenal, hospital, museum, the palace of Louis Bonaparte when King of Holland, and the university, founded in 1634. *Manuf.* Linen fabrics, lace, needles, pins, fire-arms, sugar-refining, &c. *Utrera,* (*ou-trai'ra.*) a town of Spain, on a very steep eminence, at the foot of which flows the Carbonel, 18 m. from Seville. *Manuf.* Soap, leather, starch, &c. *Pop.* 13,816.

U'tricle, *n.* [Lat. *utriculus*, dim. of *uter*, a leathern bag.] (*Anat.*) See EAR.

(*Bot.*) A one-celled, one- or few-seeded, superior membranous fruit, frequently dehiscing by a transverse suture, as in *Chenopodium*. Also a fruit with a thin skin and a single seed. Sometimes this word is employed to express a separate cell of the cellular tissue of a plant, which is usually a little vegetable bladder.

Utric'ular, *a.* [Fr. *utriculaire*.] Containing utricles; furnished with small air-cells, like small bags, as plants. —Resembling a bag or utricle, as the condensed vapor of certain minerals when deposited upon cold bodies.

Utricula'ria, *n.* (*Bot.*) A genus of plants, order *Lentibulaceæ*, composed of aquatic herbs, loosely floating or fixed in the mud; leaves radical, multifid or linear, and entire, mostly furnished with little inflated vesicles; scape erect. *U. vulgaris*, the common Bladder-wort, and *U. inflata*, the Whorled Bladder-wort, are found in stagnant pools throughout the U. States.

Ut'ter, *a.* [A. S. *uter, utru.*] Total; complete; entire; perfect; final; as, *utter* ruin. — Absolute; peremptory; unqualified; as, the book is *utter* nonsense. — Entire; mere; quite; perfect; as, he was an *utter* stranger to me.

—*v. a.* To disclose; to express; to speak; to pronounce; to publish; to declare; to divulge; as, to *utter* words. —To put into circulation; to cause to pass in commercial transactions; as, to *utter* bank-notes.

(*Law.*) To utter and publish a counterfeit note is to assert and declare, directly or indirectly, by words or actions, that the note offered is good. It is not necessary that it should be passed in order to complete the offence of uttering.

Ut'terable, *a.* That may be uttered, pronounced, or expressed.

Ut'terance, *n.* Act of uttering words; vocal expression; pronunciation; manner of speaking; as, he gave *utterance* to an oath.

Ut'terer, *n.* One who utters.

Ut'terly, *adv.* To the full or entire extent; fully; perfectly.

Ut'termost, *a.* Being the farthest, greatest, or highest degree; extreme; as, he was in the *uttermost* distress.

—*n.* The most that can be; the greatest power, degree or effort; that beyond which nothing is; as, this is the *uttermost* I can do.

Uttox'eter, a town of England, in Staffordshire, near the river Dove, 13 m. from Stafford. In the neighborhood are numerous iron-forges. *Pop.* 5,500.

Uval'de, in *Texas*, a S.W. co.; *area*, 1,420 sq. m. *Rivers.* Rio Frio and Sabinal. *Surface*, undulating; *soil*, fertile. *Cap.* Uvalde. *Pop.* (1897) 4,560.

—A post-town, cap. of the above co., 80 m. S.W. of San Antonio.

Uva'ria, *n.* (*Bot.*) Same as ANONA (*q. v.*).

Uva Ur'si, *n.* (*Bot.*) See ARCTOSTAPHYLOS

U'vea, *n.* [Lat. *uva*, grape.] (*Anat.*) The choroid coat of the eye;—the posterior layer of the iris.

U'veous, *a.* [Lat. *uveus.*] Resembling a grape.

U'vula, *n.* [Lat., dim. of *uva.*] (*Anat.*) A small fleshy protuberance which hangs at the middle of the posterior margin of the soft palate. In the case of sore throat, it frequently becomes enlarged and inflamed, and is to be treated by the application of stimulants and astringents in gargles. When other means fail, it may be amputated, an operation neither painful nor dangerous.

U'vular, *a.* (*Anat.*) Belonging to the uvula.

Uvula'ria, *n.* (*Bot.*) A genus of plants, order *Liliaceæ.* The Mealy Bellwort, *U. perfoliata*, is a handsome, smooth plant, found in woods in the United States and Canada; stem 10 to 14 feet high, passing through the perfoliate leaves near their bases, and dividing into 2 branches at top; flowers pale-yellow, pendulous from the end of one of the branches.

Uwar'owite, UVAROVITE, *n.* (*Min.*) A lime-chrome garnet of an emerald-green color, found at Kyschtimsk and Bissersk in the Ural.

Uwchland, or **Uwchlan** (*yook'lan*), in *Pennsylvania*, a post-township of Chester co., about 30 m. W.N.W. of Philadelphia.

Ux'bridge, a town of England, co. of Middlesex, 17 m. W.N.W. of London. *Pop.* 4,250.

Uxbridge, in *Massachusetts*, a post-town and township of Worcester co., 18 m. S.S.E. of Worcester.

Ux'mal. (*Anthropology.*) One of the most important of the ruined cities of Yucatan, the production of a race of partially civilized Indians known as the Mayas, who had reached a striking degree of culture. It was in a state of decay at the time of the Spanish conquest, after having endured through a prehistoric period of unknown duration. Some of these cities were forgotten ruins at the time of the conquest, though others seem to have been still inhabited. Their remains consist of the ruins of great and elaborately sculptured buildings, statues of gigantic dimensions, and numerous objects of more or less primitive art now buried in the depths of forests. Uxmal is situated in the N.W. of Yucatan, 40 miles S.W. of Merida, and stands unrivalled among these cities for the magnitude of its buildings, the richness of its sculptured façades, and the beauty of its statuary, which approaches that of classic production. These great edifices—palaces, temples, or whatever their purpose may have been—are built upon artificial terraces of considerable height and great dimensions, raised in sloping pyramidal form. Chief among these great edifices are the so-called "nunnery" and the governor's palace ("Casa del Gobernador"). The latter is adorned with a wonderful sculptured frieze, 325 feet long, "having a row of colossal heads divided in panels, filled alternately with grecques in high relief." The nunnery forms a vast quadrangle, one front of which is 280 feet long, while the inner courtyard measures 258 by 214 feet. It contains, in all, 88 apartments of different sizes. Statuary and other works of art add to the treasures of this remarkable forest-grown locality, a statue of surprising beauty, far surpassing anything previously found in Central America, having been found here by Dr. Le Plougeon in 1881. This he carefully hid again, to keep it out of the hands of the Mexican authorities, who had seized another remarkable statue which he had previously discovered. This, supposed to be the figure of a king named Chac Mool, represents the reclining figure of a man, naked except for his head-dress, bracelets, feather anklets, and sandals. He holds by both hands to the center of his body a large vase. The total length is 1.55 meters. This, like the larger statuary of the region in general, is carved in high relief, not being entirely detached from the matrix-stone. These are but the principal among the many objects of interest at Uxmal, and in this connection it may be well to give a brief description of the Yucatan antiquities in general, since in some respects these excelled any others found on the American continent. Of ruined cities no less than 62 have been traced and to some extent explored in Yucatan, and it is probable that at the time of the Spanish conquest the whole northern section of that country, now destitute of running streams, was thickly peopled and possessed numerous populous cities, since, though at that time in a state of decadence, it was strong enough to resist for 20 years the invading efforts of the "conquistadores" of Mexico. The absence of rivers, however, is not due so much to lack of rain as to the porous character of the limestone soil, which drinks in the water like a sponge. Water may be had in abundance by sinking wells, and many such wells and underground reservoirs remain from the ancient culture. One of these reservoirs is 450 feet underground, and is reached by a passage 1,400 feet long. Of the 62 ruined cities of Yucatan, the best known are Uxmal, Izamal, Mayapan, Aké, Acanceh, Tikul, and Kabah, in the N.W.; Chichen-Itza, between Tikul and the E. coast; and Labna, Nohbecan, and Potonchan, in the Campeche district. Other cities of leading importance existed outside the limits of Yucatan, including Palmque, in Chiapas; Copan, in Honduras, and Coban and Lorillard, in Guatemala. The antiquities of some of these other cities may be briefly described, though it may be said that none of them equal in effectiveness those of Uxmal. Twelve miles S. of the latter city lie the ruins of Kabah, the two places having formerly been connected by a plastered causeway. Its ruins spread over a considerable area, and indicate a very large city, comprising lofty pyramids, vast terraces, and sumptuous temples or palaces, so elaborately ornamented as largely to conceal their architectural features. Among the sculptures are bas-reliefs, resembling the war-pictures of the Egyptian temples, representing Maya warriors receiving the weapons of kneeling Aztec captives. Chichen-Itza displays among its wonderful remains a "nunnery" resembling that of Uxmal, several temples, and other buildings, the whole being profusely ornamented with rich friezes, statues, pillars, reliefs, and other sculptured embellishments, the whole grouped around a great central pyramid, on whose summit still stands a beautiful structure known as the Castillo. This city, probably inhabited at the time of the conquest, was the capital of a powerful Maya people known as the Itzaes. Mayapan, the "Banner City of the Mayas," covers with its ruins a considerable space, including a lofty artificial mound overgrown with trees. Aké presents as its striking feature a huge pyramid with an immense flight of steps, and surmounted by 36 pillars, each 4 feet square and 14 to 16 feet high. At Izamal, a few miles to the E., is another great pyramid, nearly 650 feet wide at base, three smaller ones, and a colossal head 13 feet high. This is not a monolith, but is built up of rough stones and mortar. Such is a very brief description of some of the more remarkable of those numerous cities. In all probability many more such monuments of the past civilization remain to be discovered and described, buried at present under the rank tropical vegetation, particularly in the region towards the Guatemalan frontier, where the still unsubdued Itzaes and Lacondons render exploration dangerous. Palmque, Copan, and the other stations outside of Yucatan are equally wonderful in their architectural and sculptural remains, and, in common with the buildings of the cities mentioned, present numerous inscriptions, written in a language which yet remains a mystery, it having defied all efforts at its decipherment. These inscriptions, though varying somewhat, all belong to the same system of writing, but whether that system is purely ideographic or phonetic, or combines the two, is unknown. A few Maya manuscripts exist, having escaped the destructive fury of the Spanish priests. One of these, the *Popol-Vuh*, copied about 1558 from an older manuscript, Brasseur de Bourbourg has edited and claims to have translated; but the alphabet used by him is not to be trusted, and the riddle still remains unsolved. Of the characteristics of the Uxmal and other ruins, one of the most striking is the peculiar form of the arch employed, the true arch being unknown, and the effect of an arched support being obtained by the gradual approach of successive horizontally-laid stones, which finally meet in the center, the protruding corners then being cut away and the surface smoothed off. At Palmque, however, is an example of a nearly true trefoil arch. As already mentioned, the great edifices of these vanished cities stand on grand basements or terraces, square in plan and rising by huge steps to the summit, having the outline of a low truncated pyramid. One of those at Palmque is 280 feet square at base and 60 feet in height, bearing an oblong temple 76 by 25 feet in dimensions. Others, such as those that bore the great structures at Uxmal, were considerably larger, the "temple" at Copan having a ground-plan of 809 by 624 feet. This edifice is built of heavy blocks of cut-stone, with walls about 25 feet thick and reaching a height of 90 feet. The "fortress" at Mitla has stone walls 8 feet thick, 18 feet high, and more than a mile long. Other buildings display immense blocks of granite 15 to 19 feet long, and elaborately carved on the surface. Many of the structures at Uxmal, Chichen-Itza, and elsewhere are covered externally with intricate carved designs, worked out with extraordinary toil in a hard limestone rock. When we consider that the builders were destitute of iron or steel tools, and perhaps had nothing harder than stone hammers and chisels, the labor involved in this work becomes almost incredible. The same may be said of the great statues produced, which were of all sizes, from idols no larger than the little finger to the colossal serpents at Chichen-Itza, whose heads alone are 10 feet long. See PALMQUE and COPAN.

Uxoricide (*uks-or'i-sīd*), *n.* [Lat. *uxor*, wife, and *cædere*, to slay.] Wife-murder by a husband.—One who murders his wife.

Uxo'rious, *a.* [Lat. *uxorius*, from *uxor*, wife.] Excessively or foolishly fond of a wife.

Uxo'riously, *adv.* With fond or weak submission to a wife.

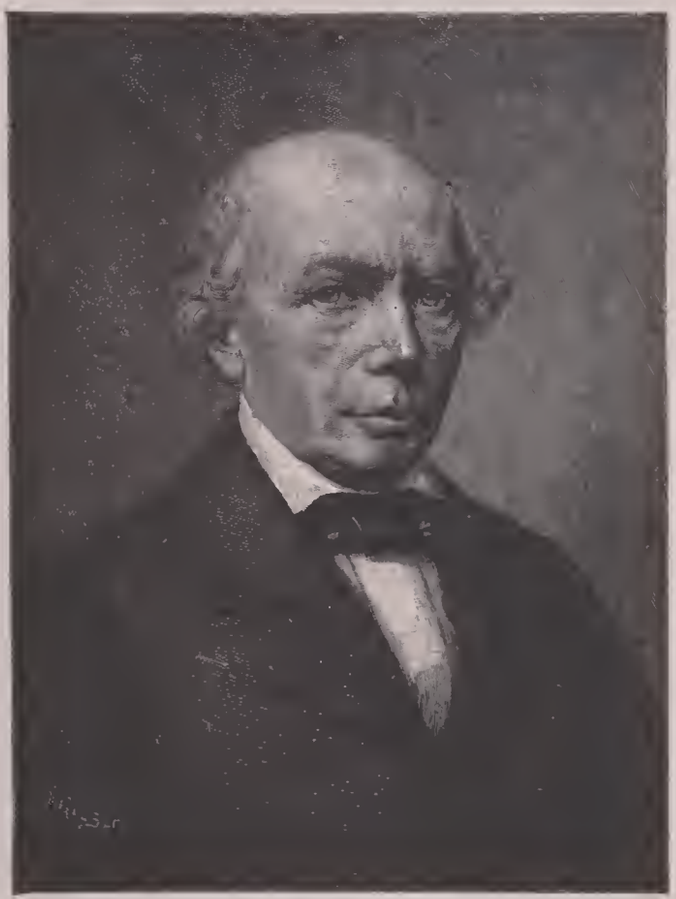
Uxo'riousness, *n.* Conjugal thraldom; connubial dotage; excessive and silly fondness for a wife.

Uz. (*Script.*) A land mentioned as the land where the patriarch Job lived (*Job* i. 1), B. C. 2130. It is supposed to have been in the S. of Arabia Deserta.

U'zema, *n.* In Burmah, a measure of 12 miles.

Uzes (*oo'zai*), a town in France, dept. of the Gard, 12 m. from Nîmes. *Manuf.* Silk, pasteboard, &c. *Pop.* 8,376.

Uzzi'ah, king of Judah. See AZARIAH.



Ludwig Uhland

1787–1862

U.—SECTION II.

Ubiqua'rian, Ubiquita'rian, *n.* [From Lat. *ubique*, everywhere.] (*Eccl. Hist.*) One of a school of Lutheran divines, so named from their distinguishing doctrine, that the body of Christ is everywhere, thus interpreting the belief in its real presence in the eucharist. They were followers of Johann Breng, or Brentius (1499–1570), a co-worker of Luther, and of Jacob Andreæ, or Andreas (1528–1590), who held the same opinions. Also called *Ubiquitists.*

Ucayale (*oo-kī'ah-le*), or **Ucayali,** a large river of South America, forming one of the chief tributaries of the Amazon, which it joins from the south in Ecuador, in S. Lat. 4° 40′, W. Lon. 73° 30′. Its whole length is 1,400 miles, of which 1,000 are navigable; it rises in 14° 30′ S. Lat., and flows through a rich and densely-wooded country, receiving the Apurimac and joining the Marañon. Near its source it is called Vilcamayu and Urubomba.

Uche'an In'dians. (*Ethnol.*) A language-stock of North American Indians chiefly represented by the Uchee (also Utchee and Ynchi). These Indians inhabited southern Georgia, and were among the first with which Europeans became acquainted. "The Yuchi," says Powell, "are supposed to have been visited by De Soto during his memorable march [1540], and the town of Cofitachiqui, chronicled by him, is supposed by many investigators to have stood at Silver Bluff, on the left bank of the Savannah, about 25 miles below Augusta . . . This would locate the Yuchi in a section which when first [next] known to the whites was occupied by the Shawnee. Later the Yuchi appear to have lived somewhat farther down the Savannah, on the eastern and also on the western side, so far as the Ogeechee river, and also upon tracts above and below Augusta, Georgia." Thence, about 1730, they scattered somewhat farther west. At present several hundred civilized Yuchis dwell near the Creeks in the northern part of the Indian Territory; but, although associating with the Creeks, and formerly a part of the Creek confederacy, they insist upon being regarded as a separate people. They seem to have been originally unusually intelligent, courageous, and high-minded, as compared with many other Southern races of red men.

Ugan'da. (*Geog.*) When Speke, the Englishman, explored (1860) the northern and western shores of the Victoria Nyanza (*q. v.*), which he had previously discovered, and when Stanley visited it in 1875, they found there a state called Uganda, extending along the northwest shore to the lake. The people were much higher in intellectual development and civilization than any others in East or Central Africa. The men were tall and well built, with good features, dark, chocolate-colored skin, and woolly hair. The women in their youth were good-looking. Both men and women were fully clad. The country is partly mountainous, partly undulating, partly a plain, well wooded and, on the whole, very fertile. The climate is mild, and very uniform throughout the year, ranging from 50° to 90° F. Stanley called the country the "Pearl of Africa." He and Grant estimated the population at 1,000,000. King Mtesa, of a family which has reigned in Uganda for over three hundred years, was in power when the lake was discovered, and he requested that Protestant missionaries be sent thither, which was done in 1877. His successor, Mwanga, was bitterly hostile to Christianity, burnt forty converts at the stake, and murdered Bishop Hannington, who had come out from England. Moreover, for a number of years after 1834 the country was greatly exhausted by desperate civil wars, and it is now estimated that the population does not exceed 500,000. The Imperial British East Africa Company, whose territory is called Ibea (*q. v.*), occupied and administered the Uganda kingdom until July, 1893, when they withdrew from it, and also from the region between that and Albert Edward Nyanza and the river Semliki, which connects Albert and Albert Edward Nyanzas. Thereupon a British protectorate was declared over that country, which has now at its head a royal commission, subordinate to the British agent at Zanzibar. Although the king has been shorn of almost all his power, he is still regarded with superstitious reverence by many of the peasantry. There has been constructed a line of British forts between Albert and Albert Edward Nyanzas. The British government decided (June, 1895) to build a railway between the seaport of Mombasa (*q. v.*) and Victoria Nyanza, a distance of 675 miles. A preliminary survey has been made and the railway constructed as far as Dunautahe. Between Mombasa and Kebmazi (200 miles distant) there is a good road.

Uhland (*oo'lant*), Ludwig, poet and jurist, was born at Tübingen, Germany, in 1787. He wrote various collections of ballads of a patriotic character, full of spirit, imagination, and truth, finely picturesque in their sketches of nature, and exquisite in their varied feeling. He was also a statesman and student, having studied jurisprudence, practiced as an advocate, held the chair of German Language and Literature at Tübingen, where he himself had graduated, and been a member of the German National Assembly. Besides his lyrics, *Fatherland Poems*, and other songs and ballads, many of which have become almost national songs, he wrote eight volumes on the history of German poetry and legend, as well as several dramas. Died in 1862.

Uhrich (*oo'rik*), Jean Jacques Alexis, a French general of German extraction, was born at Phalsbourg, in 1802; after completing his education in the Military College of St. Cyr, he entered the army, served in Spain and Algeria, and in 1852 became a brigadier-general, serving in the Crimean War; in the Italian campaign of 1859, he gained the rank of general of division, and in 1862 became grand officer of the Legion of Honor. After retiring into the Army Reserve in 1867, he resumed active service on the outbreak of the Franco-German War in 1870, undertaking the command of a division of Alsace-Lorraine troops. After the battle of Wörth, he became commandant of Strasburg, which was comparatively unprovided with arms and provisions. Nevertheless he defended it during seven weeks of merciless bombardment. After receiving extravagant praise, then unqualified blame, from his countrymen, Gen. Uhrich retired into private life in 1873, and died in 1886.

Uin'tah, in *Utah*, an E. co.; *area*, 5,834 sq. m.; intersected and partly bounded by the Green river. *Surface*, mountainous; occupied by Uintah Mountains. *Cap.* Ashley. *Pop.* (1895) 3,967.

Uji'ji. See Tanganyika.

Ukraine (*ook'rain*), *n.* [Slav., a frontier country or marsh.] (*Geog.*) The name given in Poland first to the frontiers toward the Tartars and other nomads, and then to the fertile regions lying on both sides of the middle Dnieper, without any very definite limits. The Ukraine was long a bone of contention between Poland and Russia. About 1686 the part on the east side of the Dnieper was ceded to Russia (Russian Ukraine); and and at the second partition of Poland, the western portion (Polish Ukraine) also fell to Russia, and is mostly comprised in the government of Kiev. The historic Ukraine forms the greater part of what is called Little Russia (a name which first appears about 1654), and is made up of the governments of Kiev, Tchernigov, Poltava, and Kharkoff. This tract of country has always been celebrated for its fine breed of fleet horses and horned cattle.

Ulcer, *n.* [Fr. *ulcère*; Lat. *ulcus, ulceris*, a sore.] (*Path.*) A local disintegration of the soft parts of the body, either opening to the surface or to any internal cavity, and attended with a secretion of pus or some kind of discharge. It may arise from a variety of causes, similar to those producing inflammation; wounds in the flesh, if at all deep, may pass into ulcers; and persons in whom from any cause the circulation has become sluggish are liable to ulcerations. In simple cases nearly all that seems needful is to keep the surface clean and covered with some antiseptic ointment. Where the part or the constitution is too weak to carry on the healing, general as well as local treatment is required, and the system has to be strengthened by nutritious diet, tonics, &c. In indolent ulcers the applications require to be principally of a stimulating nature.

Ulloa (*ool-lo'a*), Don Antonio, a Spanish naval officer and mathematician, was born 1716. In 1735 he was sent, with Jorge Juan, to South America to co-operate with Condamine and other French Academicians in measuring a degree of the meridian. He was afterward given high naval and civil offices, among them the governorship of Louisiana; his later life is more remembered in connection with the construction of public works requiring engineering skill, and with the founding of the first metallurgical laboratory and the Observatory of Cadiz. In 1748, in connection with Juan, he published an account of their voyage and nine years' residence in Peru. Died in 1795.

Ulpianus (*ul-pi-ai'nus*), Domitius, an eminent Roman jurist, the tutor, friend, and minister of the Emperor Alexander Severus, who made him his secretary and afterward prætorian prefect. Having offended the soldiery by his reforms, they broke out into open mutiny and murdered him, about A. D. 228. His writings on law were very numerous, and many excerpts from them are included in the *Digest.*

Ul'ster, in Ireland, the most northern of the 4 provinces, bounded by the Irish Sea, the Atlantic Ocean, the North Channel, and the provinces of Leinster and Connaught. Its coasts are indented by great arms of the sea, such as Donegal Bay, Loughs Swilly and Foyle, Belfast Lough, and Dundrum Bay; in the north the country is hilly and rather sterile, but the southern parts of the province are rich, fertile, and well cultivated, producing flax, grain, fodder, horses, cattle, milk, butter, and cheese. Ulster is the seat of the great Irish textile manufactures, the annual value of the linens alone being about $15,000,000. The people are descendants of Scotch and English settlers who were introduced in the time of James I., to occupy lands confiscated from the original Irish owners on account of insurrectionary designs. Although the two races have intermixed, the inhabitants of Ulster have always been more or less distinct from the rest of the Irish people, and there have been many bitter feuds, notably the Ulster rebellion of 1641, an uprising of the original Irish against the English settlers. The natives who retained lands were often oppressed by their stronger neighbors, and it is likely that the unsettled leases, consequent on so general and violent a change of ownership, was the cause of the *Ulster tenant-right system* which has attracted much attention in the recent discussions of Irish land tenure. It provides for a compensation to a tenant for loss on quitting land which he has held, and for improvements, and secures facilities to tenants in securing their holdings. Ulster has an area of 8,550 sq. m. It is divided into 9 counties: Antrim, Armagh, Cavan, Donegal, Down, Fermanagh, Londonderry, Monaghan, and Tyrone. The principal towns are Belfast, Londonderry, Enniskillen, and Lisburn. *Pop.* (1897) 1,595,400.

Ulster, in *New York*, a S.E. co.; *area*, 1,157 sq. m.; bounded E. by the Hudson river. *Surface* is broken by the Catskill and Shawangunk Mountains; *soil*, suited for grazing; iron ore, limestone, slate and flagging are found. *Products.* Butter, hay, wool, corn, potatoes; fruits of all kinds, especially grapes and berries. *Manuf.* Very numerous and important. *Cap.* Kingston. *Pop.* (1897) 94,460.

Ul'tima, *a.* [Lat., last.] Most distinct or remote; furthest; last; most extreme limit or reach.—*U. ratio.* [Lat.] The final reason, argument, or resource.—*U. Thule*, or *Thule.* A name given by Pytheas of Marseilles, about 300 B. C., to a vaguely described land lying north of Scotland, probably the Orkney or Shetland Islands, although its exact size and position have been under discussion almost ever since. The name has come to be used figuratively to signify any little known or mythical northern region, or even any desire whose fulfillment seems uncertain and distant.

Umbrel'la-bird, *n.* (*Ornith.*) A curious bird (*Cephalopterus ornatus*) of the Chatterer family (*Cotingidæ*), which includes a large number of tropical South American birds noted for splendor of colors and strange adornments in their plumage. This species inhabits the Amazonian and Orinocoan forests, is of the size of a crow, and black all over, with metallic reflections. Its peculiarity is described by Alfred Russell Wallace thus: "The crest is perhaps the most fully developed and beautiful of any bird known. It is composed of long slender feathers rising from a contractile skin on the top of the head. The shafts are white, and the plume glossy blue, hair-like, and curved outward at the tip. When the crest is laid back the shafts form a compact white mass, sloping up from the top of the head, and surmounted by the dense hairy plumes. Even in this position it is not an inelegant crest, but it is when it is fully opened that its peculiar character is developed. The shafts then radiate on all sides, from the top of the head, reaching in front beyond and below the top of the beak, which is completely hid from view. The other singular appendage of this bird is the neck-plume. On examining the structure of this plume, it is found not to be composed of feathers only, growing from the neck. The skin of the neck is very loose; looser and larger, in fact, than in any bird I know of. From the lower part grows a cylindrical fleshy process about as thick as a goose quill, and an inch and a half long. From this grow the feathers to the very point, thus pro-

ducing the beautiful cylindrical plume quite detached from the breast, and forming an ornament as unique and elegant as the crest itself." Another species (*C. pendulíger*), having a still more extraordinary feathered dewlap, inhabits western Ecuador; and a third (*C. glabricollis*) is known in Costa Rica, in which the throat is reddish-orange, and the dewlap bare of feathers except at the extremity. These birds are near relatives of the strauge bell-bird, or campañero, of South American forests, and subsist upon a mixed diet of fruit and insects.

Un'cas, an American Indian who was famous in the early annals of New England. He was originally n Pequod (see PEQUOD), who, with his following, revolted against Sassacus (about 1635), and formed a new band, called Mohegans, after the ancient name of the tribe. He acquired considerable power, and, with great foresight, allied himself steadily with the whites, and shared in their victories over the Pequods and other tribes, receiving grants of conquered territory. This made him new enemies among the red men, by whom he was regarded as a traitor, and unsuccessful attempts were made to assassinate him. This led to his attacking his old allies, the Narragansetts, and in 1643 he overpowered them and captured their chief, Miantonomoh, in a battle that took place near Norwich, Ct. The English authorities at Hartford consented that this powerful and hitherto friendly chief should be savagely put to death by Uncas, and a monument now marks the spot on Sachem's Plain, north of Norwich, where he was slain. This whole episode was doubtless a quarrel fomented by the English in the hope of getting rid of the red men by each other's tomahawks. The remainder of the Narragansetts continued the struggle for some years, and once would have overcome Uncas had he not been assisted at the last moment by English troops. Thus the whites played one against the other. He lived in the neighborhood of Norwich, Conn., to a great age, always a man of mental force as well as physical power, but always an unregenerate savage. He died in 1682, and is buried in a little plot in the city of Norwich, known as the royal Mohegan burying-ground, among the bones of ancestors long antedating his momentous career and the coming of Europeans. He was the "last of the Mohicans," and as such became the hero of Cooper's novel; and President Andrew Jackson dedicated the granite obelisk which now marks his grave.

Un'derwood, FRANCIS HENRY, author, was born in Enfield, Mass., Jan. 12, 1825; is widely known by his *Handbooks of English and American Literature*, which have been popular school text-books. He also published *Builders of the American Literature*, and *Handbook of English History*, and biographies of Lowell, Longfellow, and Whittier. He is accredited with originating the idea of starting the *Atlantic Monthly*, with James Russell Lowell as editor, *U.* himself being assistant manager. He was clerk of the Massachusetts Senate (1852–54); clerk of the Boston Superior Criminal Court (1859–70); consul at Glasgow (1885), and consul at Edinburgh (1893). Died Aug. 7, 1894.

Un'dulatory The'ory. (*Physics.*) The theory, now universally accepted, that light, radiant heat, &c., are forms of energy propagated through the ether by a wave-motion imparted to the ether by the molecular vibrations of the radiant body. The ether, specifically called the luminiferous ether, is a medium presumed to fill all space, including those spaces where the densest bodies are located. Light and radiant heat travel through it by undulations of immense rapidity, these undulations being spoken of as waves, for want of a better term, but being rather disturbances of the equilibrium of the medium, which are propagated from point to point by a continuous motion, the particles vibrating only laterally, while the motion or phase of vibration is onward. The term radiant energy is devised to include light, radiant heat, and electro-magnetic radiation, each of which is considered as travelling in the ether with a wave-motion of different length or rapidity. To these may now be added the Roentgen, Hertzian, and other waves, each of which manifests different qualities. Light is the name that we give to those waves that affect the eye, and are visible in the spectrum; electricity to those waves that are manifest to our senses in the electric current, and which are capable of transferring power; and Roentgen rays to those waves that proceed from the Crookes tube, and are changed into light rays by fluorescent substances. The undulatory theory displaced the corpuscular theory of Newton. See LIGHT, ELECTRICITY, and ROENTGEN RAYS.

Unga'va, an unorganized district of Canada, including the whole region between Hudson Bay and the Atlantic Ocean, north of Quebec, except the coast of Labrador, which belongs to Newfoundland. Its southern boundary is formed by the East Main and Hamilton rivers, and a conventional line connecting their sources along the water-shed between the St. Lawrence and Hudson and Ungava Bays. Ungava Bay is a deep southward indentation of the coast of Hudson Strait, also connected with the Atlantic by a narrow inland channel. The district is a rolling and a somewhat elevated plain of Laurentian gneiss—a part of the most ancient frame of the continent, and contains a a great number of lakes, rivers, and swamps among the rocky ridges. The land is generally forested, and may yield considerable good timber, while its mineral resources may prove valuable. The soil seems to be fertile where it has been examined along the eastern shore of Hudson Bay, but around Ungava Bay the hills are barren and rocky, and the climate precludes the agriculture possible farther south. The only resource of the region at present is the fisheries, especially of Hudson Strait, where whales abound, porpoises are taken in immense numbers (at Ungava Bay, for the sake of their oil and hides), and where cod, whitefish, trout, &c., throng in extraordinary numbers. Sparse bands of Indians dwell on the southerly coasts and rivers, and the region of Ungava Bay is thinly inhabited by Esklmos. For these a few small posts and fisheries of the Hudson Bay Company are maintained, but otherwise there is no habitation.

U'nicoi, in *Tennessee*, a N.E. co.; *area*, 196 sq. m.; drained by Nolachucky river. *Surface*, rugged and mountainous; *soil*, fertile in valleys near streams; iron ore abundant. *Cap.* Erwin. *Pop.* (1897) 4,840.

Un'ion, or **Union City,** in *Oklahoma*, a post-village of Canadinn co., 6 m. from Minco, Indian Territory. *Pop.* (1897) 250.

Union, in *South Dakota*, an extreme S.E. co., adjoining Nebraska and Iowa; *area*, 430 sq. m.; bounded E. by Big Sioux river and S.W. by Missouri river. *Surface*, rolling prairie and woodlands; *soil*, fertile. *Cap.* Elk Point. *Pop.* (1895) 10,515.

Union City, in *Indiana*, a city of Randolph co., 9 m. E. of Winchester, has hub and spoke, and carriage factories, manufactures of flour, lumber, &c. Trade center of an agricultural district. *Pop.* (1897) 3,450.

Union City, in *Pennsylvania*, a post-borough of Erie co., 26 m. S.E. of Erie; has excellent water-power and important manufactures. *Pop.* (1897) 2,425.

Union City, in *Tennessee*, a post-village, cap. of Obion co., 33 m. N. of Trenton. An important manufacturing point. *Pop.* (1897) 3,990.

Uni'ted Christ'ians. (*Eccles.*) An organization first announced July 25, 1894, by its fonuder, John C. Bateson, M. D., of Scranton, Pa. Its purposes are announced to be as follows: (1) To unite all Christian believers regardless of sect or creed for mutual benefit. (2) To encourage people to study the Bible and obey the laws of God. (3) To bring about a more general and co-operative effort for the advancement of Christianity throughout the world. "All persons who desire to honor God and do good unto their fellow men" are eligible to membership.

United Greek Church. (*Eccles.*) That portion of the Eastern Christian Church, which, while in general retaining the discipline, rights, liturgy, and customs of the Greek Church, acknowledges the supremacy of the Pope of Rome. Its origin was in isolated Greek communities upon which the Church of Rome brought its influence to bear, but it now amounts to an important fraction of the whole Greek Church. Submission to papal supremacy was usually the only condition of union; but Rome has used her influence further whenever possible, so that the United Greek Church, or the "Unia," as it is called, is much varied in its rites and discipline.

United States Marine' Hos'pital Ser'vice. See NAVY OF THE UNITED STATES.

United States Mil'itary Acad'emy. See WEST POINT.

Univer'sity Exten'sion. (*Educ.*) The university extension movement, with the object of providing "means of higher education for persons of all classes and both sexes, engaged in the regular occupations of life," was originated by the University of Cambridge, England, in 1872; Prof. Stuart gave a series of lectures to several women's clubs in the north of England, and they were received so enthusiastically that he repeated them to various audiences in all parts of the country. These gave rise to the university extension idea. It is carried out by systematic courses of lectures and classes, taking up subjects usually taught in universities, and followed by examinations and the granting of certificates. Centers for the work are chosen and grouped into circuits, which agree to employ the same lecturers, making it easier to obtain the best talent in places remote from universities, or other centers of thought. The work spread throughout England, and has been taken up vigorously in the U. S., where *The American Society for the Extension of University Teaching* was organized in 1890, at Philadelphia. In 1894-95 it arranged for over 1,000 lectures, divided into courses of about six lectures each. In other parts of the country other societies have been formed, which coöperate with that in Philadelphia, and their work is so thoroughly organized that almost anyone in any part of the country, who is willing to give a little time to study, may receive instruction from the best scholars and thinkers in any department which he may choose.

University Set'tlements. (*Sociol.*) Under this name, in the poorer quarters of many cities, homes have been founded where educated people live in neighborly contact with the uneducated classes, and try by example, friendly influence, and regular instruction to spread higher ideas of life and of citizenship. The work of the settlements is entirely carried on by voluntary, unpaid residents, only the head worker receiving a salary. The policy of the settlement is almost entirely controlled by the head worker, advised by the residents, and depends upon the character and needs of the surrounding neighborhood, although most of the settlements are under the general direction of a University Settlement Society or other philanthropic association. The university settlement movement arose gradually and from various distinct beginnings in England, between 1860 and 1880, and was in part an outgrowth of the university extension work. *Toynbee Hall*, a settlement in memory of Arnold Toynbee, one of the early workers in the movement, was established in Whitechapel, London, 1885, and many other settlements were soon founded in other parts of London, and in several Scotch cities. In 1887, *The Neighborhood Guild*, an organization for work of this sort, was founded in New York city, and was merged into the *University Settlement Society* in 1891. There are now settlements in most of the large cities of the U. S., the best known being the *University and College Settlement*, New York city; *Hull House*, Chicago; *Philadelphia College Settlement*, and *Denison House* and *Andover House*, Boston.

Up'church, JOHN JORDEN, organizer, was born in Franklin co., N. C., March 26, 1822; was a master mechanic, employed in the machine shops of the Atlantic & Great Western Railroad, at Meadville, Pa., when he organized the Ancient Order of United Workmen, and in 1868 formed the first lodge of the order. He travelled extensively in the interests of the society. Died Jan. 18, 1887.

Up'ham, THOMAS COGSWELL, educator, was born at Deerfield, N. H., Jan. 30, 1799; was a graduate of Dartmouth, and of Andover; in 1825 was appointed professor of Mental and Moral Philosophy at Bowdoin, and filled the chair until 1867, when he retired as professor emeritus. He published several volumes bearing upon his special field of thought, as well as several works of a religious character. Died April 2, 1872.

Up'john, RICHARD, architect, was born in Shaftesbury, England, Jan. 22, 1802; removed to America about 1829, and followed his craft as builder and architect. He became known for his Gothic church structures, chiefly in New York and Brooklyn; among them Trinity steeple, for many years the highest building in America. Died Aug. 16, 1878.

Up'son, ANSON JUND, educator and theologian, was born in Philadelphia, Nov. 7, 1823; educated at Hamilton College. Between 1870 and 1880 he was pastor of the Second Presbyterian Church in Albany, N. Y.; except for this period, his whole life has been spent as a college professor. In 1892 he became chancellor of the University of the State of New York.

Up'ton, in *Texas*, a W. co.; *area*, 1,140 sq. m. Unorganized. *Pop.* (1890) 52.

Urban'a, in *Illinois*, a city, cap. of Champaign co., 92 m. N.E. of Springfield. *Pop.* (1897) 4,050.

Urbana, in *New York*, a post-township of Steuben co.

Urbana, in *Ohio*, a post-town and twp., cap. of Champaign co., 42 m. W. of Columbus. *Pop.* (1897) 6,850.

Urbana, in *Virginia*, a post-village, former cap of Middlesex co., 84 m. N.E. of Richmond.

U'sury, *n.* Although originally signifying simply *interest*, or a rate paid for the use of money, usury now means a rate of interest in excess of that permitted by law. In the United States this is governed by State statutes, which name a certain maximum rate, beyond which interest is illegal, and in most cases deprive the lender of any right to collect, not only the stipulated rate, but, in many cases, even the principal involved. The laws of the State in which the contract was made govern in such cases; but these laws are frequently changed. In most of the States, 6 per cent. is the legal rate; but in some Southern and far Western States, 7 or 8 per cent. may be charged; and in Idaho, Montana, and Wyoming, 10 or 12 per cent. The maximum rate in nearly all the States is 10 per cent. or less, with exceptions in favor of small loans. (See PAWNBROKING.) The penalty for violation of usury laws varies greatly, several States enacting a forfeiture of the whole interest; others of two or three times that amount; others a forfeiture of the principal, or fine or imprisonment, as for a misdemeanor.

Ute In'dians. (*Ethnol.*) One of the principal tribes of the Shoshonean stock of Indians, inhabiting, when first known to Europeans, the mountainous parts of the present States of Colorado and Utah, the last name being derived from the early and proper dissyllabic pronunciation of the word. They were fine, athletic, intelligent, well-to-do Indians, and more warlike than the rest of the Shoshonean tribes, yet never were engaged in a general war with the whites, although a local uprising in northwestern Colorado in 1875 nearly precipitated one. This peace policy was due largely to the wise influence of their later head chief, Ouray, who governed them during the time, between 1865 and 1880, when mining, railway construction and industrial development were most rapidly invading and changing their mountain haunts, and who prepared them for the inevitable restrictions to follow. In 1873 began that collecting of these Indians into reservations which has proceeded with ever-narrowing limits until the present time, when most of them are gathered in the northeastern corner of Utah, and all that remain perhaps number 5,000 souls, none of whom have made much progress toward civilization. The term *Ute* appears in combination with several other allied and neighboring tribes, as the Pai-Utes, of the Colorado Valley in Utah and northwestern Arizona; the Gosintes, of northwestern Utah, and others.

Uten'sil, *n.* [Fr. *ustensile*, or *utensile*, from Lat. *utensilis*, fit for use.] That which is useful or necessary for use;—specifically, an instrument for any use, such as the vessels of the kitchen or the tools of a trade; an implement.

U'terine, *a.* [Lat. *uterinus*, from *uterus*, the womb.] Pertaining, or having reference, to the womb; belonging to the uterus.—Born of the same mother, but having a different father; as, a *uterine* brother or sister.

Uterogestation (*-tā'shun*), *n.* (*Med.*) Pregnancy.

U'terus, *n.* [Fr., from Lat.] (*Anat.*) The womb.

U'trecht Vel'vet. (*Fabrics.*) A plush woven from goat's-hair, and used in upholstery, and for the linings of carriages, &c.

V.

V (*ve,*) the twenty-second letter of our alphabet, and properly a consonant, being placed before vowels, as in *vacant, vibrate, venal,* &c. It is formed by the junction of the upper teeth with the lower lip, with a gentle expiration. It is the middle labial aspirate, bearing the same relation to *f* that *p* does to *b*. The letters *u* and *v* had always two distinct sounds, but they had only one form till about the beginning of the 4th century, and it was not till about the 16th century that the two letters came to be definitely distinguished. The Romans probably pronounced *v* like our *w*, which would account for the fact of there being no *w* in their language. In German, *v* has the sound of *f*, and *w* of *v*. *V* is interchangeable with *b* and *m*, and also with *f*. As a numeral, it denotes 5, and with a dash over it (V) 5000. V.R. among the Romans stood for *Uti Roga,* "As you desire;" in Great Britain, V.R. signifies *Victoria Regina,* "Queen Victoria." In music V. stands for *violin,* and V.V. for *violins.* — See also ABBREVIATIONS.

Va, *v. imper.* [It.] (*Mus.*) Proceed; go on; continue.

Vaal, [Du.; corresponding to the Hottentot name *Ky-Gariep,* yellow.] a South African river, the chief affluent of the Orange River, which it joins in about 24° E. Lon. The discovery of diamonds on its banks was made in 1867, and in the following years people from all parts of the world flocked to the fields. These lie in the eastern portion of a territory north of Cape Colony, known as Griqua Land West, which, as a consequence of the discovery, the unsettled nature of its government and turbulent population, was annexed to the British Empire in 1871. The mining has now become a settled industry, with its accompaniment of a fine population and rapidly growing towns. The fields extend between the lower Vaal River and its tributary the Modder. The largest diamond found to this day weighed more than 200 carats.

Vacancy, (*vā'kan-se,*) *n.* [Fr. *vacance,* from Lat. *vacans — vaco,* to be empty or void.] State or quality of being empty or vacant; — hence, leisure; listlessness; intermission. — That which is vacant; as, (1.) Vacuity; empty space; as, to fix one's eyes on *vacancy.* (2.) Gap; chasm; hiatus; blank; any space between bodies or things; as, a *vacancy* between words or between buildings. — Time of leisure or unoccupation; period of intermission; vacation; as, I have scarce a minute's *vacancy.* — Place or office unfilled or without an incumbent; as, a *vacancy* in the Treasury department.

Va'cant, *a.* Empty; not filled; void of every substance except air; as, a *vacant* house. — Hence, free; unencumbered; unengaged with business or care; unoccupied; as, *vacant* time. — Not filled or occupied with an incumbent or possessor; as, a *vacant* throne. — Thoughtless; void of reflection; not occupied with study or meditation; indicating want of thought or intelligence; as, a *vacant* face, a *vacant* mind.

(*Law.*) Having no heir, claimant, inheritor, or occupier; as, a *vacant* estate.

Vacant succession. (*Law.*) An inheritance for which the heirs are unknown.

Va'cantly, *adv.* In a vacant manner; emptily.

Va'ca Station, in *California,* a village of Solano co.

Va'cate, *v. a.* [Fr. *vaquer,* from Lat. *vaco, vacatum.*] To make empty, void, or vacant; to quit possession of and leave destitute; as, to *vacate* an office or dignity. — To annul; to make of no authority or validity; as, to *vacate* a charter.

Vacation, (*-kā'shun,*) *n.* [Fr., from Lat. *vacatio.*] Act of making vacant or void, or of rendering of no validity; as, the *vacation* of a commission. — Leisure; freedom from care, interruption, or embarrassment. (R.) — Intermission of a stated employment, proceeding, or office; rest. — Hence, especially, (1.) Intermission of judicial proceedings; the space of time between the end of one term and the beginning of the next; as, the Long *Vacation.* (2.) The intermission of the curriculum of study of a university, a college, or other seminary, when the students have a recess; as, the midsummer *vacation.* (3.) The time when a see or other spiritual dignity is vacant.

Va'caville, in *California,* a post-vill. and twp. of Solano co., 8 m. N.N.E. of Suisun city.

Vaccina, Vaccinia, (*vak-si'na,*) *n.* Cow-pox.

Vaccinate, *v. a.* [Fr. *vacciner;* from Lat. *vacca,* a cow.] To inoculate with the cow-pox by means of a virus taken or derived from cows, and called *vaccine matter.*

Vaccination, (*vāk-si-nā'shun,*) *n.* (*Med.*) The artificial production of a disease known as the cow-pox, by inserting some of the matter of the disease under the skin, with the view of protecting it against the incomparably more severe disease called *small-pox.* For the history of the discovery of *V.*, see JENNER. The great advantage of *V.* over inoculation is, that it only produces a slight disorder, which is attended with no risk, and not communicable except by direct engrafting. By inoculation the virus and the disease is conveyed wherever it is used, and the country filled with contagion. On the other hand, when vaccine matter is used, the contagion of small-pox need never come, and if rightly used, it affords the means of perhaps eradicating this most loathsome pestilence from every well-regulated community. The operation is usually performed by making an oblique puncture through the epidermis, and introducing a portion of the virus on the point of the lancet or needle. If the operation has been successful, a small inflamed spot is discernible about the third or fourth day. This increases in size, becomes hard and elevated, and about the sixth day a small quantity of fluid may be distinguished in the centre. About the eighth day, when the pustule is fully formed, the constitutional effects begin to appear, — headache, shivering, loss of appetite, &c., which gradually subside in one or two days. Afterwards the fluid dries up, and a dark-brown scab forms, which remains for about a fortnight, and on disappearing leaves a depression. It is a disputed point whether the effects of *V.* are permanent, or whether they disappear after a certain time. The majority seem to be in favor of the latter opinion, at least to the extent of recommending that persons who have been vaccinated in infancy should be re-vaccinated on attaining maturity. From the operation being imperfectly performed, or from other causes not well understood, *V.* does not in all cases afford absolute immunity from the disease; but in those cases in which it occurs, it is usually in a mitigated form.

Vac'cinator, Vac'cinist, *n.* One who practises vaccination.

Vaccinia'ceæ, *n. pl.* (*Bot.*) The Cranberry family, an order of plants, alliance *Cinchonales.* DIAG. Epigynous stamens and anthers opening by pores. They are shrubs or small trees, remarkable for their astringent leaves and bark, and for their edible subacid fruits. There are about 200 species, chiefly natives of the temperate regions of the globe; they are comprised in 13 genera. See VACCINIUM.

Vaccinium, (*vāk-sin'-,*) *n.* (*Bot.*) The typical gen. of the ord. *Vacciniaceæ.* They are heath-like shrubs, dispersed through a very wide area in both the Old and New World, and generally in mountainous districts or wet heathy places. Among the N. American species are: *V. virgatum,* the Blue Whortleberry, which yields sweet berries of a bluish-black color; *V. stamineum,* the Deerherry, the berries of which are large, bitter, and of a greenish-white color; and *V. Pennsylvanicum* (or *V. tenellum*), the common Low Blue-berry (Fig. 2560), found in thickets and pastures in hard soils, and common from Canada to Pennsylvania. It is a low under-shrub, 6–12′ high, growing in dense patches; flowers reddish-white; bracts mostly colored; berries large, blue, sweet and nutritious. Among the best known European species are *V. myrtillus,* which yields the edible Bilberry or Blackberry; *V. uliginosum,* the Bog or Black Whortleberry; and *V. vitis-idæa,* the Red Whortleberry or Cowberry.

Fig. 2560. — LOW BLUE-BERRY. (*V. Pennsylvanicum.*)

Vaccine, (*vāk'sin.*) *a.* [Fr. *vaccin.*] Pertaining to, or obtained from, cows; relating to vaccination; as, the *vaccine* disease.

Vache Island, (*vash,*) in the W. Indies, off the S. of Hayti, 8 m. S.E. of Aux Cayes, 10 m. long and 3 broad.

Vacher, (*vāsh-ā',*) *n.* [From Fr. *vache,* a cow.] A stock-keeper or herdsman. (Local U. S.)

Vach'ery, *n.* A pen for cattle; also, a dairy.

Vacillancy, (*vās'il-lan-se,*) *n.* Quality of being vacillant.

Vacillant, *a.* [Fr., from Lat. *vacillare.*] Vacillating; fluctuating; wavering.

Vacillate, (*vās'il-lat,*) *v. a.* [Fr. *vaciller.*] To move one way or the other; to reel or stagger; as, a *vacillating* gait. — To waver; to fluctuate in mind, purpose, or opinion; to be unsteady or inconstant; as, a *vacillating* man.

Vacilla'tion, *n.* [Fr., from Lat. *vacillatio.*] A moving one way and the other; a wavering; a reeling or staggering. — Inconstancy or fluctuation of mind; unsteadiness; change from one object to another; as, *vacillation* of purpose.

Vacu'ity, *n.* [Fr. *vacuité;* Lat. *vacuitas.*] State, quality, or condition of being vacuous; emptiness; a state of being unfilled. — Space unfilled or unoccupied, or occupied with an invisible fluid only; void; vacuum. — Nihility; inanity. (R.)

Vacuous, (*vāk'yū-ŭs,*) *a.* Empty; void; unfilled.

Vac'uousness, *n.* State or quality of being vacuous.

Vacuum, (*vak'yu-um,*) *n.* [Lat.] (*Phys.*) A space devoid of all matter. Whether there be any such thing in nature as an absolute *V.*, or whether the universe be completely full, is a question that has given rise to disputes among philosophers in all ages. The ancients distinguished a *V. coacervatum* and a *V. interspersum,* or *disseminatum.* By the former they understood a place destitute of matter, such as would exist if God were to annihilate all the air and other bodies within the walls of a chamber; by the latter they designated the space supposed to be naturally interspersed in and among bodies, and in the interstices between different bodies. Until recently the most perfect vacuum that could be produced was the *Torricellian vacuum,* or the space above the mercury in the barometric tube. It is obvious, from the nature of the pneumatic machine, that the vacuum produced by the air-pump can never be perfect, since some air must remain in the receiver however long the process be continued. A more complete vacuum can be produced by filling the receiver with carbonic acid and introducing a stick of caustic potash; the receiver then being exhausted to the full limit of the air-pump, the potash will absorb most of the remaining carbonic acid. The Sprengel pump is a very efficient vacuum-producing apparatus. In this mercury is allowed to flow down a long tube of narrow-bore, and carries with it the air from a vessel connected by a side tube with the vertical tube. The highest vacuum obtainable with the air-pump is 150 times the millionth of an atmosphere, while with the Sprengel pump it is possible to obtain a vacuum of ·005 of the millionth of an atmosphere. See BAROMETER, PUMP, and GEISSLER'S TUBES.

Vacuum Tubes. See GEISSLER'S TUBES.

Vade-mecum, (*vā-de-mē'kum,*) *n.* [Lat., go with me.] A manual; that which a person carries with him for guidance or reference.

Va'dium, *n.* [From Lat. *vadari,* to bind.] (*Law.*) Bail; security; pledge; guaranty.

Vag'abond, *a.* [Fr., from Lat. *vagabundus,* wandering to and fro.] Driven to and fro; floating about without any particular direction; as, "By envious winds blown *vagabond.*" (*Milton.*) — Wandering to and fro; moving from place to place without any settled habitation; as, a *vagabond* life.

— *n.* A vagrant; a hummer; one who wanders from town to town or from place to place illegally, having no certain habitation, or not abiding in it, and generally without the means of honest livelihood.

Vag'aboudage, Vag'aboudism, *n.* [Fr.] State or condition of being a vagabond.

Vag'aboudize, *v. a.* To act the vagabond; to loaf about.

Vaga'ry, *n.* [Fr. *vagueur* = Lat. *vagor,* to wander.] A wandering of the thoughts; a wild freak; a whim; a capricious frolic.

Vagina, (*-ji-,*) *n.*; *pl.* VAGINÆ. [Lat., a sheath.] (*Anat.*) One, and the largest, of the female passages, leading to the uterus. It extends from the *vulva,* or external parts, to the neck of the uterus, and being composed of a firm corrugated membrane, is capable of considerable elongation. These circular corrugations, or *rugæ,* which at one time of life are a collateral sign of virginity, disappear after many labors, when the passage becomes perfectly smooth from the *vulva* to the *os uteri.* A thin

firm membrane extends almost completely across the vagina, cutting off all access to the uterus, but allowing the periodical secretion to escape from it by a semicircular opening below; this membrane is called the *hymen*, and only exists before marriage. The vagina is subject to many diseases, particularly to inflammation, ulceration, and weakening discharges, gleets, &c. It is also subject to prolapsus, or a falling down, especially in delicate females who have had many children in rapid succession. In such cases injections of oak-bark, gall-nuts, or other astringents are necessary, with the introduction of a pad or pessary to support the passage when restored to its proper situation.

(*Bot.*) The leaf-stalk of those plants in which this part becomes thin and rolls round the stem, to which it then forms a sheath, as in grasses.

(*Arch.*) The part of a terminus out of which the statue seems to issue.

Vaginal, (*văj-,*) *a.* Resembling a sheath or scabbard; pertaining or having reference to a vagina or sheath.

(*Anat.*) Belonging or relating to the vagina.

Vaginant, Vaginate, *a.* (*Bot.*) Having the property of sheathing or investing.

Va'grancy, Va'grantness, *n.* [From *vagrant.*] A state of wandering from place to place without a settled home; the life and condition of wandering beggars, rogues, vagabonds, &c.

Va'grant, *a.* [O. Eng. *vagarant*, strolling, from Lat. *vagor.*] Wandering from place to place without any certain or settled habitation.—Unsettled; moving without any certain course or direction; as, *vagrant* impulses.

—*n.* A stroller; an idle wanderer; a vagabond; a sturdy beggar; one who has no settled dwelling, or who does not abide in it. See BEGOAR.

Va'grantly, *adv.* In a vagrant or unsettled manner.

Vague, (*vāg,*) *a.* (*com.* VAGUER; *superl.* VAGUEST.) [Fr., from Lat. *vagus*, wandering.] Unsettled; unfixed; undetermined; indefinite; ambignous; as, a *vague* idea.—Unauthorized; proceeding from no kuown or substantial source; as, *vague* hearsay.

Vague'ly, *a.* In a vague or uncertain manner.

Vague'ness, *n.* State, quality, or condition of being vague.

Vaigatch', or VAIGATZ, an island of N. Russia, separated from the mainland by the Strait of Vaigatch; Lat. 70° 25′ N., Lon. 59° 10′ E. It is 95 m. long and 35 broad.

Vail', *n.* See VEIL.

Vailes, In *Alabama*, a twp. of Pickens co.

Vain, *a.* (*comp.* VAINER; *superl.* VAINEST.) [Fr., from Lat. *vanus*, void, empty.] Unreal; empty; deficient; worthless; unsatisfying; not possessing real substance or importance.—Fruitless; wanting in force or efficacy; ineffectual; as, a *vain* attempt.—Showy; ostentatious; ornate.—Conceited; puffed up; proud of petty things, or of trifling accomplishments; elated with self-esteem, or with the possession of things more showy than useful or valuable.

In vain, to no good end or purpose; ineffectual; without advantage or success; as, to labor *in vain.*—*To take the name of God in vain*, to speak of the Almighty in terms of levity or profanity.

Vainglo'rious, *a.* Vain to excess of one's own accomplishments or achievements; elated beyond due bounds; boastful; feeling or indicating vainglory; proceeding from vanity; as, a *vainglorious* man.

Vainglo'ry, *n.* Exclusive vanity, excited by a sense of self-importance, or by the measure of one's own accomplishments or achievements; empty pride; undue elation of mind; pomposity.

Vain'ly, *adv.* In a vain, fruitless, or ineffectual manner; to no purpose; as, you *vainly* attempt to dissuade me.—Proudly; arrogantly; vaintingly; boastingly; with vanity; as, she thinks *vainly* of her own attractions.—Idly; foolishly; as, he *vainly* expects to succeed.

Vain'ness, *n.* State or quality of being vain; vanity.

Vair, *n.* (*Her.*) See FUR.

Vaisya, (*vis-,*) *n.* See CASTE.

Valais, (*val-ai',*) (THE,) a canton in the S. of Switzerland, bounded by the cantons of Uri, Berne, and Freiburg, and in another direction by Savoy and the Lake of Geneva; *area*, 1,665 square miles. *Desc.* It lies in the direction of north-east and south-west, and is of an oblong form, its length being about 100 miles, and its medium breadth from 25 to 30. It is the largest valley in Switzerland, watered in its whole extent by the Rhone, and bordered on the north, as on the south, by the loftiest mountains in Europe—the Pennine and the Bernese Alps. Cattle-rearing is the principal branch of industry. The V. opens into the Lake of Geneva, and is connected by great high-roads, and now by railway, with the other parts of French Switzerland and Savoy. The Grimsel and Gemmi passes connect the eastern part of the valley with German Switzerland; and the passes of Great St. Bernard and Simplon connect it with Italy. *V.* is a Catholic canton. It is divided into *Upper* and *Lower*; in the first the German, and in the second the French language is spoken. For administrative purposes it is divided into 13 *dizains*, each of which has a council of members elected by all citizens over 18 years of age, each council sending 4 deputies to a *diet*, in which the legislative power is vested. The diet has an executive, composed of 5 members, elected annually. *Cap.* Sion. *Pop.* (1897) 108,810.

Val'ance, Val'ence, *n.* [From O. Fr. *slavaler*, to hang or fall down.] The drapery depending from a bed, window, &c.; especially, the hangings around a bedstead, from the bed to the floor.

Valatie, (*val'a-tee,*) in *New York*, a post-village of Columbia co., 20 m. S.E. of Albany.

Valcour, (*val-koor',*) in *New York*, an island in Lake Champlain, 6 m. S. of Plattsburg.

Val de Peñas, (*val dai pain'yas,*) a town of Spain, on the Jabalon, 33 m. from Ciudad-Real. It is celebrated for its wines. *Pop.* 10,788.

Val'des, an Island off the W. coast of British Columbia, in the Gulf of Georgia; Lat. 50° N., Lon. 125° 2′ W.

Valdiv'ia, a city and strong fortress of Chili, cap. of a prov. of same name, on the Valdivia river, 9 m. from the sea. Founded in 1551, it was taken and plundered by the Araucanians in 1599, and, in 1837, was ruined by an earthquake. The harbor is situate in a beautiful bay, formed by the river, and is the safest, the strongest from its natural position, and the most capacious of any of the ports in the South Pacific; Lat. 39° 48′ S., Lon. 73° 19′ 30″ W. *Pop.* 2,000.

Valdos'ta, in *Georgia*, a post-town, cap. of Lowndes co., 157 m. S.W. of Savannah.

Vale, *n.* [Fr. *vallée*, *val*, from Lat. *vallis.*] A valley; a dale; a tract of low ground, or of land between hills or mountains.—A small trough or canal, to carry off water; a dale.

Valedic'tion, *n.* [From Lat. *vale*, adieu, and *dico*, to speak.] A bidding farewell; a farewell; an adieu.

Valedicto'rian, *n.* One who pronounces a valedictory address;—especially, in American colleges, the student who pronounces the valedictory oration at the annual commencement.

Valedic'tory, *a.* Bidding farewell; suitable, or designed, for a taking leave; as, a *valedictory* address.

—*n.* An oration or address spoken at commencement, in American colleges, by one of the class whose members receive the degree of bachelor of arts, and take their leave of the college, and of each other.

Valeggio, (*va-lij'o,*) a town of Italy, in Lombardy, 7 m. from Peschiera. It has a fortified bridge, about 550 yards long, defended by lofty towers. *Pop.* 4,620.

Valen'ça, in Brazil, a town of the prov. of Rio de Janeiro, 90 m. W.N.W. of Rio de Janeiro; *pop.* abt. 6,000.—A town of the prov. of Bahia, near the month of the Una, in the Atlantic, 10 m. N. of Cayru; *pop.* abt. 2,000.—A town of the prov. of Piauhy, 56 m. N.E. of Oeiras; *pop.* abt. 4,000.

Valengay, (*va-lain'sai,*) a town of France, dept. of the Indre, on the Nahou, 25 m. from Châteauroux; *pop.* 4,516.

Valen'cia, in *New Mexico*, a W. cent. co.; *area*, 8,900 sq. m. *Surface*, crossed by several mountain ranges; heavily timbered; *soil*, fertile when irrigated. *Cap.* Los Lunas. *Pop.* (1890) 13,876.

—A village, former cap. of the above co., 80 m. S.S.W. of Santa Fé.

Valencia, in Venezuela, a lake in the dept. of Caracas, 2 m. E. of Valencia city, 22 m. long, and 6 m. broad. It contains numerous islands.—A city in the dept. of Caracas; Lat. 10° 12′ N., Lon. 67° 55′ W.; *pop.* abt. 20,000.

Valencia, (*va-len'she-a,*) an ancient kingdom in the E. of Spain, extending in an oblong form from N. to S., with the sea on one side, and the Castilian provinces on the other. It now forms the provs. of Alicante, Valencia, and Castellon-de-la-Plana. *United area*, 7,680 sq. m. *Desc.* Mountainous in the N.W., but in the centre fertile and well-watered, with extensive rice-grounds in the neighborhood of Lake Albufera. *Rivers.* The Xucar, the Segura, and the Guadalquivir, are the principal. *Products.* Grapes, olives, oranges, figs, maize, wheat, wine, silk, flax, hemp, and rice. The sugar-cane is also cultivated, and, with the silk and hemp, yields valuable returns. *Min.* Salt, marble, and potter's clay.

Fig. 2561.—A VALENCIAN LABORER. (After Doré.)

VALENCIA, the cap. of the above prov. and ancient kingdom, an ancient city and seaport, 3 m. from the sea, in an open plain, on the Guadalquivir, here crossed by five wide bridges; Lat. 39° 28′ N., Lon. 0° 24′ W. It is surrounded by a rampart pierced by eight gateways (Fig. 2562), but its citadel is small and ill-fortified, and does not even command the town. The interior, far from meriting the eulogium of Mariana, or the flattering epithet of "Valencia la Bella," consists of narrow and winding streets, crossed by a multiplicity of lanes, in many of which there are no thoroughfares. It contains a large number of churches and convents, with several hospitals, besides public buildings less remarkable for elegance than for antiquity and profuse decoration. It is the see of an archbishop, and the seat of a supreme court of justice. The university was founded in 1209, and is on an extensive scale, but the course of study is antiquated. It has 70 professors, and a library of upwards of 15,000 volumes. Its academies are also numerous, and it has a seminary for nobles. *Manuf.* Silk, linen, and woollen fabrics, hats, leather, Valencia tiles for flooring, glass, artificial flowers, and paper.

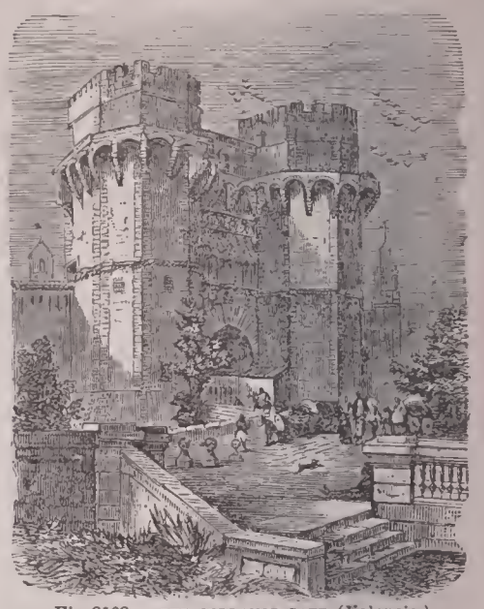


Fig. 2562.—THE SERRANOS GATE, (Valencia.)

Valencia, Valen'tia, *n.* A kind of mixed stuff for vests or waistcoats.

Valen'cia de Alcanta'ra. [Probably the ancient *Contrasta.*] A small, but strongly fortified, town of Spain, on a height near the frontiers of Portugal, 27 m. from Alcantara; *pop.* 5,300.

Valencia'na, in Mexico, a town and silver-mine in Guanauato, a few m. N. of Guanauato city.

Valenciennes, (*va-lain'se-en,*) a fortified city of France, dept. Nord, on the Scheldt, 25 m. from Lille. A famous kind of lace is made here, as well as fine-woven fabrics and gauzes. *Pop.* 25,878.

Valens, FLAVIUS, (*vai'lens,*) emperor of the East, was the son of Gratian, and became the colleague, in the government of the Roman empire, of his brother Valentinian, in 364. A zealous Arian, he violently persecuted the orthodox bishops. He forced the Goths to make peace, but imprudently suffered them to settle in Thrace, where they were joined by great numbers of barbarians, and the war being renewed, he marched against them, but was totally defeated near Adrianople. His soldiers carried him to his tent, which the barbarians set on fire, the emperor perishing in the flames.

Valentia, (*va-len'she-a,*) an island in the Atlantic, near the S.W. coast of Ireland, S. of Dingle Bay. This place was the starting-point, on the European side, of the first and second Atlantic cables. *Ext.* 6 m. long, with a breadth of 2; Lat. 51° 55′ 8″ N., Lon. 10° 19′ W.

Val'entine, *n.* A sweetheart or choice made on St. Valentine's day; as, "And birds had drawn their *valentines.*" (*Sir H. Wotton.*)—A letter, or poetical effusion, replete with compliments or amorous expressions, sent by one young person to another on *St. Valentine's day*, or the 14th of February, a day sacred to St. Valentine, who, according to the legend, was put to death at Rome under the Emperor Claudius. The custom of sending valentines on this day is very ancient, but there is no circumstance, so far as is known, in the life of the saint, from which it could have originated. There is, however, a very old notion that "birds choose their mates, and couple on this day."

Valentinian, (*văl-en-tin'yan.*) The name of three Roman emperors:—VALENTINIAN (FLAVIUS) I., elder brother of Valens, and son of Count Gratian, was born in Pannonia 321, and succeeded after the death of Jovian, 364. He gave the Eastern empire to his brother, and having defeated the Alemanni and the Quadi, died in a fit of passion, 375.—VALENTINIAN (FLAVIUS) II., son and successor of the preceding, was proclaimed emperor by the troops, and his brother, Gratian, at once ceded Italy to him. The latter, shortly after, was vanquished by Maximus, and Valentinian would also have lost his throne but for the timely help of Theodosius. Emperor of the East, who put Maximus to death, and left Valentinian master of the whole Western empire. He was strangled by order of his rebellious general, Arbogastes, 392.—VALENTINIAN (PLACIDUS) III., became emperor at the age of six, in 425, under the regency of his mother, Placidia. He was assassinated in 455.

Valentin'ian, *n.* (*Eccl. Hist.*) A sect of the 2d century, being a branch of the Gnostics:—so named from Valentinus, their founder, a native of Egypt, who was excommunicated in 140, and D. 160, after boldly devoting himself to the spread of his tenets in Syria.

Valenza, (*va-lain'tza,*) a town of Italy, in Piedmont, 7 m. from Alessandria, on an eminence near the Po. It is inclosed by walls, and entered by four gates. *Pop.* 8,712.

Val'erate, Vale'rianate, *n.* (*Chem.*) A salt formed by the combination of valeric acid with a base.

Vale'rian, *n.* [From Lat. *valere*, to be strong, powerful; in allusion to its medicinal virtues.] (*Bot.*) See VALERIANA.

Vale'rian, (VALERIANUS PUBLIUS LUCINIUS,) a Roman emperor, B. abt. 190, was proclaimed after the death of Gallus, 253. He was defeated in the East by Sapor, king of Persia, and is supposed to have been flayed alive. 260.

Valeria'na, *n.* (*Bot.*) The Valerian, a genus of the order *Valerianaceæ*. The root of *V. officinalis*, a plant common in ditches and damp places throughout Europe, and sparingly so in N. America (Fig. 2563), is the *officinal* V. of the pharmacopœias. It is much employed as a nervous excitant and antispasmodic. There are three officinal preparations, viz., the *Infusion*, the *Tincture*, and the *Ammoniated Tincture*. In large doses, *V.* produces considerable disturbance of the nervous system, as headache, vertigo, and even temporary blindness. In average doses — as, for example, in from one to two ounces of the infusion, and from half a drachm to two drachms of either of the tinctures — it is a very efficacious remedy in those severe cases of hysteria which closely simulate epilepsy, and in chorea. As some of the salts of valerianic acid — viz., the valerianates of soda, zinc, ammonia, iron, and quinine — act similarly to, and with more certainty than the above-named preparations, we may infer that the therapeutic action of the remedy is solely due to the acid; and as the infusion and tinctures are by no means agreeable medicines, they will probably soon be entirely replaced by the valerianates.

Fig. 2563.
VALERIAN, (*Valeriana officinalis.*)

Valeriana'ceæ, *n. pl.* (*Bot.*) The Valerian family, an order of plants, alliance *Campanules*. DIAG. A one-celled ovary, an imbricated corolla, free anthers, pendulous ovule, and no albumen. They are herbs with opposite exstipulate leaves and cymose flowers. They are chiefly remarkable for the presence of a strong-scented volatile oil, which renders them medicinally active as stimulants, antispasmodics, and tonics. Some are highly esteemed in the East as perfumes.

Valerianel'la, *n.* (*Bot.*) Same as FEDIA, *q. v.*

Valerian'ic, or Vale'ric Acid, *n.* (*Chem.*) An acid which constitutes the leading ingredient of the volatile oil obtained by distilling valerian root with water. It may also be artificially formed by the action of a mixture of quicklime and caustic potassa on the oil of potato spirit, the *fusel oil* of the Germans, the *hydrated oxide of amyl* of chemists, or by distilling fusel oil with a mixture of dilute sulphuric acid and bichromate of potash. It is an oily, colorless liquid, boiling at 347° F. (175° C.), smelling intensely of valerian; it has a sour, pungent, and nauseous taste, leaving a sense of sweetness and a white spot upon the tongue. Some of its salts, or *valerianates*, are used medicinally. See VALERIANA.

Valerius Max'imus, (*va-lee'ri-us,*) a Roman historian, who was in Asia with Sextus Pompeius, A.D. 14, excepting which nothing is known of him. His work contains many valuable anecdotes and examples of moral excellence, and was one of the earliest printed after the revival of letters.

Vale'rius Publico'la, one of the founders of the Roman republic, 6th century B.C.

Valery, (St..) (*val'e-re,*) a seaport of France, dept. of the Somme, near the mouth of the river Somme, 36 m. from Amiens. It has docks for building small vessels. *Pop.* 4,160.

Valer-en-Caux, (*văl'air-ang-kō,*) **(St..)** a town of France, dept. of Seine-Inférieure, on the shores of the English Channel, 20 m. from Dieppe; *pop.* 6,211.

Valet, (*văl'et,* or *văl'ā,*) *n.* [From O. Fr. *varlet.*] A servant who attends on a gentleman's person; a servant in waiting.

(*Man.*) An iron-pointed goad.

Valet-de-chambre, (*-de-shōm'br.*) [Fr.] A gentleman's attendant in the dressing-room.

Valet'ta, or LA VALETTA, a seaport-town and fortress of the island of Malta, and the cap. of the island, on the N.E. side of which, in lat. 35° 53′, lon. 14° 31′, it is situated. It occupies a tongue of land, which runs out in a N.E. direction, is 3,200 yards long, and generally about 1,200 yards across, except at the extremity, where it narrows considerably, and forms the *Point of St. Elmo*, on which are a powerful fort and a light-house. From this Point to its landward end, the neck of land, which is well named the *Hog's Back*, rises gradually; and there is a downward slope from the central ridge to the Great Harbor on the right, and to the *Marsa-Musceit*, or quarantine harbor, on the left. The town and harbors are defended by a series of fortifications of great strength. They are mostly hewn out of the solid rock, and, being mounted with the most powerful artillery, are considered impregnable. *V.* is the centre of the commerce of the island. *Pop.* 65,000. See MALTA.

Valette, JEAN PARISOT DE LA, Grand Master of the knights of St. John, B. 1494, D. 1568, celebrated for his gallant defence of Malta against a powerful fleet of the Turks. See MALTA.

Valetudina'rian, Valetu'dinary, *a.* [Fr. *valetudinaire*, from Lat. *valetudo.*] Sickly; weak; infirm; immoderately careful of health; morbidly earnest in seeking to recover health.

—*n.* A person of weak, infirm, or sickly constitution; an invalid who is morbidly seeking to recover health.

Valetudina'rianism, *n.* Condition of a valetudinarian; feeble health; infirmity.

Valguarne'ra, a town of Italy, in Sicily, 50 m. from Noto; *pop.* 6,142

Valhal'la, or Walhal'la, *n.* [Norse.] (*Scand. Myth.*) The palace of immortality inhabited by the souls of heroes killed in battle. — Hence, a magnificent marble temple, erected by Ludwig I., King of Bavaria, near Regensburg, and adorned with statues of Germany's greatest men, is called by this name.

Valiant, (*văl'yant.*) *a.* [Fr. *vaillant*, from Lat. *valeo*, to be strong.] Heroic; brave; courageous; intrepid in danger; as, a *valiant* soldier.—Puissant; performed with valor; bravely or intrepidly conducted; as, a *valiant* action.

Val'iantly, *adv.* In a valiant manner; heroically; bravely; courageously; stoutly; vigorously.

Val'id, *a.* [Fr. *valide*; Lat. *validus*, from Lat. *valeo.*] Having sufficiency, cogency, force, or strength; founded in truth or substance; that can be justified, defended, or sustained; sound; just; good; not weak or defective; as, a *valid* plea, a *valid* objection.

(*Law.*) Having legal strength, force, or efficacy; supportable by law or equity; executed with the proper formalities; that cannot be justly or rightfully overthrown or set aside; as, a *valid* contract, or any other legal instrument.

Valida'tion, *n.* Act of enduring with validity. (R.)

Valid'ity, Val'idness, *n.* [Fr. *validité.*] State or quality of being valid; having strength, force, or power to convince; soundness; justness; efficacy; as, the *validity* of an argument.

(*Law.*) That quality of a thing which renders it maintainable in law or equity; as, the *validity* of a title to an estate.

Val'idly, *adv.* In a valid manner; in such a degree as to consolidate or to convince.

Val'inch, *n.* [From Fr. *avaler*, to drain.] A siphon for drawing liquors from a cask through the bunghole.

Valise, (*va-leez',*) *n.* [Fr.] A portmanteau; a travelling bag or knapsack, usually of leather.

Valki, or WALKI, (*val'ke.*) a town of European Russia, on an affluent of the Donetz, 26 m. from Kharkoff; *pop.* 10,000.

Val'kyr, Valkyr'ia. [O. Norse, *vale*, heaps of slain, and *kiöra*, to select.] (*Scand. Myth.*) One of the maidens of Odin, the god of war, dwelling with the Æsir in Valhalla, and who conducted to the home of the gods the souls of heroes slain in battle.

Valladolid, (*val-ya-do-leed',*) a city of Spain, and cap. of a prov. of the same name, is situated on the left bank of the Esgueva, 100 m. from Madrid. The city has many fine buildings, and was the residence of the court before its removal to Madrid at the end of the 16th century. It has a university, the best in Spain; eight colleges, an academy of arts, and a museum of paintings and sculpture, collected from the lately suppressed religious houses. *Manuf.* Cotton, silk, and woollen stuffs, hats, linen yarn, jewelry, paper, leather, etc. The city is the residence of a captain-general, and the see of a suffragan to that of Toledo. It was here that Columbus died in 1506. *Pop.* (1897) 70,150.

Valladolid', in Mexico, a city of Michoacan, 115 m. W. N. W. of the City of Mexico; Lat. 19° 42′ N., Lon. 100° 52′ W. *Pop.* (1897) 26,650.

—A city of Yucatan, 90 miles E.S.E. of Merida; *pop.* abt. 17,000.

Valla'ta, a town of S. Italy, 12 m. from Ariano; *pop.* 5,092.

Valla'tion, *n.* [From Lat. *vallus*, a palisade.] A rampart, fortified work, or intrenchment.

Vallecito, (*val-ya-che'to,*) in *California*, a village of Calaveras co., 10 m. N.W. of Sonora.

Vallejo (*val-lā'ho*), in *California*, a city and township of Solano county, 28 miles N.N.E. of San Francisco. *Pop.* (1897) 7,100.

—A former township of Sonoma co.

Valleugin, (*val'lain-zha,*) a town of Switzerland, in the Val de Ruz, 2 m. from Neufchâtel; *pop.* 6,747.

Valles, (*val'yes,*) in Mexico, a town of San Luis Potosi, 135 m. S.E. of San Luis Potosi city; *pop.* abt. 3,500.

Vallet, (*val'lai,*) a town of France, dept. of Loire Inférieure, 15 m. from Nantes; *pop.* 7,000.

Val'ley, *n.*; *pl.* VALLEYS (sometimes inelegantly written *vallies*). [Fr. *vallée*, from Lat. *vallis.*] Generally, a depression in mountain districts; but the name is also applied to the channel by which any stream or river is conveyed along a plain country to the sea. In the former case they are not unfrequently characterized by some peculiar features, especially in the upper regions of high mountains, where the ice which partially occupies them often works its way into the plains below before melting. (See GLACIER.) In the latter case, the title *valley* belongs to large and wide plains, including not merely the present water-current, but all that tract of alluvial matter which has in former times been deposited by the stream. Besides the valleys traversed by rivers, and therefore lower at one end than at the other, there are many into which no water runs, while some which are quite enclosed, allow no water that may enter them to escape, except by evaporation. In such valleys there are often lakes, some being salt lakes, the remains of sea-water once contained in them. Geologists are very much divided as to the origin of valleys. Some hold that they are the result of the operation of the internal agency which has, at different periods, so broken the crust of the earth and changed its surface; while others maintain that various agents now operating more or less favorably in disintegrating and removing the solid materials of the exposed portion of the surface of the earth, produced the inequalities that now exist. There can be no doubt that all these have been active, and that the special advocacy of individual agencies as being the sole causations of these phenomena, is a source of error, and the cause of idle controversy.

(*Arch.*) The internal angle formed by the meeting of the sides of a roof when there is more than one ridge.

Val'ley, in *Arkansas*, a township of Madison co.—In *Illinois*, a post-township of Stark co., abt. 24 m. N.W. of Peoria.—In *Iowa*, a township of Page co.—In *Kansas*, a township of Linn co.—A township of Miami co. —In *Nebraska*, a cent. co.; *area*, 576 sq. m. *Cap.* Ord. *Pop.* (1897) 8,050.

Valley, in *Pennsylvania*, a township of Armstrong county.—A township of Chester county, 40 miles west of Philadelphia.—A township of Montour co.

Valley Falls, in *Rhode Island*, a post-village of Providence co., 7 m. N.E. of Providence.

Valley Forge, in *Pennsylvania*, a post-village of Chester co., 6 m. W. of Norristown. *V. F.* was the winter-quarters of the Revolutionary Army under Washington, during 1777–1778, and where they suffered dreadful hardships from exposure.

Vallievo, (*val-le'vo,*) a town of Servia, 46 m. from Belgrade; *pop.* 5,200.

Vallisner'ia, *n.* (*Bot.*) A genus of plants, order *Hydrocharidaceæ*, remarkable on account of the very curious manner in which the process of fertilization is effected. The best-known species, *V. spiralis*, found wild both in Europe and the U. States, is a perennial herb, bearing a tuft of thin, narrow, green, grass-like leaves (Fig. 2564). The two sexes are borne on separate plants. The male flowers are extremely minute and sessile, but when mature they become detached, and rise

Fig. 2564. — VALLISNERIA SPIRALIS.
a, female plant; *b*, male plant.

to the surface of the water. The female flowers, on the other hand, are borne singly at the end of a very long slender spirally-twisted stalk, which uncoils more or less according to the depth of the water, so as to allow the flower to float upon the surface, where it expands and is fertilized by the floating pollen, after which the spiral stalk coils up again and conveys the flower to the bottom of the water. The leaves of the *Vallisneria* form an exceedingly beautiful object under the microscope, the extreme tenuity and transparency of their cellular tissue allowing the observer to watch the movement of the fluid contents of the cells.

Valls, (*vals,*) a town of Spain, standing in a plain watered by the Francoli, 8 m. from Tarragona. *Manuf.* Cotton and woollen yarns.

Val'lum, *n.* [Lat., from *vallus.*] (*Archæol.*) The name given to the wall or fortified intrenchment of a Roman camp.

Valmy, (*val'me,*) a small town of France, dept. of the Marne, 20 m. N.E. of Châlons. Here, Sept. 20, 1792, the Prussians under the Duke of Brunswick were defeated by the French under Kellermann, who received the title of Duke of Valmy.

Valognes, (*va'lone,*) in France, a town of the dept. of Manche, on the river Merderet, 10 m. from Cherbourg. *Manuf.* Gloves, lace, and hats. *Pop.* 7,040.

Valois, (*văl'waw,*) a French county bestowed by Philip III. of France on his 2d son Charles, in 1285, fell to Louis, Duke d'Orleans, second son of Charles V. of France, in 1392. On the accession to the throne of the Duke d'Orleans, under the title of Louis XII., in 1498, it was reunited to the royal domains. The title of Duke de Valois was borne by the Orleans family till 1790. The House of Valois reigned in France from 1328 till 1589.

Valo'nia, *n.* The cup of the acorn of *Quercus Ægilops*, brought from the Levant and the Morea, and extensively used in the tanning of leather.

Val'or, *n.* [Fr. *valeur*, from L. Lat. *valor.*] Such strength of mind as enables a man to encounter peril with firmness; warlike courage; intrepidity; bravery; prowess.

Valo'rem, (Ad,) see AD VALOREM.

Val'orous, *a.* [Fr. *valeureux.*] Having or exhibiting valor or prowess; courageous; intrepid; stout; brave.

Valparaiso, (*val-pa-rī'zo,*) ("Vale of Paradise,") a city, and principal port of Chili, cap. of a province of the same name, on Valparaiso Bay, in the Pacific, 90 m. W.N.W.

of Santiago; Lat. 33° 1′ 56″ S., Lon. 71° 41′ 45″ W. The bay is semi-circular in form, large and commodious, but exposed on the N. The town is picturesquely situated on the slope of a range of hills, which encircles the bay, its important buildings including the Custom House, the Exchange, &c. It has grown rapidly of late years and has a large commerce. *V.* was bombarded by a Spanish fleet in 1866, suffering a loss of over $10,000,000. It was captured by the insurgents in the civil war of 1891. The most disastrous event, however, in its history was the great earthquake of August 10, 1906, and the fire that followed, the value of property destroyed being estimated at over $100,000,000. *Pop.* (est.) 132,941.

Valparai'so, in *Indiana*, a city, capital of Porter co., 44 m. S. E. of Chicago. *Pop.* (1900) 6,280.

Valteline (*val-te-leen'*), **The.** [It. *Valtellina.*] In Italy, formerly a circle of the Austrian government of Milan, now included in the district of Gallarato, province of Milan; *area*, 1,258 sq. m. *Cap.* Sondrio. *Pop.* (1897) 98,450.

Val'uable, *a.* [Fr., from O. Fr. *value.*] Possessing value or worth; having some good qualities which are useful and estimable; precious; costly; as, a *valuable* horse, a *valuable* watch.—Worthy; deserving of regard or esteem; as, a *valuable* assistant.

Valuable consideration, a proper equivalent for a thing purchased, as money.

—*n. pl.* That which is valuable or precious; as, he placed his *valuables* in the safe for security.

Valua'tion, *n.* [From *value*; Fr. *évaluation.*] Act of valuing, or of estimating the value or worth; act of setting a price; appraisement; as, the *valuation* of an estate.—Estimated worth; value set upon a thing; as, the goods sold slightly in excess of the *valuation.*

Val'ue, *n.* [Lat. *valeo*, to be worth.] In common parlance, price; worth; as, the *value* of the horse is fifty dollars.—Usefulness; utility; as, his friendship is of great *value.*—Import; significance; as, the *value* of a phrase.—Estimated worth; as, the house was sold below its *value.*

(*Polit. Econ.*) Strictly speaking, *V.* is a ratio; for the idea of *V.* cannot arise until one thing is confronted with another with which it is compared. Thus, the so-called *V.* of wheat is really an expression of the ratio existing between wheat and money. This being true, *V.* cannot be considered a property of matter, much less an intrinsic or inherent property, since it depends upon the vicissitudes of production and trade; nor can it exist in a single object, two compared objects being required for its expression; and the term *standard of V.*, although much used in an incorrect sense, is as absurd as would be the phrase *standard of ratio.* See MONETARY STANDARDS; MONEY; BIMETALLISM, &c.

—*v. a.* [Fr. *évaluer*; Sp. *valuár.*] To rate at a certain price; to set a price to; to estimate the worth of; to appraise; as, property *valued* at thirty thousand dollars.—To rate or esteem highly; to appreciate; to esteem; to consider with respect to importance or moral obligation; as, I *value* his friendship highly.

Val'ueless, *a.* Being of, or possessing, no worth or value.

Val'uer, *n.* One who values or sets a price on; an appraiser; also, one who holds in regard or esteem.

Valv'ate, *a.* [Fr. *valvé*, from Lat. *valvatus.*] Pertaining or relating to a valve; resembling or serving as a valve; consisting of, or opening by, a valve or valves.

(*Bot.*) Denoting parts which are united by the margins only, as the sepals of rhamnaceæ, or the valves of a capsule.

Valve, *n.* [Fr., from Lat. *valvæ*, folding-doors, from *valvo*, to turn round or about.] One of the leaves of a folding-door; plurally, a folding-door.—Anything that opens over the mouth of a vessel; especially, in hydraulics, a lid contrived to open one way, to admit a fluid into a tube, but which shuts when pressed from the other, to prevent its return. Among the many varieties of valves employed in mechanics may be mentioned the *slide-* or *sluice-valve*, where the orifice is opened by drawing up a plate; the *flap-valve*, which opens and shuts like a door; the *pot-lid valve*, where the orifice is closed by shutting down upon it a disc of metal; the *ball-valve*, where the orifice is closed by a ball; and the *throttle-valve*, where a disc of metal turning on a spindle passing through its edge may be made to stand across a pipe, and so close the opening.

(*Anat.*) A kind of membrane which opens in certain vessels to admit the blood, and shuts to prevent its regress. See CIRCULATION OF THE BLOOD, and Fig. 291.

(*Conch.*) One of the divisions in bivalve and multivalve shells.

(*Bot.*) One of the pieces into which the fruit of a plant naturally separates when it bursts. The name is also applied to similar parts in any other organ, as the anther.

Valve'-cage, *n.* (*Mach.*) A perforated chamber placed over a valve to hold it in place and allow the passage of a fluid.

Valve'-gear, Valve-motion, (*-mō'shun,*) *n.* (*Mach.*) See STEAM-ENGINE.

Valv'ular, *a.* Pertaining to or containing valves.

Valvule, (*valv'yūl,*) *n.* A little valve.

Vamose', *v. a.* [From Sp. *vamos*, let us go.] To go off or take leave suddenly; to depart in haste. (Colloq.)

Vamp, *n.* [Probably corrupted from Fr. *avant*, before; *avant-pied*, the fore part of the foot.] The fore or upper leather of a boot or shoe.

—*v. a.* To furnish, as a shoe, with new upper leather; hence, to piece or patch, as an old thing, with a new part; to repair; to mend;—sometimes preceding *up*; as, "This opinion hath been *vamped up* by Cardon." *Bentley.*

Vamp'er, *n.* One who pieces an old thing with something new.

Vam'pire, Vam'pyre, *n.* [Ger. *vampyr*, a word of Servian origin.] Originally, a dead person, formerly believed in various nations of Europe to return in body and soul, and wander about the earth, sucking the blood of persons asleep.—Hence, one who lives by blackmailing, or preying upon others; a usurer; an extortioner.

(*Zoöl.*) The *Phyllostoma spectrum* and allied species, a blood-sucking bat, native of S. America, of a reddish-brown color, and as large as a magpie. It has two great projections, approximate upper incisors, and similar lancet-shaped superior canines, all of which are very sharp-pointed, and arranged to make a triple puncture like that of a leech. Their whole structure seems to indicate that blood is the sole food. In some parts of Brazil, the rearing of calves is impossible, on account of these bats, and there are districts, chiefly those in which limestone rocks prevail, with numerous caves, in which cattle cannot be profitably kept. Vampires sometimes attack men, when sleeping in the open air; but the stories of their fanning their victims with their wings while they suck their blood, are fabulous. See BAT.—Also the name of a fish of the family *Raiidæ*, the *Cephaloptera vampiras*, which attains the width of 16 or 18 feet, and 10 feet or more in length, and weighs several tons.

Vam'pirism, Vam'pyrism, (*-izm,*) *n.* Practice of blood-sucking; credence given to the existence and action of vampires.—Hence, figuratively, the practice of blackmailing or extortion.

Van, *n.* [A corruption of Fr. *avant*—Lat. *ab*, and *ante.*] The front of an army or of a fleet.

—[From Lat. *vannus*, a winnowing-fan.] Anything spread wide, and moved so as to produce a current of air; especially, a fan for winnowing grain.—In England, a large, light, covered carriage for the transportation of goods.

—*v. a.* To fan, as grain; to winnow. (R.)

Van, in Turkish Armenia, a fortified city on a lake of same name, 140 m. S.E. of Erzeroum. It is well built, the houses being composed of stone, or tile, and the streets spacious. A considerable quantity of cotton goods are manufactured here for the Persian market. Estimated *pop.* 15,000.

Vanad'ic Acid, *n.* (*Chem.*) See VANADIUM.

Vana'dium, *n.* (*Chem.*) A rare metal whose chief ore is the *vanadiate of lead*, which is found in Mexico and Chili. It is a white metal, forming a blue solution with nitric acid, but not dissolving readily either in sulphuric or hydrochloric acids. Could it be found in any quantity, it would be extremely valuable in the arts as a pigment in china-painting, and as a material for making an almost indelible ink in conjunction with tannogallic acids. It forms three oxides, VO, VO_2, and VO_3. The second dissolves in acids, forming crystallizable salts which have a blue color; the third, or *vanadic acid*, has acid properties. It has a yellow color, and fuses at a red heat; as it cools, it re-solidifies with evolution of light. With the alkalies it forms acid neutral soluble salts. It also combines with the other oxides of *V.* to form several compounds of a green or purple color. It also has basic properties, forming crystallizable salts with most of the acids. The other compounds of *V.* are unimportant. In many of its characters it appears to be closely allied with chromium and its compounds. *Symbol* V.

Van Bu'ren, MARTIN, the 8th President of the United States, b. at Kinderhook, Columbia co., N. Y. Educated for the bar, he was elected to the senate of the State of New York in 1812. In 1815 he became attorney-general of that State, and was again a member of the senate in 1816, the two offices being held together. In 1821, he took his seat in the U. S. Senate, where he supported democratic measures. He was re-elected in 1827, but resigned that office on being chosen governor of New York. In March, 1829, he became Secretary of State in the administration of President Jackson, but resigned on April 7, 1831. In 1832 he was elected Vice-President, and, in 1837, he succeeded General Jackson in the presidency, being elected by a majority of 24 votes over his rivals, Clay, Webster, and Harrison. On beginning the duties of his office, he found the country involved in a commercial crisis of unprecedented severity, which led to the universal suspension of specie payments by the banks. Imposing public meetings attributing the disaster to the policy of the government, *V. B.* found himself obliged to immediately summon Congress to an extraordinary session, and, along with other measures, proposed an entire separation of national finances from the banks of the Union, a measure which passed the Senate, but was laid on the table in the other house. The plan of an independent Treasury, again recommended in the President's annual message in Dec., was again rejected by the house of representatives after having been passed by the Senate. This measure, however, by which the administration of *V. B.* is especially distinguished, was finally passed by both houses of Congress in 1840. In that year *V. B.* had to yield his place to General Harrison the Whig candidate; and in 1844, when he again stood for the presidency, he was defeated by Polk. The result of this vote divided the Democrats into two parties, one of which, at a convention held at Utica, unanimously declared for *V. B.* as president in 1848; but his election was prevented by the military renown of Gen. Taylor, who left both *V. B.* and Cass with minorities. In 1852 and 1856, he gave his vote to Gen. Pierce, and to Mr. Buchanan, the presidential candidates of the Democratic party; and on the outbreak of the civil war, he warmly declared himself in favor of maintaining the Republic in its integrity. *D.* 1862. From the very peculiar circumstances in which his administration was involved, the public career of this statesman has been the subject of much partisan criticism, but all parties have borne testimony to his unconmon personal qualities, and conceded to him penetration, quickness of apprehension, and benevolence of disposition. *V. B.* left 4 sons, 2 of whom have distinguished themselves:—the first, *Abraham*, an officer in the U. S. army, by his gallant conduct during the Florida war; and the second, *John*, as a prominent member of the bar of the city of New York. B. 1810, and was elected in 1845 Attorney-General of the State of New York; he died in 1866, upon his passage homeward from a tour in Europe.

Fig. 2565.—VAN BUREN.

Van Bu'ren, in *Arkansas*, a N. central co.; *area*, 998 sq. m. It is drained by Little Red river. *Surface*, undulating; *soil*, fertile. *Cap.* Clinton. *Pop.* (1897) 9,350. A post-village and township, cap. of Crawford co., 160 m. W.N.W. of Little Rock.

Van Buren, in *Indiana*, a township of Brown county.—A township of Clay county.—A township of Daviess county.—A township of Fountain county.—A township of Grant county.—A township of Kosciusko county.—A township of Lagrange county.—A township of Madison county.—A township of Monroe county.—A township of Pulaski county.—A township of Shelby county.

Van Buren, in *Iowa*, a S.E. county, bordering on Missouri; *area*, 468 square miles. *Rivers.* Des Moines and Fox; also Chequest, Indian, and Lick creeks. *Surface*, level; *soil*, fertile. *Min.* Stone-coal. *Cap.* Keosauqua. *Pop.* (1895) 16,829.—A post-township of Jackson county, 40 miles north-northeast of Davenport.—A township of Keokuk county.—A township of Lee county.—A former township of Van Buren co.

Van Buren, in *Maine*, a post-township of Aroostook co.

Van Buren, in *Michigan*, a S.W. co., bordering on Lake Michigan; *area*, 630 sq. m. *Rivers.* Dowagiac, Pawpaw, and the South Branch of Black river. *Surface*, level; *soil*, fertile. *Cap.* Pawpaw. *Pop.* (1894) 131,059.—A township of Wayne co.

Van Buren, in *Missouri*, a post-village, cap. of Carter county, 72 miles south-west of Potosi.—A township of Jackson county.—A township of Newton county.—Also a former county in *Missouri*, since divided into the two counties of Bates and Cass.

Van Buren, in *New York*, a post-township of Onondaga co, 140 miles north-west of Albany.

Van Buren, in *Ohio*, a township of Darke county.—A post-village and township of Hancock county, about 100 miles N.N.W. of Columbus.—A township of Montgomery county.—A township of Putnam county.—A township of Shelby co.

Van Buren, in *Pennsylvania*, a post-village of Washington co., 36 m. S.S.W. of Pittsburg.

Van Buren, in *Tennessee*, an E. central co.; *area*, 350 sq. m. It is drained by the Caney Fork of Cumberland River. *Surface*, mountainous; *soil*, fertile in the valleys. *Min.* Stone-coal. *Cap.* Spencer.

Van Buren Centre, in *New York*, a post-village of Onondaga co., 150 m. N.W. of Albany.

Van Buren Harbor, in *New York*, a village of Chatauqua co., on Lake Erie, 5 m. S.W. of Dunkirk.

Vance, in *Illinois*, a township of Vermilion county.

Vance'burg, in *Kentucky*, a post-village, cap. of Lewis co., 20 m. N. of Maysville.

Vance'ville, in *Penna.*, a village of Washington co.

Vancouver Island, (*van-koo'vr*), off the coast of Canadian prov. of British Colombia, separated from the mainland by the Gulf of Georgia and Queen Charlotte's Sound; Lat. between 48° 20′ and 51° N., Lon. 123° and 128° W. *Area*, 16,000 sq. m. *Surface*, mountainous and well wooded, with numerous harbors on the W. coast, and Nootka Sound. *Climate*, healthy. *Min.* Gold, silver, lead, copper, and coal. *Chief town.* Victoria, the cap. of British Colombia. *Pop.* 26,400. It was discovered in 1762 by Capt. Vancouver of the British navy.

Vanda'lia, in *Illinois*, a city, cap. of Fayette co., 80 m. S.S.E. of Springfield. *Pop.* (1897) 2,250.

Van-courier, *n.* Same as AVANT-COURIER, *q. v.*

Van'dal. (*Hist.*) One of a Slavonic or Teutonic tribe who inhabited the banks of the Oder, and the sea-coasts of Pomerania and Mecklenburg, about 250 A. D. At the beginning of the 5th century they traversed the Rhine, the Rhône, and the Pyrenees, and founded a powerful kingdom in Spain. They afterwards passed into Africa under their king Genseric, 429, and after a career of conquest on that continent, during which they had embraced Christianity, Carthage fell under their victorious arms, Oct. 9, 439. Here they commenced the formation of a powerful navy, and fitted out an expedition against Rome, which they sacked, June 15–29, 455. Having embraced the Arian heresy in 530, they carried on a cruel persecution against the members of the orthodox faith. Their rule in Africa was destroyed by Belisarius, and the entire nation had disappeared from that continent by 558.

—Hence, a person ignorant and barbarous, and hostile to the progress of the arts and literature.

Van'dal, Vandal'ic, *a.* Pertaining, or having reference to, or resembling the ancient Vandals; hence, by implication, rude; uncivilized; barbarous; ferocious.

Van'dalism (*-izm*), *n.* Characteristic qualities of Vandals; hence, barbarous savagery; active hostility to the arts and to literature.

Van'derburg, in *Indiana*, a S.W. co., bordering on the Ohio river; *area*, 230 sq. m. *Surface*, undulating; *soil*, fertile. *Min.* Bituminous coal. *Cap.* Evansville. *Pop.* (1897) 65,450.

Vandervel'de, ADRIAN, an eminent Dutch painter, B. at Amsterdam, 1639, excelled in portraying landscapes, which he adorned with figures. He also painted historical subjects, and all his works are scarce and valuable. D. 1672.

Vandervel'de, WILLEM, called *the Elder*, a celebrated painter, B. at Leyden, in 1610. He excelled in marine subjects. In the great naval fight between the Duke of York and the Dutch admiral Opdam, *V.* sailed between the hostile fleets in a light skiff to mark their positions and observe their operations; and in this manner he is said to have been also a spectator of the memorable three days' engagement between Monk and De Ruyter. D. 1693. — His son, Willem *V.*, called *the Younger*, B. 1633, was himself an admirable marine-painter. D. in London, 1707.

Van Diemen's Land, the former name (now discarded) of Tasmania, a considerable island and British colony in the South Pacific Ocean, Lat. between 40° 40′ and 43° 40′ S., and Lon. between 144° 30′ and 148° 30′ E., lying to the S. of, and separated from Australia by Basa's Strait, 150 m. across. *Ext.* About 180 m. long, and, at its widest points, about the same; *area*, 27,000 sq. m. *Desc.* Greatly diversified, but generally mountainous. Many fine tracts of land are found on the very borders of the sea, and the interior is almost invariably possessed of a soil admirably adapted to all the purposes of civilized man. The highest mountains are Wylde's Craig and Ben Lomond, which respectively attain an elevation of 4,400 and 5,010 feet above the level of the sea. *V. D.* includes many lakes, and a number of fine harbors, the best of which are the Derwent, Port Davey, Macquarie Harbor, Port Dalrymple, and Oyster Bay. In the S.E. the coasts are indented with many bays, such as Storm, Ralph, and Norfolk. It has also the Tasman and Forrestier peninsulas, and Hobart-Town, with the Bruné and Maria islands, lying off this coast. *Rivers.* Of these, the Derwent, Huon, and Tamar rank in the first class. There are also the Clyde and the Isis. *Climate.* Healthy, and congenial to the European constitution. *Pro.* Barley, oats, and potatoes arrive at great perfection. The wheat is also of a superior description, and the fruits comprise the apple, currant, gooseberry, and indeed all such as are suitable to a temperate climate. The colony has been erected into an episcopal see, and there are numerous places of worship for different denominations of Christians. In connection with these there are also numerous schools. Besides these, there are several public hospitals and a lunatic asylum. The administration is vested in a governor and legislative council appointed by the crown. — This island was first discovered by Tasman, in 1633. In 1773 it was visited by Captain Furneaux, and by Captain Cook in 1777; since which period it has been visited by several navigators. In 1804 Hobart-Town (the cap.), was founded abt. 9 m. up the Derwent; and another settlement, namely, Launceston, was founded about 30 miles from the mouth of Port Dalrymple, and 100 miles in a straight line from Hobart-Town. The two settlements were long in a very bad state of defence, having but two companies of troops for the garrison and protection of both. They were consequently infested for many years by runaway convicts, known as *bushrangers*, who endangered the person and property of every one who appeared hostile to their enormities.—At the request of the colonists, the name of *V. D. L.* was changed to that of Tasmania in 1856. In 1825 it was made into an independent colony, and in 1853 the transportation of convicts ceased. It has about 500 m. of R. R., and a *pop.* (1897) of 149,650.

Van'dyck, or VANDYKE, SIR ANTHONY, a Flemish painter, B. at Antwerp, 1599. He received his first instructions

Fig. 2566. — VANDYCK.

from Van Balen, but afterward became the favorite pupil of Rubens, who advised him to apply himself wholly to portrait-painting, and to visit Italy. Accordingly, he set out for that country, where he studied the coloring of Titian with such success as to excel Rubens in his tints, and almost to become the rival of the great master whose art he imitated. In 1632, on the invitation of Charles I., (see Fig. 569,) he came to England, obtained a pension, and was knighted. He lived in splendid style, kept the best of company, and was himself a liberal patron of the arts. D. in London, 1641. Among his historical paintings, the finest, perhaps, is the *Crucifixim.*

Vandyke Brown, *n.* (*Paint.*) A pigment obtained from a kind of peat or bog-earth of a fine, deep, semi-transparent brown color. It owes its name and reputation from the supposition of its being the brown used by Vandyke in his pictures.

Van-Dyke, JOST, (*van-dik'*,) in the British W. Indies, one of the Virgin Islands, 3 m. N.W. of Tortola, 3 m. long, and abt. 2 m. broad.

Vane, *n.* [A. S. *fana;* Ger. *fahne;* D. *vaan;* all in the sense of standard, flag.] Originally, a broad flag carried by a knight in the tournament. Specifically, a contrivance for showing the direction of the wind. It consists, usually, of a thin slip of wood or metal, attached to a perpendicular axis, round which it moves freely; and is so shaped that it presents always the same extremity to the point of the horizon from which the wind blows. In ships, a piece of bunting is used for the same purpose. In Europe, the custom of placing vanes on church-steeples is very old; and as they were commonly made in the figure of a cock, they thus acquired the name of *weather-cocks.* — Any flat, extended surface acted upon by wind or water; as, the *vane* of a windmill, the *vane* of a screw-propeller.

(*Zoöl.*) The thin, membranous part or web of a feather, on the side of the shaft.

Vanes'sa, *n.* (*Zoöl.*) A genus of diurnal lepidoptera, family *Nymphalidæ*, in which the inferior palpi are contiguous in their whole length, terminating gradually in a point, and are much compressed.

Fig. 2567.
RED ADMIRAL BUTTERFLY.
(*Vanessa Atalanta.*)

Van Et'ten, in *New York*, a post-village and township of Chemung county, 80 miles east north-east of Elmira.

Van'foss, *n.* [From Fr. *avant*, before, and *fossé*, a ditch.] (*Fortif.*) A ditch cut on the outside of the counterscarp.

Vang, *n.* (*Naut.*) A rope passing from the extremity or peak of a gaff to each of the ship's sides, for the purpose of steadying a spar.

Van'glo, *n.* (*Bot.*) The W. Indian name of SESAMUM, *q. v.*

Vangme, in *Arkansas*, a township of Jefferson county.

Van'guard, *n.* [Fr. *avant-garde.*] (*Mil.*) The first line of troops; that part of an army which precedes the main body on the march, as a security against surprise.

Vanikoro, or PITT ISLAND, (*va'ne-ko'ro,*) one of the New Hebrides, Pacific Ocean, in Lat. 11° 35′ S., Lon. 166° 46′ E. Here, in 1788, Le Perouse was wrecked and lost.

Vanil'la, *n.* [Sp.] (*Bot.*) A genus of plants, order *Orchidaceæ*. The species are remarkable for their fragrant odoriferous fruit, which constitutes the *V.*, or vanile of the shops, so much used for flavoring chocolate and in perfumery. On the continent of Europe, *V.* is occasionally employed as a medicinal agent in hysteria, &c. The fruits of *V. planifolia* (Fig. 1211) and *V. aromatica* are the most fragrant.

Van'ish, *v. n.* [Fr. *évanouir;* Lat. *vanesco*, to pass away.] To pass away from the place occupied and leave it void; to disappear; to pass from a visible to an invisible state; to pass beyond the limit of vision; hence, to disappear gradually; as, a ship *vanishes* from view beyond the horizon. — To pass away forever; to be annihilated or lost; as, "That spirit of religion *vanished* all at once." — *Atterbury.*

Vanishing fraction. (*Math.*) A fraction which reduces to the form $\frac{0}{0}$ for a particular value of the variable which enters it, in consequence of the existence of a common factor in both terms of the fraction, which factor becomes 0 for this particular value of the variable. (*Math. Dict.*)—*Vanishing line.* (*Persp.*) One of the lines converging to the vanishing point. — *Vanishing point*, that part of a picture to which all the imaginary lines of the perspective converge. — *Vanishing stress.* (*Elocution.*) Stress of voice upon the closing part of a syllable.

Van'ity, *n.* [Fr. *vanité;* Lat. *vanitas.*] Emptiness; nothingness; nullity; want of substance to satisfy desire; unrealness; falsity. — Particularly, desire of indiscriminate admiration; inflation of mind upon slight grounds; empty pride, inspired by an overweening conceit of one's personal attractions, accomplishments, or decorations; self-conceit; ostentation; petty pride. — That which is vain; fruitless desire or endeavor; unsubstantial enjoyment; empty pleasure; idle show; vain pursuit; trifling labor productive of no good.

Van'loo, JEAN BAPTISTE, a French painter, B. at Aix, in Provence, 1684, chiefly distinguished as a portrait-painter. He was employed at Fontainebleau by the Regent, Philippe d'Orleans, was received into the French Academy of Painting, and D. 1745.

Van'loo, CHARLES ANDRÉ, a French painter, was B. at Nice, 1705, was the younger brother and a pupil of the preceding, and assisted him in the restorations on which he was employed at the palace of Fontainebleau. After a short visit to Italy he settled in Paris, in 1729, was admitted to the Academy a few years later, became professor, painter to the king, and director of the Academy. Louis XV. made him chevalier of the order of St. Michael, and Frederick the Great attempted to entice him to Berlin, but unsuccessfully. His works are very numerous, and were at first over-praised; just as they have since been perhaps underrated. D. 1765.

Vannes, (*van',*) in France, a seaport-town, cap. of the dept. of Morbihan, at the mouth of the river Vannes, in the Gulf of Morbihan, 310 m. W.S.W. of Paris. *Manuf.* Woollens, linens, cottons, lace, and leather; ship-building is also carried on.

Van'ning, *n.* (*Mining.*) Operation of removing the impurities from tin ore by means of a shovel.

Vanquish, (*vănk'wish.*) *v. a.* [Fr. *vaincre;* It. *vincere*, from Lat. *vinco, vincere*, to conquer.] To conquer; to overcome; to defeat or subdue in battle, as an enemy. — Hence, by analogy, to get the better of in any contest; to refute in argument; to put down, as an opponent in controversy.

Vanquish, *n.* A disease in sheep, in which they pine away.

Van'quishable, *a.* That may be conquered or vanquished.

Van'quisher, *n.* One who vanquishes; a victor; a conqueror.

Van'quishment, *n.* Act of vanquishing, or state of being vanquished.

Van Rens'selaer, STEPHEN, an American statesman and patron of learning, known as "The Patroon," B. in New York, 1769, was the 5th in descent from Kiliaen Van Rensselaer, the original patroon or proprietor of the Dutch colony of Rensselaerwyk, extending over the greater parts of Albany, Rensselaer, and Columbia counties. He was educated at Princeton and Harvard colleges: was elected to the State legislature in 1789, and to the State senate in 1795. As commander of the State militia, at the beginning of the war of 1812, he led the assault at Queenstown; but the refusal of his men to go out of the State having caused him to be defeated, the general resigned in disgust. At his own cost, he employed Professors Eaton and Hitchcock to make topographical surveys of a large part of New York and New England, and established at Troy an institution for the education of teachers, with free passes from every county. In 1823, he was elected to Congress, where he served several terms, exerting a powerful influence, and securing the election of John Quincy Adams as President of the U. States. D. in Albany, 1839.

Van Rens'selaer, in *Ohio*, a township of Ottawa co.

Vansit'tart, in British N. America, an island between Melville Peninsula and Southampton Island; Lat. 65° 40′ N., Lon. 84° W.

Van'tage, (*-taj,*) *n.* [Fr. *avantage.*] Advantage; gain; profit; state of superiority as regards opportunity of action. — *To have at vantage*, to be in a more favorable or advantageous position or condition than. — *Vantage-ground*, the place or condition which gives one an advantage over another.

Van Wert, in *Ohio*, a W. co., bordering on Indiana; *area*, about 405 sq. m. *Rivers.* Little Auglaize, and St. Mary's. *Surface*, level; *soil*, fertile. *Cap.* Van Wert. —A city, cap. of the above county, 136 miles N.W. of Columbus. *Pop.* (1897) 6,150.

Van Zandt, in *Texas*, a N.E. central county; *area*, 600 square miles. *Rivers.* Sabine, and the head branches of the Neches. *Surface*, level; *soil*, fertile. *Cap.* Canton.

Va'por, *n.* [Lat.; Fr. *vapeur;* It. *vapore.*] (*Phys.*) When liquids and certain solids are heated, they become converted into elastic fluids or *vapors*, which differ from *gases* in this respect, that they are not under common circumstances permanently elastic, but resume the liquid or solid form when cooled down to ordinary temperatures. The most familiar instance of vapor is aqueous vapor, or STEAM, *q. v.*

—Hence, generally, exhalation; a visible fluid, as fog, floating in the atmosphere; that invisible elastic fluid which rises constantly above the surface of land and water all over the world, at common temperatures. — Unreal fancy; vain imagination; something unsubstantial or transitory; as, the *vapors* of melancholy.—See VAPOR, in SECTION II.

—(*pl.*) (*Med.*) A disease belonging to a debilitated, nervous system, in which a variety of strange images float in the brain or appear as if visible; hence, hypochondria; spleen; dejection of the spirits; — rarely used at the present day.

—*v. n.* To pass off in vapor, fumes, or as a moist floating substance; to evaporate; to steam; to be exhaled. — To bully; to brag; to boast or vaunt with a vain, ostentatious display of worth.

—*v. a.* To emit, effuse, cast off, or scatter in fumes or steam, as a heated fluid; to send off in vapor, or as if in vapor.

Vaporabil'ity, *n.* State or quality of being vaporable.

Va'porable, *a.* Susceptible of conversion into vapor by the agency of caloric.

Vapora'tion, *n.* [Fr., from Lat. *vaporatio.*] Act or process of converting into vapor, or of passing off in vapor.

Va'por-bath, *n.* See BATH.

Vapored, (*va'purd,*) *p. a.* Wet, dank, or moist with vapors. — Splenetic; hypochondriac; depressed and peevish.

Va'porer, *n.* One who vaunts or vapors; a braggart; a boaster; a bully.

Vaporiferous, *a.* Conveying or exhaling vapor.

Van Wyck, ROBERT, jurist and politician, was born in New York city in 1850, being of Dutch descent; graduated from Columbia Law School in 1872; was defeated for the City Court bench in 1881, but elected in 1889. In 1895 he was chosen chief justice, by his associates on the bench, and in the same year was reëlected for the term of six years. On Nov. 2, 1897, he was elected the first mayor of "Greater New York," on the Tammany Hall ticket, defeating Seth Low, Gen. B. F. Tracy, and Henry George, Jr., and having a plurality of 81,548 over Low, his nearest competitor.

Va'porish, *a.* Full of vapors; peevish; splenetic; hypochondriacal; as, *vaporish* humors.

Vaporiza'tion, *n.* Act of vaporizing, or state of being vaporized; artificial formation of vapor.

Va'porize, *v. a.* [Fr. *vaporiser.*] To convert into vapor by the application of heat, or by artificial means.

Vaporizing surface, that part of the heating surface of a steam-boiler which is brought into actual contact with the water.

—*v. n.* To pass off in vapor.

Va'porous (*-ŭs*), *a.* [Fr. *vaporeux.*] Full of vapors or exhalations; as, a *vaporous* mist.—Provoking wind or flatulency; as, *vaporous* food.—Vain; unreal; chimerical; proceeding from, or inspired by, the vapors; as, *vaporous* faucies.

Va'pory, *a.* Vaporous; full of vapor.—Peevish; splenetic; morbidly fanciful; hypochondriacal.

Var, a frontier river of France and Italy, rises in the Alps, and falls into the Mediterranean, 5 m. N.E. of Antibes, after a S.S.E. course of 60 m.

—A S.E. dept. of France, bordering on the Mediterranean; *area,* 2,820 sq. m. *Rivers.* Var, Verdon, and Argens. *Surface,* mountainous, but level along the coast. *Climate,* various according to the elevation. *Prod.* Corn, and fruits; also cork and silk, which are the principal exports. *Manuf.* Soap, paper, leather, coarse woollens, earthenware and marble articles. *Cap.* Draguignan. *Pop.* 308,550.

Varazzio, (*-rad'zhe-o,*) or VARAZZE, a town of N. Italy, 18 m. S.W. of Genoa. Ship-building is carried on. *Pop.* 8,213.

Var'ec, or **Var'eck,** *n.* Same as KELP, *q. v.*

Varese, (*va-rai'sai,*) a town of Lombardy, 12 m. from Como. *Manuf.* Silk, &c. *Pop.* 9,455.—A town situate near the Apennines, 14 m. from Chiavari; *pop.* 5,647.

Varennes, (*va-rain',*) a small town of France, near Verdun, where Louis XVI., his queen, Marie Antoinette, and their two children, were arrested, on their flight from Paris, June 21, 1791.

Varennes, (*va-renz,*) in *S. Carolina,* a village and township of Anderson dist., 100 m. W.N.W. of Columbia.

Variabil'ity, Va'riableness, *n.* State or quality of being variable.

Va'riable, *a.* [Fr., from Lat. *variabilis.*] That may vary or alter; susceptible of change in any manner; changeable; alterable; as, *variable* winds, *variable* colors.—Liable to change; mutable; inconstant; fickle; unsteady; as, *variable* tempers or passions.

(*Bot.*) Possessing the same organs in altered form in different parts, as certain leaves.

Variable cut-off. (*Mach.*) See EXPANSION-VALVE.—*Variable exhaust.* In steam-engines, a blast-pipe with an opening capable of adjustment.

Variable quantity. (*Math.*) See VARIABLE.

Variable stars. (*Astron.*) Fixed stars of periodically varying brightness.

—*n.* (*Math.*) A quantity which is in a state of continual increase or decrease: thus, in the equation of the circle $y = \sqrt{(2\,a\,x - x^2)}$, x and y are *variables.*

Va'riably, *adv.* In a variable manner; in an inconstant or fickle manner; changeably; with alteration.

Va'riance, *n.* [Lat. *variantia.*] Act or state of being variant; any alteration or change of condition.—Difference, as of opinion; that produces dispute or controversy; disagreement; dissension; discord.

(*Law*) A difference of statement between two material documents in a cause; as, where the plaintiff's declaration differs from a deed on which it is grounded.

At variance, at odds; in a state of disagreement, dispute, or controversy; at enmity; in dissension; as, a father and son *at variance* with each other.

Va'riant, *a.* Varying; diverse; different. (R.)

Va'riate, *v. a.* [From Lat. *variare.*] To vary; to change; to alter; to make diverse or different.

Variation, *n.* [Fr., from Lat. *variatio.*] Act of varying; alteration; a partial change in the form, position, degree, state, or qualities of the same thing; diversity; mutation; as, *variation* of sound, *variation* of opinions, *variation* of proportion.—Degree, amount, or rate of change, diversity, or deviation; extent to which a thing varies.

(*Gram.*) Change of termination of nouns and adjectives, constituting what is called *case, number,* and *gender.*

(*Mus.*) A transformation of a melody by melodic, harmonic, contrapuntal, and rhythmic changes. The subject chosen is called the *theme;* it is first simply harmonized with or without an introduction, and then repeated in a variety of different transformations, and the variations collectively with the theme constitute the piece. Occasionally, the different variations are combined by an intermediate passage; but generally each has its separate close, and the whole terminates with an extended and richly-developed variation, or a coda.

(*Math.*) Same as PERMUTATION, *q. v.*

V. of the compass. Same as DECLINATION OF THE MAGNETIC NEEDLE, *q. v.*—*V. of curvature.* (*Geom.*) The change which takes place in the curvature in passing from one point of a curve to another.—*V. of the moon.* (*Astron.*) An inequality of the moon's motion, depending on the angular distance of the moon from the sun.—*Calculus of variations.* (*Math.*) An important branch of Modern Mathematics, by which may be resolved certain classes of questions respecting *maxima* and *minima,* the solution of which cannot be obtained by the ordinary process of the differential calculus. One of the principal objects of the calculus is to find the variations of integrals of given expressions, and the forms which the indeterminate functions involved in those integrals must have in order that the latter may possess maximum or minimum values.

Varicel'la, *n.* [Lat. dim. of *variola.*] (*Med.*) The CHICKEN-POX, *q. v.*

Var'ick, in *New York,* a post-township of Seneca co., 165 m. N.W. of Albany.

Var'icocele, (*-seel,*) *n.* [Fr., from Lat. *varicis,* and Gr. *kēlē,* tumor.] (*Surg.*) A swelling or distention of the veins of the spermatic cord.

Var'icose, Var'icous, *a.* [Lat. *varicosus,* from *varicis,* a dilated vein, from *varus,* bent.] Preternaturally enlarged, or permanently dilated; as, a *varicose* vein.

Variedly, (*vā'rid-le,*) *a.* Diversely; differently.

Variegate, (*vā're-gāt,*) *v. a.* [It. *varieggare,* from Lat. *varius,* spotted, and *ago,* to do.] To diversify in external appearance; to mark or checker with various colors; as, *variegated* marble, *variegated* tulips.

Variegated leaves. (*Bot.*) Leaves irregularly spotted with white or yellow marks.—*Variegated copper-ore.* (*Min.*) Same as ERUBESCITE.

Variegation, (*-gā'shan,*) *n.* Act of variegating or diversifying; also, state of presenting a diversity of colors; as, the *variegation* of tulips.

Vari'ety, *n.* [Fr. *variété;* Lat. *varietas,* from *vario,* to vary.] Quality of being various or diversified; difference from a former state; deviation or dissimilitude; intermixture of different things, or of things varying in form or color.—One thing of many which constitutes variety; or, a succession of different things, or of many and different kinds; a varied collection or assortment; one of a number of things akin to one another; as, *varieties* of trees or rocks.

(*Nat. Hist.*) A term applied to individuals of the same species, which, from the operation of different causes, as age, climate, food, locality, domestication, &c., present deviations from the specific type in size, color, form, and relative proportion of parts of the body; but have the capacity of reverting to the original specific form in successive generations, on the cessation of the influences under which the variety originated.

Va'riform, *a.* [Lat. *varias,* various, and *forma,* shape, form.] Presenting a variety of forms; multiform.

Va'riformed, *a.* Of multifarious forms.

Vari'na, in *Virginia,* a township of Henrico co.; *pop.* in 1870, 3,210.

Varinas, or BARINAS, (*va-ree'nas.*) In Venezuela, a town, cap. of the prov. of Varinas, 80 m. S.E. of Merida; Lat. 7° 40′ N., Lon. 70° 20′ W.

Vari'ola, *n.* [Lat.; Fr. *variole.*] (*Med.*) The SMALL-POX, *q. v.*

Vari'olar, Variol'ic, Vari'olous, *a.* Pertaining or having reference to, or presenting depressions resembling those made by, the small-pox.

Va'riolite, *n.* [Fr., from Lat. *varius,* and Gr. *lithos,* stone.] (*Min.*) A variety of Felspar, generally of a dark-green color speckled with gray; but sometimes exhibiting white, blue, red, and other intermediate tints. The name has reference to the remarkable appearance presented by weathered surfaces of the stone, which display projecting black spots or points, each surrounded by a brown (sometimes by a white) ring, and occasionally even by a second whitish circle. It takes a beautiful polish, and is used in that state for ornamenting cabinets, for caskets, snuff-boxes, &c.

Va'rioloid, *a.* (*Med.*) Resembling small-pox; having the nature of, or belonging to, the disease termed varioloid.

—*n.* [From Lat. *variola,* small-pox, and Gr. *eidos,* form.] (*Med.*) A modified and less virulent form of small-pox.

Vario'rum, *n.* [Lat., various persons.] Pertaining, or having reference, to various persons or things; especially, in Bibliography, used adjectively, indicating a collection of annotations by different commentators; as, a *variorum* edition of the classics.

Va'rious, *a.* [Lat. *varius.*] Diverse; different; unlike each other; manifold; several; as, men of *various* names or trades.—Changeable; uncertain; unfixed; as, a word of *various* significations.—Diversified; variegated; as, a tulip of *various* colors.

Va'riously, *adv.* In different ways; varyingly.

Varisse', *n.* An imperfection on the inside of the hind leg in horses, different from a curb, but at the same height, and frequently injuring the sale of the animal by growing to an unsightly magnitude.

Varius, LUCIUS, (*vair-i-us,*) a Latin poet, the intimate friend of Virgil and Horace. He was patronized by Mæcenas, and his poems, epic and dramatic, were very highly esteemed. Some fragments of them are preserved. D. 19 B. C.

Va'rix, *n.*; *pl.* VARICES. [Fr. *varice,* from Lat. *varus,* bent.] (*Med.*) A permanent dilatation or swelling of a vein.

Var'let, *n.* [O. Fr. See VALET.] Anciently, a page or knight's henchman.—Hence, in modern usage, a low, mean fellow; a rascal; a scamp; as, an impudent *varlet.*

Var'mington, in *New Jersey,* a village of Monmouth co., 15 m. S.E. of Trenton.

Var'na, in European Turkey, a fortified seaport-town of Bulgaria, at the mouth of the river Varna, at the bottom of a bay of the Black Sea, 50 m. E. of Shumla; Lat. 43° 12′ 2″ N., Lon. 27° 56′ E. It is surrounded by walls, entered by six gates, and has a large and commodious harbor. The Hungarians were here defeated by the Turks in 1444; and in 1828 it was taken by the Russians, after a siege of three months. In 1854 it was the rendezvous of the allied French and English troops previous to their attack on the Crimea. *Pop.* 28,600.

Var'na, in *New York,* a post-village of Tompkins co., 5 m. E. of Ithaca.

Var'nish, *n.* [Fr. and Du. *vernis;* Sp. *varnix;* L. Lat. *vernix.*] A solution of a resin in oil of turpentine, wood-naphtha, spirits of wine, or some other solvent, which on evaporating leaves the resin behind in a thin, transparent, highly-polished film. The resins most extensively employed in varnish-making are copal, mastic, dammar, sandarac, cowrie, lac, amber, and occasionally elemi and anime. The solvents used are oil of turpentine, spirits of wine, wood-spirit, methylated spirit, and, lately, the lighter portions of the coal and petroleum oils. The manufacture of varnishes is one requiring great experience; for if too much spirit be used, they crack in drying. To remedy this, oil of turpentine and linseed or poppy oil are added, to prevent too hasty evaporation; if, however, too much is added, the varnish takes too long to dry. The best varnish for photographic purposes is that made by Soehnée Frères, of Paris, the composition of which is a secret. Amber dissolved in chloroform also makes a very good photographic varnish; but it is very expensive, and unless *true* amber is used, it generally scales off during use. The black varnish used for backing positive photographs is made by dissolving ½ a drachm of caoutchouc in 10 ounces of coal-tar naphtha, and adding to it 4 ounces of asphaltum. The picture should be previously varnished with a clear varnish, made by dissolving 40 grains of soft copal in 1 ounce of benzol.

—That which resembles varnish, either naturally or artificially, and presents like it a glossy appearance; as, the *varnish* of certain leaves.—Gloss; fair external show or appearance; factitious coverlug; as, the *varnish* of conventional politeness.

—*v. a.* To coat with varnish; to cover with a liquid that gives anything a glossy surface, and protects it from the influences of air and moisture; as, to *varnish* mahogany furniture.—To overlay or cover with something that gives a fair and specious outside show or appearance; as, speech *varnished* with flattery.—To give a fair coloring or external aspect to; to give a specious or plausible appearance to in words.

Var'nisher, *n.* One whose occupation is to varnish; as, a *varnisher* of pictures.—One who glosses over or palliates; one who puts on a fair or specious outside appearance; as, a *varnisher* of unpleasing truths.

Var'nishing, *n.* Act or process of coating with varnish.—Materials employed in making varnish.

Var'ro, MARCUS TERENTIUS, the learned and voluminous Roman writer, was B. at Rome, B. C. 116. He served under Pompey against Cæsar, and upon the defeat of the former, retired from the army; and having conciliated the favor of Cæsar, he was employed in superintending the Greek and Latin libraries at Rome. Equally learned as an historian, grammarian, poet, and naturalist, he was extolled by all his contemporaries. He dedicated to Cicero a treatise on the Latin language, and he wrote a work upon agriculture, entitled, *De Re Rustică,* both of which are extant, with some fragments of his Menippean Satires. D. B. C. 27.

Var'ry, *n.* (*Her.*) The mixture of argent and azure together.

Varu'na, [From Sans. *vri,* to surround; hence, literally, the surrounder.] (*Hind. Myth.*) In the Vedic mythology of the ancient Hindoos, one of the *Adityas,* or offsprings of *Aditi,* the deity of space, and among these, one of the most prominent. He is often invoked together with *Mitra,* sometimes together with *Agni,* the god of fire, or with *Indra,* or other elementary deities; but frequently he is also separately praised by the poets of the Vedic hymns.

Var'sovie. The French name for Warsaw.

Va'ry, *v. a.* (*imp.* and *pp.* VARIED, (*vā'rid.*) [Fr. *varier,* from Lat. *vario,* to diversify.] To make or cause to be different; to alter or change partially; to alter in form, appearance, substance, or position; to change the aspect of; as, to *vary* the nature, properties, or proportions of anything.—To transform; to change to something else; to transmute; to alternate; as, *varied* customs or practices.

—To diversify; to variegate: to make of different kinds or colors; as, *varied* inclinations, *varied* plumage.

—*v. n.* To be changeable; to alter, or be altered in any manner; to suffer a partial change.—To differ, or be different; to be unlike.—To alternate; to alter or change in succession; as, *varying* hopes and fears.—To deviate; to depart;—with *from;* as, the copy *varies from* the original.—To disagree; to be at variance, or in opposition.

Va'rysburg, in *New York,* a post-village of Wyoming co., 30 m. S.E. of Buffalo.

Va'sa. See GUSTAVUS I.

Va'sa, in *Minnesota,* a post-township of Goodhue county.

Va'sa, a seaport-town of Finland, on a bay of the Baltic, 55 m. N.E. of Christianstadt; Lat. 63° 4′ 3″ N., Lon. 21° 43′ E. *Pop.* 3,740.

Vasarhel'ly, in Hungary, a town on the Torna, 25 m. W. of Veszprim; *pop.* 27,500.—Also, a town on Lake Hodos, 14 m. N.E. of Szegedin.

Vasarhel'y, or MAROS VASSARHELY, in Austria, a town of Transylvania, on the Maros, 8 m. from Vaja; *pop.* 11,000.

Vasa'ri, GIORGIO, an Italian painter and architect, B. at Arezzo, 1512; studied under Del Sarto and Michael Angelo. He is now remembered not for his own achievements as an artist, but for his voluminous, graphic, and delightful account of the lives and works of others. His

work is entitled, *Lives of the most excellent Painters, Sculptors, and Architects.* It was first published in 1550, and has been translated into French, German, and English. Notwithstanding the sharp attacks of criticism, and its admitted numerous errors, strange omissions, and partial views, the book holds, and must hold, an important place in the history of art, which cannot otherwise be filled.

Vas'cular, *a.* [From Lat. *vasculum*, dim. of *vas*, vase, vessel.] Pertaining, or relating, to the vessels of animal or vegetable bodies; as, the *vascular* functions. — Consisting or full of vessels, or containing them, as an essential part of an organic structure. — Characterized by, or operating by means of, an arrangement of vessels, as arteries, veins, lacteals, and the like.

V. system. (*Bot.*) That portion of the tissue of plants which is destined for the conveyance of air. — *V. plants* are those in which the *V.* system occurs, or forms a principal feature. The air-vessels are the tracheæ or spirals.

Vase, (*vāse, vāz, vawz,*) *n.* [Fr.; It. *vaso*; Lat. *vas, vasis*, a vessel.] In the widest acceptation of the term, a vessel intended to contain fluids or other substances, and adapted for ornament or for use. It is generally used in this sense with reference to ancient art; — in connection with modern art, it is restricted to vessels of an ornamental kind. See POTTERY, PORCELAIN.

(*Arch.*) A vessel placed on a pedestal crowning a façade, and usually ornamented with sculptured representations of fruits, flowers, festoons, bassi-relievi, &c.— Also, the body of the Corinthian and composite capitals; — also called DRUM, and TAMBOUR, *q. v.*

(*Bot.*) The calyx or corolla of a plant.

Vase'-shaped, (*-shāpt,*) *a.* Formed in the manner of a vase or flower-pot.

Vas'sal, *n.* [Fr., from L. Lat. *vassallus*, a domestic in the household of a king or prince; W. *gwas-awl*, serving.] (*Feudal Law.*) The holder of a fief, by fealty and service, of a feudal superior or lord. — A bondman; a servant; a dependent; a subject; also, a political slave.

—*a.* Having the characteristic qualities of a vassal; servile.

Vas'salage, *n.* State of being a vassal or feudatory. — Political servitude; subjection; dependence.

Vas'salborough, in *Maine*, a post-village and township of Kennebec county, 14 miles north-east of Augusta.

Vas'sar, in *Michigan*, a post-village and twp., former cap. of Tuscola co., about 22 m. S.E. of Saginaw City.

Vassil'kov, a town of Little Russia, in the govt. of Kiev, 18 m. S.W. of Kiev city.

Vassy, (*vas'se,*) a town of France, dept. of the Haute-Marne, 29 m. from Chaumont; *pop.* 3,478. It is celebrated in history for the massacre of the Protestants, in 1562, by order of the Duke de Guise.

Vast, *a.* (*comp.* VASTER; *superl.* VASTEST.) [Fr. *vaste*, from Lat. *vastus.*] Being of great compass or extent; having a large space or surface; as, the *vast* steppes of central Asia, the *vast* world of waters. — Very great in numbers or amount; as, *vast* multitudes of people.— Mighty; puissant; exhibiting or exercising very great force; as, *vast* labor, *vast* ideas. — Very great in scope or importance; as, a *vast* undertaking.

—*n.* A region of empty waste; an illimitable or seemingly boundless space; as, "the *vast* of heaven." *Milton.*

Vasta'tion, *n.* [O. Fr., from Lat. *vastare.*] A laying waste; devastation; depopulation.

Vast'itude, *n.* Vastness; immense extent. (R.)

Vast'ly, *adv.* Very greatly; to a vast extent or degree.

Vast'ness, *n.* State or quality of being vast; immensity; enormous magnitude or amount; immense extent, bulk, or importance; as, the *vastness* of space; the *vastness* of a nation's resources.

Vas'to, or VASTO D'AMMONE, in Italy, a town of the prov. of Abruzzo Citeriore, on the Adriatic, 30 m. S.E. of Chieti. *Manuf.* Silks, woollens, and earthenware. *Pop.* 9,900.

Vast'y, *a.* Being enormously large, or of very great extent.

Vat, *n.* [A. S. *fœt*, fat; D. and Icel. *fat*; Dan. *fad*; Ger. *fass.*] A large vessel or cistern for holding liquors in an immature state; as, a brewer's *vat*; also, a square box or cistern in which hides are laid for steeping in tan.—In Belgium and the Netherlands, the legal liquid measure, equal to 22·01 imp. galls.

(*Mining.*) A wooden tub used to wash ores and mineral substances in.

—*v. a.* To put or place in a vat; as, to *vat* malt.

Vathi, (*va'te,*) in Greece, a seaport-town, cap. of the island of Ithaca, on the S. side of the harbor; *pop.* 2,750. —Also, a town on the N.E. of the island of Samos; *pop.* 2,640.

Vat'ican, *n.* See ROME.

Thunders of the Vaticun. (*Eccl.*) The papal anathemas.

Vaticina'tion, *n.* [Lat. *vaticinatio.*] Prediction; prophecy: soothsaying; foretelling of events.

Vat'tel, EMMERICH, a celebrated Swiss writer on jurisprudence, b. at Neufchâtel, 1714; entered the service of the king of Poland, whose minister to the republic at Berne he became, and devoted the leisure left by his diplomatic duties to the composition of works which have made his name famous. After putting forth some less important works, he, in 1753, published his *Treatise on the Law of Nations; or, the Principles of Natural Law applied to the Conduct of States and Sovereigns.* This is esteemed a standard authority upon the subject of which it treats, and takes rank with Grotius and Puffendorf. D. 1767.

Vauban, (*vō'-,*) SEBASTIAN LEPRESTRE DE, the greatest military engineer and tactician of France, was b. in Burgundy in 1633; and commenced his public career in the time of Mazarin. He took part in all the campaigns of Holland and Flanders, and was created marshal in 1703. He constructed or improved an immense number of fortresses, directed as many as 53 sieges, and was present at 140 battles. He wrote 12 folio volumes on strategy. D. 1707.

Vauban's first system. (*Fortif.*) The name given to the principal of the systems of fortification invented by Vauban, the great French engineer, for the defence of towns of all sizes, which may be briefly described as follows. Irrespective of irregularities in the form of the place to be defended, a particular polygon is selected as that on which the lines of defence are to be drawn. In Fig. 2568 the angle of an octagon is taken; upon this the front of the fortification, extending from the flanked angle of one bastion to the corresponding angle of the

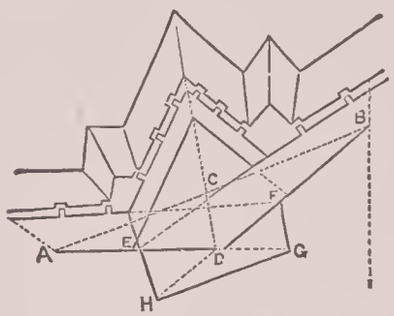


Fig. 2568. — VAUBAN'S FIRST SYSTEM OF FORTIFICATION.

next, as A B. These lines are dissected, and a perpendicular D C is laid down, drawn from the point of bisection towards the place, its length being proportional to the extent of the exterior side and adjacent angle of the polygon. A E G, B E H show the "lines of defence," which are drawn from the extremities of the exterior sides through these points, and upon these lines are marked the shoulders of the bastion E F. The distance between these points is laid along the continuation of each line of defence, a line being drawn to connect them. This line forms the curtain G H. The flanks of the bastions are drawn from lines extended from G H. According to this mode, the whole front of a fortification is drawn, and upon being repeated around the sides of a polygon, the works of the *enceinte* or body of the place are completed.

Vaucluse, (*vo'kloos,*) in France, a S.E. dept., bordered on the W. and S. by the Rhone and Durance rivers; *area*, 1,370 sq. m. *Surface*, mountainous on the E., and level in the W.; *soil*, moderately fertile. *Climate*, healthy. *Prod.* Corn and fruits. *Manuf.* Silks, woolleus, perfumery, glass-wares, and printing-types. *Cap.* Avignon. *Pop.* 266,091. — The name *V.* ("enclosed valley") is derived from the *Fountain of Vaucluse* (Fig. 1528), the source of the river Sorgue, in a rocky cavern, abt. 15 m. from Avignon, near which was the residence of Petrarch.

Vaud, (*vo,*) a canton in the W. of Switzerland, bounded on the W. by France, on the S. by the Lake of Geneva, and on the other sides by Savoy, and the cantons Bern, Freiburg, Neufchâtel, and Geneva; *area*, 1,185 square miles. *Desc.* It is, in general, less mountainous than other parts of Switzerland, consisting of beautiful valleys and plains, intersected by small cultivated hills. In the N.W. it is covered with branches of the Jura, and on the S.E. with those of the Alps. The valleys and plains are appropriated to the culture of corn; the eminences and hills, to that of the vine. *Rivers.* The Upper Rhone, the Orbo, the Venoge, and the Broye. *Lakes.* Joux, and parts of Morat and Neufchâtel. *Prod.* Corn and wine, and the rearing of live-stock forms the chief occupation of the inhabitants. The best vineyards in Switzerland are in this canton. *Min.* Marble, coal, sulphur, with a few metals. Salt is produced from the springs of Bex. *Manuf.* Unimportant. *Cap.* Lausanne. *Pop.* 216,157.

Vaudeville, (*vōd-vil,*) *n.* [Fr.] A light satirical song, consisting of several couplets and a refrain or burden, generally introduced into theatrical productions; a song sung about the streets; a ballad. In the French theatre the term has been applied to a short piece, the dialogue of which is intermixed with light or comic songs set to popular airs. In this country the term has been generally applied to any light bustling one-act interlude, with or without music of any kind.

Vaudois, (*vo-dwawh',*) *n. sing.* and *pl.* (*Geog.*) An inhabitant, or the inhabitants, of the Canton of Vaud, Switzerland. See WALDENSES.

Vaudreuil, (*vo-drool',*) in prov. of Quebec, a S.W. co., having N. the Lake of the Two Mountains, and S.E. the St. Lawrence; *area*, 330 sq m. It is traversed by the river De L'Isle. *Cap.* Vaudreuil.

Vault, *n.* [Fr. *voûte*; It. *volta*, from Lat. *valvo, volutum*, to turn around.] (*Arch.*) An arched roof, so contrived that the stones, bricks, or other materials used in its construction, sustain and keep each other in their places. Vaults are circular and elliptical. When their section rises higher than a semicircle, they are said to be *surmounted*; when less, *surbused.*

Fig. 2569. — CYLINDRICAL VAULT.

The simplest and most ancient kind used over a rectangular area is the *cylindrical* (Fig. 2569), called also a *barrel*, and sometimes *wagon-vault*; this springs from the two opposite walls, and presents a uniform concave surface throughout its whole length. The term "cylindrical" properly implies the form of a segment of a cylinder, but it is applied to pointed vaults of the same description.

The Romans first introduced *groining* (Fig. 2570) formed by the intersection of vaults crossing each other at right angles, and some of their constructions of the kind were of very large size. In groined vaults the arches which cross each other do not always correspond in width; in such cases they sometimes spring from the same level, and consequently are of unequal heights; and sometimes the springing of the narrow vault is raised so that the tops are on the same level. — An underground apartment, generally used as a store for wine and other articles not injured by damp; a cellar; a cave; a cell; a cavern. — A repository for the dead; a tomb or crypt.

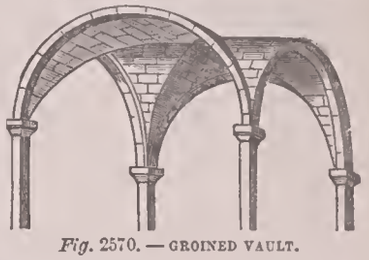


Fig. 2570. — GROINED VAULT.

—That which forms a continued arch, or an arched roof, ceiling, or covering; as, the *vault* of heaven. — A leap, spring, or bound.

(*Man.*) The bounding turn which riders teach their horses; a curvet; — the turn or flexure in which men throw themselves on or off their horses.

—*v. n.* [It. *voltare.*] To leap; to bound; to jump; to spring; to curvet; to leap with the body bent; as, he *vaulted* over the gate. — To turn or tumble; to act the tumbler or posture-master.

Vault'ed, *a.* Covered with an arch or vault.—Arched; concave, as a roof.

(*Bot.*) Arching over; formicate.

Vault'er, *n.* One who practises vaulting; a leaper; a tumbler.

Vaunt, *v. n.* [Fr. *vanter*; It. *vantare*, from Lat. *vanus*, vain, empty.] To talk with vain ostentation; to brag; to boast; to speak in terms of self-conceit. — To boast of; to make a vain, ostentatious display of; as, "Charity *vaunteth* not itself." — 1 *Cor.* xiii. 4.

—*n.* A vain, empty boast; a bit of brag; a display of ostentation springing from vanity; as, an idle *vaunt.*

Vaunt'er, *n.* One who vaunts or brags; a boaster; one who sounds his own trumpet; as, "Tongue-vallant herol *vaunter* of thy night!" — *Dryden.*

Vaunt'ful, *a.* Boastful; vainly ostentations.

Vaunt'-mure, *n.* [Fr. *avant-mur.*] (*Fortif.*) A work raised in front of the main wall.

Vauquelinite, (*vōk'lin-īt,*) *n.* (*Min.*) The native chromate of copper and lead, composed (when pure) of 27·9 per cent. of chromic acid, 10·9 oxide of copper, and 61·2 oxide of lead. It occurs in small (generally macled) crystals, and in mammillated masses forming thin crusts, which are sometimes hollow and approaching to stalactitic. The color is black (occasionally with a tinge of green or brown), and it is faintly translucent or opaque.

Vauvenargues, LUC DE CLAPIERS, MARQUIS DE, (*vōv-nahrg',*) a French moralist and elegant writer, born in Aix, Provence, 1715, author of an *Introduction to the Knowledge of the Human Spirit*, and *Maxims.* D. 1747.

Vauxhall, (*voz-haul',*) a district of London, on the S. bank of the Thames, connected with Westminster by a bridge. It was long celebrated for some public gardens, which, as a place of popular amusement, were for more than half a century the favorite resort of the fashion of London for operatic, terpsichorean, and pictorial attractions.

Vauxhall, in *New Jersey*, a village of Essex co., 7 m. W. of Newark.

Vava'o, in the *Pacific Ocean*, one of the Friendly Islands; Lat. 18° 39′ S., Lon. 174° W. *Pop.* 5,500.

Vav'asor, VAVASOUR, VALVASOR, *n.* [Perhaps from the same root as *vassal.*] (*Feudal Law.*) A dependant on a superior lord, and who himself was a superior lord to others under him; thus a baron was a *vavasor* to a prince, who in his turn was a *vavasor* to a king.

Vazabar'ris, a river of Brazil, flows into the Atlantic; Lat. 11° 20′ S., after an E. course of 300 m.

Ve'adar, *n.* The thirteenth month of the Jewish ecclesiastical year; the embolismic or intercalary month.

Veal, *n.* [From Fr. *veau*, a calf; Lat. *vitulus.*] The flesh of a calf killed for the table. — *Veal cutlet*, a collop of veal cut for frying or broiling.

Veal'town, in *New Jersey*, a village of Somerset co., 10 m. N. of Somerville.

Vea'zie, in *Maine*, a post-township of Penobscot county.

Vecht, (*vekt.*) a river of the Netherlands and Prussian Westphalia, enters the Zuyder-Zee at Genemulden, after a N.W. course of 90 m.

—Also, an arm of the Rhine, which separates from that river at Utrecht, and enters the Zuyder-Zee at Muiden.

Vec'tis, *n.* [Lat.] A lever.

Vec'tor, *n.* [Lat., a bearer.] See RADIUS VECTOR.

Ve'das, *n. pl.* [Sansk., knowledge.] The name given to the collective sacred literature of the Brahmans. See HINDOOS (LITERATURE OF THE).

Vedan'ta, *n.* A Hindoo sect professing a philosophy

fonnded on the revelations contained in the Vedas. Their belief exhibits a close resemblance to QUIETISM, *q. v.*

Vedette', *n.* Same as VINETTE, *q. v.*

Veendam, (*vain'dam,*) a town of the Netherlands, 13 m. S.E. of Groningen; *pop.* 5,500.

Veer, *v. a.* [Fr. *virer.*] To turn; to change course or direction, as the wind *veers* to the north.

To veer and haul. (*Naut.*) To vary the course or direction; — applied to the wind.

—*v. n.* To turn; to direct to a different course; to cause, as a ship, to change her course from one board to the other by turning her etern to windward.

To veer and haul. (*Naut.*) To haul in taut and slacken alternately. — *To veer away,* to let out by the run; as, to *veer away* the cable. — *To veer out,* to give a ship more length of cable; also, to let anything drop astern by a rope.

Veer'ingly, *adv.* In a veering or shifting manner.

Veerumgaum, (*ve-room'gawm,*) in British India, a town of the presidency of Bombay, 35 m. from Ahmedabad; *pop.* 18,700.

Ve'ga, *n.* (*Astron.*) The bright star in the constellation Lyra.

Ve'ga, (Lope de.) See LOPE DE VEGA.

Ve'ga, (La,) a town of Hayti, 78 m. N.W. of St. Domingo.

Veger, or BEJAR DE LA FRONTERA, (*vai'zhair,*) a town of Spain, on the Barbate, 26 m. from Cadiz. *Manuf.* Woollens. *Pop.* 9,350.

Vegetable, (*vĕj'e-ta-bl,*) *n.* [Fr., from *végéter.* See VEGETATE.] A member of the vegetable kingdom; a plant. See BOTANY. — In a more special and colloquial sense, one of those particular plants which are used as esculeuts, theso forming what is called *vegetable diet.* In this sense it includes the potato, cabbage, cauliflower, pea, bean, spinach, and such like, but does not embrace fruits properly so called, as the apple, pear, grape, etc., although these are included in its more extended sense, as embracing the whole vegetable kingdom.

—*a.* Pertaining or relating to vegetables or plants; as, *vegetable* qualities, juices, etc. — Consisting of, or comprising, plants; as, the *vegetable* kingdom. — Possessing the nature or characteristics of plants; as, a *vegetable* body.

V. brimstone, the powder collected from the spore-cases of *Lycopodium clavatum* and *selago.* See LYCOPODIUM. — *V. chemistry.* See ORGANIC CHEMISTRY. — *V. earth,* soil in which decayed vegetable matter is in a much larger proportion than the primitive earths. In Horticulture, vegetable earth is called *mould;* and in Agriculture the term is applied to the surface soils of hollows, which contain alluvial soil beneath, and vegetable matter, generally of a black color, on the surface. — *V., Ethiops.* See FUCUS. — *V. flannel,* a textile material largely manufactured in Germany from the *Pinus sylvestris.* A great number of persons are employed in the various processes of separating the fibro from the oil. The fibre, locally called *wold-wold,* is spun, knit, and woven into various fabrics. It is said to be highly efficacious in restoring the function of the skin. — *V. ivory.* For this, see IVORY and PHYTELEPHAS. — *V. kingdom,* the term commonly applied to one of the three primary divisions of nature. It includes all those organized beings which are called plants; for which see BOTANY. — *V. marrow.* See CUCUBITA. — *V. physiology.* See BOTANY. — *V. silk,* a cotton-like material obtained from the seed-pods of *Chorisia speciosa.* — *V. tallow,* a fatty substance obtained from *Stillingia sebifera, Vateria Indica,* and other plants. — *V. wax.* See WAX.

Vegetal, (*vĕj'-,*) *a.* [From Lat. *vegetus,* lively.] Vegetable. (R.)

(*Physiol.*) Denoting the class of vital phenomena common to plants and animals; viz., digestion and nutritive assimilation, growth, absorption, secretion, excretion, circulation, respiration, generation; as contradistinguished from the second class of vital phenomena, viz., sensation and volition peculiar to animals. The first are called the *vegetal functions,* the second the *animal functions;* and the powers or forces on which they depend have been termed, respectively, the *vegetal life* and the *animal life.*

Vegetal'ity, *n.* Vegetability.

Vegeta'rian, *a.* Pertaining or having reference to vegetarianism; as, *vegetarian* diet.

—*n.* One who theorizes that vegetables constitute the only proper food for man, and who, accordingly, lives exclusively upon them.

Vegeta'rianism, (*-izm,*) *n.* The theory and practice of vegetarians.

Vegetate, (*vĕj'e-tāt,*) *v. a.* [Fr. *vegeter,* from L. Lat. *vegetare,* to nourish, cherish.] To grow, as plants; to sprout; to flourish; to germinate. — Hence, in a figurative sense, to live without mental animation, action, or sensation; to do nothing but eat, sleep, and grow; as, to *vegetate* in seclusion.

Vegetation, (*-tā'shun,*) *n.* [Fr.] Act or process of vegetating or growing, as plants, by means of nourishment derived from the earth, or from water and air, and received through roots and leaves; vegetable growth; as, plants unfit for *vegetation.* — Sum or body of vegetable life in general; as, luxuriant *vegetation.*

(*Med.*) A morbid production which rises as an excrescence on an organ or part, as on the valves of the heart. — Also, a fleshy granulation at the surface of a wound or ulcer.

Veg'etative, *a.* [Fr. *végétatif.*] That vegetates, or promotes vegetation; growing, or having the power of growing, as plants. — Having the power to produce growth in plants; as, the *vegetative* virtues of soil.

(*Zoöl.*) Partaking of simple growth and enlargement of the systems of nutrition and generation, apart from the sensorial or distinctively animal functions, as in the *vegetative* enlargement of the females of some inferior animals, attended with a depression of the animal powers.

Vegetive, (*vĕj'-*), *a.* Possessing vegetable life, as plants.

Veg'eto-an'imal, *a.* Characterized by the properties both of vegetable and animal matter, as vegetable gluten.

Veglia, (*vail'ya,*) in Austria, an island in the Adriatic, in the N.W. of the Gulf of Quarnero, 23 m. long, and 12 m. broad. *Surface,* mountainous and barren in the N. and E., elsewhere fertile. *Prod.* Wine, silks, timber, fruits, and live-stock. *Min.* Marble and salt. *Cap.* Veglia. *Pop.* 16,580.

Ve'hemence, Ve'hemency, *n.* [Fr., from Lat. *vehementia.*] Quality of being vehement; great force; impulsive energy; eagerness; fervor; impetuosity; violence; as, to speak with *vehemence.* — Violent or uncontrollable passion; animated fervor; great fire or heat; as, *vehemence* of temper.

Ve'hement, *a.* [Fr., from Lat. *vehemens.*] Impetuous; characterized by great force or fury; mighty; acting with impetuosity; as, a *vehement* torrent, a *vehement* flow of words. — Very ardent, eager, or urgent; fervent in the extreme; unreasonable; violent; as, *vehement* desire, *vehement* instigation.

Ve'hemently, *adv.* In a vehement manner; urgently; forcibly; violently; with great zeal or pathos.

Vehicle, (*vē'hi-kl,*) *n.* [Fr. *véhicule;* Lat. *vehiculum.*] That in which anything is, or may be, carried; any kind of carriage moving on land, either on wheels or runners, but more especially those on wheels. — That which is employed as the instrument of conveyance or communication; as, speech is a *vehicle* of ideas.

(*Paint.*) The liquid with which the various pigments are applied; medium.

(*Pharm.*) A substance in which medicine is administered.

Ve'hicled, *a.* Conveyed in, or supplied with, a vehicle.

Vehic'ular, Vehic'ulary, *a.* Pertaining or relating to, or serving as, a vehicle.

Veh'mic Courts, *n. pl.* (*Hist.*) See FEHMGERICHTE.

Ve'ii. (*Anc. Geog.*) One of the twelve cities of the Etruscan Confederation, on the river Cremera, an affluent of the Tiber. Its inhabitants, the Veientes or Veientines, are first mentioned in history as having been engaged in hostilities with Romulus. *V.* was for centuries the great rival of Rome, succumbing to the latter only after very numerous wars, and a siege, it is said, of ten years, B. C. 396. The castle, known by the name of Isola Farnese, was built on the S. side of the city in the beginning of the 11th century. Many relics of Etruscan art have been found in the ruins.

Veil, VAIL, (*vāl,*) *n.* [Fr. *voile;* Lat. *velum,* a covering, from *vela,* to wrap up, to envelop.] That which conceals; a cover to conceal the face; any kind of cloth which is used for intercepting the view, and hiding something; — especially, a piece of thin cloth or silk stuff, used by females to hide their faces. — A veil is an indispensable part of the out-door dress of Eastern ladies, who live secluded from the sight of all men except their own husbands and their nearest relatives (Figs. 87 and 167.) If an Egyptian lady is surprised uncovered, she quickly draws her veil over her face, with some exclamation like, "O, my misfortune!" The custom of wearing veils is so ancient as to be lost in remoteness; its use, however, has not been prevalent at all times. Sarah, the wife of Abraham, and Rebekah and her companions at the well, do not appear to have worn them. *Gen.* xii. 14, 15; xxiv. 16.

—A cover; a screen; a disguise; as, to throw a *veil* over one's indiscretions.

(*Bot.*) In fungi, the horizontal membrane connecting the margin of the pileus with the stipes.

To take the veil, to enter a cloister and become a nun.

—*v. a.* To cover with a veil; to cast a veil over; as, a *veiled* woman. — To cover; to hide; to screen; to invest; to conceal; as, a cloud *veils* the sun, mystery *veils* a crime.

Veil'less, *a.* Without veil or covering; open; undisguised.

Vein, (*vān,*) *n.* [Fr. *veine,* from Lat. *vena.*] (*Anat.*) A long membranous canal, which continually becomes wider, does not pulsate, and returns the blood from the arteries to the heart.

—A streak or wave of different color, appearing in wood, and in marble, and other stones. — A cavity or fissure in the earth, or in other substances; as, "prisms free from *veins.*" (*Newton.*) — Tendency or turn of mind; particular disposition or cast of genius; peculiar temper; strain; quality; as, a man of a satirical *vein,* a *vein* of wit or humor, he is not in the *vein* of doing business. — Current; course; train, as of ideas; as, "A *vein* of true and noble thinking." — *Swift.*

(*Bot.*) A tube, or an assemblage of tubes, through which the sap is transmitted along the leaves of plants.

(*Geol.* or *Mining.*) A crack, fissure, or crevice in a rock or mineral, and which may be either earthy or metallic; — in deposits of metallic ores, a *rake-vein* is perpendicular, or nearly so, while a *pipe-vein* is nearly horizontal.

—*v. a.* To mark or form with veins.

(*Mining.*) To wash or cleanse a small portion of ore in a shoal.

Vein'al, Vein'ous, *a.* Pertaining or relating to, or marked with, veins; veined; as, *veinous* hands.

Veined, (*vānd,*) *a.* [From *vein.*] Full of veins; variegated; streaked; as, *veined* malachite. — Hence, various; multiform; diverse; as, *veined* impulses.

(*Bot.*) Having sap-vessels spreading over the surface, as a leaf.

Vein'less, *a.* Without veins, as a leaf.

Vein'let, *n.* (*Bot.*) A small vein subordinate to a larger one.

Vein'y, *a.* Full of veins; marked with veins.

Ve'la, (La,) a seaport-town of Venezuela, on the Gulf of Coro; Lat. 11° 25′ N., Lon. 69° 40′ W.

Velasquez, DIEGO, (*vā-las'keth,*) a Spanish general, who accompanied Columbus in his second voyage; he was engaged in the conquest of St. Domingo, and founded the city of Havana in the Island of Cuba. He sent out the expedition which discovered Yucatan and Mexico, and dispatched Cortez to subdue the latter country. D 1523.

Velas'quez, DON DIEGO RODRIGUEZ DE SILVA Y, a Spanish painter, B. at Seville, 1599; he first studied under Francisco Herrera, and afterwards with Pacheco, whose daughter he married. He visited Madrid in 1622, and in 1623 was appointed court painter to Philip IV. of Spain. He visited Italy in 1629, and again in 1648, to make purchases of works of art for the king. He D. 1660. V. has the reputation of being the greatest of Spanish painters; he is chiefly distinguished as a portrait-painter, but he excelled also in history, landscape, and genre; like the majority of Spanish painters, he belongs to the naturalist school, — he painted life as he found it, with extraordinary force, facility, and skill. His greatest works are still at Madrid.

Ve'late, *a.* [Lat. *velare,* to veil.] (*Bot.*) Having a veil.

Velez, (*vai'lath,*) two rivers of Spain, one of which enters the Mediterranean from the prov. of Malaga; and the other rises in Almeria, and flows into the Segura from the prov. of Murcia.

Ve'lez, (Peñon de,) a town of Morocco, prov. of Fez, on a rock near the Mediterraneau, 75 m. from Tetuan; *pop.* unascertained.

Velez, a town of the Republic of Colombia, 60 m. N. of Tunja; Lat. 6° 10′ N., Lon. 73° 50′ W. *Pop.* (1897) 10,200.

Ve'lez el Ru'bio, in Spain, a town of the prov. of Almeria, 22 m. from Lorca. *Manuf.* Woollens. *Pop.* 14,300.

Ve'lez Mal'aga, in Spain, a town of the prov. of Malaga, 16 m. E. of that city; *pop.* 17,600.

Velha, (*vel'yah,*) an extensive mountain range in the E. of Brazilian Guiana, N. of the Amazons.

Velhas, (Rio das,) or GUAICUHY, (*ree'o das vel'yahs,* or *gwi koo-ee',*) in Brazil, a river of Minas-Geraes, rises in the N. of the Serra Paranpeba, and flows into the São Francisco.

Veliki-Luki, (*vel'-ke loo'ke,*) in European Russia, a town of the govt. of Pskov, 130 m. S.E. of Pskov. *Manuf.* Leather. *Pop.* 4,400.

Velino (Monte,) (*vai-le'no,*) a peak of the Apennines, 8,400 feet high. See TERNI.

Vel'ish, in Europeau Russia, a town of the govt. of Vitebsk, on the Dwina, 47 m. N.E. of Vitebsk; *pop.* 7,700.

Veli'tes, *n. pl.* (*Anc. Hist.*) The light-armed infantry attached to a Roman legion. They were equipped with bows, slings, and javelins, a light wooden buckler covered with leather and a head-piece.

Velleia, (*vel'lai-a,*) a buried city of N. Italy, 18 m. S.E. of Placentia, discovered in 1760, supposed to have been destroyed by the crumbling of a neighboring mountain about the beginning of the 4th century.

Velle'ity, *n.* [Fr. *velléité,* from Lat. *velle,* to be willing.] Imperfect or incomplete volition; the lowest degree of desire.

Velletri, (*vel-lai'tre,*) (anc. *Velitræ,*) a town of Italy, in the former States of the Church, 20 m. from Rome. The Borgian Museum, originally in the fine Borgian palace here, is now in Naples. Augustus is said to have been born here, 63 B. C.

Vel'licate, *v. a.* [Lat *vellicare,* from *vellere,* to pluck.] To twitch; to pluck; to stimulate; as, a *vellicating* nerve.

—*v. n.* To twitch; to move convulsively or spasmodically, as a nerve.

Vellica'tion, *n.* Act of twitching, or of causing to twitch; stimulation.

(*Med.*) A local twitching or spasmodic movement of a muscular fibre.

Vellon, (*vel-yōn',*) *n.* [Sp.] Properly, a certain copper coin; — also, a money of account in Spain and Spanish-speaking countries; as, a hundred reals *vellon;* — answering to the English *sterling.*

Vel'lore, a town and fortress of British India, presidency of Madras; Lat. 12° 55′ N., Lon. 79° 13′ E. *Pop.* unascertained, but large.

Vel'lum, *n.* [Fr. *velin,* from Lat. *vitulinus.*] A fine kind of parchment made of calfskin. The skins are limed, shaved, washed, and stretched in proper frames, where they are scraped with the currier's fleshing-tool, and ultimately rubbed down to a proper thickness with pumice-stone.

Vel'lum-post, *n.* A superior quality of letter-paper.

Vel'lumy, *a.* Resembling, or having the properties of vellum.

Veloce, (*va-lo'chā.*) [It., swift.] (*Mus.*) A term which, prefixed to a movement, indicates that it is to be performed in a rapid manner.

Velocim'eter, *n.* [Lat. *velox, velocis,* swift, and *metrum,* measure.] An apparatus for measuring the rate of speed of machinery.

Velocipede, (*-lōs'e-peed.*) A carriage propelled by the feet of the rider, acting on treadles attached to levers connected with the axle by cranks, or on pins projecting from the spokes. Velocipedes were formerly made of various patterns and with several wheels. The two-wheeled V., now generally called bicycle, was first made in France, and was brought to a greatly improved form by MM. Michaux and Magee, of Paris (1869–1875), and by James Starley, of Coventry, England, who died in 1881. The bicycle in its original form, with a wooden frame and iron tires, and almost destitute of springs, was the reverse of agreeable as a vehicle, and gained the name of the "boneshaker." The invention of the rubber tire first tended to make it popular, while the numerous improvements since made have brought it

into well-nigh universal use. The tricycle, or three-wheeled *V.*, has come into little use except as a vehicle for the carriage of small parcels. Quadricycles have also been made. See BICYCLE.

Velocity, (*-lŏs'i-tĭ,*) *n.* [Fr. *vélocité*, from Lat. *velocitas* — *velox, velocis*, swift.] Speed; swiftness; celerity; rapidity; quickness of motion.

(*Dynamics.*) When a material point moves, it describes a continuous line which may be either straight or curved, and is called its *path*, and sometimes its *trajectory*. Motion which takes place along a straight line is called *rectilinear* motion; and that which takes place along a curved line *curvilinear* motion. The rate of the motion of a point is called its *velocity*. *V.* is measured by the space through which a moving body passes in a given time. The velocity of a body is *uniform* when it passes through equal spaces in equal times; and *variable*, when the spaces passed through in equal times are unequal. It is *accelerated* when the force by which a body is put into a state of motion continues to act after the motion has commenced; and *retarded*, when the moving body encounters obstacles which tend to destroy its motion. *V.* is merely a relative term; for there is nothing, as Biot remarks (*Traité de Physique*, t. iii. p. 148), which in itself is either swift or slow, any more than great or small. The *V.* of an express train appears very great, yet it is slow in comparison with the motion of a point on the earth's equator carried round by the diurnal motion; and this, in its turn, is far inferior to the *V.* of the earth in its orbit, which again is greatly exceeded by the *V.* of light. For the *V.* of falling bodies, see ACCELERATION; for the *V.* of a body moving in a curve about a centre of force, see CENTRAL FORCES. See also VELOCITY OF LIGHT.

Veluchi, (Mount,) (*vai-lōō'ke,*) the chief summit of Mount Æta, Greece, 7,658 feet above the sea.

Velu'tinous, *a.* [From It. *velluto*, velvet.] (*Bot.*) Having the feel of velvet; soft as velvet.

Velveret', *n.* A kind of fustian.

Vel'vet, *n.* [Fr. *velours;* Sp. *veludo*, from Lat. *villosus*, hairy, shaggy.] A rich kind of stuff, in which, besides the ordinary warp and weft, which are usually arranged as in twill-weaving, there is also a supplementary weft, consisting of short pieces of silk, cotton, or woollen thread doubled under the regular weft, and brought to the surface in loops which are so close together as to conceal the regular web. The loops are afterwards cut evenly, and the ends thus made constitute a covering resembling a very short fur. Of *V.* there are properly only two kinds, that with a *plain*, and that with a *tweeled*, or, as it is also called, a *Genoa* ground or back. When the material is silk, it is called *velvet;* when cotton, *velveteen*. The latter is a kind of fustian, which, under a variety of names, is largely used for men's wearing apparel.

—*v. a.* To cover with velvet; to make to resemble velvet. (R.)

Vel'vet, Vel'vety, *a.* Made of velvet; or, soft, smooth, and delicate like velvet; as, a *velvet* robe, a *velvety* skin.

Velveteen', *n.* [Fr. *velvantine.*] Cotton velvet. See VELVET.

Vel'veting, *n.* The fine shag of velvet; — also, velvet goods in general.

Ve'na, *n.* [Lat., a vein.] (*Anat.*) *Vena cava.* See HEART. — *Vena portæ*, the great trunk formed by the union of the veins from the abdominal organs of digestion, which trunk ramifies, after the manner of an artery, in the substance of the liver, and transmits its blood by capillaries to the hepatic veins.

Vena'do, a town of Mexico, 45 m. N. of San Luis Potosi; *pop.* abt. 9,000.

Venaissin, (*ven'ais-sn,*) an ancient country in the S. of France, now a part of the dept. of Vaucluse, was ceded by Philippe the Bold to Pope Gregory X., in 1276; and was definitively annexed to France in 1791.

Ve'nal, *a.* [Fr. and Sp., from Lat. *vena.*] Pertaining or having reference to, or contained in, a vein or the veins; venous; as, *venal* blood.

—[From Lat. *venalis*, pertaining to selling.] That is for sale; that is to be sold; set to sale; purchasable; mercenary; prostitute; hireable; that may be bought or obtained for money or other valuable consideration; as, a *venal* pen, a *venal* mind, *venal* services.

Venal'ity, *n.* [Fr. *vénalité.*] State or quality of being venal; state of being purchasable, hireable, or influenced by money; mercenariness; prostitution of talents, advantages, or services for money or other valuable consideration; as, the *venality* of corrupt voters.

Ve'nally, *adv.* In a venal or mercenary manner.

Venan'go, in *Pennsylvania*, a N.W. co.; *area*, 850 sq. m. *Rivers.* The Alleghany, and, also, French, Oil, Racoon, and Teonista creeks. *Surface*, diversified; *soil*, moderately fertile, and suitable for pasturage. *Min.* Iron, stone-coal, and limestone. It yields immense quantities of petroleum. *Cap.* Franklin. *Pop.* (1897) 49,320.—A village and township of Butler co.—A post-township of Crawford co., 12 miles N.E. of Meadville. —A township of Erie county.

Ven'ary, *a.* [From Lat. *venari, venatus*, to hunt.] Belonging, or having reference, to hunting.

Venat'ic, Venat'ical, *a.* Used in hunting.

Vena'tion, *n.* [From Lat. *vena*, vein.] (*Bot.*) The arrangement of veins or ribs in a leaf or other organ.

Venato'rial, *a.* Pertaining or having reference to hunting; venary.

Vend, *v. a.* [Fr. *vendre;* Lat. *vendere.*] To give for sale; to sell, as wares; to transfer, as a thing and the exclusive right of possessing it, to another person for a pecuniary equivalent; as, to *vend* provisions in market.

—*n.* A sale; or, the act of vending.—In England, the whole quantity of coal sent from a colliery in a year. *Simmonds.*

Vendean, (*van-dā'an,*) *a.* (*Geog.*) Pertaining or having reference to the dept. of La Vendée.

—*n.* (*Geog.*) A native or inhabitant of La Vendée.

Vendee', *n.* (*Law.*) The person to whom a thing is vended or sold; a buyer.

Vendée, (La,) (*van-dai,*) a maritime dept. in the W. of France, bounded N. by Loire-Inférieure, S. by Charente Inférieure, E. by Deux-Sèvres and Maine-et-Loire, and W. by the Atlantic; *area*, 2,630 sq. m. The chief rivers are the Vendée, Sèvre, Niortaise, Autise, Lay, and Vie. La Vendée is divided into three arrondissements, the capital being Napoleon-Vendée. The territory of La Vendée is divided into three parts, the names of which indicate the character of their configuration. In the west is the *Marais*, occupied by salt marshes and lakes; in the north is the *Bocage*, covered with plantations; in the south and middle is the *Plaine*, an open and fertile tract. The coast-line, 93 miles in length, presents few deep indentations, the chief being the bay of Aiguillon, which affords secure anchorage for vessels. *Pop.* 404,473. —La Vendée is famous for a royalist insurrection after the proclamation of the first republic, which spread over Lower Poitou, Anjou, Lower Maine, and Brittany. The movement was semi-religious in its character, and originated with the peasantry, who in 1793, under the lead of a wagoner named Cathelineau, overpowered a small body of the Republican troops, and were thus encouraged to undertake new enterprises. (See CATHELINEAU.) Gaston, a wig-maker, Stofflet, a game-keeper, Charette, a naval officer, and especially La Rochejaquelein, became distinguished as leaders of the insurgents (see LA ROCHEJAQUELEIN); but they were signally defeated in Dec., 1793, and hundreds of them unassacred. The ordinary forms of execution proving too slow, Carrier caused the Vendean prisoners at Nantes to be drowned in masses. In the following spring, however, the war broke out again under La Rochejaquelein, Stofflet, and Charette; and the *Chouans* (q. v.), with whom the Vendeans were afterward united, appeared at the same time to the N. of the Loire, in the departments of Morbihan and Côtes-du-Nord. The convention made a peace with them in Feb., 1795, guaranteeing to them a general amnesty, freedom of religious worship, exemption from military service, and indemnification for their losses. The landing of a body of French émigrés at Quiberon in June, however, encouraged them to take up arms again. Gen. Hoche was sent against them, and succeeded, after Stofflet and Charette had been taken and shot (Feb. and March, 1796), in reducing the country to submission.

Vendemiaire, (*vĭng-dā-me-ahr,*) *n.* See CALENDAR, § 6.

Venden, or **Wenden,** (*ven'den,*) a town of Russia, in Livonia, on the Oa, 50 m. from Riga; *pop.* 2,500. This place contained the residence of the Grand-Master of the Teutonic order.

Vend'er, Vend'or, *n.* [Fr. *vendeur.*] One who vends; a seller; one who transfers the exclusive right of possessing a thing, either his own, or that of another, as his agent.

Vendet'ta, *n.* [It., vengeance.] The practice formerly general in Corsica, and still prevailing in the remote parts of the island, of individuals taking private vengeance upon those who have shed the blood of their relatives.

Vendibil'ity, Ven'dibleness, *n.* State of being vendible or salable.

Vend'ible, *a.* [Fr. *vendable.*] That may be sold; salable; that may be vended; as, *vendible* merchandise.

—*n.* Something to be sold or offered for sale.

Vend'ibly, *a.* In a vendible or salable manner.

Ven'dlere, in *S. Carolina*, a township of Colleton dist.

Vendition, (*-dĭsh'un,*) *n.* [Lat. *venditio*, from *vendere*, to sell.] Sale; act of vending or selling.

Vendôme, CÆSAR, DUKE DE, (*vän-dome,*) a French prince, eldest son of Henry IV. and of his mistress, Gabrielle D'Estrees, B. 1594, was minister of state under Mazarin, D. 1665. — LOUIS, his eldest son, B. 1612, was viceroy of Catalonia, married a niece of Mazarin, and after her death took orders and became a cardinal, D. 1669. — LOUIS JOSEPH, son of the latter, B. 1654, was successively Duc de Penthievre and Duc de Vendôme, a famous general in the wars of Louis XIV., requited for his services by admission to the honors of a prince of the blood-royal, 1654–1712.—His brother, PHILIPPE, Prior of Vendôme, and the last of his house, D. 1727.

Vendôme, a town of France, in the dept. of Loire-et-Cher, on the Loire, 40 m. from Orléans. *Manuf.* Cloths, needles, embroideries. *Pop.* 10,082.

Vend'or, *n.* (*Law.*) A VENDER, *q. v.*

Vendue', *n.* [O. Fr.] A public sale at auction.

Veneer', *v. a.* [Ger. *furnieren.*] To lay or fix firmly on, as thin leaves of a fine or superior wood over a coarser or inferior wood, so as to give the latter the appearance of a solid mass of the former; as, to *veneer* a table with rosewood.

—*n.* A thin piece of wood of a more valuable kind laid firmly upon another of a more common sort, so that the whole mass appears to be of the more valuable sort.

Veneer'ing, *n.* The process or operation of decorating ordinary surfaces with thin slices of rare and beautiful woods, or inlaying them, in order to enhance the appearance of the whole thing.

Ven'enate, *v. a.* [From Lat. *venenum*, poison.] To envenom; to infect with poison. (R.)

—*a.* Envenomed; infected with poison.

Venenation, (*-nā'shun,*) *adv.* Act of envenoming or poisoning.

Ven'erable, *a.* [Fr., from Lat. *venerabilis.*] Worthy of veneration or reverence; deserving of honor and respect; as, a *venerable* judge. — To be regarded with awe, and treated with reverential respect; rendered sacred by religious associations, or being consecrated to God and his worship; as, a *venerable* cathedral.

Ven'erableness, *n.* State or quality of being venerable.

Ven'erably, *adv.* In a manner to excite veneration.

Ven'erate, *v. a.* [Fr. *vénérer.*] To regard with respect and reverence; to revere; as, to *venerate* aged parents; to *venerate* the gospels.

Venera'tion, *n.* [Fr., from Lat. *veneratio.*] Act of venerating; state of being held in the highest degree of respect and reverence; respect mingled with some degree of awe.

Ven'erator, *n.* [Lat.] One who venerates or manifests reverence.

Vene'real, *a.* [Lat. *venereus*, from *Venus*, the goddess of love.] Pertaining or having reference to venery or sexual intercourse; as, *venereal* pleasure. — Proceeding from sexual intercourse; as, a *venereal* disease. — Affording a cure for, or tending to remedy, diseases arising from venery; as, *venereal* medicines. — Exciting concupiscence; aphrodisiac; as, a *venereal* philter.

V. disease. (*Med.*) A virulent distemper, to which physicians give the several names of *syphilis, tues venerea, morbus Gallicus.* This disease, under whatever name it may be called, is the result of man's vice and immorality, and is the direct penalty paid for the violation of the moral and physical laws of our nature. The most extraordinary fact connected with syphilis is, that though from the earliest age of man's existence the same causes have been in operation, there is no record of this disease till the comparatively recent epoch of the 15th century; and then, without any apparent warning, it broke out in the French camp before Naples in the year 1494, and had, by the beginning of the next century, spread nearly over the whole of Europe, astounding medical men by the novelty and virulence of its character, and alarming society by the fatal rapidity of its loathsome visitation. The popular opinion that it was imported into Europe from this continent by the Spanish soldiers who returned with Columbus from his discovery, does not rest on any solid ground, and the truth is that the history of this disease is completely hidden in doubt and obscurity.

Vener'idæ, *n. pl.* (*Zoöl.*) A family of lamellibranchiate mollusks, embracing acephala which have the shell suborbicular or oblong, and the hinge with three diverging teeth in each valve, as in *Cytherea dione*, Fig. 364.

Ven'ery, *n.* [From Lat. *Venus.*] Sexual intercourse; coition.

Ven'ery, *n.* [Fr. *vénérie*, from Lat. *venor*, to hunt.] The sports of the chase; act or exercise of hunting; as, beasts of *venery.*

Venesec'tion, *n.* [Lat. *vena*, and *sectio*, a cutting.] Act or operation of cutting or opening a vein for bloodletting; phlebotomy. See BLEEDING.

Venetia, (*ve-nē'shi-a,*) a former kingdom or government of N. Italy belonging to Austria, now a part of the kingdom of Italy, divided into the provinces of Bellune, Padua, Rovigo, Treviso, Udine, Venice, Verona, and Vicenza. *Pop.* 2,340,280. See VENICE.

Venetian, (*-nē'shan,*) *a.* [It. *Veneziano.*] (*Geog.*) Pertaining or relating to Venice; as, a *Venetian* gondola.

V. blind, a blind for windows, doors, &c., consisting of a series of thin slats set in a frame, and so arranged as to overlap each other when closed; while, when open, they present a succession of open spaces for the admission of light. — *V. chalk* or *talc.* (*Min.*) A kind of talc or steatite used for making the colored crayons called *pastels;* and also the cosmetic *fard.* — *V. door*, a door presenting long, narrow window-panes on each side. — *V. red.* (*Paint.*) A pigment of burnt ochre, which owes its color to the presence of an oxide of iron. It is used in both oil and water-color painting, and yields a red color alloyed with blue and yellow.

—*n.* (*Geog.*) A native or inhabitant of Venice.

Venezuela, (*ven-e-zwee'lah,* Sp. pron. *vēn-eth-wā'lah.*) [It. dim. of *Venezia.*] A republic of S. America, in the N.E. portion of that continent, bounded N. by the Caribbean Sea, W. by the Republic of Colombia, E. by British Guiana, and S. by Brazil; Lat. 1° 20′ to 12° 25′ N., Lon. 59° 45′ to 73° 17′ W. Greatest length from E. to W. about 750 m.; average breadth, about 550; *area*, 426,712 sq. m.—*Gen. Desc.* The Venezuelan coast-line extends from the Colombian boundary, in Lon. 73° 17′ W., to the S.E. point of the delta of the Orinoco, a distance of 1,584 m., of which about 150 m. are washed by the Atlantic Ocean, and the remainder by the Caribbean Sea and the Gulf of Paria. The Atlantic seaboard is very low, and is occupied by the delta of the Orinoco, whose many mouths have caused the formation of numerous islands covered with vegetation. The peninsula of Paria separates the gulf of that name from the Caribbean Sea. This land-locked gulf has bold and rocky shores, with several small harbors on the S. shore of the peninsula. These rocky shores continue as far as Barcelona, a distance of 72 m., and have, here and there, several good harbors. Next comes a low, marshy line of coast, 128 m. long, to Cape Codera, beyond which the coast range approaches the shore, and, among others, presents the important harbor of La Guayra. The coast thenceforward, as far as the Lake of Maracaibo, is again low and sandy, with much of its surface covered by swamps and lagoons. With the exception of the table-lands of the N.E., and that portion of the coast lying along the Gulf of Coro, *V.* is plentifully watered. — *Rivers.* The Orinoco, with its numerous navigable tributaries, Rio Negro, Cassiquiare, and Essequibo, with a great number of smaller streams. The principal lakes are those of Maracaibo and Valencia.—*Mountains. V.* has three distinct mountain systems, viz: the E. Andes, ranging

through the N. and N.W.; the Sierra de Bergantin in the N.E.; and the Sierra de Parima on its S. border. Several peaks attain an altitude of over 15,000 ft. above sea-level. — *Surface.* The face of the country presents mainly but two aspects: the extensive table-lands, which according to their elevation are named *llanos, mesas, paramos,* and *punos,* dotted here and there with peaks of considerable elevation; and the low, flat, marshy lands of the seaboard and river and lake basins, overflowed during a part of the year, but some of them, especially in the interior, abundantly fertile during the remainder. The climate, fauna, and flora of *V.* closely resemble those of Colombia. The country is rich in minerals, producing copper, gold, silver, tin, lead, iron, coal, salt, asphaltum, and petroleum. Little has been done to develop these deposits, except in the case of the Yuruari gold mines, the Aroa copper mine, and various rock-salt and coal mines. Rich petroleum springs exist near Lake Maracaibo, and coal is abundant there and in other localities. Valuable emeralds are found on the upper Orinoco. The agricultural productions include coffee, cacao, sugar, indigo, cotton, tobacco, sago, vanilla, many kinds of fruits, dye and furniture woods, &c. The principal article of export is coffee—more than two-thirds of the whole. The wretched condition of the roads greatly restricts trade, though there has been some development of railroads—about 400 m. in all. The Roman Catholic religion prevails, but religious liberty was established in 1873, and the last convent was closed by government decree in 1874. The constitution of *V.* is designed on the model of that of the U. States; the president is elected for two years. By the new constitution, adopted in 1881, the federal district and 20 states, into which *V.* was divided, have been united into nine great states — State of the East, Guzman Blanco, Carabobo, State of the South-West, State of the North-West, State of the Andes, Bolivar, Zulia, and Falcon. The principal towns are Caracas (the cap.), La Guayra, Puerto Cabello, Cumana, Valencia, Maracaibo (a port opened to foreign commerce in 1878), Truxillo, Merida, and Bolivar.—*Hist.* The E. coast of *V.* was discovered by Columbus in 1498; Ojeda and Vespucci followed in 1499, and entering Lake Maracaibo, they found an Indian village constructed on piles, to prevent the ill effects of inundation, and accordingly named the place Venezuela, or Little Venice, a name which afterwards spread to the whole country. The first settlement was made at Cumana in 1520 by the Spaniards; and Venezuela remained subject to Spain till it asserted its independence in 1811, which was followed by a war of nearly eleven years' duration. In 1813, it formed with New Grenada and Equador what was called the republic of Colombia. The battle of Carabobo, fought June 24, 1821, destroyed the Spanish yoke and established the new republic. In 1830, on the dissolution of the confederation, Venezuela became an individual republic. The subsequent history of *V.* was marked by a long period of civil wars, extending from 1847 to 1870, when Guzman Blanco became dictator and then president, holding the reins of power until 1890, when discord again broke out. The most important recent event in the history of *V.* has been its determined opposition to the alleged encroachments of Great Britain on its territory, through an extension of British Guiana. This dispute, through the intervention of the U. S., was settled by arbitration. In 1901 revolts broke out against the administration of President Castro, who triumphed over the rebels in 1902. Disputes about the settlement of unpaid claims led in 1902 to the blockade of Venezuelan ports by Great Britain and Italy. These claims were subsequently submitted to arbitration. *Pop.* 2,444,816.

Vengeance, (*venj'ans,*) *n.* [Fr., from *venger* — Lat. *vindicare.*] The infliction of pain or punishment, in return for an injury or offence; penal retribution: — frequently used, in a bad sense, to denote fierce and unrestricted revenge.

With a vengeance, with great force or vehemence; — sometimes used ironically; as, this is friendship *with a vengeance.* (Colloq.)

Venge'ful, *a.* Revengeful; vindictive; retributive.

Ve'nial, *a.* [Fr. *venial,* from Lat. *venia,* forbearance, pardon.] That may be overlooked, pardoned, or forgiven; excusable; that may be allowed or permitted to pass without censure or punishment; as, a *venial* transgression. — Permitted; allowed; as, *venial* discourse.

Venial sin. (*Theol.*) In the Roman Catholic Church, a sin which weakens sanctifying grace, but does not take it away; it is not necessary, though commendable, to mention such sin in confession. Sins which take away sanctifying grace are termed *mortal.*

Venice, (*vĕn-is.*) [It. *Venezia (ve-ned'ze-a.]* A province of N.E. Italy, bounded S.E. and E. by the Adriatic Sea, and remarkable for its long series of lagoons, which, stretching due N. for 25 m., from the mouth of the Brenta to that of the Sile, occupy a considerable part of the old bed of the Piave. These lagoons contain numerous small islands (on some of which the city of Venice itself stands) that are separated from the open sea by a peninsula which is partly composed of the alluvium brought down by the rivers, and partly of the sand thrown up by the waves. Being, however, intersected by both artificial and natural channels, access to the coast, as well as to the capital, is thereby obtained. *Prod.* All kinds of cereals, with rice, maizo, hemp, silk, and wine. *Pop.* 294,450.—The GULF OF VENICE is formed by the Adriatic on the N.E. coast of Italy, bounded by the Brenta and the Piave.

VENICE, a celebrated city of N.E. Italy, cap. of the above prov. and of the former *Venetian republic,* situate near the northern extremity of the Adriatic, 70 m. W. of Trieste; Lat. 45° 25′ 9″ N., Lon. 12° 20′ 2″ E. The city is built entirely on piles driven into about *eighty* small islands situated in the shallow waters of the Bay of *V.*, and known as the *lagoons,* a kind of lake shut out from the deeper water of the Adriatic Sea, by a ridge or long but interrupted belt of sand and earth called the *Littorale,* which extends about two miles from the shore, shutting in all the islands and lagoons from the Adriatic Sea. A modern viaduct, supported on 222 arches, part of the Verona and Venice railway, has lately united the continent with the *Littorale* or protecting beach of the city. The eighty islands on which the city is built are separated from each other by narrow channels, which serve the purpose of thoroughfares, being constantly traversed by goudolas (Fig. 1179), a light river-boat, answering the purpose of cabs and omnibuses, and depositing passengers at any house or building at which they may desire to alight. The whole series of islands are connected with each other by means of 450 bridges. Some of the islands are large enough to have what may be regarded as two or three short streets with intersecting lanes or alleys, but in general they only present blocks of buildings, having river fronts, according to the direction of the canal, or the water frontage of the isle. The longest and most important street in *V.*, the Merceria, is only fifteen feet wide; carriages and horses are unknown in *V.*, the gondola being the universal means of transit to those going from shop to shop or house to house. *V.* is nearly eight miles in circumference, contains about 28,000 houses, and is divided into two parts by the Grand Canal, or *Canal Grande.* Over this canal there is only one bridge, that of the *Rialto* (Fig. 2571), the most magnificent bridge in Venice, consisting of a single arch 90 feet in span and 24 feet in height, built of marble in 1590. Two ranges of shops divide its upper surface into three narrow parallel streets. Venice

Fig. 2571. — THE RIALTO.

is regarded as one of the finest cities in Europe, and was for many centuries the capital of the first maritime and commercial state in the world. It consequently contains proportionally a larger number of public buildings and palatial residences than any other city in Europe: among the most celebrated of its national edifices, first mention must be given to that stupendous building, the pride and glory of *V.*, the ducal palace of St. Mark, with the cathedral of St. Marco (Figs. 300, 843, and 1179), forming three sides of a square, the grandest and most imposing quarter of all the city. The square of St. Mark — with its arcades, its fine and elegant shops and cafés, the vast grandeur of its ducal residence containing all the chambers of state, audience, and judicature, and its magnificent cathedral — presents a picture of grandeur and beauty unequalled by any capital in Europe. The Bridge of Sighs (*Ponte dei Sospiri*) (Fig. 1422) stretches across the canal called the Rio Palazzo, and communicates between prisons on the east, and the Doge's palace on the west bank of the canal. It is a covered gallery; and prisoners, when led to execution, passed from their cells across this gallery to the palace, to hear sentence of death passed upon them, and then were conducted to the scene of death between the red columns. Few cities in Italy are richer in works of pictorial art than *V.*; some of the masterpieces of Titian, Tintoretto, Paul Veronese, and the other great chiefs of the Venetian school, are to be found in all the churches of this extraordinary city. The library (a fine marble structure (Fig. 1419), containing 120,000 vols. and 10,000 MSS.), the museum, and cabinet of curiosities of St. Mark's, are regarded as the finest in Europe. The arsenal and dockyard are esteemed as worthy objects of attraction; the latter, in the palmy days of *V.*, contained forty line-of-battle ships, twelve of them three-deckers, with arms for 150,000 men, 4,000 pieces of ordnance, and an immense amount of naval and military stores, with provision and every requisite to maintain its reputation as one of the first commercial and maritime states in the world. For many centuries, in the Middle Ages, *V.* had the monopoly of all the glass sold to Europe; but this has long since passed away, and its chief trade is now confined to the manufacture of mirrors, jewelry, artificial pearls, silks, velvets, and porcelain.—The foundation of *V.* was laid in 421, as a place of refuge during the invasion of Italy by Attila. In 697 took place the establishment of an elective prince or Doge, with the appellation of Serene Highness — Paoluccio Anafesto being the first Doge or Duke of *V.* At first the power of the Doge was absolute, but in time restrictions were placed on his rule, till eventually he became a mere cipher and symbol of authority in the hands of the famous Council of Ten. The prosperity and power of *V.* began with the dawn of the 9th century. In 1133, the Doge Sebastiano received from Pope Alexander III. the title of Sovereign of the Adriatic, in consequence of a signal victory gained by the Venetian galleys over the fleet of the Emperor, when, further to mark his joy at the victory, the Pope flung into the gulf a ring of great cost, as a mark of gratitude — a custom afterwards annually followed by the Doges, who, in great state, dropped a rich ring into the sea; this ceremony was called, espousing or wedding the Adriatic. In the reign of Giovanni, in 1280, gold was first coined in Venice, the coin from the ducal dignity of the prince being called a *ducat.* Venice at this time was at the height of its glory as the first maritime and commercial state in Europe, as the most prosperous of nations, and as a leading military and political power. Jealous of the rising influence of the republic of Genoa, already encroaching on the commerce of the east, which *V.* considered as her exclusive monopoly, she for more than a century carried on a harassing war with her rival, sometimes with serious loss, at others with advantage. In 1396, Genoa placed herself under the dominion of the king of France, and therefore ceased to have a separate existence as an enemy of the republic. The greatest part of the 15th century was passed in repented wars with the Turks, who captured many of her Greek and Ionian islands, especially Cyprus, and large portions of Dalmatia. When the commerce of *V.* became annihilated by the discovery of the route to India by the Cape, petty quarrels and political jealousies occupied the Venetians, instead of commerce and dominion. From this time the prestige of *V.* declined, and her power gradually sank as a state till, on the occupation of Italy by the armies of the French Republic, *V.* — after an independent existence of thirteen hundred years—without striking a blow became a part of Napoleon's Cisalpine republic, and afterwards of the Italian kingdom. At the Congress of Vienna, 1815, *V.* was annexed to Austria. The city and territory were ceded to, and incorporated with, the kingdom of Italy in 1866. *Pop.* (1897) 130,130.

Venice, in *Illinois,* a post-village of Madison co., on the Mississippi, about 6 m. N. of St. Louis.

Venice, in *Michigan,* a prosperous township of Shiawassee co.

Venice, in *New York,* a post-town of Cayuga co., 16 m. S. of Auburn.

Venice, in *Ohio,* a township of Seneca co.

Veni're, Veni're fa'cias. [Lat., cause to come.] (*Law.*) A writ directed to the sheriff, commanding him to cause to *come* from the body of the county, before the court from which it issued, on some day certain and therein specified, a certain number of qualified citizens who are to act as jurors in the said court.

Ve'ni Sanc'ti Spir'itus. [Lat., Come, Holy Ghost.] (*Eccl.*) The name given in the Roman Catholic Church to a sequence in the office of the mass for Whit-Sunday.

Venison, (*vĕn'zn,*) *n.* [Fr. *venaison,* from Lat. *venatio,* a hunting.] The flesh of beasts or game, or of such wild animals as are taken in the chase, particularly those of the cervine or deer kind.

Venloo', a strong town of Holland, prov. of Limburg, on the Maas, 40 m. from Maestricht. It has a commodious port, and is conveniently situated for trade. *Pop.* 8,000.

Ven'om, *n.* [Fr. *venin;* Lat. *venēnum.*] Poison; matter injurious or destructive to life; as, the *venom* emitted by a rattlesnake. — Hence, analogically, malice; spite; malignity; vindictive animus; as, the *venom* of a retaliatory harangue.

—*v. a.* To envenom; to infect with poison. (R.)

Ven'omous, *a.* [Fr. *venimeux;* Lat. *venēnōsus.*] Full of, or charged with, venom or poisonous virus; noxious to animal life; as, the *venomous* bite of a cobra-capello. —Hence, malignant; noxious; mischievous; malicious; spiteful; as, a *venomous* brood, a *venomous* lampooner, a *venomous* tongue.

Ven'omously, *adv.* In a venomous manner.

Ven'omousness, *n.* Quality of being venomous.

Venosa, a town of S. Italy, on the river Ofanto, 23 m. from Potenza. It is the birth-place of Horace. *Pop.* 6,714.

Venose', *a.* (*Bot.*) Having numerous veins, as in reticulated leaves.

Venous, (*vē'nŭs,*) *a.* [Fr. *veineux;* Lat. *venosus.*] Pertaining or having reference to a vein, or to veins; contained in veins; as, *venous* blood, in distinction from *arterial* blood.

(*Bot.*) Marked with, or characterized by, veins; venose.

Vent, *n.* [Fr. *fente,* from Lat. *findere,* to cleave.] A cleft; a small aperture; a hole or passage for air or other fluid to escape; as, the *vent* of a barrel. — Hence, the anus of birds.

(*Mil.*) The touch-hole of a fire-arm; in artillery, the hollow channel in a piece of ordnance through which the flame is communicated to the charge of powder for its ignition.

(*Mach.*) In steam-boilers, the sectional area of the calorimeter. — Hence also, figuratively, passage from secrecy to publicity; way of escape from confinement or privacy; utterance; emission; as, the *vent* of language, the *vent* of anger.

To give vent to, to allow to escape; to give egress to; to let out; as, he *gave vent to* his spleen. — *To take vent,* to become disclosed or public; as, the plot *took vent* beforehand.

—*v. n.* To let out at a cleft, or small opening. — To let out, as from privacy or confinement; to utter; to put forth; to publish; as, to *vent* the overflowings of one's fancy.

Ven'ta, *n.* [Sp.] A poor inn on a road.

Ven'tail, *n.* The visor or aventaille of a helmet.

Venta'na, (Sierra,) a mountain of the Argentine

Republic (pg. 184), 320 m. S.W. of Buenos Ayres, 3,500 ft. high; Lat. 38° 5′ S.

Vent'er, *n.* One who gives vent; one who discloses or puts forth.

—[Lat.] (*Anat.*) The lower part of the abdomen.—The uterus. — The belly of a muscle.

(*Law.*) The wife; for example, a man has three children by the first, and one by the second *venter*.

Vent'-hole, *n.* A small orifice or vent for the passage of air or other fluid; as, the *vent-hole* of a cask.

Ven'tidnet, *n.* [From Lat. *ventus*, wind, and *ductus*, a leading.] A pipe, duct, or passage for the ventilation of rooms.

Ven'tilate, *v. a.* [Fr. *ventiler*; Lat. *ventilo, ventilātum*.] To fan, as with a gentle wind; to supply with fresh air: to cause the air to pass through; to open and expose to the free passage of air or wind; as, to *ventilate* a room. — To fan; to winnow. — To sift and examine; to bring to light for examination or discussion; to make public; as, to *ventilate* a project or novel idea.

Ventila'tion, *n.* [Fr., from Lat. *ventilatio*.] Act of ventilating, or state of being ventilated; act or operation of supplying houses, mines, or other confined places with a necessary quantity of fresh air, so as to maintain the atmosphere in such places in a uniform state of purity; free exposure to air. — Act of fanning or winnowing, as grain, for the purpose of freeing from chaff and dust. — Act of sifting and examining by exposure to public scrutiny or discussion; a giving vent or expression to; as, the *ventilation* of thoughts or intentions.

Ven'tilative, *a.* Pertaining or relating to, or adapted to promote, ventilation; ventilating; as, *ventilative* appliances.

Ven'tilator, *n.* Any contrivance or apparatus for promoting or regulating ventilation.

Ventose', *a.* [From Lat. *ventus*, wind.] Windy; flatulent. —*n.* See CALENDAR, § 6.

Ven'tral, *a.* [Fr., from L. Lat. *ventralis*, pertaining to the belly.] (*Anat.*) Noting the parts or aspect of the region of the belly.

(*Bot.*) Denoting connection with the anterior surface; as, a *ventral* suture.

Ventral fin. (*Zoöl.*) That fin, in fishes, which lies between the anus and the throat, as distinguished from the *dorsal* fin.

Ven'triele, *n.* [Fr. *ventricule*, from Lat. *venter*, the belly.] (*Anat.*) A term applied to cavities of the brain and heart, especially the two belonging to the latter organ.

Ven'tricose, Ven'tricous, (*-kus.*) *a.* (*Zoöl.*) Indicating a part which bellies out as if filled with air.

(*Bot.*) Noting an unequal distention of certain organic parts, as the corolla of many labiate and personate plants.

Ventric'ular, *a.* Pertaining or relating to a ventricle.

Ventricu'lous, (*-trik'ū-lus,*) *a.* Somewhat distended.

Ventriloeution, (*-kū'shon,*) *n.* Same as VENTRILOQUISM, *q. v.*

Ventriloquial, (*-lō'kwe-al,*) *a.* Belonging to ventriloquism.

Ventriloquism, (*-trĭl'o-kwĭzm,*) *n.* [Lat. *venter*, the belly, and *loquor*, to speak.] Act or art of speaking as from the belly; or, act, art, or practice of speaking, or uttering sounds, in such a manner that the voice appears to come, not from the person, but from some place, as from outside the door of the room, or from down the chimney, &c. The art seems to consist in filling the lungs with air, and then employing the vocal organs of the throat in pronunciation, with as little movement as possible of the lips, mouth, or tongue.

Ventril'oquist, (*-kwist,*) *n.* One who practises ventriloquism.

Ventril'oquize, (*-kwīz,*) *v. a.* To practise ventriloquism.

Ventril'oquous, (*-kwŭs,*) *a.* Ventriloquial.

Ventril'oquy, *n.* Same as VENTRILOQUISM, *q. v.*

Venture, (*vĕn(t)'yur,*) *n.* [Fr. *aventure*, from Lat. *venio, ventus, venturus*, to come.] A hazard; the risking of something upon an event which cannot be forecast with certainty; any undertaking depending upon chance or liable to jeopardy; as, a bold *venture*.—A hap; a chance; luck; contingency; an event that is not, or cannot be, forecast or foreseen.—A stake; a risk; anything put to hazard or chance; — especially, a shipment of goods in the nature of a sea risk; as, the proceeds of a successful *venture*. —*At a venture*, at stake or hazard; contingent on circumstances; without foreseeing the end or issue; as, one buys certain railroad scrip *at a venture*.

—*v. n.* To make a venture; to run a hazard or risk; as, to *venture* goods in a sea-going ship. — To dare; to adventure; to expose one's self to chance or uncertainty; to have courage or presumption to do, undertake, or say; as, to *venture* to pop the question to a lady.

To venture at, on, or *upon*, to attempt without positive forecast or anticipation of success; as, the undertaking we *ventured on* has proved successful.

—*v. a.* To put to venture or chance; to risk or hazard; as, to *venture* one's self in a steam-boat. — To put or send on a doubtful venture or risky speculation; as, to *venture* a shipment of sugar to Barbadoes.

Ven'turer, *n.* One who ventures or undertakes a risk.

Ven'turesome, Ven'turous, (*-ŭs.*) *a.* Adventurous; bold; daring; intrepid; self-reliant.

Ven'turesomeness, *n.* Quality of being venturous or venturesome.

Venue, (*ven'yu,*) *n.* [O. Fr. *visne*; Lat. *vicinia*, neighborhood.] (*Law.*) In civil actions, the *V.* is the county in which the action is to be tried, which is specified in all material allegations in the pleadings; it need not be the county in which the fact took place, except in what are called *local actions*. It can be *changed*, i. e., the trial may be directed to take place in another county, either by consent of the parties, or by special order of the court or a judge, on the ground of material evidence, apprehended unfairness of trial, and the like. In criminal proceedings, the general rule is that the offence must on the face of the indictment appear to have been committed within the jurisdiction of the court before whom the prisoner is tried, but many modifications of this rule have been introduced in the several States.

Ven'ulose, *a.* [Lat. *venula*, a small vein.] (*Bot.*) Furnished with veinlets.

Venus, *n.* [The only Queen. Sign ♀, a looking-glass.] (*Astron.*) The opponents of the Copernican system brought, as an argument against it, that, if true, both Mercury and Venus should exhibit phases like the moon. This truth was admitted, but with the statement that "our vision is inadequate to see them." Galileo, with his little spyglass, saw what no mortal had previously seen—the queen of the firmament with a crescent phase; and this formed an argument of overwhelming force in favor of the Copernican theory which no sophistry could overthrow. Except Mercury, Venus is the nearest planet to the sun, and, in proportion to the square of the earth's and her distance from the sun, is a warmer world. Her diameter is about 7,760 miles (Newcomb). The length of her year is 224d. 16h. 49m. 8s. She makes the nearest approach to the earth of any heavenly body except the moon, and yet we know no more about her seasons and her physical condition than we do of the far-away Uranus. Even the period of her rotation is in dispute, some contending that it is about 24h., while others assert that it is a period of 225 days—equal to the length of her year. The controversy waxes warm, and as a result it is hoped the true period may be ascertained. The rotation period of Mercury is also in dispute, some claiming to have evidence that Mercury, too, rotates but once during his revolution around the sun. If it be true that the rotation and revolution periods be equal, it follows that one hemisphere must constantly face the sun, as the moon faces the earth. The mean distance of Venus from the sun is about 67,000,000 miles, but her distance from the earth varies through wide limits, for when in perigee (between us and the sun) she is but 25,500,000 miles distant, while in apogee (on the other side of the sun) she is the whole diameter of her orbit (134,000,000 miles) more distant. It is possible on rare occasions, owing to the ellipticity of the earth's and her orbits, to come 2,000,000 miles still nearer. When astronomers speak of the distance between two celestial bodies, it is always to be understood as from center to center, and not between their surfaces. Gravity on Venus is a little less than on the earth—in the ratio of 0·82 to 1—so that a terrestrial man weighing 150 pounds would, if translated to Venus, weigh but 123 pounds, but on the sun over 4,000 pounds, and on the smallest satellite of Mars but a very few ounces. From our ignorance of the inclination of her axis to the plane of her orbit the character of her seasons is unknown. Some authorities make the inclination as high as 75°—a very improbable amount, and without a known parallel in the solar system. Venus, save the sun and the moon, is the brightest and most conspicuous object in the heavens, and must have been discovered by the first created man. Only three heavenly bodies besides her have ever been known to cast a shadow, viz., the sun, moon, and the great comet of 1843; though Tycho says the pilgrim star of 1572 would cast a shadow. Venus moves in her orbit at the rate of 80,000 miles an hour, or 22 miles a second. She probably has an atmosphere, for during her transits across the sun in 1874 and 1882, just when about one-half of her disk was superimposed on the sun, a faint and very narrow ring of light was seen by many observers encircling the planet, which, with good reason, was supposed to have been her illuminated atmosphere. As she has no satellite, her inhabitants, if any there be, can never witness the grandest phenomenon of nature—a total eclipse of the sun; neither can she have any months. She is often seen by the naked eye at noonday. The first record of such an observation that has come down to us was made in the year 398 A.D. See PARALLAX and TRANSIT.

Vera'ciously, *adv.* Truthfully; with veracity.

Veracity, (*-răs'i-te,*) *n.* [Fr. *véracité*] Habitual truth, or constant observance of truth; truthfulness.

Vera Cruz, (*va'ra-kroos.*) in Mexico, a S.E. State, bordering on the Gulf of Mexico; Lat. between 17° 30′ and 2-° 15′ N., Lon. 94° 30′ and 99° W.; *area*, 27,595 sq. m. *Rivers.* Tampico, San Juan or Alvarado, and Huasacualco. Lagoons are numerous, of which the principal are the Tamiagua and the Tampico. *Surface*, low and sandy along the coast, but diversified in the interior, where the volcanic mountain peak Orizaba has an elevation of 17,374 ft.; *soil*, fertile. *Climate*, almost pestilential along the coast, but healthy in the interior. *Prod.* Maize, barley, cotton, sugar, wheat, tobacco, sarsaparilla, vanilla, oranges, bananas, pine-apples, dye-woods, &c. *Cap.* Vera Cruz. *Pop.* (1897) 889,880.

—A seaport town, cap. of the above State, on the Gulf of Mexico, 185 m. E. of Mexico; Lat. 19° 11′ N., Lon. 96° 8′ W. Though situated in a low and unhealthy plain, it has a fine appearance; the streets and squares are regularly laid out, the houses are mostly built of stone, and the harbor, which affords but little protection from the N. winds, is defended by the castle of San Juan de Ulloa, on an island at its entrance, which has also a lighthouse with a revolving light 89 ft. above the sea. Its commerce has declined of late years, having been transferred principally to Tampico. *V. C.* was founded in the 16th century near the place where Cortez landed. It was taken by the French in 1829, and by the Americans under General Scott in 1847. *Pop.* (1897) 25,250.

Ve'ra Cruz, in *Missouri*, a post-village, former cap. of Douglas co., about 55 m. E.S.E. of Springfield.

Veragua (*ver-ah'gwah*), a town of the Republic of Colombia, cap. of a province of the same name, 125 m. W.S.W. of Panama. *Pop.* 6,000.

Veran'da, Veran'dah, *n.* [Hind. *baramuda.*] (*Arch.*) A kind of open portico, or a sort of light, external gallery or colonnade in front of a building, with a sloping roof supported on slender pillars, and frequently partly inclosed in front with lattice-work.

Ve'ra Paz, a prov. of Guatemala, between Lat. 16° and 18° N., Lon. 89° 30′ and 91° W., with a cap. of the same name on the Rio Coban.

Vera'tria, Vera'trina, Vera'trine, *n.* (*Chem.*) See VERATRUM.

Vera'trum, *n.* (*Bot.*) A genus of the order *Melanthaceæ*. *V. album*, found from Canada to Georgia, is the white hellebore, a medicinal plant, the rhizomes of which contain the alkaloids *veratria* and *jervine*. White hellebore is a narcotic acid poison; it has been employed externally as an errhine and for destroying vermin; and internally, as an purgative and anodyne in gout. The rhizome of *V. viride*, American, green, or swamp hellebore, is now much employed as an arterial sedative in inflammatory affections. Similar qualities are said to exist in *V. sabadilla*, a native of Mexico and the W. Indies.

Verb, *n.* [Lat. *verbum*, a word.] (*Gram.*) That part of speech in which a subject is conceived under certain relations of mood or mode, and tense or time. The *V.* is the most interesting, as it is also the most important, of the parts of speech. By means of changes or modifications, it expresses the various conditions of voice, mood, tense, number, and person. *V.* are *active, passive*, or *neuter*, according as they express doing, suffering, or a mere state or condition. They are *transitive* or *intransitive*, according as the action expressed by the *V.* passes, or does not pass, to an object. The latter comprise *neuter* and *passive V.* The moods or modes are the ways in which the predicate is brought into relation to the subject, whether it is given as necessary, real, or possible. These are the *indicative, subjunctive*, and *imperative*. The infinitive and participles are not strictly modes, though often classed as such. The tenses are those modifications of the *V.* by which time is denoted. The simple tenses are the *present, past*, and *future;* but most languages admit of other tenses, as the *imperfect, pluperfect, future*, &c. The numbers are the *singular* and *plural* (in Greek also the *dual*); and the persons are the first, second, and third, in both numbers; as *I, thou, he, she*, or *it; we, you, they*. As respects their origin, *V.* are *primitive* or *derivative*. They are also *regular* or *irregular*, according as they conform to or deviate from certain rules.

Ver'bal, *a.* [Fr., from Lat. *verbalis* — *verbum*, a word.] Expressed to the ear in words; oral; spoken; not written; as, a *verbal* agreement. — Respecting words only; consisting in mere words; having reference to words rather than things; as, *verbal* application. — Literal; having word answering to word; as, a *verbal* translation.

(*Gram.*) Having immediate derivation from a verb; as, a *verbal* noun.

—*n.* (*Gram.*) A noun immediately derived from a verb.

Ver'balism, (*-ĭzm,*) *n.* Something expressed orally.

Ver'balist, *n.* One who deals in words merely; one skilled in, or a minute critic of, words.

Verbal'ity, *n.* State or quality of being verbal.

Verbaliza'tion, *n.* Act of verbalizing, or state of being verbalized.

Ver'balize, *v. a.* To make verbal; to convert into a verb.

Ver'bally, *adv.* In a verbal manner; not scriptory.

Verbas'cum, *n.* [Lat.] (*Bot.*) A genus of plants, order *Scrophulariaceæ*, having alternate leaves, and flowers on spikes or paniculate racemes. *V. thapsus*, the Common or Grand Mullein, also called High-taper, is found by all roadsides in the U. S. Its leaves have emollient, demulcent, and slightly narcotic properties; its seeds, and those of the species *V. nigrum*, are said to be employed by poachers to stupefy fish, in order that they may be readily taken.

Verba'tim, *adv.* [L. Lat.] In the same words; word for word; as, a report *verbatim* of a speech.

Verbe'na, *n.* [Lat.; Fr. *verveine.*] (*Bot.*) The vervain, the typical genus of the order VERBENACEÆ, *q. v.*

Verbena'ceæ, *n. pl.* (*Bot.*) The Vervain family, an order of plants, alliance *Echiales*. DIAG. Irregular unsymmetrical flowers, confluent nuts, and erect ovules.—The species, consisting of trees, shrubs, and herbs, are numerous, the greater number tropical, and several belonging to the U. S. The typical genus, *Verbena*, furnishes one of the most beautiful of our garden-flowers, *V. aubletia*, native of S. America, a slender and delicate plant of the green-house, producing numerous, successive clusters of rose-colored and scarlet flowers. Stem square, viscidly pubescent, 1–2 ft. high, with opposite branches and leaves. Leaves deeply cut and toothed, rhombic-oval, on short stalks. Flowers larger than others of the genus, in corymbose spikes. Bracts nearly as long as the calyx, narrow, permanent, downy as well as the calyx. The Verbena of the perfumers, so much prized for its lemon-like scent, is the Lemon-grass, *Andropogon Schœnanthus*, from which the *oil of verbena* is extracted.

Verberation, (*-ā'shun,*) *n.* [Fr., from Lat. *verberatio.*] Act of verberating; a beating, or dealing blows.—The impulse of a body productive of sound. See REVERBERATION.

Verbe'sina, *n.* (*Bot.*) An American genus of plants, order *Asteraceæ*, the species of which are herbs or shrubby plants, with leaves often decurrent, serrate, or lobed; heads solitary or corymbose. They are generally unimportant.

Ver'biage, *n.* [Fr.] Verbosity; use of many words without necessity; superabundance of words; practice of pleonasm.

Ver'bify, *v. a.* [Lat. *verbum*, verb, and *facere*, to make.] To verbalize; to make into, or use as, a verb.

Verbose, (*-bōs'*,) *a.* [Fr. *verbeux.*] Abounding in words; using or containing more words than are necessary; tedious by a multiplicity of words; pleonastic; prolix.

Verbose'ly, *adv.* In a wordy or prolix manner; pleonastically.

Verbose'ness, Verbos'ity, *n.* Quality of being verbose.

Vercelli, (*ver-chel'le,*) a town of N. Italy, in Piedmont, at the confluence of the rivers Cervo and Sesia, 14 m. from Casale. The cathedral is one of the best in Piedmont. *Manuf.* Silk and woollen fabrics. *Pop.* 30,345.

Vercheres, (*ver-shair',*) in prov. of Quebec, a town of Vercheres co., on the St. Lawrence, 23 m. N.E. of Montreal.

Verde, (Rio.) (*vair-dai.*) The name of 5 rivers in Brazil, two of which flow into the São Francisco, the others joining respectively the Maranhão, the Guapore, and the Sapucahy.

Verdancy, (*-se,*) *n.* Greenness.

Ver'dant, *a.* [Fr. *verdoyant.*] Green; fresh; covered with grass or growing plants.—Hence, analogically, raw to the ways of the world; inexperienced in practical knowledge of life; green in sagacity or intelligence; gullible; easily humbugged or overreached; as, a *verdant* youth. (Colloq.)

Verd-antique, (*-teek,*) *n.* [Fr.; It. *verde antico.*] The green incrustation produced by the action of time on copper and brass.

(*Min.*) A beautiful stone of a dark-green color, with patches of white, and sometimes also black and red. It is a kind of hard breccia, was much prized by the ancient Romans, and is still in great favor in Italy.

Ver'dantly, *adv.* In a verdant manner.

Verden, (*vair'den,*) a town of Germany, in Hanover, on the Aller, 53 m. from Hamburg; *pop.* 5,741.

Verdi, Giuseppe, (*vair'de,*) a celebrated Italian composer, the son of an inn-keeper, b. at Rancola, in the former duchy of Parma, 1814. He received his first lessons from an organist in Milan, where he resided from 1833 till 1836; studied diligently under Lavinga, and in 1839 published his earliest work, a musical drama, entitled *Oberto di San Bonifazio.* His principal compositions are serious operas, and the *Lombardi*, one of his first productions, made a strong impression throughout

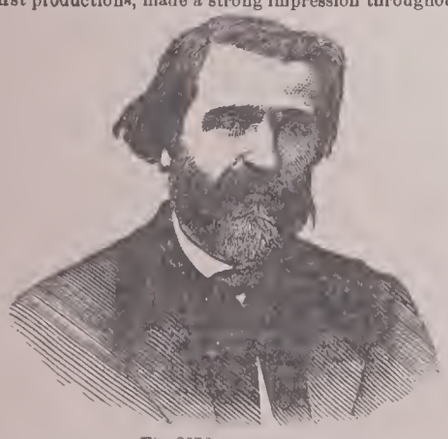


Fig. 2572. — VERDI.

Italy, and laid the foundation of his fame. His best known works are: *I Lombardi, Ernani, I Due Foscari, Attila, Macbeth, I Masnadieri, Luisa Miller, Nabucodonosor, Rigoletto, Il Trovatore, La Traviata, Un Ballo in Maschera, Don Carlos*, and *Aïda* (1872); some of which have attained a very high degree of popularity throughout Europe and in this country. *V.*'s orchestration is often disagreeably noisy, but his works abound in sparkling melody and in striking dramatic effects. *Il Trovatore* was represented for the first time at Rome in 1853, and has maintained its unparalleled popularity undiminished to the present time. His *Rigoletto* is highly esteemed. His celebrated *Requiem Mass* was first performed at Milan, May 23, 1874. His famous work, *Otello*, was produced in Milan in 1886, and in London in 1889, in which year he celebrated his jubilee as a composer. In 1893 he scored a success with his latest opera, *Falstaff.* He resides near the place of his birth, in Parma. Died Jan. 27, 1901.

Ver'dict, *n.* [Lat. *verum*, truth, and *dico*, I speak.] (*Law.*) The answer of a jury given to the court concerning the matter of fact in any cause committed to their trial.

—Decision; judgment; opinion pronounced or declared.

Verd'ierville, in *Virginia*, a post-village of Orange co., abt. 25 m. W. of Fredericksburg.

Ver'digris, (*-de-grees,*) *n.* (*Chem.*) A rust of copper formed by a corrosion of the metal by acid. It is chemically a diacetate of copper, and is very poisonous. It is used in an impure state as a green pigment, and when pure as a medicine.

Ver'digris, a river of *Kansas*, rises near E. boundary of Chase co., and enters the Arkansas river about 10 m. W. of Fort Gibson, in the Indian Territory, after a S. course of 200 m.—A post-village of Lyon co.—A township of Wilson co.

Ver'diter, *n.* (*Chem.*) A blue pigment formed from a sulphate or nitrate of copper by lime, the precipitate being ground up with an excess of lime; *green verditer* is formed by sea-salt and blue vitriol, or sulphate of copper.

Verditure, (*vŭr'de-tyoor,*) *n.* The palest shade of green.

Ver'doy, *a.* (*Her.*) Denoting a border charged with leaves, fruits, flowers, and the like.

Verdun, (*vair'doon,*) a fortified town of France, dept. of Meuse, 26 m. from Bar-le-Duc. It has a bishop's palace, a military hospital, and a public library. It carries on manufactures of famous liqueurs and confectionery. It was taken by the Prussians in 1792 and 1871. *Pop.* 12,928.

Verdure, (*verd'yur,*) *n.* [Fr., from Lat. *vireo*, to be green.] Greenness; green; freshness or verdancy of vegetation.

Verd'urous, *a.* Covered with verdure or vegetation.

Ver'galoo, Vir'galoo, *n.* A choice variety of pear.

Verge, (*vĕrj,*) *n.* [Fr.; It. *vérga*, from Lat. *virga*, a twig, a sprout.] A rod, or something in the form of a rod or staff, borne as an emblem of authority; the mace of a dean; as, a silver *verge.*—Brink; edge; border; margin; the extreme side or end of anything which has some extent of length; as, the *verge* of a precipice, the *verge* of life, on the *verge* of noon, the *verge* of probability, &c.

(*Hort.*) The outside rim of a border.—The grassy external margin of a parterre.

(*Arch.*) In Gothic architecture, a small ornamental shaft.

(*Horol.*) The spindle of the balance-wheel of a watch.

Verge, *v. n.* [Lat. *vergo*, to turn, to incline.] To incline from the horizontal course or direction; to bend; to slope; to tend downward; as, a wall *verges* from the perpendicular.—To tend; to approach; to border upon; as, he is *verging* on the grand climacteric of man's life.

Verge'-board, *n.* (*Arch.*) Same as Barge-board, *q. v.*

Ver'gency, *n.* Act of coming into proximity with.

(*Optics.*) The reciprocal of the focal distance of a lens, used as a measure of the divergence or conveyance of a pencil of rays.

Vergennes, (*ver-zhain',*) Charles Gravier, Count de, a French statesman, b. at Dijon, 1717, was made minister of foreign affairs by Louis XVI., and displayed the qualities of a profound statesman. He negotiated and settled the treaties of commerce (Dec., 1777) and of alliance (Feb., 1778) with the U. States of America. D. 1787.

Vergennes, in *Michigan*, a post-township of Kent co.

Vergennes, in *Vermont*, a city of Addison co., on Otter Creek, 21 m. S. by E. of Burlington. It has an excellent harbor, affording sufficient depth of water for the largest vessels. It was an important naval depot during the war of 1812; and a U. States arsenal is still maintained there.

Verger, (*ver'jer,*) *n.* [Fr., from *verge.*] In England, an officer who carries a white wand, as an emblem of authority, before the judges of the courts of law; also, an attendant upon a dignitary, as a bishop, dean, &c.—A pew-opener or attendant in a church; a beadle.

Vergette, (*-jet',*) *n.* [Fr.] (*Her.*) A pallet or small pale;—hence, a shield divided by pallets.

Vergniaud, (*vĕrn-ye-ō',*) Pierre Victurnien, one of the most eloquent leaders of the Girondin party in the French revolution, was b. at Limoges in 1759, and was practising as an advocate at Bordeaux, when elected to the Legislative Assembly, 1791. He was one of the 22 Girondists condemned by the Jacobins of the revolutionary tribunal, and executed Oct. 31, 1793.

Ver'ifiable, *a.* That may be verified.

Verifica'tion, *n.* [Fr.] Act of verifying or proving to be true; or, state of being verified; act of confirming or establishing the authenticity of any powers granted, or of any transaction, by legal or competent evidence.

Ver'ificative, *a.* Tending or serving to verify.

Ver'ifier, *n.* One who verifies.

Ver'ify, *v. a.* [Fr. *vérifier*, from Lat. *verus*, true, and *facio*, to make.] To make out to be true; to prove to be true or correct; to confirm; to fulfil, as a promise; to establish the truth of; as, to *verify* a statement or prediction.—To authenticate by examination or application to competent evidence; as, to *verify* a claim.

Ver'ily, *adv.* [From *very.*] In truth or fact of a verity; certainly; in a very true, or correct manner; as, *verily*, the man is a fool.—With great or implicit confidence; really; veritably; truly; as, I am *verily* persuaded that things will go against us.

Verisim'ilar, *a.* [Lat. *verus*, true, and *similis*, like.] Probably; likely; presenting the appearance of truth or actuality. (R.)

Verisimil'itude, *n.* Likeness or resemblance to truth; probability; likelihood; appearance or semblance of truth.

Ver'itable, *a.* [Fr., from Lat. *verus*, true.] Actual; true; real; agreeable to, or accordant with, fact.

Ver'itably, *adv.* In a true manner; really.

Ver'ity, *n.* [Fr. *vérité*; Lat. *veritas.*] Quality of being very true, real, or actual; agreeability of a statement, proposition, or other thing of fact.—A true assertion or tenet; agreement of the words with the thoughts.

Ver'juice, *n.* [Fr. *verjus—verd*, green, and *jus*, juice.] The juice extracted from green or unripe fruit, an acid liquor expressed from crab-apples, wild grapes, &c., used in sauces, ragouts, and the like.

Vermandois, (*vair-man-dwaw',*) an old division of France, in Picardy, of which St. Quentin was the capital.

Ver'meil, *n.* Vermilion;—principally used in poetry.—Silver-gilt, or gilt bronze.

(*Min.*) Crimson garnet, with a slight orange tinge;—so called by jewellers.

Verme'jo. See Rio Vermejo.

Ver'mes, *n. pl.* [Lat., *pl.* of *vermis*, a worm.] (*Zoöl.*) The name given by Linnæus to one of the classes in his zoölogical system, in which he included all the lower invertebrate animals, whether of worm-like form or not. This term is now altogether disused.

Vermicelli, (*ver-me-chel'li,*) *n.* [It., from Lat. *vermiculus*, a small worm.] A paste of wheat flour in the form of worm-like cylinders of various diameters; the smallest or thread-like being termed *vermicelli*, and the larger *macaroni.* It is also cut into ribands and other forms, and is then called *Italian paste.* It is made by forcing the paste through small apertures in an iron plate, which is done by a powerful screw press. The most glutinous varieties of wheat are those which yield the fittest flour for this manufacture.

Vermic'ular, *a.* [From Lat. *vermiculus.*] Pertaining to a worm; formed or moving like a worm.

Vermic'ulate, *v. a.* [From Lat. *vermiculatus.*] To inlay in a manner to resemble the motion or the tracks of worms.

Vermiculated work. (*Arch.*) Checkering or channelling formed in masonry as an ornament, giving it the appearance of having been eaten by worms.

—*a.* Worm-like in shape or appearance; covered with worm-like elevations of surface.—Crawling or creeping after the manner of a worm;—hence, insinuating; creeping.

Vermicula'tion, *n.* [Lat. *vermiculatio.*] Act or operation of moving in the form or manner of a worm; continuation of motion from one part to another, as in the peristaltic motion of the intestines.—Act of forming so as to resemble the motion of a worm.

Ver'micule, *n.* [Lat. *vermiculus.*] A little worm.

Vermic'ulite, *n.* [From Lat. *vermis*, worm, and Gr. *lithos*, stone.] (*Min.*) A fine scaly variety of Pyrosclerite, resembling Talc in appearance, and composed of micaceous plates cemented together by a whitish matter; it is a hydrated hisilicate of magnesia, protoxide of iron, and alumina. When heated to redness it divides, with a vermicular motion, into threads, as if it were a mass of small worms; hence the name. It is found in Vermont, and at Milbury, Mass.

Ver'miform, *a.* [Fr., from Lat *vermis*, and *forma*, form.] Presenting the form or shape of a worm, as a hollow process or prolongation of the intestinum cæcum; or, as a part along the middle of the upper and under surfaces of the cerebellum.

Vermiform Appendix, *n.* A slender, hollow, blind process at the end of the cæcum of man and some other mammals. It is non-functional in man, but functional in some animals. It is subject to dangerous inflammation, often resulting in death. See Appendicitis.

Vermifugal, *a.* [Lat. *vermifugus.*] (*Med.*) Tending to destroy vermin, or to extirpate worms.

Vermifuge, (*-fūj,*) *n.* [Fr., from Lat. *vermis*, worm, and *fugo*, to expel.] (*Med.*) A medicine or substance used in effecting the expulsion of animal worms; an anthelmintic.

Vermilion, (*-mĭl'yun,*) *n.* [Fr. *vermillon*; Lat. *vermilium.*] (*Paint.*) The red sulphide of mercury, used as a pigment in oil and water colors. It is of a bright red color, inclining to yellow, of a good body, and of great utility in its compounds with white pigments.

—Hence, any beautiful or bright red color; as, lips of *vermilion.*

—*v. a.* To dye scarlet; to tinge or cover with a beautiful or delicate red.

"A sprightly red *vermilions* all her face." — *Granville.*

Vermilion, a bay of *Louisiana*, an inlet of the Gulf of Mexico, Vermilion and St. Mary's parishes, 20 m. long, and communicating with the Gulf through Cote Blanche Bay.—A river which rises near Opelousas, and flows S. into Vermilion Bay.—A S.W. parish, bordering on the Gulf of Mexico; *area*, 1,230 sq. m. *Rivers.* Mermenteau and Vermilion. *Surface*, flat, and consists in part of prairies and marshes; *soil*, fertile. *Products.* Wheat, oats, rye, barley, hay, live stock, &c. *Cap.* Abbeville. *Pop.* (1897) 16,250.

Vermilion, in *South Dakota*, a river which flows into the Missouri, about 30 m. N.W. of Sioux City.—A city, cap. of Clay co., at the mouth of the above river, 30 m. E. of Yankton. *Pop.* (1895) 1,757.

Vermilion. in *Illinois*, a river which rises in Livingston co., and flowing N.W. enters the Illinois River near La Salle.—Another river formed by the junction of the N. Middle and S. Forks, near Danville, in Vermilion co., flows S.E. entering the Wabash, 8 m. S. of Perryville, in Indiana. The Little Vermilion enters the Wabash abt. 5 m. S. of the above.—An E. co., bordering on Indiana, and washed by Vermilion river; *area*, 926 sq. m. *Surface*, level; *soil*, fertile. *Min.* Stone-coal. *Cap.* Danville. *Pop.* (1897) 55,350.

Vermilion, in *Indiana*, a W. co., bordering on Illinois; *area*, 270 sq. m. *Rivers.* Wabash and Vermilion. *Surface*, level; *soil*, very fertile. *Min.* Iron and coal. *Cap.* Newport. *Pop.* (1897) 18,360.

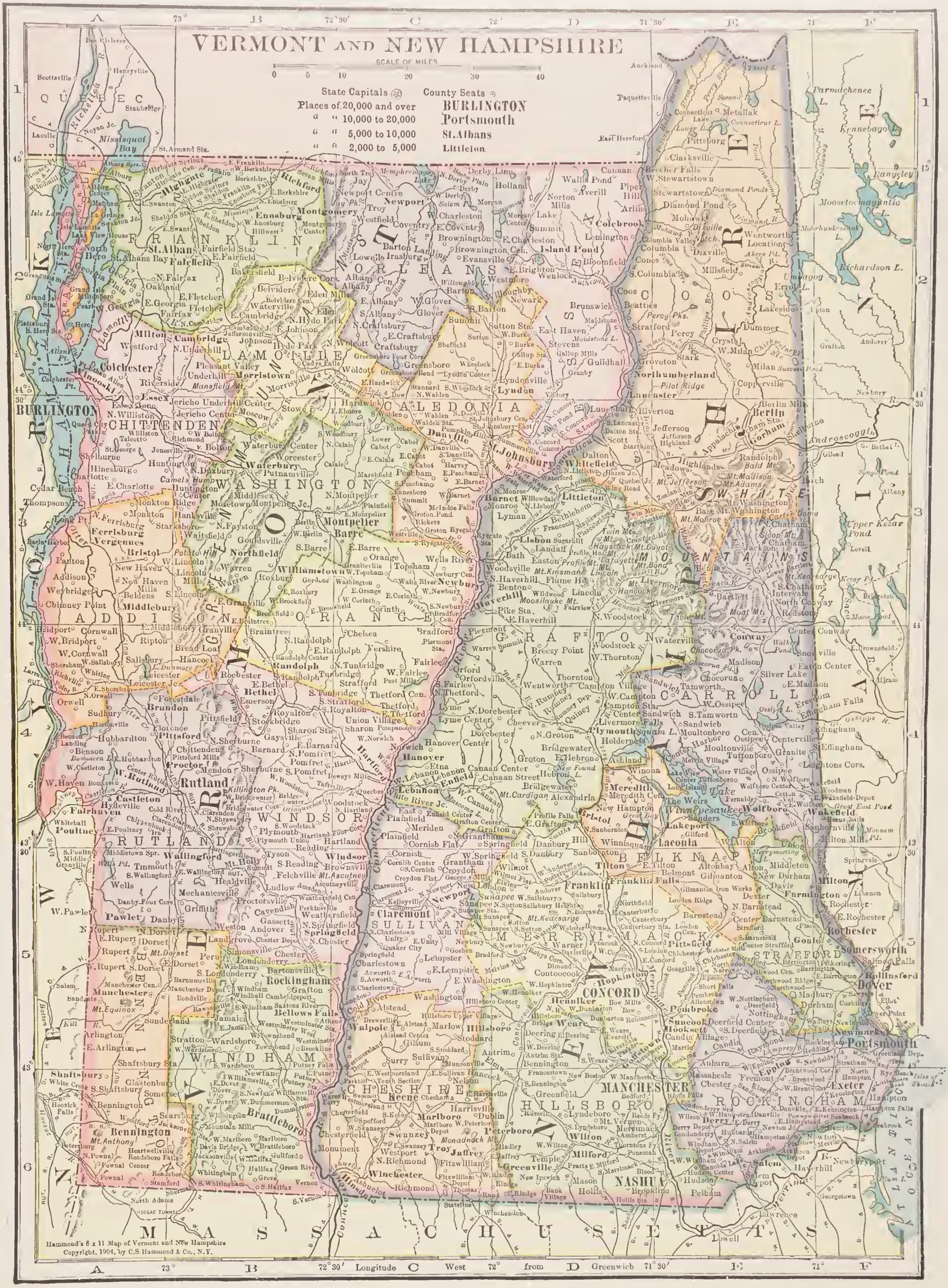
Vermilion, in *Ohio*, a river which flows into Lake Erie, from Erie county.—A township of Ashland county.—A post-village and township, and shipping-port of Erie county, on Lake Erie, 21 miles east of Sandusky City.

Vermil'ionville, in *Louisiana*, a village, former cap. of La Fayette co., 60 m. S.W. of Baton Rouge.

Ver'min, *n. sing.* and *pl.*, (used chiefly in the pl.) [Fr. and It. *vermine*, from Lat. *vermes*, worms.] All sorts of small animals which are destructive to grain or other produce; all noxious little animals or insects, as squirrels, rats, mice, grubs, flies, bugs, &c.—Hence, a contemptuous term for despicable or noxious human beings.

Ver'minate, *v. n.* [Lat. *verminare.*] To breed vermin.

Vermina'tion, *n.* Generation or breeding of vermin.—A colic; a griping of the bowels.


VERMONT AND NEW HAMPSHIRE
SCALE OF MILES
0 5 10 20 30 40
State Capitals
County Seats
Places of 20,000 and over BURLINGTON
" " 10,000 to 20,000 Portsmouth
" " 5,000 to 10,000 St. Albans
" " 2,000 to 5,000 Littleton
QUEBEC
FRANKLIN
ORLEANS
LAMOILLE
CALEDONIA
CHITTENDEN
WASHINGTON
ORANGE
ADDISON
GRAFTON
CARROLL
WINDSOR
RUTLAND
BELKNAP
SULLIVAN
MERRIMACK
STRAFFORD
CONCORD
WINDHAM
CHESHIRE
HILLSBORO
MANCHESTER
ROCKINGHAM
NASHUA
BENNINGTON
MASSACHUSETTS
ATLANTIC OCEAN
Hammond's 8 x 11 Map of Vermont and New Hampshire
Copyright, 1904, by C.S. Hammond & Co., N.Y.
Longitude West from Greenwich

VERMONT.

Land surface, Sq. m. 9,135
Water surface, Sq. m. 430
Pop. 1900... 343,641
White 342,771
African 326
Indian.....5
Chinese 39
Native-born, 298,894
Foreign-born, 44,747
Males.....175,138
Females..163,503

COUNTIES.

Addison ..... A 3
Bennington...A 5
Caledonia .... C 3
Chittenden....A 3
Essex .....D 2
Franklin .....B 2
Grand Isle ... A 2
Lamoille .....B 2
Orange ..... C 3
Orleans .....C 2
Rutland ..... A 4
Washington...B 3
Windham.....B 5
Windsor.....B 4

CITIES-TOWNS

Pop. Thousands.

18 Burlington.A 3
11 Rutland....B 4
8 Barre. .....B 3
6 Brattleboro.B 6
6 Montpelier..C 3
6 St. Albans...A 2
5 Rockingham B 5
5 St Johnsbury C 3
5 Bennington..A 6
5 Colchester..A 2
3 Hartford....C 4
3 Winooski....A 2
3 Swanton ...A 2
3 Springfield..C 5
3 Derby ..... C 2
3 Randolph... B 4
3 Newport.....C 2
3 Poultney.....A 4
3 Middlebury A 3
2 Fairhaven.. A 4
2 Lyndon .... D 2
2 W. Rutland..A 4
2 Northfield .. B 3
2 Waterbury..B 3
2 Barton .....C 2
2 Brandon ... A 4
2 Morristown..B 2
2 Woodstock..B 4
2 Richford....B 2
2 Essex .....A 3
2 Proctor.... .A 4
2 Newbury ....C 3
2 Windsor .... C 5
2 Castleton....A 4
2 Bristol .....A 3
2 Enosburg... B 2
2 Ludlow.....B 5
2 Brighton....D 2
1 Highgate... A 2
1 Pownal.....A 6
1 Manchester. A 5
1 Stowe ..... B 3
1 Montgomery B 2
1 Pittsford ... B 4
1 Shaftsbury..A 6
1 Fairfield.... B 2
1 Milton.....A 2
1 Chester .... B 5
1 Vergennes.. A 3
1 Barnet.....C 3
1 Pawlet..... A 5
1 St. Albans...A 2
1 Danville ....C 3
1 Ferrisburg..A 3
1 Bethel .....B 4
1 Williamstown B 3
1 Cambridge..B 2
1 Wallingford B 5
1 Dorset.....A 5
1 Alburg .....A 2
1 Hyde Park..B 2
1 Troy.....C 2
1 Royalton ...B 4
1 Johnson.....B 2
1 Jericho.....B 3
1 Cavendish...B 5
1 Sheldon .... B 2
1 Hartland.... C 4
1 Fairfax ....B 2
1 Bradford....C 4
1 Hardwick...C 2
1 Berkshire....B 2
1 Norwich .... C 4
1 Westminster B 5
1 Georgia ....A 2
1 Charlotte....A 3
1 Craftsbury..C 2
1 Rochester...B 4
1 Thetford.....C 4
1 Wilmington B 6
1 Hinesburg.. A 3
1 Shelburne...A 3
1 Shoreham...A 4
1 Arlington...A 5
1 Burke.....D 2
1 Williston....A 3
1 Swanton.... A 2
1 Bakersfield..B 2
1 Lincoln.....A 3
1 Orwell.....A 4
1 Franklin....B 2
1 Underhill... B 2
1 Readsboro ..B 6
1 Concord ....D 3
1 Cabot ....C 3
1 Topsham....C 3
1 New Haven A 3
1 Calais.....C 3
1 Weathersfield C 5
1 Chelsea.....C 4
1 Wolcott .....C 2
1 E. Montpelier C3
1 Groton.....C 3
1 Richmond...A 3
1 Whitingham B 6
1 Marshfield . C 3
1 Albany .....C 2
1 Charleston...C 2
1 Berlin .....B 3
1 Stratford.....C 4

Pop, Hundreds.

9 Mt. Holly....B 5
9 Brookfield.. B 3
9 Ryegate.....C 3
9 Lowell .....C 2
9 Corinth. ....C 3
9 Bridgewater B 4
9 South Burlington..A 3
9 Putney..... .B 6
9 Lunenburg .D 3
9 Dauby.....B 5
9 Londonderry B 5
9 Bridgeport..A 4
9 Irasburg.... C 2
9 Shrewsbury B 4
9 Canaan.....D 1
9 S. Hero.....A 2
9 Clarendon...B 4
9 Monkton.... A 3
9 Newfane ....B 6
9 Moretown...B 3
9 Starksboro. A 3
8 Glover.....C 2
8 Westford ...A 2
8 Tunbridge.. B 4
8 Middlesex...B 3
8 Greensboro..C 2
8 Rupert .....A 5
8 Woodbury. C 3
8 Addison.... A 3
8 Grand Isle.. A 2
8 Cornwall....A 4
8 Benson.....A 4
8 Barnard.....B 4
8 Holland.....D 2
8 Townshend..B 5
8 Warren .....B 3
8 Stockbridge B 4
8 Washington C 3
8 Grafton.....B 5
8 Jamaica ....B 5
7 Peacham... C 3
7 Guilford.....B 6
7 Duxbury.. . B 3
7 Pomfret.....B 4
7 Braintree...B 4
7 Waitsfield...B 3
7 Weston.....B 5
7 Fletcher ...B 2
7 Brownington C 2
7 Middleton Spr. A 5
7 Eden... .. B 2
7 Coventry....C 2
7 Huntington A 3
7 Dummerston B 6
7 Sheffield....C 2
7 Plainfield....C 3
7 Roxbury.... B 3
7 North Hero..A 2
7 Sharon.....C 4
7 Waterford...D 3
6 Sutton... ...C 2
6 Norton Mills D 1
6 Salisbury....A 4
6 Stamford....A 6
6 N. Bennington A 6
6 Halifax.....B 6
6 Reading ... B 5
6 Plymouth...B 4
6 Westfield.. .C 2
6 Vershire.....C 4
6 Wardsboro. B 5
6 Worcester...B 3
6 Chittenden..B 4
6 Wells .....A 5
5 Orange.....C 3
5 Vernon.....B 6
5 Wheelock....C 2
5 Bloomfield. D 2
5 Elmore.....B 2
5 Granville....B 4
5 W. Fairlee...C 4
5 Jay.....C 2
5 Waterville..B 2
5 Ripton..... A 4
5 Weybridge..A 3
5 Sunderland..A 5
5 Morgan.....D 2
5 Leicester....A 4
5 Isle Lamotte A 2
5 Dover.....B 6
5 Newark .....D 2
4 Mt. Tabor... B 5
4 Hubbardton A 4
4 Sandgate....A 5
4 Sudbury... ..A 4
4 Fayston... ..B 3
4 Guildhall... D 2
4 Winhall .... B 5
4 Marlboro....B 6
4 Pittsfield....B 4
4 Belvidere... B 2
4 Fanton.....A 3
4 Tinmouth...A 5
4 Sherburne...B 4
3 Mendon.....B 4
3 Peru.....B 5
3 Andover.... B 5
3 W. Haven...A 4
3 Ira..... .....A 4
3 Kirby.....D 3
3 Victory... ..D 2
2 Goshen.....B 4
2 Woodford .. A 6
2 Hancock ....B 4
2 Landgrove..B 5
2 Stannard....C 2
2 Bennington Center..A 6
2 Maidstone...D 2
2 Lemington..D 2
1 Granby... ..D 2
1 Brookline... B 5
1 East Haven..D 2
1 Searsburg...B 6
1 St. George.. A 3
1 Somerset....B 6
1 Glastenbury A 6

Ver'minous, (*-tis,*) *a.* [Fr. *vermineux.*] Full of, or infested by, or adapted to breed, vermin; as, a *verminous* disposition of the body. (*Harvey.*)—Caused by, or owing to, the presence of vermin; as, *verminous* disease.

Vermip'arous, *a.* [Lat. *vermis,* and *parere,* to produce.] Bringing forth worms.

Vermiv'orous, *a.* [Lat. *vermis,* and *voro,* to devour.] Feeding on worms.

Vermont'. [From Fr. *verd* (*vert*), green, and *mont,* mountain.] One of the N.E. or New England States of the American Union, and one of the first admitted under the Federal Constitution, is bounded N. by Lower Canada; E. by New Hampshire (the Connecticut River forming the boundary); S. by Massachusetts; and W. by New York and Lake Champlain. *V.* lies between Lat. 42° 44′ and 45° N., and Lon. 71° 33′ and 73° 25′ W.; *area,* 10,212 sq. m., or 6,535,680 acres.—*Gen. Desc.* The physical view of the State presents, on the whole, a hilly surface, diversified by valleys, elevated plateaux, and mountains of considerable height. The Green Mountains (giving name to the State), exhibit a succession of rounded eminences, from 2,000 to 2,500 ft. in height, covered with vegetation, and cultivated to their summits. This range permeates the State from its S. line in a N. direction nearly as far as Lat. 44°, where it bifurcates into two chains, one of which continues N.E. to the Canadian frontier; while the other, trending N.E., extends to the point of junction of New Hampshire and Canada. The principal rivers watering the E. portion of the State are the affluents of the Connecticut, the chief of which are the Passumpsic, Queechy, White, Black, and Deerfield rivers. The streams forming the W. watershed—the Lamoille, Missisquoi, and Winooski—find their embouchures in Lake Champlain; several smaller rivers, too, discharge their waters into Lake Memphremagog, the S. end of which lies within the State. The principal lakes, after the two already mentioned, are those of Willoughby, Dunmore, Seymour, Austin, and others. The only harbor of importance within the limits of *V.*, is that of Burlington, on Lake Champlain, a port of entry with a sufficiently commodious harbor, and the entrepôt of a large Canadian trade.—*Geol. and Min.* The geological formations consist of the lower groups of azoic and Silurian. The greater mass of the Green Mountains is composed chiefly of gneiss; while E. of this range, a bed of Devonian limestone extends over a width of from 20 to 30 m. Along the W. base of the same mountain chain, a great belt of quartz is overlaid by a bed of crystalline limestone (Eolian) some 2,000 ft. in thickness. Slates, along with hæmatite iron, are found in considerable quantities near the shores of Lake Champlain; the latter ores affording employment to several blast-furnaces. Some gold deposits; lead ores, more or less argentiferous; manganese; copper pyrites; chromic iron; several kinds of variegated marbles; serpentine; soapstone; and excellent clay for the manufacture of white stone-ware, form the leading mineral characteristics of the State.—*Clim.* The climate of *V.*, although severely cold in winter, is very generally equable and healthy; the annual average temperature ranging from —17° to +92°.—*Soil, Veget., &c.* The soil of *V.* is generally a rich loam, most productive where it overlays the limestone strata, but in all places sufficiently fertile for most of the demands of agriculture. The hilly regions afford excellent pasturage, and the proportion of unimprovable land is less than in other mountainous States. Hemlock, fir, and spruce very generally clothe the more elevated tracts; while oak, beech, sugar maple, pine, hickory, elm, birch, basswood, and butternut are plentiful on the plateaux and lower lands; cedar too, is abundantly found in the swampy localities. *Zoöl.* The wild fauna of *V.* comprises the lynx, wild-cat, panther, raccoon, fox, wolf, elk, deer, black bear, rabbits, and squirrels; the moose is found in the extreme N. of the State, and birds (including most of the species found in New England) exist in great numbers. Numerous varieties of fish swarm in immense quantities in the various lakes and rivers. Several species both of venomous and innocuous serpents are also found in parts of the State.—*Agric.* *V.* takes rank as perhaps the most exclusively agricultural of the N. States; and, in proportion to her pop., produces more wool, live-stock, maple-sugar, dairy produce, hay, hops, and potatoes, than any other State in the Union. As a large proportion of the land is better adapted to grazing than to tillage, the rearing of live-stock is a prominent feature of farming economy, and the horses, cattle, sheep, and swine raised in the State are well known for their superior quality. The 32,573 farms which the State possessed in 1890 made up an aggregate of 4,395,646 acres, of which 2,655,943 were improved. The western portion of the State comprises the finest tracts of arable land, while the climate as well as the soil of the Champlain Valley are especially adapted to fruit-raising. Of cereal products oats stand first, with a yield in 1895 of 5,100,598 bushels. Indian corn yielded 2,153,440, and wheat 185,078 bushels, the latter cereal being very little grown in the New England States. Live stock is kept in considerable numbers, and the most important agricultural interest is that of dairying, the annual product being about 25,000,000 lbs. of butter and 6,000,000 lbs. of cheese. Much attention is paid to the raising of improved stock of horses and cattle, while the rearing of fine breeds of sheep for exportation has become a profitable business. Of maple sugar *V.* produces more than any other State, the yield in 1894 being 5,074,178 lbs., or nearly two-thirds the whole yield of the U. S.—*Manuf.* There has been a considerable advance in the manufacturing status of *V.*, owing to the development of the slate and marble deposits, the porcelain manufacture, and the smelting and working of iron in its various applications. *V.*, however, cannot be said to figure as a fabricating State when brought into comparison with her more immediate neighbors. The leading manufactured products consist of cotton and woollen goods, iron (wrought and cast), steam-engines, and machinery, agricultural implements, leather, flour and grist-mill products, furniture, tinware, copperware, &c. The production of lumber is large for the size of the State, and Burlington ranks third in importance among the lumber markets of the U. S. There are numerous marble, slate and granite quarries, yielding a large and valuable annual product. The total products of the manufacturing industries in 1890 aggregated $38,340,066. These industries are increasing at the rate of about $1,000,000 of new capital invested annually. Of the many large water-powers of the State few remain unutilized, the most common use of them being for the production of electricity.—*Pol. Div.* The State is divided into 14 counties, as follows:

Addison,	Essex,	Lamoille,	Washington,
Bennington,	Franklin,	Orange,	Windham,
Caledonia,	Grand Isle,	Orleans,	Windsor.
Chittenden,		Rutland,	

Cities and Towns. The principal centres of trade and population are Montpelier (State cap.), Burlington, Rutland, Windsor, Brattleborough, Bennington, St. Johnsbury, St. Alban's, Middlebury, Manchester, and Woodstock.—*Govt., Const., &c.* The original State constitution of *V.*—approaching nigher to a pure democracy than most others—was adopted in 1777, and was framed on that of Pennsylvania. It was revised in 1786, and again in 1793, when, with some slight modifications, it assumed its present form. Another amendment was made in 1828, when some restriction was placed over the electoral franchise. In 1836, a senate was established; in lieu of the gubernatorial council of 12 members which had previously, in conjunction with a house of representatives, formed the mixed legislative and executive power. In 1850, a constitutional amendment ordained the election of all legal State functionaries by popular suffrage instead of by the legislature, as had been the practice heretofore. The executive is vested in a governor (salary $1,000), lieut.-governor (who is *ex-officio* president of the Senate), and treasurer, elected by the people; secretary of State, and various other officers chosen by the legislature, or by the board of education. Every male citizen of the U. S., 21 years of age, and of good character, who shall have been a resident of the State one year, may exercise the franchise in respect to all elective officers. The judiciary consists of a chief judge of the Supreme Court and 5 puisne judges, besides 2 assistant county judges. The apportionment reached after taking the census of 1880 has reduced *V.* to 2 representatives in the National Congress, and therefore to 4 votes in the electoral college.—*Educ.* Funds were set apart for the support of schools by the proprietors of townships as early as 1761, while provision for education was made by the legislature in 1782, the system arranged for including primary schools in every township, a grammar or high school in each county, and one university. The towns were authorized in 1870 to substitute the town for the district system, but they have been very slow in making the change. The revenue for school purposes is derived partly from funds held by the State, but chiefly from town and district taxes. Three normal schools were founded in 1866, and provision for State supervision established in 1874. The State University was founded at Burlington in 1791 and inaugurated in 1800. It provides instruction in arts, engineering, chemistry, agriculture, and medicine, has a library of nearly 50,000 volumes, 50 instructors, and about 500 pupils. There are, in addition, Middlebury College, chartered in 1800, and Norwich University, organized as a military school. Religious worship is represented by churches belonging to nearly every denomination. The State has made bountiful provision for institutions of a benevolent character, in the form of hospitals, refuges for the insane and indigent, orphan asylums, and various others. There is also a Reform School for wayward boys and girls, and a House of Correction for adults. The State prison is at Windsor.—*Finances.* *V.* is practically out of debt. The assessed valuation of property is about $175,000,000, the true value about $250,000,000, and the annual revenue about $2,000,000. The State has about 50 national banks, with $7,000,000 capital, and 40 saving banks and trust companies, with deposits of about $28,000,000. The railroads are under the supervision of three commissioners appointed by the Governor and Senate, and most of the lines are operated by the Central Vermont and the Boston & Maine companies.—*History.* *V.* was discovered, and a portion of its territory explored, in 1609, by Champlain, and a mixed party of French and Indians. The first settlement by whites was made in 1724 on the site of the present town of Brattleborough. Immigration began to pour in in 1760–68, during which period the soil had been claimed as part of the New Hampshire grant; whereupon, a counter-claim was put forth by the governor of New York, under virtue of the grants from Charles II. to his brother the Duke of York. On an appeal to the English crown, jurisdiction over the new territory was decided in favor of New York. This was the precursor of an armed strife which continued for 10 years between the New York authorities, and the *V.* settlers under the leadership of Ethan Allen and others. This state of things was partially interrupted by the outbreak of the revolutionary war. In 1777, *V.* declared her independence, and sought admission into the national confederation. Difficulties intervened, however, and it was not until 1791 that she was admitted into the Union; having previously bought off the claims of New York with the sum of $30,000. Although not at the time a member of the confederated colonies, *V.* had played a distinguished part in the war of independence, and her "Green Mountain Boys" participated in some of the hardest fought battles of the war. In the war of 1812, the Vermonters added fresh laurels to their military record. After her admission into the Union, *V.* prospered beyond most of the other States. During the Civil War *V.* furnished more than her quota of men, sending 33,238, or more than one-tenth of the whole population. In proportion to population her loss on battlefield and in hospital was larger than that of any other Northern State. After the war there was a decrease in industry and population in many sections, but the former activity shows signs of reviving. *Pop.* (1890) 332,422; (1900) 343,641.

Fig. 2573.—SEAL OF THE STATE.

Fig. 2574.

SCENE OF THE BATTLE OF LAKE CHAMPLAIN (Sept. 13, 1814).

The island in the centre is Crab Island; the other is Valcour Island, near which Benedict Arnold's famous naval battle was fought in 1776. The hills in the distance are the Adirondack Mts.

Vermont', in *Illinois,* a post-village and township of Fulton co., 60 m. N.W. of Springfield.

Vermont, in *Wisconsin,* a township of Dane county.

Vermont'ville, in *Michigan,* a post-vill. and twp. of Eaton co., abt. 10 m. N.W. of Charlotte.

Vermont'er, *n.* (*Geog.*) A native or inhabitant of the State of Vermont; a Green Mountain Boy.

Vermontese, (*-eez',*) *n. sing.* and *pl.* (*Geog.*) A Vermonter; plurally, the people of the State of Vermont.

Ver'ner, in *Pennsylvania,* a village of Alleghany co., 10 m. E.N.E. of Pittsburg.

Vernac'ular, *a.* [Lat. *vernaculus*—*verna,* a slave born in his master's house.] Belonging to the country of one's birth; pertaining to the class or order in which one is born; native; indigenous; domestic; one's own by birth or nature.

—*n.* One's mother tongue, or vernacular language.

Vernac'ularism, (*-izm,*) *n.* A vernacular idiom, phrase, or mode of lingual expression.

Vernac'ularly, *adv.* In accord or agreement with the vernacular manner.

Ver'nal, *a.* [Fr. and Sp., from Lat. *vernalis—ver, veris,* the season of spring.] Belonging to, or appearing in, the spring; as, *vernal* flowers.—Hence, belonging to youth, the spring of life; as, *vernal* innocence.

Verna'tion, or PRÆFOLIATION, *n.* (*Bot.*) The arrangement of the leaves in the bud. The different modes in which the unexpanded or rudimentary leaves are disposed in the bud constitute important characters. Considering first the disposition of each leaf, we find that it may be *bent* or *folded* in various ways, or *rolled* in various ways. Of bent leaves there are three varieties,—the *reclinate* or *inflexed,* in which the upper part of the leaf is bent upon the lower; the *conduplicate,* in which the right half is folded on the left; and the *plaited* or *plicate,* folded up like a fan by a number of plaits. Of rolled leaves there are four varieties,—the *circinate,* rolled up on the axis towards the base like a crosier; the *convolute,* rolled up from one margin into a single coil; the *involute,* rolled up inwards from the two margins towards the midrib; and *revolute,* rolled up outwards from the two margins. Considering next the relation of the several leaves of the same bud, taken as a whole, to each other, we have three varieties of *V.*, in which the component leaves are plain or slightly convex; namely, *valvate,* in which the leaves are placed nearly in a circle, and are in contact by their margins, without overlapping; *imbricate,* in which the leaves are at different levels, and the outer successively overlap the inner to a greater or less extent by their margins; and *twisted* or *spiral,* in which, as in imbricate *V.*, the margin of one leaf overlaps that of another, while it in

its turn is overlapped by a third. Again we have four varieties of *V.* in which the component leaves are bent or rolled; namely, *induplicate*, when involute leaves are applied together in a circle without overlapping; *equitant*, when the leaves are conduplicate, and the outer successively embrace and sit astride of those next within them, as if on a saddle; *half-equitant* and *obvolute*, when a convolute leaf incloses another which is rolled up in the same way. See BUD.

Vernet, (*vair-nai,*) the name of a family of French historical painters, including the father, son, and grandson. The first, CLAUDE JOSEPH VERNET, was B. at Avignon, 1714, received his early professional education from his father, also a painter of some ability, and subsequently repaired to Italy, where he perfected his knowledge in the manipulation of his art. He, however, principally distinguished himself as a marine painter, and, being patronized by Louis XV., received large commissions, and rose to considerable eminence. D. 1789. His son and pupil, ANTOINE CHARLES HORACE, commonly known as *Carl Vernet*, B. at Bordeaux, 1758, succeeded his father, and early displayed ability of a very superior order, though his forte lay more in historic subjects than either marine or landscape painting, and, as a battle painter, his works, on account of their remarkable spirit and accuracy of drawing, advanced their author to a position of remarkable eminence. The works of this artist may be found in nearly every gallery in France. He died in 1836, leaving his mantle to his son,

Fig. 2575.—HORACE VERNET.

HORACE VERNET, B. in Paris, 1789, and the most celebrated delineator of war subjects that the present century has probably produced. The works of this esteemed artist are so universally known and appreciated, particularly through the medium of engraved copies, that the mere names of his productions will be sufficient to bring the pictures vividly to the minds of most readers. Of these the chief are:— *The Taking of the Redoubt; The Dog of the Regiment; The Dead Trumpeter; the Last Cartridge; Death of Poniatowski; Massacre of the Mamelukes;* innumerable battle-pieces, and many works in other branches of the art; some Scriptural subjects, and the *Taking of Rome in* 1849 *by Oudinot.* D. 1863.

Verneuil, (*vair-nu(r)-e,*) a town of France, dept. Eure, on the Arve, 18 m. from Dreux; *pop.* 4,376.

Ver'nicose, (*-kōs,*) *a.* [From Lat. *vernix*, varnish.] (*Bot.*) Appearing as if varnished, as certain leaves.

Vernier, (*ver-neer,*) *n.* [Named from the inventor, Pierre *Vernier.*] A graduated movable index, used for measuring minutely the parts of the space between the equidistant divisions of a graduated scale.

Vernon, (*vair'nawng,*) a town of France, dept. Eure. *Manuf.* Cotton goods and velvets. *Pop.* 7,083.

Vernon, EDWARD, (*ver'num,*) an English admiral, B. in London, 1684. He captured Portobello in 1739, but was unsuccessful in his expedition against Carthagena, in S. America, in 1747. D. 1757.

Ver'non, in *California*, a post-village and township of Sutter co., 18 m. N.W. of Sacramento.

Vernon, in *Connecticut*, a post-village and township of Tolland co., 12 m. E.N.E. of Hartford.

Vernon, in *Illinois*, a twp. of Lake co.

Vernon, in *Indiana*, a township of Hancock county.—A township of Jackson county.—A post-village and township, capital of Jennings county, 66 miles S.S.E. of Indianapolis.—A township of Washington county.

Vernon, in *Iowa*, a township of Dubuque county.—A post-village and township of Van Buren county, 6 miles S. E. of Keosauqua.—A township of Wright county.

Vernon, in *Louisiana*, a post-village, cap. of Jackson parish, abt. 75 m. S. of Shreveport.

Vernon, in *Michigan*, a post-village and township of Shiawassee co., 70 m. N.W. of Detroit.

Vernon, in *Minnesota*, a post-township of Blue Earth county, 15 miles S.W. of Mankato.—A post-township of Dodge county.

Vernon, in *Mo.*, a W. co., bordering on Kansas; *area*, 850 sq. m. *Rivers.* Osage and S. Grand, also Deep Water and Miami creeks. *Cap.* Nevada. *Pop.* (1897) 33,220.

Vernon, in *New Jersey*, a post-village and township of Sussex co., 40 m. N.W. of Trenton.

Vernon, in *New York*, a post-village and township of Oneida co., 111 m. N.W. of Albany.

Ver'non, in *Ohio*, a river which rises in Knox co., and flowing S.E., enters the Walhonding River in Coshocton co. It is sometimes called *Owl Creek.*—A township of Clinton county.—A township of Crawford county.—A post-village and township of Trumbull county.

Ver'non, in *Pennsylvania*, a township of Crawford county.

Vernon, in *Vermont*, a post-township of Windham co., 65 m. S.W. of Concord.

Vernon, in *Wisconsin*, a S.W. county, bordering on Minnesota and Iowa; *area*, 800 sq. m. *Rivers.* Mississippi, Kickapoo, Bad Axe, and Racoon. *Surface*, undulating; *soil*, fertile. *Population* (1890), 25,111; (1895) 27,035. *Capital*, Viroqua.—A post-village and township of Waukesha county, 24 m. southwest of Milwaukee.

Vernon Centre, in *New York*, a post-village of Oneida co., 108 m. N.W. of Albany.

Ver'non Springs, in *Iowa*, a post-township of Howard co.

Verno'nia, *n.* (*Bot.*) The Iron-weeds, a genus of plants, order *Asteraceæ*, comprising perennial herbs or shrubs with leaves mostly alternate. *V. noveboracensis* is a tall, showy plant, with numerous large, dark-purple flowers; stem branching at top, reddish, 3–6 feet high, found in meadows throughout the U. States. *V. fasciculata* is a coarse, purplish-green weed, 3–10 feet high; cymes compact or loose; corollas showy, dark-purple, twice longer than the involucre;—very common in woods and prairies in the Western States.

Vero'na, a famous city of N.E. Italy, cap. of a prov. of same name, on the Adige, 22 m. from Mantua. It is inclosed by turreted walls, and surrounded by the fortresses Mantua, Legnano, and Peschiera, and hence considered as of the highest importance for the defence of Upper Italy. It has several gates, of which one, called Porta del Palio, is of elegant architecture. *V.* contains a cathedral and a number of churches, noted for their paintings and their architecture. The town-house, the old Palazzo Bevilacqua, the Palazzo Canossa, the museum, the academy, and the modern palace of the Gran Guardia, are worthy of notice; but of all the monuments of Verona, the most interesting is the Roman amphitheatre, situate in the spacious square called the Piazza di Bra. This is one of the most magnificent remains of Roman architecture that has descended to modern times. *Manuf.* Silk, woollens, cottons, leather, gloves, and shoes, and famous dye-works. The date of the foundation of Verona is not known; but Julius Cæsar established a colony here. On the decline of the empire, it experienced the fate of the other towns in the north of Italy. In 1814, on the overthrow of Napoleon I., it fell into the hands of Austria, and in 1822 a congress was held in it. *Pop.* 67,080.

Vero'na, in *Minnesota*, a township of Faribault co., abt. 33 m. S.W. of Mankati.

Verona, in *Missouri*, a post-village of Lawrence co., abt. 38 m. S.W. of Springfield.

Verona, in *New York*, a post-village and township of Oneida co., 13 m. S.W. of Rome.

Verona, in *Wisconsin*, a post-village and township of Dane co., 8 m. S.W. of Madison.

Verona Mills, in *New York*, a post-village of Oneida co., 30 m. E. of Syracuse.

Veronese, PAUL, (*vēr-o-nēz',*) a celebrated Italian painter, B. at Verona, 1532, and whose true name was PAUL CAGLIARI, was the son of a sculptor. His genius for the art in which he subsequently excelled was manifested at an early age. He took Titian and Tintoretto as his models, emulating the fine design and composition of the first, with the gorgeous coloring of the latter. Fluding himself unappreciated at Verona, he took up his residence at Venice, which city he embellished with a series of masterpieces. His most admired works are *The Marriage of Cana*, and the *Apotheosis of Venice.* D. 1588.

Veron'ica, *n.* (*Bot.*) A genus of plants, order *Scrophulariaceæ*, consisting of herbs or under-shrubs, many of which, and chiefly the beautiful Germander Speedwell, *V. chamædrys*, native of Europe (Fig. 2576) are

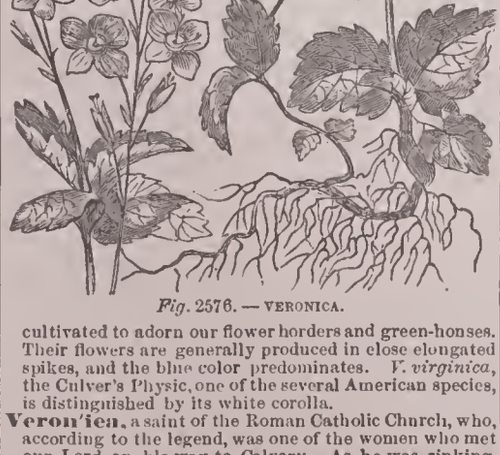


Fig. 2576.—VERONICA.

cultivated to adorn our flower borders and green-houses. Their flowers are generally produced in close elongated spikes, and the blue color predominates. *V. virginica*, the Culver's Physic, one of the several American species, is distinguished by its white corolla.

Veron'ica, a saint of the Roman Catholic Church, who, according to the legend, was one of the women who met our Lord on his way to Calvary. As he was sinking, overpowered by fatigue, under the weight of the cross, *V.* offered him her veil, to wipe the sweat from his brow, when, wondrous to tell, the divine features were miraculously impressed upon the cloth, and remained as a permanent picture of the face of our Lord. This miraculous picture is reported to have been preserved in Rome at St. Peter's Church from about the year 700. Another, of similar appearance, is preserved at Milan. Many Catholic writers have supposed that the name *Veronica* is but founded on an erroneous application of what in reality was meant to designate not the personage, but the picture, which was described as *vera icon* (Gr. *eikon*), "the true image" (*i. e.* of Christ).

Ver'planck's, in *New York*, a post-village of Westchester co., abt. 40 m. N. of New York city.

Ver'ret, in *Louisiana*, a lake of Assumption parish, 10 m. long, connected by a short outlet with Grand River and Lake Chetimaches.

Verroc'chio, ANDREA, an Italian artist, B. in Florence, 1432. He was at once a sculptor, a goldsmith, and a painter, but was most distinguished in the first-named capacity. He was the first to make moulds of the human form to aid him in designing. D. 1488.

Ver'rucose, Ver'rucous, *a.* [From Lat. *verruca*, a wart.] Characterized by the presence of warts; warty.

Versailles, (*vair'si,*) a city of France, cap. of the dept. of Seine-et-Oise, 11 m. from Paris. It has few manufactures, and little trade. It is the see of a bishop, and contains a public library of 50,000 vols., many palatial edifices, and spacious squares; but is chiefly noted for its magnificent palace, which was built by Louis XIV., and continued to be the residence of the court from 1672 till 1789. From that memorable year, however, when both king and queen were led by the mob in triumph to Paris—their first station to the scaffold, the palace of *V.*, a part of which was converted into a museum of painting and sculpture by Louis Philippe in 1837, remained untenanted till the no less memorable year 1871, when it was taken possession of by King Wilhelm I. of Prussia. Since the establishment of the Republic, the sittings of the Nat. Assembly are held here.

Ver'sailles, in *Illinois*, a post-village and township of Brown co., abt. 48 m. E. of Quincy.

Versailles, in *Indiana*, a post-town, cap. of Ripley co., 70 m. S.E. of Indianapolis.

Versailles, in *Kentucky*, a post-village, cap of Woodford co., 13 m. S.E. of Frankfort.

Versailles, in *Missouri*, a post-town, cap. of Morgan co., 40 m. W.S.W. of Jefferson City.

Versailles, in *Ohio*, a post-village of Darke co., 17 m. E. of Union City.

Versailles, in *Pennsylvania*, a township of Alleghany co.

Versailles, in *Tennessee*, a post-village of Rutherford co., abt. 34 m. S.E. of Nashville.

Ver'satile, *a.* [Lat. *versatilis*, from *verso*, to turn about often.] That may be turned or moved round, as a screw.—Liable to be turned in opinion; changeable; unsteady; fickle; variable; as, a person of *versatile* disposition.

—Turning with ease and readiness from one thing to another; of easy application to a new, or to various subjects; as, a man of *versatile* accomplishments.

(*Bot.*) Swinging or oscillating easily, as the anthers of certain grasses.

Versatil'ity, *n.* [Fr. *versatilité.*] State or quality of being versatile.

Verse, *n.* [Fr. *vers;* Lat. *versus*, a line of writing, a verse, from *verto, versum*, to turn.] A line, generally of poetry, consisting of a certain number of long and short syllables, disposed according to the rules of the species of poetry which the author intends to compose, as the *hexameter, pentameter, tetrameter, Alexandrine,* (q. v.) Two or more verses form a *stanza*, or *strophe.*—Metrical language; versification; rhythmical arrangement of words; poetry; rhyme; poetical composition; as, "In splay-foot *verse* or hobbling prose." (*Prior.*)—A short division of any composition in words, particularly of the chapters in the Scriptures; as, the first *verse* in the book of Genesis.—A stanza; a stave; a strophe; a short division of poetical composition; as, a psalm of four *verses.* (Used commonly, but improperly.)—A poetical piece; as, "This *verse*, my friend, be thine."—*Pope.*

(*Mus.*) A portion of an anthem to be executed by a single voice to each part.

Blank verse. (*Poet.*) See BLANK VERSE.—*Heroic verse.* (*Pros.*) See HEROIC.—See also PROSODY, RHYME, and RHYTHM.

Versed, (*vėrst,*) *p. a.* [From Lat. *verto*, to turn.] Familiar with; skilled in; practised; acquainted with, as the result of thought, study, experience, &c.; as, a man *versed* in literary composition.

Versed sine. (*Trig.*) The difference between unity and the co-sine of an angle.

Verse'man, Verse'-monger, *n.* A dabbler in poetry; a writer of verses; a poetaster;—used generally as implicative of contempt.

Versetz, (*ver-sets',*) a fortified town of Hungary, 40 m. from Temesvar. *Manuf.* Silk. *Pop.* 20,000.

Ver'shire, in *Vermont*, a post-township of Orange co., 25 m. S.S.E. of Montpelier.

Versicle, (*vėr'sī-kl,*) *n.* [Lat. *versiculus.*] A little verse.

Ver'sicolor, Ver'sicolored, *a.* [Lat. *verso*, to turn, twist, and Eng. *color.*] Changeable in color; having a diversity of colors.

Versifica'tion, *n.* [Fr., from Lat. *versificatio.*] Act, art, or practice of versifying, or of composing poetic verse: metrical composition.

Versifica'tor, *n.* A versifier; a composer of verses. (R.)

Ver'sifier, *n.* One who makes verses; one who versifies, or composes what he considers as poetry;—gener-

ally, a poetaster; — as implying a depreciatory application. — One who expresses in, or converts into verse, the ideas of another conveyed in prose.

Ver'sify, *v. n.* [Fr. *versifier.*] To make verses.

—*v. a.* To relate, describe, or illustrate in verse; as, "to *versify* the truth." (*Daniel.*)—To turn into verses; as, to *versify* the Psalms.

Version, (*ver'shon,*) *n.* [Fr. and Sp., from Low Lat. *versio,* a turning.] The rendering of thoughts or ideas expressed in one language, into words of a similar signification in another language; act of translating or interpreting. — That which is translated or rendered from one language into another.

Verst, *n.* [Russ. *verstá.*] In Russia, a measure of length containing 3,500 feet, or about two-thirds of an English mile.

Ver'sus, *prep.* [Lat., toward.] Against; — commonly used in legal phraseology; as, the State of Pennsylvania *versus* the city of Philadelphia.

Versute', *a.* [From Lat. *vertere, versum,* to turn.] Cunning; wily; deceitful; artful; insidious. (R.)

Vert, *n.* [Fr., green, from Lat. *viridis.*] (*Her.*) A tincture. See HERALDRY.

Ver'tebra, *n.*; *pl.* VERTEBRÆ. [Lat., from *verto,* to turn.] (*Anat.*) One of the bones composing the spinal column. See SPINE.

Ver'tebral, *a.* [Fr.] Pertaining or relating to the vertebræ, or joints of the spine or backbone; as, the *vertebral* arteries.

Vertebra'ta, *n.*; *pl.* VERTEBRATES. [Lat. *vertebratus,* having joints.] (*Zoöl.*) A primary division of the animal kingdom, including those which have a cerebro-spinal nervous axis, protected by a bony cylinder composed of a succession of vertebræ, which are expanded into a cranium, where they enclose the enlarged anterior or upper portion of the nervous axis, called the *brain. V.* comprise five classes: *Mammalia, Birds, Reptiles, Batrachians,* and *Fishes.* The hag and lamprey (*Cyclostomata*) and the lancelet (*Amphioxus*) are vertebrates of lower types than the fishes, while the tunicates and the worm-like balanoglossus seem to be ancestral forms.

Ver'tebrate, Ver'tebrated, *a.* (*Anat.*) Possessing vertebræ.

(*Bot.*) Contracted at intervals, so as to resemble the spine in animals.

Ver'tex, *n.*; Eng. *pl.* VERTEXES; Lat. *pl.* VERTICES. [Lat., from *verto,* to turn.] That round which anything turns or revolves; top: highest point; summit; apex; crown; hence, specifically, the zenith, or pole of the heavens, round which the heavens are said to revolve; also, the top or crown of the head.

(*Math.*) The top or terminating point opposite the base.

V. of a curve, any point in which a diameter meets the curve. — *V. of an angle,* or *cone,* the point in which the sides of the angle or cone intersect. — *V. of a surface of revolution,* that point where the axis penetrates the surface.

Ver'tical, *a.* [Fr., from Lat. *vertex.*] Pertaining to, or placed in, the vertex; placed or being in the zenith, or perpendicularly over the head; as, a *vertical* sun. — Straight; plumb; upright; being in a position perpendicular to the plane of the horizon; as, a *vertical* line.

V. angle. (*Geom.*) The angle formed by two straight lines which intersect each other.

V. circle. (*Astron.*) A great circle of the sphere passing through the zenith and nadir; — the meridian and all azimuth circles are *vertical* circles.

V. fire. (*Mil.*) The fire of heavy artillery, as of guns throwing shells, under high angles of elevation.

Vertical leaves. (*Bot.*) Leaves maintaining such a degree of perpendicularity that neither of the sides can be properly designated as the upper or under.

Vertical line, the direction of a plumb-line at any point of the earth's surface; or, the line which points to the zenith, and is, therefore, perpendicular to the horizontal plane at the point. — *Vertical plane.* (*Conic Sections.*) A plane passing through the vertex and axis of a cone. — (*Perspect.*) The plane passing through the point of sight, and perpendicular to the ground plane. — (*Projections.*) Any plane intersecting a vertical line.

—*n.* (*Astron.*) A great circle of the sphere, passing through the zenith and nadir, and having its plane perpendicular to the horizon.

Vertical'ity, Ver'ticalness, *n.* State or quality of being vertical.

Ver'tically, *adv.* In a vertical manner.

Ver'ticel, Ver'ticil, *n.* (*Bot.*) A whorl.

Verticillas'ter, *n.* (*Bot.*) The pair of dense cymes forming an apparent verticle in most *Labiatæ.*

Vertic'illate, Vertic'illated, *a.* (*Bot.*) Noting a ring formed round a common axis, as of leaves round a stem, or the sepals, petals, and stamens round an ovary.

Verticity, (*-tis'i-te,*) *n.* [From Lat. *vertex.*] Power of rotation or revolution.

Ver'ticle, (*-ti'kl,*) *n.* A hinge; an axis.

Vertiginate, (*-tij'-.*) *a.* Turned round; giddy.

Vertiginous, (*-tij'in-us,*) *a.* [Fr. *vertigineux,* from Lat. *vertigo, vertiginis.*] Rotary; revolving; whirling; turning round; as, the *vertiginous* motion of the earth. — Hence, dizzy; giddy; affected with vertigo; as, chokedamp makes miners *vertiginous.*

Vertig'inousness, *n.* State or quality of being vertiginous.

Ver'tigo, *n.* [Fr. *vertige,* from Lat. *vertigo* — *verto,* to turn.] Giddiness of the head; dizziness or swimming of the head. This affection is a common symptom of disordered circulation in the brain, and of nervous and general debility.

(*Zoöl.*) A genus of marsh or land snails; — so named from the abrupt twist of the volutions of the shell.

Vertilin'ear, *a.* Rectilinear; in a straight line.

Vertou, (*vair-too,*) a town of France, dept. of Loire-Inférieure, 4 m. from Nantes; *pop.* 6,418.

Vertum'nus. (*Myth.*) One of the Latin deities. From the connection of the name with the word *verto,* he was worshipped as being concerned with everything relating to change in the seasons, vegetation, &c.

Ve'rus, LUCIUS CEIANICUS COMMODUS, a Roman emperor who reigned conjointly with Marcus Aurelius from A. D. 161 to 167, in which latter year he died from apoplexy superinduced by his intemperate habits.

Ver'vain, *n.* (*Bot.*) See VERBENA.

Verve, *n.* [Fr.] Animation; enthusiasm; vim; spirit; energy; afflatus.

Ver'vels, Var'vels, *n. pl.* (*Fal.*) Small rings attached to the ends of the jesses of a hawk.

Vervick, or WERICQ, (*vair-vik,*) a frontier town of Belgium, in W. Flanders, on the Lyt, 9 m. from Ypres; *pop.* 6,846.

Verviers, (*vair've-ai,*) a town of Belgium, on the Wesdre or Vesdre, 15 m. from Liege. *Manuf.* Woollens, dyes, soap, vitriol, and aqua-fortis. *Pop.* 32,375.

Vervins, (*vair've,*) a town of France, dept. Aisne, 21 m. from Laon; *pop.* 4,000.

Ver'y, *a.* [Fr. *vrai,* from Lat. *verus,* true.] Real; true; actual; veritable.

—*adv.* In a high, great, or eminent degree, but not generally the highest; exceedingly; to no small extent; as, a *very* good fellow, a *very* sad accident; — *very,* when preceding participles, is followed by *much,* or by some approximately equivalent adverb; as, he is *very far* gone in liquor; I was *very much* surprised to hear it.

Vesa'lius, ANDREAS, the greatest anatomist of his age, and the father of modern anatomy, B. at Brussels, in 1513 or 1514. In 1544 he was appointed chief physician to the Emperor Charles V., and on his abdication in 1555 he was nominated to the same office by his son, Philip II. His opposition to the Galenic doctrines, his habit of dissecting human bodies, then considered impious, and the great reputation he enjoyed at the Spanish court, raised him many enemies; and a rumor that he had opened the body of a young Spanish nobleman whose heart showed symptoms of vitality, having got abroad, he was publicly accused of murder. The charge was taken up by the clergy and the medical faculty, to whom he was obnoxious, and also by the relations of the deceased; and though he enjoyed the protection of the king, he was obliged to flee from the persecution by which he was assailed, and to travel into Palestine by way of expiation of his alleged guilt. On his return he was shipwrecked on the Island of Zante, where he perished miserably of cold and hunger, 1564. He was the author of numerous works, but that by which he is best known is entitled *De Humana Corporis Fabrica.*

Ves'ical, *a.* [From Lat. *vesica,* the bladder.] (*Anat.*) Pertaining or having reference to the bladder.

Ves'icant, *n.* (*Med.*) Same as EPISPATIC, *q. v.*

Ves'icate, *v. a.* [From Lat. *vesica.*] To blister, as the skin; to separate the cuticle by inflaming the skin.

Vesica'tion, *n.* [Fr.] The process of raising little cuticular blisters on the skin.

Ves'icatory, *n.* [Fr. *vesicatoire.*] A blistering application or plaster.

—*a.* Having the property, when applied to the skin, of raising a blister.

Vesicle, (*ves'i-kl,*) *n.* [Lat. *vesicula.*] (*Med.*) A small blister or bladder-like tumor formed by an elevation of the cuticle, and filled with a liquid fluid.

(*Bot.*) A gland or bladder-like cavity filled with air.

Vesic'ular, *a.* [Fr. *vesiculaire.*] Pertaining or relating to, or consisting of, vesicles. — Hollow; full of crevices or interstices. — Bladdery; vesiculate.

Vesic'ulate, Vesic'ulose, Vesic'ulous, *a.* [From Lat. *vesiculosus.*] Full of bladders; having little bladders or surface-glands.

Vesoul, (*ve-zool',*) a town of France, dept. Haute-Saone, 236 m. E.S.E. of Paris. *Manuf.* Unimportant. *Pop.* 7,677.

Vespa'riæ, or Ves'pidæ, *n. pl.* [Lat. *vespa,* a wasp.] The Wasps, a family of aculeated hymenopterous insects characterized by their geniculate antennæ, composed in the males of thirteen joints, and sometimes in this sex hooked at the extremity. Mandibles strong and dentated; clypeus large; ligula plumose or bilobed. The sting of the females and neuters are long, powerful, and highly venomous. The larvæ of the wasp tribe are vermiform and without feet. The genus *Polistes* (Fig. 2577) contains wasps which build an open nest of comparatively few cells arranged in one tier, and attached by a short pedicel. The genera *Odynerus* and *Eumenes* comprise the solitary wasps or sand-wasps, which build nests of sand in which the mother deposits, at the same time with the egg, the bodies of insects, killed for the purpose, upon which the larva feeds.

Fig. 2577. — WASP, (*Polistes pallipes.*)

Vespasian, TITUS FLAVIUS VESPASIANUS, (*ves-pā'zhe-an.*) a Roman emperor, B. of a poor family in the country of the Sabines, A. D. 9. He served in the Roman armies, gradually rising to distinction, and in 66 was charged by Nero with the conduct of the Jewish war. He was still engaged in it when Nero died, and while the civil war was going on between Otho and Vitellius, Vespasian was proclaimed emperor, A. D. 69. He returned to Italy, leaving the conduct of the Jewish war to his son Titus, and applied himself to the re-establishment of order, and the improvement of the administration. He contented himself with the outward life of a private citizen, and contributed the force of his own example towards the introduction of a simpler mode of life, and purer morals. The Jewish war ended in 70, and the next year *V.* and Titus had a joint triumph. *V.* died, A. D. 79, leaving two sons, Titus and Domitianus, who both became emperors.

Ves'per, *n.* [Lat., the evening, or evening star; from Gr. *hesperos.*] Hesper; the evening star; — a name given to the planet Venus when it appears after sunset. — Hence, the evening.

—*a.* Pertaining or having reference to the evening, or to the religious service of vespers; as, a *vesper* hymn, the *vesper* bell.

Ves'pers, *n. pl.* (*Eccl.*) An evening service of very ancient use, being plainly referred to in the apostolical constitutions, and is noticeable as that one among the canonical hours which in the Roman Catholic Church continues to be regularly sung as one of the ordinary public services of the parish churches, no less than in cathedrals where the entire of the hours are chanted. It resembles lauds, and consists of five psalms and antiphons, a lesson, a hymn with versicle and response, a canticle (the Magnificat), and a collect or prayer. The psalms sung at vespers are *Ps.* cix., cxlvii., which are distributed over the several days of the week. The service of vespers has given occasion to some of the most brilliant efforts of modern musical composers.

Vespers, (Sicilian.) See SICILIAN VESPERS.

Vespertil'io, *n.* (*Zoöl.*) A genus of mammalia, order *Cheiroptera,* comprising the common bats. See BAT.

Ves'pertine, *a.* [Lat. *vespertinus.*] Belonging to, or being or happening in, the evening.

Vesp'tary, *n.* A habitation or nest of wasps.

Ves'sel, *n.* [Fr. *vaisseau,* from late Lat. *vascillum* — Lat. *vas, vasis,* a vessel.] A concave or hollow utensil made to hold either liquids or solids, as a cup, a bowl, a dish, a vase, a kettle, a barrel, a hogshead, &c.

—In a figurative sense, something receiving or containing; hence, one into whom, or that into which, anything is supposed to be poured; — chiefly employed in scriptural phraseology; as, the few chosen *vessels.*

(*Anat.*) Any tube or canal, in which the blood and other humors are contained, secreted, or circulated, as the arteries, veins, lymphatics, spermatics, &c.

(*Bot.*) A canal or tube of very small bore, in plants, in which the sap is contained and conveyed; also, a bag or utricle, filled with pulp, and serving as a reservoir for sap; also, a spiral canal, usually of a large bore.

(*Naut.*) Any structure made to float upon the water,

Fig. 2578. — ANCIENT LIGHT-VESSEL.
(Copied from a painting at Pompeii.)

for the purposes of commerce, war, &c., whether impelled by wind, steam, or oars; as, "The Phœnicians first invented open *vessels.*" — *Heylyn.*

Ves'sels, Ar'mored, ARMOR-PLATED SHIPS, or IRONCLADS. (*Navy.*) The various names given to war-vessels covered externally with iron or steel as a protection against artillery. For the successive steps taken in plating vessels with iron see ARMOR-PLATE. Vessels of this kind were first tried in battle during the Crimean War, when floating batteries plated with 4 and 4½-in. iron armor successfully engaged a Russian fort, resisting, at a distance of 1,000 yards, 32-lb. shots fired with 10-lb. charges. The next engagement in which ironclads took part was the famous one in Hampton Roads in 1862, when the memorable battle took place between Ericsson's turreted *Monitor* and the *Merrimac,* whose sloping roof was plated with railroad iron. The impunity with which both these vessels resisted the heaviest naval artillery in use at that period sounded the knell of the wooden ship-of-war, and all the nations of the world were stirred to an active endeavor to replace their old navies with ironclad ships, which it was hoped to render impregnable. The most significant practical test, however, to which armored vessels, of late type, have been put was that made during the Japan-Chinese War (*q. v.*), in which the European vessels of the navies of the contending powers proved the reverse of impregnable, several of the Chinese ironclads being destroyed or sunk, while those of the Japanese navy suffered serious injury. This experience in actual war, with that gained in numerous experiments in testing the penetrating power of modern projectiles and the resistance of iron and steel plates,

has greatly modified the conceptions formerly entertained concerning armor-plating, many ships-of-war, built at great expense and in accordance with the most advanced ideas of their period, having been rendered obsolete and practically useless. Iron, years ago, was replaced by steel in the construction of armor; the thickness gradually increased until the weight of battleships became immense, and ordinary steel was replaced by the American invention of nickel-steel, the alloying of the iron with a small percentage of nickel adding very greatly to its toughness, while the Harvey process of surface-hardening has also added greatly to the resisting power of armor. The principal incentive to the application of armor in its early days was the increased use of shell in place of solid shot, and the terrible effects caused by the explosion of shells within wooden vessels. A recently discovered defect in the use of shells against armored vessels is their explosion on contact, or before penetration to any depth can be attained, this greatly reducing their effectiveness. The inventive faculty is now at work seeking to devise means to retard shell explosion, that they may have time for deeper penetration and do more damage on exploding. Until 1894 the prevailing practice in foreign countries was to fit a small amount of very heavy armor for a certain distance along the water-line, the remainder of the side being covered with thin armor. This system has been changed, and the present tendency is to extend the heavy armor over a greater area, with a corresponding decrease in its thickness. Of the battleships of the existing American navy may be instanced the *Kearsarge*, whose armor is 15 inches thick at the top and tapers to 9½ at the bottom. It extends 3·5 feet above and 4 below the water-line, and tapers to 4 inches at the bow, where it meets the ram. There is also a protective deck, with armor from 2¾ to 5 inches thick. All the armor is of Harveyized nickel-steel. The cruisers have little vertical armor, their protection being afforded by a thick protective deck. The tendency is to use as little wood as possible in the construction of these vessels, woodwork having proved a great source of danger in the Japan-China War, from its tendency to take fire. See BATTLESHIP; CRUISER; MONITOR; NAVY OF THE UNITED STATES, &c.

Ves'sigon, Ves'signon, *n.* [Fr. *vessigon*, from Lat. *vesica*, a bladder, a blister.] (*Vet.*) A wind-gall.

Vest, *n.* [Fr. *veste;* from Lat. *vestis*, a garment.] Something put on as clothing; an outer garment; a dress; a robe; a vestment; as, a military *vest* of purple.

— Hence, any external covering. — Specifically, a short garment covering the upper part of the body, but without sleeves, worn under the coat, and otherwise called a *waistcoat;* as, a black satin *vest.*

—*v. a.* To clothe; to dress; to invest with a long garment; to cover, surround, or encompass closely; as, a *vested* priest. — Hence, to put or place in possession of; to furnish or invest with; — preceding *with;* as, to be *vested with* authority. — To invest; to lay out to interest or profit; as, to *vest* one's fortune in public securities.

—*v. n.* [Norm. *vest*, vested.] To come or descend to; to be fixed or settled; to take effect, as a title or right; as, an estate *vests* in the heir at law.

Ves'ta, *n.* [Lat.; Gr. *Hestia*, primarily the hearth of a house.] (*Myth.*) A divinity equally venerated by the Greeks and Romans. By some she was reputed to be the daughter of Saturn and Rhoa; by others, the child of Ops. She was a maiden divinity, and, having vowed eternal chastity by the head of Zeus, was consequently accepted as the patroness of all virgins, and was regarded as the goddess of fire, particularly the fire of the domestic hearth, and as the presiding divinity of union and connubial happiness. A fire burning on a hearth was regarded as her symbol, and each state had its public hearth or altar, on which a perpetual fire was kept burning. Numa built her a temple at Rome, in which her altar was fed with perpetual fire attended to by virgins dedicated to her service, called Vestals.

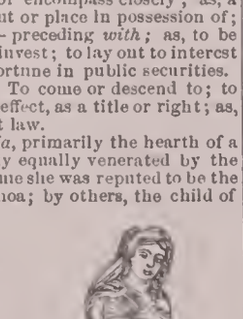


Fig. 2579. — VESTA.

(*Astron.*) An asteroid discovered by Dr. Olbers in 1807.

Ves'tal, *n.* [Lat. *vestalis.*] One of the virgin priestesses who, among the Romans, were consecrated to the service of Vesta. Their employment was to take care that the sacred fire of Vesta was not extinguished. It was required that they should be born of a good family, and be without blemish or deformity in every part of their body. The period during which the priestess was bound to the service of Vesta was thirty years, the first ten being occupied with learning her duties, the next in performing them, and the last in teaching them to others. When she entered upon her office, the vestal took upon herself a solemn vow of chastity for the thirty years of her service; the dreadful punishment of a violation of which was, that she should be buried alive in a subterranean vault near the Colline Gate, to which she was carried on a bier, as if dead, and where she found a light, with a scanty supply of bread, water, milk, and oil. For the thousand years during which the order existed, only eighteen of the vestals were punished for the violation of their vow. The order was abolished by Theodosius the Great, and the fire of Vesta extinguished.

—*a.* Relating to the goddess Vesta. — Hence, virgin.

Ves'tal, in *New York*, a post-township of Broome co., 145 m. W.S.W. of Albany.

Vest'ed, *p. a.* Fixed; not in a state of contingency or suspension; as, *vested* rights.

V. remainder. (*Law.*) An estate by which a present interest passes to the party, though to be enjoyed *in futuro*, and by which the estate is invariably fixed to remain to a determinate purpose after the particular estate has been spent.

Vestla'rian, *a.* Relating to a wardrobe, or to dress in general.

Ves'tiary, *n.* [Lat. *vestiarius.*] A wardrobe. (R.)

Vestib'ular, *a.* Pertaining to, or resembling, a vestibule.

Vestibule, (*ves'ti-būl,*) *n.* [Fr.; Lat. *vestibulum*, probably because an altar to *Vesta* was placed therein.] (*Arch.*) The porch or entrance into a house, or a long open space before the door, but covered; also, a little antechamber before the entrance of an ordinary apartment.

(*Anat.*) See EAR.

Vestige, (*ves'tij,*) *n.* [Fr.; Lat. *vestigium.*] A track or footstep; a footprint; trace; sign; but mostly used for the mark or remains of something that has passed away; as, the *vestiges* of ancient Thebes.

Vest'ing, Vest'-piece, *n.* Cloth or material for making vests; a vest-pattern.

Vest'ment, *n.* [Fr. *vêtement;* Lat. *vestimentum.*] A garment; some part of clothing or dress; especially, some part of outer clothing, but it is not restricted to any particular garment; a robe; an article of dress; as, sacerdotal *vestments.*

Ves'tris, GAETANO APOLLINO BALTHAZAR, a celebrated Italian dancer, b. at Florence, 1720. He became the greatest performer of his day, and was surnamed "the god of dancing;" but his vanity was even greater than his reputation. He was in the habit of saying, "There are only three great men in Europe; myself, Voltaire, and the King of Prussia" (Frederick II.). D. 1808. His natural son, Marie Augustin Vestris, also became celebrated as a dancer.

Ves'try, *n.* [Fr. *vestiaire*, from Lat. *vestiarium*, a wardrobe.] The robing room attached to a church, where the ecclesiastical vestments are kept. — In the U. States Episcopal Church, a committee chosen annually by the parish, who, in conjunction with the church-wardens, manage its temporal concerns.

Vesture, (*vĕst'yur,*) *n.* [O. Fr., robes, vestments; from Lat. *vestis.*] A robe; a dress; vestment; habit; covering; garments in general; envelope.

(*Law.*) Grain covering land; as, the *vesture* of an acre.

Vestured, (*vest'yurd,*) *p. a.* Covered with vesture; apparelled; enveloped.

Vest'ure-shroud, *n.* A shroud for a dead body.

Vesu'vian, *a.* [Fr. *Vesuvien*, from Lat. *Vesuvianus.*] (*Geog.*) Pertaining or having reference to Mount Vesuvius, Italy.

—*n.* [Fr. *vésuvienne.*] A fusee; a match for lighting cigars.

Vesu'vian, *n.* (*Min.*) A name given by Werner to the Idocrase of Haüy, after the locality, Vesuvius, where it was first noticed in ejected blocks, associated with mica, hornblende, &c. It is of a hair-brown or olive-green color.

Vesu'vius, one of the most celebrated volcanic mountains in Europe, 6 m. E. of Naples. *V.* is 30 m. in circuit at its base, and 3,949 ft. in height (Fig. 152). Towns and villas cover the lower portion of the mountain, and villas and luxuriant groves are scattered over the higher terraces, while above the evidences of fertility succeeds a region of absolute waste and sterility. The apex of the mountain has the appearance of a truncated cone deeply covered with ashes; the extreme top presents the character of a narrow ledge of burnt earth nearly two miles in circuit, enclosing the open crater, which has a depth of 350 feet; the bottom being a flat plain, nearly half a mile in diameter. South of the crater is the Monte di Somma, one side of which is a rugged precipice, the others being shelving declivities. The first recorded eruption was in 79, when it overwhelmed and buried Herculaneum, Pompeii, and Stabiæ, and proved fatal to Pliny, the naturalist. The ashes on that occasion are said to have been carried not only to Rome, but as far as Africa. Since then many eruptions are recorded; the most remarkable are those of 1036, 1779, 1822, 1839, and 1855. The vine yielding the wine called Lagrima, or *Lachryma Christi*, is cultivated only on the slopes of *V.* Since 1880, a R.R. has been in operation to near the summit of *V.*

Veszprim, (*vess'prim,*) a town of Hungary, on the Sed 60 m. from Buda; *pop.* 13,000.

Vetch, (*vech,*) *n.* [Fr. *vesce;* It. *veccia.*] (*Bot.*) See VICIA.

Vetch'ling, *n.* (*Bot.*) See LATHYRUS.

Vet'eran, *a.* [Fr., from Lat. *veteranus* — *vetus, veteris*, that has existed for a long time.] Having been long exercised in anything; long practised or experienced; as, *veteran* troops, a *veteran* dramatist.

—*n.* An old soldier; one who has been long exercised in any service or art, particularly in war; one who has grown old in service, and has had much experience; as, "We were regarded as *veterans* in the beau monde." *Add.*

Vet'eran, in *New York*, a township of Chemung co., 10 m. E.N.E. of Elmira.

Veterina'rian, *n.* [Fr. *vétérinaire*, from Lat. *veterinus* — *vehere*, to bear, carry.] One skilled in the veterinary art, or the treatment of diseases of cattle or other domestic animals.

Vet'erinary, *a.* Pertaining to the art of healing or treating the diseases of veterinary animals, as oxen, horses, sheep, &c.; as, a *veterinary* surgeon.

V. art. The medical management of the domestic animals, still commonly called *Farriery*, appears to have been studied by the ancient Egyptians, as well as by the Greeks and Romans, and Hippocrates contributed a treatise on equine disorders. But in modern times, *V.* medicine, as a scientific art, takes date only from 1761, when the first *V.* college was established at Lyons under royal patronage. Five years after, the flourishing school of Alfort, near Paris, was founded. In 1791, the London college was organized, and since that time the art has made considerable progress.

Ve'to, *n.* [Lat., I forbid.] (*Pol.*) A term including the refusal of the executive officer whose assent is necessary to perfect a law which has been passed by the legislative body, and the message which is usually sent, stating such refusal and the reasons therefor. By the constitution of the United States government, the President has the power to prevent the enactment of any law, by refusing to sign the same after its passage, unless it be subsequently enacted by a vote of two-thirds of each house. When a bill is engrossed, and has received the sanction of both houses, it is transmitted to the President for his approbation. If he approves of it, he signs it. If he does not, he sends it, with his objections, to the house in which it originated, and that house enters the objections on its journal, and proceeds to reconsider the bill. Similar powers are possessed by the governors of many of the States.

—*v. a.* To disallow; to prohibit; to forbid; to withhold assent, as to a bill for a law, or the passage of a decree, and thus prevent its enactment; as, the President *vetoed* the bill.

Ve'toist, *n.* An advocate of the exercise of the veto.

Vevay, (*vev-ai',*) a well-built town of Switzerland, canton of Vaud, on the Lake of Geneva, 11 m. from Lausanne. *Manuf.* Jewelry, woollens, &c. *Pop.* 5,372.

Vevay', in *Indiana*, a post-village, cap. of Switzerland co., on the Ohio, 75 m. S.W. of Cincinnati.

Vevay, in *Michigan*, a twp. of Ingham co.

Vex, *v. a.* [Fr. *vexer;* Lat. *vexo, vexāre.*] To irritate; to plague; to torment; to make angry by little provocations; to harass; to worry; to trouble; to afflict; as, this is enough to *vex* a saint. — To disturb, agitate, fret, or disquiet; as, "mad as the *vexed* sea." — *Shaks.*

Vexed question, a question characterized by prolixity or great pertinacity of discussion, or an intricate question giving rise to much debate.

—*v. n.* To be uneasy; to fret; to be teased or irritated. (R.)

Vexation, (*veks-ā'shun,*) *n.* [Fr., from Lat. *vexatio.*] Act of vexing or irritating, or of troubling, disquieting, and harassing; state of being irritated or disturbed in mind; disquiet; worry; agitation; great uneasiness; trouble. — Cause of trouble, disquiet, or uneasiness. — A vexing, harassing, or troubling by law, as by a suit maliciously prosecuted.

Vexatious, (*vex-ā'shus,*) *a.* Causing vexation, disquiet, or uneasiness of mind; annoying; afflictive; teasing; provoking; as, a *vexatious* blunder. — Full of vexation, trouble, or disquiet; as, to lead a *vexatious* life. — Distressing; harassing; tormenting; as, *vexatious* strife.

Vexatious suit. (*Law.*) A suit causelessly or maliciously prosecuted.

Vexa'tiously, *adv.* In a vexatious manner.

Vexa'tiousness, *n.* Quality of being vexatious.

Vex'er, *n.* One who, or that which, vexes.

Vex'illar, Vex'illary, *a.* [Fr. *vexillaire.*] (*Bot.*) Designating that form of æstivation in which one piece is much larger than the others, and is folded over them, as in papilionaceous flowers.

Vexil'lum, *n.*; *pl.* VEXILLA. [Lat., a flag, a standard.] (*Bot.*) The standard or fifth petal placed at the back of a papilionaceous corolla.

Vex'ingly, *adv.* So as to vex, tease, annoy, or irritate.

Vi'æ, *a.* [Lat.] A road, way, or passage.

Via lactea. [Lat.] (*Astron.*) The MILKY WAY, *q. v.*

—*adv.* [Lat. ablative of *via*, road.] By the way of, as between two places; as, to go to Canada *via* N. York. (Col.)

Viabil'ity, *n.* Quality of being viable, or living after birth. — Capacity of sustaining life, or of being distributed over wide geographical space; as, the *viability* of a genus.

Viaduct, (*vi'a-dŭkt.*) *n.* [Lat. *via*, way, and *duco, ductus*, to lead.] An arched bridge for carrying a road or railway across a valley at such a height as to maintain the general level of the line; — thus distinguished from an *aqueduct*, or a similar work to support a water-way.

Fig. 2580. — THE BOLLERSWAND VIADUCT.
(On the railroad from Vienna to Trieste.)

Viable, (*vī'a-bl,*) *a.* [Fr., from Lat. *vivo*, to live.] Capable of living;—applied to a fœtus whose organs are properly formed, and so developed as to permit its continued existence.

Vi'al, *n.* [Fr. *fiole.*] A phial.

Viamão, in Brazil, a lake of the prov. of Rio Grande do Sul, N. of the Lake of Patos, with which it communicates.—A village on the E. of the above lake, 12 m. E.S.E. of Porto-Alegre; *pop.* abt. 3,500.

Via'na, a fortified town of Portugal, prov. of Minho, on the Lima, 37 m. from Oporto; *pop.* 8,683.

Vi'and, *n.* [Fr. *viande*, from Lat. *vivendus*—*vivo, victum.*] (Usod chiefly in the plural.) An article of food; victuals; meat dressed and cooked; food.

Vi-ap'ple, *n.* The Otaheite (or Tahiti) apple.

Viareggio, (*ve-a-red'jo,*) a seaport of Italy, in the former duchy of Lucca, 23 m. from Leghorn. It exports statuary marble. *Pop.* 6,344.

Viasma, a town of European Russia, prov. of Smolensk, at the junction of the rivers Viassua and Bebri, 96 m. from Smoleusk; *pop.* 12,000.

Viat'ic, *a.* [Lat. *viaticus.*] Pertaining or relating to a journey, or to travelling.

Viat'icum, *n.* [Lat.] Among the ancient Romans, an allowance made to soldiers, and to all persons travelling on business of state.

(*Theol.*) In the Roman Catholic Church, the Eucharist administered to dying persons. The priest is ordered to bring the sacred elements from the church to the dying person at any hour, whether by day or by night, when he may be called on for this last service of religion.

Viat'ka, in European Russia, an E. govt., bounded N.E. by the govt. of Perm, and S. by that of Kazan. *Cap.* Viatka. *Pop.* 2,347,746.—A river which rises 16 m. from Glazo, travels the centre of the above govt., and, after a course of 500 m., joins the Kama in the govt. of Kazan.—A town, the cap. of the above govt., on the Viatka. *Pop.* 8,000.

Vi'borg, an old city of Denmark, in N. Jutland, on a small lake, 25 m. W. of Randers. *V.*, at which all the great high-roads of the interior converge, is important as a military post. *Pop.* 4,972.

Vi'brate, *v. n.* [Lat. *vibro, vibratum*, to be in tremulous motion; whence, Fr. *vibrer.*] To be in tremulous motion; to quiver; to tremble; to move to and fro, or from side to side; to oscillate; to swing.—To pass from one state to another; as, one's mind sometimes *vibrates* between hope and fear.—To have backward and forward motion of the constituent particles, without alternate compression and dilation of parts, as any elastic body.—To sound; to produce a vibratory effect; as, music *vibrates* on the ear.

—*v. a.* To swing; to brandish; to move or wave to and fro; as, to *vibrate* a lith.—To set in vibration, or affect with vibratory motion; as, *vibrated* breath.—To mark, note, or measure by swinging or moving to and fro; as, a pendulum *vibrating* seconds.

Vi'bratile, *a.* Tending to promote, or employed in, vibratory motion.—Possessing a continued vibratory motion.

Vibra'tion, *n.* [Fr., from Lat. *vibro.*] Act of vibrating.

(*Mech.*) The reciprocating motion of a body, as of a pendulum, a musical string, or elastic plate. The term *oscillation* is, however, more frequently used to denote a slow reciprocating motion, as that of the pendulum, which is produced by the action of gravity on the whole mass of the body; while *vibration* is generally confined to a motion with quick reciprocations, as that of a sonorous body, and which proceeds from the reciprocal action of the molecules of the body on each other when their state of equilibrium has been disturbed.

(*Mus.*) That regular reciprocal motion of a body, which, suspended or stretched between two fixed points, swings or shakes to and fro. The vibrations of chords are the source of the different tones emitted.

Vibra'tiuncle, *n.* A small or minor vibration.

Vi'brative, Vi'bratory, *a.* Vibrating; consisting in vibration or oscillation; as, a *vibratory* motion.—Conslug, or tending to, vibration.

Vibur'num, *n.* (*Bot.*) An extensive genus of plants, order *Caprifoliaceæ*, natives of N. America, Europe, and Asia, but not found in tropical regions. *V. lantanoides*, the Hobble-bush, or Wayfaring-tree (Fig. 2581), is a shrub, very ornamental when in flower. It is rather common in the rocky woods of New England and New York, which it adorns in early spring with its large cymes of brilliant white flowers. Height about 5 feet. Branches long and crooked, often trailing and rooting.

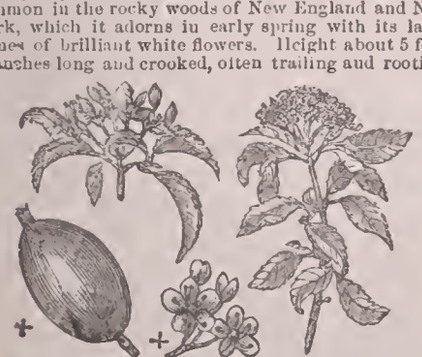


Fig. 2581.—WAYFARING-TREE, (*V. lantanoides.*)

Leaves very large, covered with a rusty pubescence when young, at length becoming green, the dust and down remaining only upon the stalk and veins.—*V. opulus*, the High Cranberry, is a handsome shrub, 8 to 12 feet high, found in woods in the Northern States. Its red fruit resembles the common cranberry in flavor, and is often substituted for it.—*V. acerifolium*, the Maple-leaved *V.*, or Dockmackie, is a shrub 4 to 6 feet high, with yellowish-green bark, growing in woods in the U. States and in Canada.—*V. lentago*, the Sweet *V.*, is a common tree-like shrub, 10 to 15 feet high, found in rocky woods from Canada to Georgia. Its white flowers are succeeded by well-flavored, sweetish berries, of a glaucous black, sometimes called Sheep-berries.—*V. nudum*, the Withe-rod, is a small tree found in swamps in the U. States. It has large cymes on peduncles an inch or two in length; flowers white, numerous; berries black-blue, covered with a glaucous bloom, sweetish when ripe.—*V. tinus*, the Laurestine, also called Snowball-tree and Pelotte de Neige, is an exceedingly beautiful evergreen shrub, from Europe. It is 4 to 6 feet high; leaves acute, veiny, dark shining green above, paler beneath; flowers white, tinged with red, and very showy.

Vic'ar, *n.* [Lat. *vicarius.*] Literally, one who is appointed as deputy to another, to perform his functions in his absence and under his authority. Hence, in the old German empire the imperial *V.* were princes who had the right of representing the Emperor in case of absence or interregnum; and the Pope is sometimes styled Christ's *V.* on earth. Commonly, however, this title is given to the substitute, whether temporary or permanent, employed to act in the place of certain ecclesiastical officials, whether individuals or corporations; as of the Pope, a bishop, a chapter, a parish priest, &c. *V.* take different names from these various considerations. *V.* of the Pope are called "vicars apostolic," and they are generally invested with episcopal authority in a place where there is no canonical bishop. *V.* of a bishop are either "vicars general," who have the full authority of the bishop all over his diocese, or "vicars forane" (Lat. *foraneus*, from *foris*, abroad), whose authority is confined to a particular district, and generally otherwise limited. The name is also applied, especially in the Roman Catholic Church, to the assistant-priest of a curate.

Vic'arage, (*-aj.*) *n.* A vicar's benefice.—A vicar's residence or dwelling-house.

Vica'rial, *a.* [From *vicar.*] Pertaining, or relating to a vicar.—Vicarious; acting by delegation.

Vica'riate, *a.* Exercising vicarious or delegated power.—*n.* Vicarsbip; delegated office or power.

Vica'rious, (*-ŭs.*) *a.* [Lat. *vicarius*, from *vicis.*] Deputed; delegated; pertaining, or having relation to a vicar or substitute as, *vicarious* authority.—Acting or suffering for another; as, a *vicarious* agent.—Filling, or substituted in, the place of another; as, *vicarious* punishment.

Vica'riously, *adv.* In a vicarious manner.

Vice, (*vīs,*) *n.* [Fr., from Lat. *vitium*, a fault, blemish, imperfection, failing.] That which is deserving of being found fault with; a blemish; a stain; an imperfection; a defect; a fault; as, the *vices* of a sensational literary style.—Any voluntary action or course of conduct which deviates from the rules of moral rectitude, or from the plain laws of propriety; any moral unfitness of conduct, either from defect of duty, or from the transgression of known principles of rectitude; depravity or corruption of manners, habits, or customs; wickedness; as, a man notorious for his *vices.*—A fault or bad trick in a horse; as, sound wind and limb, and free from *vice.*

(*Dram.*) The fool or punchinello of the old English morality plays.

—[Fr. *vis*, a screw, from Lat. *vitis*, a vine, the tendril of a vine being remarkable for winding.] A blacksmith's or carpenter's tool for holding a piece of metal, while operating upon it, by placing it between two jaws or nippers, and screwing them towards each other.—A machine for drawing lead into flat rods for case windows.

—*v. a.* (*imp.* and *pp.* VICED, (*vīst.*) To hold as if in a vice.

Vice, [Lat., for, instead of, from *vicis*, turn, change.] A prefix employed in composition, principally in words indicative of persons, and designating one who acts as proxy for another, or who is second in rank, authority, or importance; as, a *vice*-president, a *vice*-admiral, a *vice*-consul, &c.

Vice, *prep.* In stead or lieu of; in the place of; as, A is gazetted major, *vice* B, who retires on half-pay.

Vicegerency, (*-jē'ren-se,*) *n.* Office of a vicegerent; agency under another; deputed power; lieutenancy.

Vicegerent, (*-jē'rent,*) *n.* [Fr. *vicegérant*; Lat. *vicem gerens*—*vicis*, and *gerens*, from *gero*, to bear, to carry, to act.] One who acts in the place of a superior; a lieutenant; a vicar; an officer who is deputed by a superior, or by proper authority, to exercise the powers of another.

—*a.* Possessing or exercising delegated power; acting by substitution, or in the stead of another; as, Christ, the *vicegerent* Son of the Father.

Vicenary, (*vīs'-,*) *a.* [Lat. *vicenarius.*] Pertaining or relating to, or consisting of, twenty.

Vicennial, (*-sĕn'-,*) *a.* [Lat. *vicent*, twenty, and *anni*, years.] Lasting, or comprising, twenty years.

Vicenza, (*ve-chen'za,*) a city of N.E. Italy, cap. of a prov. of same name, 40 m. from Venice. It stands at the confluence of two rivers, one of which divides the town into two parts, connected by bridges and inclosed by walls. The principal buildings are the town-house, the Olympic theatre, (begun by Palladio, and built in imitation of the ancient Roman theatres,) the cathedral, and a number of churches containing valuable paintings. *Manuf.* Silk, woollens, leather, &c.

Vice-presidency, (*-prĕz'-,*) *n.* The office of a vice-president.

Vice-president, (*-prĕz'-,*) *n.* An office-bearer next in rank below a president; as, the *Vice-President* of the United States.

Vice-re'gal, *a.* Pertaining, or having reference to a viceroy or viceroyalty.

Vice'roy, *n.* [Lat. *vice*, and O. Fr. *roy*, a king.] A vice-king; the governor of a kingdom or country who rules in the name of the sovereign with regal authority, as the monarch's substitute.

Viceroy'alty, Vice'royship, *n.* Dignity, office, or jurisdiction of a viceroy.

Vice Versa. [Lat.] Conversely.

Vich, or **Vique,** (*veek.*) a city of Spain, 36 m. from Barcelona. *Manuf.* Linens, printed cottons, &c. *Pop.* 11,772.

Vicha'da, a river of the Republic of Colombia, flows into the Orinoco, after an E. course of 260 m.

Vichy, (*ve-shē',*) a small town of France, dept. of Allier, on the Allier, in a fine valley surrounded by picturesque mountains, 35 m. S.S.E. of Moulins. It is the most fashionable bathing resort in France. The springs, which rise at the foot of the volcanic mountains of Auvergne, are of the alkaline class, and the most efficacious of the kind that are known. They vary in temperature from 68° to 112° Fah., and are used both for drinking and bathing. They are resorted to in cases of indigestion, chronic catarrh, gout, &c.

Vicia, *n.* (*Bot.*) The Vetches, a genus of plants, order *Fabaceæ*, sub-order *Papilionaceæ*, having a tuft of hair on the style beneath the stigma, 10 stamens united, and one free. The species are mostly climbing plants, annuals, with pinnate leaves ending in tendrils, and with no terminal leaflet. The Common Vetch, *V. sativa*, sometimes called *Tare*, introduced from Europe and found in cultivated grounds, and also cultivated in many countries as green food for cattle, has rather large, purple, blue, or red flowers in pairs, axillary and almost sessile. In cultivation, it varies considerably both in size and other particulars, as in the breadth of the leaflets, the number of them in a leaf, &c. Oats are generally sown along with it, to afford it a little support, and thus prevent its rotting in wet weather. *V. Faba* (or *Faba vulgaris*), the Coffee Bean, or Windsor Bean, is a native of Egypt; flowers white, with a large black spot on each of the alæ; seeds very large, with the large hilum at one end (see BEAN). There are several American species.

Vicinage, (*vĭs'in-aj.*) *n.* [Fr. *voisinage*, from Lat. *vicinia*, neighborhood.] Neighborhood; vicinity; the place or places adjoining or near.

Vic'inal, Vic'ine, *a.* Neighboring; near.

Vicin'ity, *n.* [Lat. *vicinitas.*] Quality of being near or neighboring; not remote; proximity; propinquity; as, the *vicinity* of two places of public interest.—Neighborhood; near place; neighboring country; that which is near, or not remote; as, the *vicinity* of Germantown.

Vicious, (*vĭsh'us,*) *a.* [Fr. *vicieux*; Lat. *vitiosus*, from *vitium.*] Full of faults or defects; imperfect; as, a *vicious* argument.—Corrupt in principles or conduct; addicted to vice; depraved; wicked; habitually transgressing the moral law; contrary to rectitude; as, a *vicious* example, a *vicious* class of men.—Foul; impure; insalubrious; as, a *vicious* climate.—Wanting in purity or genuineness; as, *vicious* idioms.—Unruly; refractory; not well trained or broken; as, a *vicious* horse.

Viciously, (*vĭsh'us-ly,*) *a.* In a vicious manner.

Vi'ciousness, *n.* Quality or state of being vicious.

Vicissitude, (*vĭ-sĭs'sĭ-tud,*) *n.* [Fr.; Lat. *vicissitudo*, from *vicis*, change.] Revolution, mutation, or change; as, *vicissitudes* of fortune.—Alternation; regular change or succession of one thing to another; as, the *vicissitude* of the seasons.

Vicissitu'dinary, *a.* Subject to successive vicissitudes.

Vicissitu'dinous, (*-ŭs,*) *a.* Full of changes.—Characterized by, or dependent on, a regular series or succession of changes. (R.)

Vicks'burg, in *Mississippi*, a city and port of entry, cap. of Warren co., on the Mississippi, 50 m. W. of Jackson. It is irregularly built on a range of hills, and is of considerable commercial importance from being one of the principal cotton marts on the Mississippi. During the Civil War, *V.*, a stronghold of the Confederates, after sustaining a heavy and memorable siege, was captured by Gen. Grant, on July 4, 1863. *Pop.* (1897) 15,200.

Vico, (*vē'ko,*) GIOVANNI BATTISTA, an Italian philosopher, and one of the most original thinkers of his age, was b. at Naples in 1668, and became professor of rhetoric in the university of Naples. His principal work is entitled *Principj di una Scienza Nuova*, and first appeared in 1725. It is a philosophy of history, founded on the recognition of certain laws determining the course of events, and the progress of the human race. *V.* anticipated in some important points the speculation of some of the most eminent thinkers of a later time. His work passed through three editions in his lifetime, and then seems to have been long lost sight of. In 1827 Michelet published a French translation of it, and a German translation had appeared a few years earlier. A collected edition of *V.*'s works appeared at Naples in 1818, and was reprinted in 1835. D. 1744.

Vico'sa, or COMETA, a town of Brazil, 140 m. W. of Ceara; *pop.* of dist. 5,000.

Vic'tim, *n.* [Fr. *victime*; Lat. *victima*, probably from *vincio, vinctum*, to bind.] A beast for sacrifice, adorned with the fillet; or, a living being sacrificed to some deity, or in the performance of a religious rite.—Hence, a person or thing immolated, destroyed, or sacrificed in the pursuit of an end or object; as, she fell a *victim* to a seducer's arts.—A person or living thing destroyed by, or suffering grievous injury from another.—Hence, a gull; a dupe; one who is humbugged or cajoled; as, to be the *victim* of a swindler.

Vic'timize, *v. a.* To make a victim of; especially, to

make the victim of a swindling trick or transaction; to gull; to defraud; as, credulity is easily *victimized*.

Vic'tor, *n.* [Lat., from *vinco, victum*, to conquer.] One who conquers in war; a vanquisher; one who defeats an enemy in battle; also, one who vanquishes another in private combat or contest; one who wins or gains the advantage.

—*a.* Victorious; triumphant.

Vic'tor I., Pope, elected about 190, was born in Africa, and was martyred under Severus, in 202.

Victor II., succeeded Leo IX., 1055. He reformed many abuses in the Church, which were condemned at the council of Florence. The council of Lyon against simony, that of Rouen enforcing celibacy among the priesthood, and that of Narbonne excommunicating those who usurped the possessions of the Church, were also convoked by him. D. 1057.

Victor III. was the successor of Gregory VII., 1086. Gnibert, the anti-pope, was supported by the army of Henry IV., and Victor renounced the pontifical dignity, but was induced to resume it in 1087. By the assistance of the Roman nobility and the Duke of Apulia, he expelled the anti-pope from Rome. Henry IV. having declared that he would invade Rome if Victor were not deposed, the senators forced the Pope to evacuate the Vatican. He retired to Monte Casino, and died there, 1088.

Victor IV., an anti-pope, whose usurpation was supported by Frederick I. and some of the cardinals. This gave rise to a schism. D. 1164.

Vic'tor, Claude Pearin, Duke de Belluno, a marshal of France, b. at La Marche (Vosges), 1764. In 1781, he enlisted as a private soldier in an artillery regiment, and so greatly distinguished himself at the outbreak of the revolutionary war, that he rose rapidly to the rank of general. At the battle of Friedland his valor was so conspicuous that Napoleon created him, upon the spot, marshal of France. In 1807 he held the governorship of Berlin, and afterwards served in Spain and Portugal. He was recalled in 1812 to take a command in the grand army about to invade Russia; and at the passage of the Beresina, he held in check the pursuing Russians, and saved a large number of his fellow-soldiers, who would otherwise have fallen into the power of the enemy. During the campaign of 1813 he evinced his accustomed bravery and skill, and at the battle of Craon he was carried off the field severely wounded. After the abdication of Napoleon I, he gave in his adherence to the Bourbons; followed Louis XVIII. to Ghent; became minister of war in 1821; and, in 1823, acted as second in command in the Spanish campaign. D. 1841.

Vic'tor, in *Illinois*, a post-township of De Kalb county.

Victor, in *Michigan*, a post-township of Clinton county.

Victor, in *New York*, a post-village and township of Ontario co., 20 m. S.E. of Rochester.

Victor Amadeus I., (*a-mai-de'us,*) Duke of Savoy, was b. 1587, son of Charles Emmanuel I., and crowned 1630. He married the sister of Louis XIII. of France, and in his latter years commanded the forces of that sovereign in his Italian wars. D. 1637.

Victor Amadeus II., Duke of Savoy, and first king of Sardinia, b. 1665, succeeded his father in the duchy, 1675. He married Maria d'Orleans, niece of Louis XIV., but entered, nevertheless, on a tortuous policy, which involved him in a war with that monarch. Having acquired Sicily, he exchanged that kingdom, in 1717, for Sardinia, by treaty with the Emperor. He died two years after his abdication in favor of his son, 1732.

Victor Amadeus III., son and successor of Charles Emmanuel III., b. 1726, ascended the throne in 1773. He founded the Academy of Sciences at Turin, and exhibited the utmost anxiety for the welfare of his subjects. His hostility to the revolution in France provoked a contest with that country, in which his throne fell by the arms of Bonaparte.

Vic'tor-Emman'uel I., King of Sardinia, son of Victor-Amadeus III., b. 1759, succeeded his brother, Charles Emmanuel IV., 1802, abdicated during a revolt, 1821, and d. 1824.

Victor-Emmanuel II., King of Italy, son of Charles-Albert, King of Sardinia, b. 1820. While heir-apparent, he fought in the campaign against the Austrians, which, terminating in the disastrous battle of Novara, caused his father to abdicate. He became king in 1849, under the most unfavorable circumstances, for he had to avert the consequences of a most disastrous war, to allay faction, and to preserve the constitution; to annul which, it is said, Austria endeavored to bribe him with the offer of Parma. On securing the services of eminent statesmen, and chiefly of the illustrious Cavour, he obtained a treaty of peace with Austria upon comparatively easy terms, and undertook the complete reorganization of the finances, the army, and the system of public education. After forming a close alliance with France, Victor Emmanuel, in 1859, again engaged in a war with Austria, which power, after being totally defeated in a short campaign, abandoned Lombardy to the Italians. In 1861, Victor Emmanuel was proclaimed king of Italy. In 1866, as the ally of Prussia, his army was defeated at Custozza, and his fleet at Lissa; but the success of the Prussians at Sadowa restored Venetia to Italy, the unification of which kingdom Victor Emmanuel completed in 1870, by making Rome his capital. The personal character of the first King of Italy bore a close resemblance to that of Henry IV., King of France, and, like that monarch, he possessed a bonhomie which rendered him popular among all classes of his subjects. Like Henry Quatre, too, Victor Emmanuel I. on several fields of battle displayed an almost reckless bravery; while his penchant for the fair sex was as notorious as was that of his illustrious prototype. His four children are: Clotilde, born 1843, married to Prince Napoleon in 1859; Humbert, born in 1844; Amadeus, Duke d'Aosta, elected King of Spain in 1871; and Maria Pia, born 1847, married in 1862 Louis I., King of Portugal. *V. E.* died at Rome, Jan. 9, 1878, and was succeeded by his son Humbert.

Fig. 2582. — VICTOR-EMMANUEL.

Victo'ria. (*Myth.*) The Roman goddess of victory, sister of Strength and Valor, and one of the attendants upon Jupiter. She was also greatly honored by the Greeks, particularly at Athens. She was represented with wings, crowned with laurel, and holding the branch of a palm-tree in her hand.

Victo'ria, (Alexandrina), Queen of the United Kingdom of Great Britain and Ireland, and Empress of India, the daughter and only child of Edward, Duke of Kent, fourth son of George III., by his wife Maria Louisa Victoria, of Saxe-Coburg-Saalfeld, was b. at Kensington Palace, in May, 1819. The Duchess of Kent, whose first husband had been the Prince of Leiningen, and who was the sister of Leopold, King of the Belgians, devoted herself to superintending the education of *V.*, who ascended the throne of the United Kingdom on June 20, 1837, her uncle, the Duke of Cumberland, becoming King of Hanover, in virtue of the law which excluded females from that throne. In 1840, the Queen became the wife of Prince Albert, second son of the Duke of Saxe-Coburg-Gotha, (see Albert.) The chief public events of her reign are noticed in other parts of this work. (See Great Baitain, Melbourne, Peel, Russell, Derby, Aberdeen, Gladstone, Palmerston, Beaconsfield, India, &c.)

Fig. 2583.—QUEEN VICTORIA IN 1860.

Since the death of her husband, in 1861, the Queen has led a very secluded life—much of her time being passed at her estate of Balmoral in the Scottish Highlands. Queen *V.* has 9 children, the eldest of whom are: Victoria, Princess Royal, born 1840, who married, in 1858, Frederick William, Crown Prince of Prussia, since Emperor of Germany and King of Prussia; Albert Edward, Prince of Wales, heir apparent to the British throne; and Alfred, Duke of Edinburgh, a captain in the British navy. A daughter, Princess Louise, married, in 1871, the Marquis of Lorne, eldest son of the Duke of Argyll. April, 1876, *V.* assumed, by Act Parliament, the title of Empress of India. The fiftieth anniversary of *V.*'s coronation was celebrated with great pomp in June, 1897. Died Jan. 22, 1901.

Victo'ria, in China, a town of the British colony of Hong-Kong. *Pop.* 9,850.

Victoria, in Central Asia, a lake in the table-land of Pamir, 15,000 ft. above the sea. See Nyanza.

Victoria, (formerly Port Philip,) in Australia, a British colonial territory, comprising all that portion of Australia, S. of the Murray River, between Lat. 34° and 39° S., Lon. 141° and 150° E., having N. New South Wales, E. the Pacific, S. Bass's Strait, and W. the colony of S. Australia; *area*, 97,000 sq. m. *Surface*, undulating, with the Australian Alps shutting out the fertile and wooded region called Gipps' Land, from Victoria proper. In the W. are the Grampians and the Australian Pyrenees. *Rivers.* Murray, Loddon, and the Goulburn, besides many salt lagoons or lakes. *Climate.* Healthy. The temperature of Port Philip ranges from 32° to 90° in the year, and may average 60° Fahr. *Prod.* Grain; but sheep- and cattle-rearing are the principal occupations. *Min.* Gold, coal, copper, lead, and manganese. *Exp.* Wool, sheep, cattle, skins, hides, tallow, pork, beef, timber, and mimosa bark. Although one of the youngest, and in point of area the smallest of the colonies of the Australian group, *V.* is already the most important in extent and commerce. *Cap.* Melbourne.

Victo'ria, *n.* (*Bot.*) A gen. of plants, ord. *Nymphaaceæ. V. regia*, the only species known, is a native of equatorial America. The flowers when fully expanded, are more than a foot in diameter, and the leaves, which are curiously turned up at their edges, vary from 4 to

Fig. 2584. — VICTORIA REGIA.

8 feet in diameter. The plant is commonly known in this country as the *V. water-lily*, and in South America as the *Water-maize*, from its edible seeds, which are commonly roasted with maize or Indian corn.

(*Astron.*) An asteroid discovered by Hind in 1850:—also called *Clio*.

—A kind of 4-wheeled carriage, resembling the cabriolet.

Victoria, a city and cap. of British Columbia, at S.E. extremity of Vancouver Island, and on the north shore of the Strait of Juan de Fuca; Lat. 48° 27′ N., Lon. 123° 25′ W. Here is a British naval station, with extensive docks; one of the best harbors on the Pacific. *Pop.* (1897) 18,250.

Victoria, in *Illinois*, a p. v. and township of Knox co.

Victoria, in *Texas*, a S. co.; *area*, 850 sq. m. *Rivers.* Guadalupe, also Coleto and Garcitas creeks. *Surface*, low and flat; *soil*, fertile. *Cap.* Victoria. *Pop.* (1897) 9,500.

—A city, cap. of the above co., 120 m. S.S.E. of Austin *Pop.* (1897) 3,420.

Victoria, in Brazil, a seaport town, cap. of the province of Espirito-Santo, on the Bay of Espirito-Santo, 270 m. N.E. of Rio Janeiro. *Pop.* about 6,000.

Victoria, in Mexico, a town, cap. of the State of Tamaulipas, 300 m. N.E. of Mexico. *Pop.* about 6,500.

Victo'ria Cross, *n.* A decoration instituted by Queen Victoria, in 1856, for the English naval and military services. It consists of a Maltese cross of bronze, with the royal crest in the centre, and underneath an escroll bearing the inscription "For valor;" it is worn with a blue ribbon for the navy, a red ribbon for the army.

Victoria Land, in British N. America, an insular tract N. of Lat. 68° N., and between Lon. 103° and 110° W., having S. Dease Strait, and E. Victoria Strait which separates it from Boothia Felix. — Also the name given to the supposed Antarctic continent, discovered in 1841 by Sir James Ross.

Victoria River, in N. Australia, falls into the Indian Ocean by the æstuary called Queen's Channel, in Lat. 14° 46′ S., Lon. 129° 21′ E.

Victo'ria Strait, that portion of the Arctic Ocean between Prince of Wales' Land and Victoria Land on the W., and Boothia Felix and N. Somerset on the E.

Victorine, (*vik-to-reen'*) *n.* A lady's small fur tippet.

Victo'rious, *a.* [Fr. *victorieux.*] Having gained a victory; having conquered in battle or contest: having overcome an enemy or antagonist; triumphant; conquering; vanquishing; as, a *victorious* army, a *victorious* cause. — That produces victory or conquest. — Emblematic of, or indicating, victory or conquest; as, "brows bound with *victorious* wreaths." — *Shaks.*

Victo'riously, *adv.* With conquest; in a victorious manner.

Vic'tory, *n.* [Fr. *victoire*, from Lat. *victoria.*] Triumph; conquest; the defeat of an enemy in battle, or of an antagonist in a contest; a gaining of the superiority in war or combat; — also, the advantage or superiority gained over spiritual enemies, over passions or appetites, or over temptations, or in any struggle or competition.

Victory, in *New York*, a post-village and township of Cayuga co., 22 m. N.W. of Auburn.—A post-township of Saratoga co.

Victory, in *Vermont*, a post-township of Essex co., 45 m. N.E. of Montpelier.

Victrice, (*vik'tris,*) *n.* [Lat. *victrix.*] A female victor.

Victual, (*vit'l,*) *v. a.* (*imp.* and *pp.* victualled, (*vit'ld.*) [From the n. pl. *victuals.*] To furnish or supply with victuals or provisions; as, to *victual* a ship, an army, or a city.

Victualler, (*vit'l-er,*) *n.* One who supplies victuals.

Victuals, (*vit'lz,*) *n. pl.* [Fr. *victuaille*; Lat. *victualia*, provisions] That which supports human life; food for human beings, prepared for eating: provisions; meat; sustenance; viands; as, broken *victuals.*

Vicu'na, Vicug'na, *n.* (*Zoöl.*) See Llama.

Vida'lia, in *Louisiana*, a post-town, cap. of Concordia parish, on the Mississippi, opposite Natchez.

Vidâme, (*ve-dahm',*) *n.* [Fr., from Lat. *vice-dominus.*] (*Fr. Feudal law.*) Originally, an officer who represented the bishop, as the viscount did the court. In course of time, these dignitaries erected their offices into fiefs, and became feudal nobles.

Vi'de. [Lat. imper. of *videre,* to see.] See;—employed as a reference, or to direct the attention to something.

Vide'licet, *adv.* [Lat., for *vide licet* — *vide,* imper. of *videre,* to see, and *licet,* it is permitted.] That is; namely; to wit;—commonly abbreviated *viz.*

Vidette, Vedette, (*-dĕt',*) *n.* [Fr. *vedette;* It. *vedetta,* from Lat. *video,* to see.] (*Mil.*) A mounted patrol or sentinel stationed on the outpost of an army to observe or watch an enemy, and give notice of danger, or of their movements, &c.

Vid'imus, *n.* [Lat., we have seen.] An examination or inspection, as of accounts or documents.

Vido'nia, *n.* A brisk, white wine, grown in the island of Teneriffe.

Vie, *v. a.* [A. S. *wigan.*] To contend or strive for superiority; to use effort in a race, contest, competition, rivalry, or strife.

Vielle, (*vē'el.*) *n.* The French term for a hurdy-gurdy.

Vien'na. [Ger. *Wien,* (*veen.*] The capital of the Austrian empire, and one of the finest cities in Europe. It is situated on the S.E. bank of the Danube, where the river Wien joins it, and is surrounded by a large and fertile plain. It consists of a central, or old city, and a new, or external city, composed of 34 suburbs, and lies in Lat. 48° 12′ N., and Lon. 10° 20′ E. The circuit of the whole city is 20 m. The streets are generally well paved, lighted, and clean, and the houses built mostly of brick, from five to six stories in height. The old city, once the most fashionable quarter, and, though irregularly built, has many fine squares and palaces, besides the imperial residence. The most remarkable of the public buildings are the cathedral of St. Stephen, a Gothic edifice, with a tower 453 ft. in height; the churches of the Augustines and of the Capuchins; the royal palace, with one of the richest collections of valuable curiosities in Europe; the imperial library, containing 300,000 volumes and many thousand MSS.; the archbishop's palace, the Belvidere and Schönbrunn (an imperial palace), the arsenal, custom-house, university, new city hall, parliament house, opera house, &c. The *Ring-Strasse,* 150 ft. wide, is perhaps the handsomest st. in Europe. The university—with one of the best schools of medicine in Germany—has 80 professors and above 2,000 students attached to it. Few cities are so richly ornamented with works of art, or have such splendid promenades as *V.* Of the ten most important of these places of public resort, the Prater is considered the gayest and most magnificent. *V.,* being the centre of the empire, is also the centre of all its trade and commerce, and, by means of the Danube line of steamers, has direct communication with Constantinople, Trebizond, and Smyrna, as well as with the Levant. The manufactures are silks, velvets, shawls, woollen cloths, ribbons, lace, straw hats, carpets, gold and silver lace, mathematical instruments, carriages, leather, paper, jewelry, &c. The environs of *V.* are very fertile and picturesque. To the N. are the islands of the Danube; to the W. the lofty summits of the Kahlenberg; to the S., mountains covered with vineyards and extensive forests; and to the E., vast plains, bounded at the farthest horizon by hills. The islands are adorned by many villas, and few cities are surrounded by so many fine gardens which contain some of the rarest plants. *V.* was, under the name of *Vindobona,* long the headquarters of a Roman legion, and afterwards fell successively into the hands of the Goths and Huns. In 791 Charlemagne attached it to his dominions. It was often threatened in the wars with the Hungarians and Turks, who, in 1529, destroyed the suburbs. In 1797 it was threatened by Napoleon I., and occupied by him in 1805 and 1809. On both occasions, proper discipline was observed by the invaders, and little injury was done. In 1814 and 1815, the Congress of *V.* assembled there for the settlement of the affairs of Europe, and on June 9, 1815, the arrangements were collected in one grand act of 121 articles, signed by representatives of the principal European powers. In 1890 the city limits were extended to an area of 63·7 sq. m. *Pop.* (1897) 1,500,000.

Vien'na, in *Alabama,* a village and twp. of Pickens co., 135 m. W.N.W. of Montgomery.

Vienna, in *Georgia,* a post-village, cap. of Dooly co., 90 m. S.W. of Milledgeville.

Vienna, in *Illinois,* a township of Grundy co.—A post-village and township, cap. of Johnson co., 190 m. S.E. of Springfield.

Vienna, in *Indiana,* a post-village and township of Scott co., 8 m. W. of Lexington.

Vienna, in *Iowa,* a post-township of Marshall co., abt. 32 m. S.W. of Cedar Falls.

Vienna, in *Kansas,* a post-township of Pottawattomie co.

Vienna, in *Maine,* a post-township of Kennebec co., 22 m. N.W. of Augusta.

Vienna, in *Mich.,* a twp. of Genesee co.

Vienna, in *Missouri,* a post-village, cap. of Maries co., abt. 32 m. S.S.E. of Jefferson City.

Vienna, in *New Jersey,* a post-village of Warren co., 48 m. N.W. of Trenton.

Vienna, in *New York,* a post-village and township of Oneida county, on Oneida Lake, 120 miles south-west of Albany.—A village of Ontario county, 7 miles north north-west of Geneva.

Vienna, in *Ohio,* a village of Clarke co., 34 m. W. of Columbus.—A post-village and township of Trumbull co., 10 m. E. of Warren.

Vienna, in prov. of Ontario, a post-village of Elgin co., 134 m. S.W. of Toronto.

Vien'na, in *Wisconsin,* a township of Dane county.—A post-village of Walworth county, 55 miles S.E. of Madison.

Vienne, (*ve-en',*) in France, a river which rises in the dept. of Corrèze, and joins the Loire, in the dept. of Indre-et-Loire, after a N.N.W. course of 220 m.—A W. dept. formed of the anc. prov. of Upper Poitou, and bounded N. by the dept. of Indre-et-Loire, and S. by Charente; *area,* 2,690 sq. m. *Surface,* flat; *soil,* sandy and partly fertile. *Rivers.* The Vienne, Clain, Charente, Gartempe, Creuse, and the Dive. *Prod.* Corn, potatoes, hemp, flax, and wine; horses, mules, and sheep of a superior quality are reared. *Min.* Iron and lithographic stones. *Manuf.* Arms and cutlery. *Cap.* Poitiers. *Pop.* 324,527.—A town of the dept. of Isère, on the Rhone, 47 m. W.N.W. of Grenoble. *Manuf.* Woollens, silk, and paper. A council was held here in 1311, which abolished the order of the Templars. *Pop.* 22,828.

Vienne, (Haute.) in France, a W. dept., formed from a part of the anc. prov. of Limousin, and bounded by the depts. of Creuse, Corrèzo, Dordogne, Charente, Vienne, and Indre; *area,* 2,130 sq. m. *Surface,* mountainous; *soil,* moderately fertile. *Rivers.* Vienne and Gartempe. *Prod.* Horses, cattle, and sheep are extensively reared. *Min.* Tin, lead, copper, iron, coal, and porcelain clay. *Manuf.* Porcelain, cutlery, and paper. *Cap.* Limoges. *Pop.* 326,037.

Viennese, (*-nēz',*) *a.* (*Geog.*) Pertaining, or having reference, to Vienna, or to its inhabitants.

—*n. sing.* and *pl.* (*Geog.*) A native or inhabitant of Vienna;—plurally, the people of Vienna.

Viersen, (*feer'sen,*) a town of Prussian Westphalia, on the Niers, 18 m. W. of Düsseldorf; *pop.* 4,399.

Vierzon, (*veer'zawng,*) in France, a town of the dept. of Cher, 17 m. N.W of Bourges. *Manuf.* Woollens, silks, porcelain, earthenware, and cannon. *Pop.* 7,480.

Viesti, (*ve-es'te.*) a seaport of S. Italy, at the extremity of the promontory of Monte Gorgano, 22 m. from Manfredonia. *Pop.* 5,643.

Vieux'temps, Henri, a Belgian violinist, b. at Verviers, 1820. He appeared with success in Paris and Vienna, in 1830, and from that time became a public favorite. He several times visited this country. His playing was chiefly distinguished for elegance and correctness of execution. His compositions combine the qualities of classical and modern music. D. 1881.

View, (*vu.*) *v. a.* [Fr. *vue,* from *voir* = Lat. *videre,* to see.] To see, look at, or behold; to survey; to examine with the eye; to look on with attention, or for the purpose of examining; to inspect; to explore; as, to *view* a landscape.—To see or perceive by the mental eye; to survey intellectually; to consider; to examine with the mental vision; as, to *view* the course of events.

—*n.* Act or power of seeing or beholding; survey; sight; inspection; examination or exploration by the eye.—Hence, intellectual or mental survey or examination.—Reach or scope of the eye; intellectual or mental sight or power of vision; range of prospect; as, objects near our *view.*—The whole extent seen; scene; display exhibited to the sight or mind; as, to give a right or wrong *view* of a thing.—Hence, a pictorial sketch or design, as of a landscape; representation of a scene.—Manner of seeing or understanding; mode of apprehension; judgment; opinion; conception; as, you take an incorrect *view* of the case.—Aim; design; purpose; intention; as, he does this with a *view* to business.—Appearance; aspect; show; as, "The splendor of her *view*."—*Waller.*

Field of view, the whole area seen through an optical instrument.—*Point of view,* the direction from which one looks at a person or thing.—*View-halloo,* the shout uttered by a hunter on sighting the animal of chase.

Viewer, (*vū'ur,*) *n.* One who views or sees.

(*Law.*) A person appointed by a court to see and examine certain matters and make a report of the facts, together with his opinion. In practice, viewers are usually appointed to lay out roads, inspect mines, and the like.

View'less, *a.* That cannot be viewed or seen; invisible; not being perceivable by the eye.

Vigan, (Le,) (*ve'ga,*) in France, a town of the dept. of Gard, 28 m. N N.W. of Montpellier. *Manuf.* Silk, cotton, paper, and glass. *Pop.* 5,940.

Vigesimo-quarto, (*kwor'to,*) *a.* Formed of sheets folded so as to make twenty-four leaves, as a book.

—*n.* A vigesimo-quarto book.—The size of a book so composed;—generally noted thus, 24*mo.,* or 24°.

Vigevano, (*ve-jai-va'no,*) in Italy, a town of the prov. of Novara, on the Mora, 15 m. S.E. of Novara. *Manuf.* Silks, linen, and cotton fabrics, hats, soap, and macaroni. *Pop.* 19,440.

Viggiano, (*vid-ja'no,*) in Italy, a town of the prov. of Potenza, 9 m. S.E. of Marsico-Nuovo. *Manuf.* Woollens, soap, and wax-candles. *Pop.* 6,580.

Vigia, (*ve-zhee'a,*) a town of Brazil, 50 m. N. of Para; *pop.* of dist. abt. 10,000.

Vigil, (*vij'-,*) *n.* [Fr. *vigile,* from Lat. *vigilia,* a watching.] State of being awake; watch; sleeplessness.—Devotion performed in the customary hours of rest or sleep; religious watching; as, "*Vigils* pale-eyed virgins keep."—*Pope.*

(*Eccl.*) The evening before a feast-day;—hence, a religious service performed in the evening preceding a holiday; a fast observed on the day preceding a festival.

Vigilance, (*vij'e-lans,*) *n.* [Fr., from Lat. *vigilantia.*] A state of being awake; watchfulness; forbearance of sleep; circumspection; guard; watch; attention of the mind in guarding against danger, or providing for safety.

V. committee, a self-constituted body of persons, who, in wild and lawless districts of the U. States, take upon themselves the capture and punishment of those who are suspected or proved guilty of crimes or serious offences against the common weal.

Vig'ilant, *a.* Wakeful; watchful; with the attention on the alert; circumspect; studious to discover and avoid danger, or to provide for safety; as, a *vigilant* sentinel or look-out.

Vig'ilantly, *adv.* With vigilance; wakefully.

Vigilius, (*vi-jil'i-us,*) Pope, a Roman, who, in 537, obtained that dignity from Theodora, wife of Justinian, on a promise to revoke the acts of the council of Constantinople against the Eutychian bishops. He afterwards published a condemnation of that sect, for which he was persecuted and banished. D. at Syracuse, 555.

Viginitivirate, (*vij-in-tiv'-,*) *n.* [From Lat. *viginti,* twenty, and *vir,* man.] A body of governing functionaries consisting of twenty men.

Vignette, (*vi-net',*) *n.* [Fr., dimin. of *vigne* = Lat. *vinia,* a plantation of vines.] (*Arch.*) An ornament of vine-leaves, tendrils, and grapes, used in Gothic architecture (Fig. 2585). A capital letter in ancient manuscripts;—so called in consequence of their being frequently ornamented with flourishes, in the manner of vine-branches or tendrils. Subsequently, the term was used to signify any large ornament at the top of a page.

Fig. 2585.—VIGNETTE.

(*Print.*) A small ornamental engraving without complete background or boundary-line, used in printing for the illustration or decoration of a page of any work.

Vignola, (*veen-yo'la.*) in Italy, a town of the prov. of Potenza, 5 m. S.W. of Potenza; *pop.* 4,620.

Vignola, the common appellation of Giacomo Barozzi, a celebrated Italian architect, b. at Vignola, 1507, successor of Michael Angelo in the works of St. Peter's, and author of a treatise on the *Five Orders.* D. 1573.

Vigny, (*vain-ye',*) Alfred Victor, Count de, a French poet and novelist, b. at Loche (Indre-et-Loire), of a noble family, in 1799. His most celebrated prose work is the historical novel of *Cinq-Mars,* which appeared in 1826, passed through many editions, and has been translated into the principal languages of Europe. He was also author of several plays, among which are the *Marshal d'Ancre,* and *Chatterton. V.* was a member of the French Academy. D. 1863.

Vigo, (*ve'go,*) in Spain, a seaport-town of the prov. of Pontevedra, 76 m. S.S.E. of Corunna; *pop.* 4,350.

Vi'go, in *Indiana,* a W. co., bordering on Illinois; *area,* 400 sq. m. It is drained by the Wabash River. *Surface,* undulating; *soil,* very fertile. *Min.* Coal, limestone, and freestone. *Cap.* Terre Haute.

Vigo, in *Indiana,* a twp. of Knox co.

Vigo'ne, in Italy, a town of the prov. of Turin, 9 m. E.S.E. of Pinerola; *pop.* 6,930.

Vig'or, *n.* [Lat., from *vigeo,* to be lively or vigorous.] Active strength or physical force in animals; as, man's bodily *vigor.*—Strength or force in animal or vegetable motion; as, grain grows with *vigor.*—Intellectual force or energy; strength of mind; as, *vigor* of intellect.—Liveliness; activity; energy; efficacy.

Vigoro'so. [It.] (*Mus.*) With strength and firmness.

Vig'orous, *a.* [Fr. *vigoureux.*] Full of vigor, physical strength, or active force; strong; lusty; brawny; powerful; as, a *vigorous* body, *vigorous* health.—Indicating mental or physical strength; as, a *vigorous* blow, a *vigorous* style of composition.

Vig'orously, *adv.* In a vigorous manner.

Vig'orousness, *n.* Quality of being vigorous.

Vi'king. (*Hist.*) One of the sea-rovers, or pirate chiefs, of the old Norsemen, who ravaged the coasts of Europe in the Dark Ages.

Vile, *a.* [Fr., from Lat. *vilis.*] Of small value; cheap; despicable; worthless; mean; base; lightly esteemed; as, a *vile* thing, a *vile* condition of life.—Sinful; depraved by iniquity; morally base or impure; bad; wicked; sordid; abject; as, a *vile* act, *vile* hypocrisy, a *vile* character.

Vile'ly, *adv.* In a vile manner; shamefully; basely.

Vile'ness, *n.* State or quality of being vile; despicableness; baseness; meanness; as, the *vileness* of a bad dinner.—Moral baseness, depravity, or iniquity; extreme wickedness or turpitude; degradation by sin; as, the *vileness* of treachery.

Vilifica'tion, *n.* Act of vilifying, traducing, or defaming.

Vil'ifier, *n.* One who vilifies; a defamer; a traducer.

Vil'ify, *v. a.* [Lat. *vilis,* vile, and *facio,* to make.] To make vile; to degrade; to debase.—To traduce; to defame; to attempt to degrade or bring into contempt by slanderous means; as, to *vilify* one's betters.

Vill, *n.* [Fr. *ville,* a town, city, from Lat. *villa,* a country-house.] A village; a small collection of houses;—a word possessing various meanings in English law, being used as indicating a tithing; a manor; a parish; a township; a village; a part of a parish.

Vil'la, *n.; pl.* Villas, *n.* [Lat., a country-house, probably from Sansk. *valaya,* a fence, inclosure.] A country-house or seat, usually one for the residence of a well-to-do or opulent person.

Villa Bella da Prince'za, in Brazil, a town of the island of São Sebastao, 85 m. E. of Sao Paulo; *pop.* 4,000.

Villa del Fuerte, (*vel'ya-del-fwer-ta,*) a town of Mexico, 75 m. N. of Cimaloa; *pop.* 6,000.

Villa (or **San'ta Mari'a) del Prin'cipe.** See Puerto Principe.

Villa do Rio Par'do, in Brazil, a town of the prov.

of Rio Grande do Sul, 80 m. W. of Porto-Alegre; *pop.* of dist. 6,000.

Vil'la-Flor, in Brazil, a town of the prov. of Rio Grande do Norte, 30 m. S E. of Natal; *pop.* 3,000.

Villa Fran'ca, a town of the island of St. Michael, one of the Azores; *pop.* 4,350.

Villa Franca, in Italy, a town of the prov. of Turin, on the Po, 30 m. from the city of Turin; *pop.* 9,460.

—Also, a town of the prov. of Verona, 9 m. from Verona; *pop.* 6,550. Here, in 1859, were signed the preliminaries of the treaty which closed the war between France and Sardinia, on the one side, and Anstria on the other, and which were ratified by the treaty of Zurich.

Villa Franca, in Brazil, a town of the prov. of Para, 20 m. S.W. of Santarem; *pop.* 5,000.

Villa Fran'ca de Pana'des, in Spain, a town of the prov. of Barcelona, 27 m. from Barcelona; *pop.* 6,160.

Village, (*vil'laj,*) *n.* [Fr., from Lat. *villa.*] A small collection or assemblage of houses, less than a town or city, and larger than a hamlet.

Village, in *Arkansas,* a township of Jackson county.

Village Green, in *Pennsylvania,* a post-village of Delaware co., 4 m. W.N.W. of Chester.

Vil'lager, (*-jĕr,*) *n.* An inhabitant of, or resident in, a village.

Village Springs, in *Alabama,* a post-township of Blount co.

Villa Joyosa (*ho-yo'sa*), a town of Spain, in Valencia, 16 m. from Alicante. *Pop.* (1897) 10,160.

Villamont', in *Arkansas,* a prosperous township of Jefferson co.

Villano'va, in *New York,* a post-township of Chautauqua co., 15 m. E.S.E. of Dunkirk.

Villa-No'va, a town of Brazil, 12 m. N.E. of Rio de Janeiro; *pop.* 2,500.

Villano'va da Rain'ha, in Brazil, a town of the prov. of Para, at the junction of the Canoma and Manhe with the Amazons.

Villanova da Rainha, or CAHETE, in Brazil, a town of Minas Geraes, 25 m. S.E of Sabara; *pop.* 7,000.

Villano'va de San Anto'nio, in Brazil, a town of the prov. of Sergife, on the Sao Francisco River, 10 m. N. of the Atlantic; *pop.* 5,000.

Villano'va de Sou'za, a town of Brazil, 280 m. W. of Parahiba; *pop.* 6,000.

Villano'va do Principe', in Brazil, a town of the prov. of Rio Grande do Norte, 150 m. W.S.W. of Natal; *pop.* 4,000.

Villa Real, (*rai'al,*) a town of Portugal, prov. of Trasos-Montes, on the Corgo, 15 m. from Lamego; *pop.* 5,122.

Villa Real, a town of Spain, in Valencia, on the river Mijares, 5 m. from the Mediterranean. *Manuf.* Woollens and silks. *Pop.* 9,016.

Villa Re'al de Concep'cion, a town of Paraguay, 130 m. N.N.E. of Asuncion; *pop.* abt. 4,000.

Villars, (*ve-yar',*) LOUIS HECTOR, DUKE DE, and marshal of France, was B. at Moulins in 1653. He began his career as a soldier in Holland, serving in the corps commanded by Louis XIV. in person; next in Germany, under Condé and Turenne, and at the age of 21 he became colonel of a regt. of cavalry. He accepted the task of subduing the *Camisards,* the Protestants of the Cevennes; in which he appears to have shown all the humane consideration which could be combined with the suppression of the religious revolt. In 1705, he established the famous camp of Sirck, on the heights near Fronsberg, a position naturally so strong that Marlborough did not venture to attack it. Resuming the offensive, he had a series of successes, but was defeated by Marlborough at Rumillies in 1706. He passed the Rhine, and forced the imperial lines at Stollhofen, but some of his troops being withdrawn, he had to retire. After a short campaign in Savoy he again took the command in Flanders; was defeated by Prince Eugene and the Duke of Marlborough, and severely wounded at Malplaquet, in 1709; and after a compulsory retirement to recover his health, he attacked successfully, in 1712, the intrenched camp of Denain, and took several towns and fortresses. The treaty of Utrecht was concluded in the following year, and the peace of Rastadt followed in 1714. For the next 18 years *V.* exchanged service in the field for the intrigues of the court. He attended Louis XIV. on his death-bed, was admitted into the French Academy, and, as a member of the Council of Regency, opposed the Quadruple Alliance, the financial operations of Law, and the influence of Dubois. His rival, Fleury, finally supplanted him. On the outbreak of the war with Austria, in 1732, although more than 80 years of age, he accepted the command in Italy, with the title of marshal-general of France; but after a successful commencement he demanded his recall, and D. at Turin in 1734.

Villain, (*vil'lan* or *vil'lăn,*) *n.* [O. Fr.; Fr. *vilain;* Sp. *villáno,* worthless, from L. Lat. *villanus,* a husbandman.] Originally, under the feudal law, one who held lands by a base or servile tenure; a villein; a feudal tenant of the lowest class.— Hence, a boor; a bumpkin; a rude, clownish person. (R.) — Specifically, a vile, wicked person; a deliberate scoundrel; a designing knave; a man extremely depraved, and guilty of, or capable of committing, great crimes; a consummate rascal; a base or heartless profligate.

—*a.* Villanous. (R.)

Vil'lainous, *a.* Same as VILLANOUS, *q. v.*

Vil'lakin, *n.* A little village; or, a small villa.

Vil'lanize, *v. a.* To make vile; to debase; to degrade; to defame; as, "The *villanizing* of mankind to the condition of beasts."—*Bentley.*

Vil'lanizer, *n.* One who villanizes, degrades, or debases.

Vil'lanous, Vil'lainous, *a.* Like a villain; becoming a villain; base; vile; atrocious; detestable; — hence, depraved; wicked; capable of extreme turpitude; as, a *villanous* wretch. — Resulting from extreme depravity: as, a *villanous* deed.—Sorry; mean; low; vile; pitiful; mischievous;—in a familiar sense; as, a *villanous* scrawl, a *villanous* trick, a *villunous* subterfuge.

Vil'lanously, *adv.* Wickedly; basely; vilely.

Vil'lanousness, *n.* Baseness; wickedness.

Vil'lany, Vil'lainy, *n.* [O. Fr.; Fr. *vilenie.*] Something villanous; atrocious wickedness; turpitude; extreme depravity; an action of base wickedness; as, the *villany* of a seducer. — An action characterized by extreme baseness or depravity; a crime; an odious or capital offence. — Obscene speech or written language; depraved employment of thought or talk; cant; lingo.

Villat'ic, *a.* [Lat. *villaticus.*] Pertaining to a village.

Villa Vicio'sa, a town of Brazil, 150 m. W. of Ceara; *pop.* 6,000.

Villehardouin, GEOFFROY DE, (*vel'har-doo-ăn,*) a French historian, B. near Arcis-sur-Aube, 1167, was maréchal of Champagne under Thibaut *V.*, Count of Champagne and Brie. He distinguished himself in 1199, in the fourth crusade; was present at the taking of Constantinople in 1204; and was created marshal of Romania by the Emperor Baldwin I. The Emperor Henry gave him the city of Messinopolis, and his descendants, during two centuries, ruled over principalities in Greece. He wrote the *History of the Taking of Constantinople by the French and Venetians,* a narrative remarkable for its brevity and clearness, and as being the oldest history in French prose. D. in Thessaly, 1213.

Vil'leinage, VILLAINAGE, VILLENAGE, *n.* (*Feud. Law.*) The state of a villain or villein, or of lands or tenements held by a feudal tenant of the lowest class.

Villemain, (*vĕl'mah,*) ABEL FRANÇOIS, a French historian and statesman, who so early distinguished himself as a scholar, as to gain the appointment of professor of rhetoric in the Collége Charlemagne in his 19th year. In 1816 he became assistant professor of modern history in the University of Paris. In 1833 he was created a peer of France, and in the Guizot ministry acted as minister of public instruction. He retired into private life after the revolution of 1848. His principal works are: *Cours de Littérature Française, Tableau du XVIII. Siècle; Discours et Mélanges Littéraires* (1823); *Nouveaux Mélanges Historiques et Littéraires* (1827); *Etudes de Littérature Ancienne et Etrangère* (1846); *Tableau de l'Eloquence Chrétienne au IV. Siècle* (2d. ed. 1849); *Etudes d'Histoire Moderne* (1846); *Souvenirs Contemporains d'Histoire et de Littérature* (1856); *Choix d'Etudes sur la Littérature Contemporaine* (1857); *La Tribune Contemporaine, M. de Chateaubriand* (1857); *Essais sur le Génie de Pindare et sur la Poésie Lyrique* (1859); besides a vast number of essays, studies, discourses, notices, and reports, addressed to the French Academy, of which he was secretary from 1832 until his death, in 1870.

Villena, (*vel-yai'na,*) a town of Spain, prov. of Alicante, 66 m. S.S.W. of Valencia. *Manuf.* Soap and coarse woollens. *Pop.* 8,736.

Vil'li, *n. pl.* [Lat. *pl.* of *villus,* a tuft of hair.] (*Anat.*) Minute vascular processes covering, in the proportion of about 25 to every square line, the surface of the mucous membrane of the small intestine, and giving it a velvety or fleecy appearance. They promote the absorption of chyle from the completely digested food. The term is also applied to the minute vascular processes of the chorian and other membranes.

(*Bot.*) Fine hairs or flocculence on plants, resembling in feel and texture the pile of velvet.

Vil'liers, GEORGE. See BUCKINGHAM (DUKE OF).

Vil'lingen, a fortified town of the grand-duchy of Baden, 43 m. N.W. of Constance; *pop.* 4,350.

Vil'lose, (*-lōs,*) **Vil'lous,** (*-lŭs,*) *a.* [Fr. *villeux,* from Lat. *villosus — villus,* hair.] Nappy; abounding with fine hairs, or woolly substance.

(*Anat.*) Downy; velvety; as, the *villous* surface of the mucous membrane of the small intestine.

Villos'ity, *n.* (*Bot.*) State or quality of being villose or villous. — A covering of long, fine hairs.

Vilvoor'den, a town of Belgium, prov. of S. Brabant, 6 m. N.N.E. of Brussels; *pop.* 5,750.

Vim, *n.* [From Lat. *vimen,* a twig, a shoot.] Spirit; life; energy; go; nerve; as, a man full of *vim.*

Vi'men, *n.* [Lat.] (*Bot.*) A long, slender, flexible twig, shoot, or sprout.

Vimin'eous, *a.* Constructed of twigs or shoots.

(*Bot.*) Sending out slender twigs or shoots.

Vinaceous, (*vī-nā'shus,*) *a.* [From Lat. *vinum,* wine.] Pertaining, or relating to wine or grapes. — Presenting the color of wine.

Vinaigrette, (*vĭn-ā-grĕt',*) *n.* [Fr., from *vinaigre,* vinegar.] A small bottle or case for holding vinegar.— A small étui of gold, silver, or crystal, with perforations on the top; for holding aromatic vinegar, contained in a sponge. — A sauce, of which vinegar and oil form the chief ingredients.

Vinalha'ven, in *Maine,* a township of Knox co., 60 m. E.S.E. of Augusta.

Vinaroz, (*ve-na'roth,*) a town of Spain, prov. of Castellon de la Plana, near the mouth of the Ebro, close to the Mediterranean.

Vin'ca, *n.* (*Bot.*) The Periwinkles, a genus of plants, order *Apocynaceæ.* The Lesser and Lower Periwinkles, *V. minor* and *major,* are handsome evergreen shrubs, several feet high, with slender, straggling branches, very leafy; flowers violet or blue, solitary, alternate, and inodorous. They are natives of Europe.

Vincennes, (*van-sĕn',*) a town of France, dept. of Seine, near the confluence of the Seine and Marne, 3 m. E.S.E. of Paris. It is remarkable for its castle, built in the 14th century, of which only one tower remains, known as the *Donjon de V.*, 170 feet high, with walls 17 feet thick. It was long used as a state-prison. The *Bois de V.*, with its rivulets and agreeable walks, was destroyed during the siege of Paris by the Prussians, in 1870–71.

Vincennes (*vin-senz'*), in *Indiana,* a thriving city, cap. of Knox co., on the Wabash river, 120 m. S.W. of Indianapolis; Lat. 38° 43′ N., Lon. 87° 25′ W. It contains numerous foundries, woollen factories, flour-mills, &c. *Pop.* (1897) 10,000.

Vin'cent De Paul, (St.,) the eminent French philanthropist, was B. at Ranquines, in the department of the Landes, April 24, 1577. After studying in a convent of the Cordeliers, he went to the university of Toulouse, and, in 1600, was ordained priest. On a voyage from Marseilles to Narbonne, he was captured by pirates, and sent to Tunis, where he was kept in slavery for two years under three masters, the last of whom he converted to Christianity, and escaped with him to France, in 1607. He soon after settled at Paris, devoting himself to works of charity. An absurd accusation of theft was brought against him there, the falseness of which could not be proved for six years. He was named almoner to Margaret of Valois, held for a short time the cure of Clichy, and, in 1613, became tutor to the sons of Philippe de Gondi, one of whom became afterwards celebrated as the Cardinal de Retz. In 1616 he began those labors as a missionary which occupied so large a part of his life, and the next year he founded the *Confrérie de Charité,* the model of so many others afterwards established. His next great task was the reform of the condition of criminals condemned to the galleys; for which great service he was appointed almoner-general of the galleys. This unwearied philanthropist founded, in 1623, the Congregation of the Mission, which was constituted by royal letters patent, and approved by the Pope. In 1634 he instituted the order of *Sisters of Charity,* the most widely known, perhaps, of all his foundations. But the charitable institutions which owed their origin to him are too numerous to be mentioned here. He attended Louis XIII. on his death-bed; was named by the Queen Regent Anne of Austria, president of the Council of Conscience, took part in the controversy between the Jesuits and the Jansenists, against the latter; and D. in the convent of the Lazarists, Sept. 27, 1660. He left several theological writings, and was canonized by Pope Clement XII., in 1737.

Vin'cent, (St.,) one of the Cape Verde Islands, in the Atlantic Ocean. It is 15 m. long and 9 broad.

Vin'cent, (St.,) in the W. Indies. See SAINT VINCENT.

Vincent, (St.,) a gulf of S. Australia, which communicates with Spencer Gulf by Investigator Strait; Lat. between 34° and 35° 40′ S., Lon. 137° E.

Vincent, (Cape St.,) the S.W. point of Portugal, noted for the naval victory gained near it in 1797, by Sir John Jervis over the French fleet; Lat. 37° 2′ 54″ N., Lon. 8° 58′ 39″ W.

Vin'cent-town, in *New Jersey,* a post-village of Burlington co., 5 m. S.S.E. of Mount Holly.

Vinci, LEONARDO DA, a great Italian painter, born at Vinci, near Florence, 1452. In 1483 he entered the service of Lodovico il Moro, Duke of Milan. In 1485 he established an academy of the arts at Milan, and abt. ten years later, executed his celebrated picture of the *Last Supper,* in oil colors, on the wall of the refectory of the convent of the *Madonna delle Grazie* in that city. In 1514 Leonardo visited Rome, but left shortly afterwards without executing any works there, owing partly to a misunderstanding with Michael Angelo, and also to the

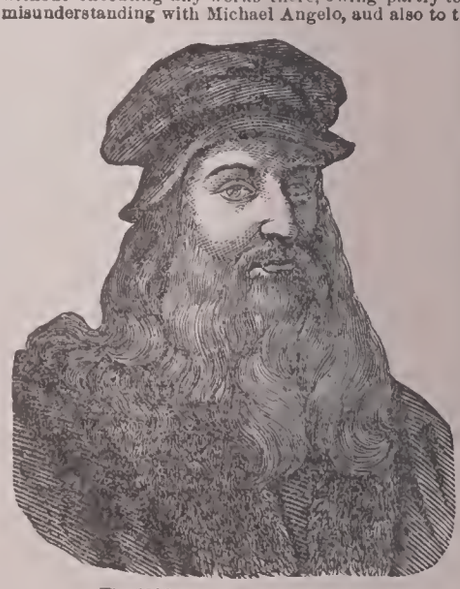


Fig. 2586. — LEONARDO DA VINCI.

Pope's want of proper appreciation of his capabilities; he entered the service of Francis I., accompanied that king to France in 1516, and he died in France at Cloux, near Amboise, May 2, 1519. Leonardo da Vinci has the most remarkable reputation of any of the illustrious artists of Italy. He was a man of universal ability in science and art; he excelled in painting, sculpture, architecture, engineering and mechanics generally; in botany, anatomy, mathematics, and astrono-

my; and he was also a poet, and an admirable extempore performer on the lute. The principal of his literary works is the *Trattato della Pittura*, of which there are divers editions in several languages.

Vincibil'ity, Vin'cibleness, *n.* State or quality of being vincible.

Vin'cible, *a.* That may be vanquished or overcome.

Vinculum, (*vĭnk'yu-lŭm,*) *n.*; *pl.* VINCULA. [Lat., from *vincio*, to bind.] A tie; a bond of union.

(*Algebra.*) A mark or character which connects several letters or quantities, and indicates that they are to be treated as a single quantity.

Vindicabil'ity, *n.* State or quality of being vindicable.

Vin'dicable, *a.* That may be vindicated or justified.

Vin'dicate, *v. a.* [Lat. *vindico, vindicatum.*] To assert power, authority, or influence in regard to; to arrogate; to lay claim to; as, "The beauty shall *vindicate* her trade." (*Dryden.*) — To defend; to justify; to support or maintain as true or correct, against denial, censure, or objections; as, to *vindicate* the truth of a proposition.—To maintain; to uphold; to defend successfully; to assert and prove to be just, correct, or valid; as, to *vindicate* a claim, privilege, or prerogative. — To maintain or defend with arms or otherwise, as against an enemy or aggressor; as, to *vindicate* one's personal honor.

Vindication, (*-kā'shun,*) *n.* [Fr.; Lat. *vindicatio.*] Act of vindicating, or state of being vindicated.

Vin'dicative, *a.* That vindicates; tending to vindication.

Vin'dicator, *n.* [L. Lat.] One who vindicates; one who justifies, maintains, upholds, or defends.

Vin'dicatory, *a.* Justificatory; serving to vindicate or uphold; defensory. — Punitory; vengeful; applying punishment.

Vindic'tive, *a.* [Fr. *vindicatif*, from Lat. *vindico.*] Given to revenge; revengeful.

Vindic'tively, *adv.* By way of revenge.

Vindic'tiveness, *n.* Quality of being vindictive.

Vine, *n.* [Fr. *vigne;* It. *vigna*, from Lat. *vinea—vinum* = Gr. *oinum*, wine.] (*Bot.*) The common name of *Vitis vinifera*, the Grape-vine, and other species of the gen. VITIS, *q. v.*—The name is also used in a general sense to designate any stem which trails along the ground without rooting, or entangles itself with other plants, to which it adheres by means of its tendrils or by twining, as in the cucumber and the hop.

Vin'egar, *n.* [Fr. *vinaigre*, from *vin*, wine, and *aigre*, sour.] (*Chem.*) A well-known condiment, which is a weak acetic acid of different strengths, and either brown or colorless, according to the source from which it is procured. The simplest mode of obtaining *V.* is to excite a second or acetous fermentation in wine or cider; in this case oxygen is absorbed, a variable proportion of carbonic acid is generally evolved, and the alcohol of the wine passes into acetic acid. Very good *V.* is also made from strong beer, or from a wort or infusion of malt prepared for the purpose, or from a decoction of common raisins, or from a mixture of about one part of brandy with eight of water, and some sugar and yeast. The acetic fermentation is accomplished either in casks, or by allowing the alcoholic liquid to trickle slowly over shavings or twigs, a current of air passing in the opposite direction.

—Hence, a metaphorical term for anything sour, harsh, or disagreeable; as, her looks are *vinegar* to me.

Vin'egar-plant, *n.* (*Bot.*) See PENICILLIUM.

Vine'-grub, *n.* Same as VINE-FRETTER.

Vine'-mildew, *n.* (*Bot.*) See OIDIOM.

Vine'land, in *New Jersey*, a post-borough of Cumberland co., 32 m. S.E. of Philadelphia. *Pop.* (1895) 4,000.

Vinet'za, or VINITZA, a town of Russian Poland, govt. of Podolia, on the Bug, 80 m. N.E. of Kamenetz; *pop.* 8,250.

Vine'yard, *n.* [A. S. *vingeard.*] An inclosure or yard for the cultivation of grape-vines; a plantation of vines producing grapes.

Vine'yard, in *Arkansas*, a township of Washington co.

Vine'yard Sound, in *Massachusetts*, 20 m. long, and 5 m. broad, separates Martha's Vineyard from the Elizabeth Islands.

Vingt-un, (*vant-toon',*) *n.* [Fr., twenty-one.] (*Games.*) A popular round game at cards. It depends on the number of pips in the cards dealt each player; in reckoning which, the ace counts either one or eleven at pleasure, the court cards ten each, and the others according to the number of their pips. The object is to obtain the highest number, not exceeding *twenty-one*, whence the name.

Vin'ic Acid, *n.* (*Chem.*) One of a group of acids whose mode of formation may be thus described. When a mixture of concentrated sulphuric acid with any of the alcohols is heated to about 212°, chemical action takes place, and the result is the formation of a new coupled or conjugated acid, in which the elements of one molecule of alcohol and one of the sulphuric acid (taken, according to recent views, as S_2O_6) are present.

Vin'land, in *Wisconsin*, a post-village and township of Winnebago co., 3 m. N. of Oshkosh.

Vinos'', *a.* Same as VINOUS, *q. v.*

Vinos'ity, *n.* [Fr. *vinosité.*] State or quality of being vinous or vinose.

Vinous, Vinose, *a.* [Fr. *vineux;* Lat. *vinosus*, from *vinum*, wine.] Full of wine; having the qualities of wine; pertaining, or having reference, to wine; as, a *vinous* taste or flavor.

V. fermentation. See FERMENTATION.

Vintage, (*vĭnt'aj,*) *n.* [Fr. *vendange*, from Lat. *vindemia — vinum*, wine, and *demo*, to take away.] A gathering in of wine-grapes; the produce of the vine for the season; as, the *vintage* is excellent this year.—The wine produced by the crop of grapes in one season; as, "The choicest wines are of the driest *vintages*." (*Bacon.*) — The time of gathering the grape-crop.

Vint'ager, *n.* A gatherer of the vintage.

Vint'aging, *n.* Act of gathering in a crop of grapes.

Vintimiglia, (*veen-te-meel'ya,*) a town of N. Italy, on the Mediterranean, 18 m. E.N.E. of Nice; *pop.* 5,500.

Vint'ner, *n.* One who deals in wine; a wine-seller.

Vin'ton, in *Iowa*, a city, cap. of Benton co., on B., C. R. & N. R. R., 23 m. N.W. of Cedar Rapids. *Pop.* 3,500.

Vinton, in *Ohio*, a S. co.; *area*, 414 sq. m. It is traversed by Racoon and Salt creeks. *Surface*, undulating; *soil*, very fertile. *Min.* Iron and stone-coal. *Cap.* McArthur.—A post-village of Gallia county, 60 m. south-west of Marietta.—A post-township of Vinton county.

Vin'y, *a.* Belonging to wine; producing grapes. — Fruitful in vines.

Vi'ol, *n.* [Fr. *viole;* Sp. *viola*; Hind. *behla*, a fiddle.] (*Mus.*) An ancient musical instrument of the same form as the violin, which may be traced back to the 8th century, and which may be considered as the parent of our modern instruments of the violin kind; — the name is still retained in bass-*viol*, tenor-*viol*, &c.

Vi'ola, *n.* [It.] (*Mus.*) A musical instrument of the same form, and with the same number of strings as a violin, and, like it, played with a bow, but larger, and extending a fifth lower in compass; — it is sometimes called *tenor violin.*

Viola di braccia. [It., viol of the arm.] The counter-tenor viol; — so called in distinction from the *viol di gamba.* — *Viola di spalla.* [It., viol of the shoulder.] A former musical instrument, intermediate in size between the viola di gamba and the viola.—*Viola di gamba.* [It., viol of the arm.] An instrument larger than the viola, and held between the legs; — now rarely, if ever, used.

(*Bot.*) The Violet, a genus of the order *Violaceæ*, consisting of perennial herbaceous plants, acaulescent or caulescent; peduncles angular, solitary; 1-flowered; re-curved at the summit, so as to hear the flowers in a supinate position. The species *V. odorata* is the March or Sweet-violet, the flowers of which have always been highly esteemed for their fragrance. An infusion of the

Fig. 2587.

1, Hairy Violet (*V. hirta*); 2, Heart's-ease (*V. tricolor*).

syrup is a useful chemical test, as the violet or purplish color is changed red by acids, and green by alkalies. *V. canina* is the Dog-violet, and *V. tricolor*, the pretty little plant from which all our cultivated varieties of Pansy or Heart's-ease have been derived. The American species are very numerous.

Vi'ola, in *Illinois*, a p.-vill. of Mercer co.

Viola, in *Minnesota*, a township of Olmsted co., abt. 9 m. N.E. of Rochester.

Viola, in *Wisconsin*, a post-village of Richland co., 40 m. S.E. of La Crosse.

Vi'olable, *a.* [Lat. *violabilis.*] That may be violated, broken, or injured.

Viola'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Violales.* DIAG. Polypetalous flowers, a many-leaved calyx, hypogynous petals, stamens all perfect, anthers crested and turned inwards, consolidated fruit, and albuminous seeds. — The order, consisting of herbs and shrubs, of which about 300 species are known, is dispersed over nearly all parts of the globe.

Violaceous, (*vī-o-lā'shus,*) *a.* [From Lat. *viola*, violet.] Bluish-purple; resembling the color of violets.

Viola'les, *n. pl.* (*Bot.*) An alliance of plants, subclass *Hypogynous Exogens.* DIAG. Monodichlamydeous flowers, parietal or sutural placentæ, and straight embryo with little or no albumen. The alliance includes 12 orders,—FLACOURTIACEÆ, LACISTEMACEÆ, SAMYDACEÆ, PASSIFLORACEÆ, MALESHERBIACEÆ, MORINGACEÆ, VIOLACEÆ, FRANKENIACEÆ, TAMARICACEÆ, SAUVAGESIACEÆ, CRASSULACEÆ, and TURNERACEÆ, *q. v.*

Vi'olate, *v. a.* [Fr. *violer;* It. *violare;* Lat. *violo, violātum.*] To injure; to hurt; to treat in a violent or outrageous manner; to abuse. — To disturb; to break; to infringe; to desecrate; to profane; to treat with profanity or irreverence; as, to *violate* the sanctity of the grave; a *violated* oath; to *violate* common sense; to *violate* a treaty. — To ravish; to rape; to deflower; as, to *violate* a woman's chastity.

Viola'tion, *n.* [Fr.; Lat. *violatio.*] Act of violating, or state of being violated; interruption; disturbance; as, *violation* of peace or repose. — Non-observance; infringement; encroachment; transgression.—Act of profanity or irreverence; contemptuous treatment of that which is sacred or venerable. — Constupration; rape; ravishment; act of deflowering.

Vi'olator, *n.* [Lat.; Fr. *violateur.*] One who violates; one who injures or infringes.—A ravisher; a deflowerer.

Violence, (*vī'o-lens,*) *n.* [Fr., from Lat. *violentia.*] Physical force; power or strength of action or motion; moral force; impetuosity; vehemence; as, the *violence* of a storm; the *violence* of a passion; the *violence* of a contest or altercation.—Outrage; desecration; infringement; profanation; irreverence; unjust force; as, to offer *violence* to a person's feelings. — Rape; ravishment; forcible defloration.

To do violence on, to attack; to wound or slay; as "She, it seems, *did violence on* herself." (*Shaks.*) — *To do violence to*, to outrage; to injure; to hurt; as, she *does violence to* her own reputation.

Vi'olent, *a.* [Fr.; Lat. *violentus.*] Impetuous; vehement; forcible; moving or acting with physical strength or power urged or driven with force; severe; fierce; excited by strong feeling or passion; furious; as, a *violent* temper, a *violent* gale, a *violent* diatribe, a *violent* headache. — Outrageous; acting by violence or improper force; violating law or right; aggressive; assailant; as, to lay *violent* hands on a person. — Produced by violence or convulsion; abnormal; not natural; wanting spontaneity; as, a *violent* death. — Extorted; not voluntary; as, vows *violent* and void. *Milton.*

Vi'olently, *adv.* With violence; vehemently; forcibly.

Vi'olet, *n.* [Fr. *violet* (color), *violette* (plant); Lat. *viola.*] (*Bot.*) See VIOLA.

—A purplish-blue color, like that of the violet; — one of the primitive colors.

—*a.* Red and blue combined; purplish-blue; as, *violet* eyes.

Vi'olet, in *Ohio*, a thriving township of Fairfield county.

Vi'olet-shell, *n.* (*Zoöl.*) A mollusc of the family JANTHINIDÆ, *q. v.*

Violin, (*vī'o-lin,*) *n.* [It. *violine;* Fr. *violon.*] (*Mus.*) An instrument of music played on by means of a bow, vulgarly called a *fiddle*, used at the present day in most parts of the world. Of its origin no certain knowledge can be obtained, some writers believing it to have existed at a very early period, while others assert it to be a comparatively modern invention. Dr. Burney affirms that the method of producing sounds by means of a bow was entirely unknown to the ancients. The truth of this assertion is, however, doubtful, and the Abbé Le Bœuf has produced strong proof that an instrument called the *rebec*, acted on by a bow, was known in France in the 8th century. Be this as it may, it is certain that the modern *V.* is an improved descendant of the old viol, so popular with our forefathers, and that it was in common use in Italy at the end of the 16th century. The first players of any note were Italians. Of these the first was Baltazarini, who introduced the instrument into France in 1577. The history of the *V.* for the last 200 years has been a direct contradiction to the doctrine of progress, for during that time, notwithstanding many attempts have been made to improve it, none have succeeded, and the instruments of the early makers, especially those of the brothers Amati and Stradivarius, at Cremona, are still considered by connoisseurs to be much finer both in tone and construction than those of modern makers. A *V.* consists of three chief parts,—the *neck*, the *table*, and the *sound-board;* on the belly is a *bridge* to bear up the *strings*, which are four in number, and are stretched from one extremity, called the *tail-piece*, to the other, near the head, where they are secured to movable pegs, by which they may be tightened or loosened *ad libitum.* The strings of the violin are tuned in fifths, E, A, D, G; its compass extends three octaves; but as the high sounds are anything but agreeable, being often harsh and squeaky, violinists would do well to confine themselves to a more limited scale. The violin is adapted to every kind of music, and in the hands of a skilful performer is one of the most beautiful instruments we possess; but it is also one of the most difficult to beginners, and requires years of study and practice to become even moderately proficient in its use. Among the most distinguished violinists we may mention Corelli, Tartini, Viotti, Baillot, Spohr, Paganini, Sivori, Vieuxtemps, Ole Bull, and Lotto; Paganini and Sivori ranking far beyond all others.

Vi'oline, *n.* (*Chem.*) An emetic principle, found in all parts of the common violet, *viola odorata.*

Violin'ist, *n.* A skilled performer on the violin.

Vi'olist, *n.* A player on the bass-viol.

Violoncel'list, *n.* A performer on the violoncello.

Violoncello, (*vē-o-lon-chel'lo,* or *vē-o-lon-sel'lo,*) *n.* [It. dim. of *violone*, a double-bass violin.] (*Mus.*) An instrument of the violin kind, having four strings, the two lowest of which are covered with silver wire, and are tuned in fifths, A, D, G, and C. A violoncello is intermediate between the viola, or tenor violin, and the double bass, being an octave lower than the former, and an octave higher than the latter. Its tone is rich and expressive, and although properly adapted to concerted music, it is, in the hands of first-rate performers, an effective solo instrument. It is also called *bass-viol.*

Violone, (*vē-o-lō'na,*) *n.* [It. augment. of *viola*, a viol.] (*Mus.*) Same as CONTRA-BASSO, *q. v.*

Viotti, GIOVANNI-BATTISTA, (*ve-ol'te,*) a celebrated Italian violinist, b. in Piedmont, 1755. He is chiefly now remembered by his *Six duos Concertans pour deux Violons.* D. 1824.

Vi'per, *n.* [Fr. *vipère;* Lat. *vipera*, contracted from *vivĭpera* — *vivus*, alive, and *pario*, to bring forth.] (*Zoöl.*) A genus of poisonous serpents, type of the family VIPERIDÆ, *q. v.*

—Hence, by analogy, a mischievous, malignant person; an ingrate; a base, contemptible wretch.

Viper'idæ, *n. pl.* (*Zoöl.*) A family of venomous serpents, having the upper jaw toothless, but with movable fangs in front, no pit between the nostrils and eyes, the scales generally keeled, the tail short and tapering. More than 20 species are known, natives of Europe, Asia, Africa, and Australia. No species has been found in America. To this family belong the Common Viper of Europe, about 2 feet long; the Horned Viper or Cerastes of N. Africa and the W. of Asia; the Puff Adder of Africa, and the Death Adder of Australia. The Death Adder (*Acanthophis tortor*) differs from most of the *V.* in not having the scales keeled. It is widely diffused in Australia, where it is also known as the Black Snake. It is much dreaded, as its bite is said to be sometimes fatal in a quarter of an hour. It has two poison-fangs on each upper jaw. The tail ends in a small recurved spine. To the *V.* belongs also the genus *Naja*, containing the Hooded Snake or Cobra-di-capello (Port., snake with the hood), (*Naja tripudians*), and the Asp (*Naja Haje*). All the species of *Naja* are remarkable for the singular manner in which they dilate the back and sides of the neck when irritated or excited. To this faculty they are indebted for their name; since the elevated skin of the back of the neck, when viewed in front, presents much the appearance of a hood.

Viperine, (*vī'per-in,*) *a.* [Lat. *viperinus.*] Pertaining or relating to a viper, or to vipers.

Vi'perous, (*-ŭs,*) **Vi'perish,** *a.* [Lat. *vipereus.*] Malignant; venomous; deadly; having the characteristic qualities of a viper; as, Slander's *viperous* tongue.

Vi'per's-bugloss, *n.* (*Bot.*) The common name of the genus ECHIUM, *q. v.*

Vi'per's-grass, *n.* (*Bot.*) A popular name of the genus SCORZONERA, *q. v.*

Virago, (*vī'rā-go,*) *n.* [Fr.; Lat., a fuller form of *virgo.*] A female warrior; a woman endowed with masculine stature, strength, and courage; as, a fierce *virago.* — Hence, by analogy, a vixen; a termagant; a bold, browbeating, domineering, impudent, turbulent woman.

Vire, (*veer,*) a town of France, near the river Vire, dept. Calvados, 34 m. from Caen. *Manuf.* Woollen goods, paper, and needles. *Pop.* 8,278.

Virelay, (*vir'e-lā,*) *n.* [Fr. *virelai* — *virer*, to turn, and O. Fr. *lai*, a song.] (*Poetry.*) A sort of ancient French poem in short lines of seven or eight syllables, and consisting of only two rhymes.

Vi'rent, *a.* [Lat. *virens.*] Verdant; green; fresh; flourishing; not withered or decayed; as, *virent* leaves.

Vires'cent, *a.* (*Bot.*) Turning green; greenish; slightly verdant.

Vir'gate, *a.* [Lat. *virga*, a twig.] (*Bot.*) Rod-shaped; twig-like; as, a *virgate* stem.

Virgil, (*vĕr'jil,*) PUBLIUS VIRGILIUS MARO, the great Roman epic poet, was B. at Andes, a village near Mantua, B.C. 70. He received a learned education, studying first at Cremona, then at Mediolanum (Milan); and is said to have learned Greek from Parthenius, and philosophy from Syron the Epicurean. The small estate which he inherited from his father, and to which he probably retired after finishing his studies, was assigned with the neighboring lands to the soldiers of Octavian, and the poet was dispossessed. But through the influence of Asinius Pollio and Mæcenas, the estate was restored to him; and the first of his Eclogues is supposed to be the expression of his gratitude to Octavian. *V.* was of feeble health, and appears to have led for the most part a private retired life; sometimes at Rome, sometimes at Naples or Tarentum. Horace was his most intimate friend, and with him he accompanied Mæcenas on the journey to Brundusium, celebrated in one of the satires of Horace. In B. C. 19, Virgil visited Greece, and meeting Augustus at Athens, set out with him for Rome. But his health, long failing, at last gave way, and he only lived to reach Brundusium, where he died B. C. 19. He was buried on the road leading from Naples to Puteoli, where a tomb is still shown as his. The principal works of *V.* are the *Bucolics*, (also called *Eclogues,*) the *Georgics*, and the *Æneid.* The *Bucolics* are ten in number, and are supposed to be his earliest compositions. He took Theocritus for his model, but fell far short of him in truth to nature and graphic power. The *Georgics* are didactic, and treat of agriculture and its relative subjects. They are the most finished and the most pleasing of his works. In the *Æneid V.* imitates Homer without rivalling him, and treats very learnedly of the adventures of Æneas after the fall of Troy, and of his settlement in Latium. With the ancient legends he associates the glory of Rome, and the emperor, his patron. It must be noted, however, that *V.* died without revising his great poem; and that, therefore, the Æneid shows rather what it might have been than what it was as an epic poem. The works of *V.* became school-books within a short time of his death, and were the subject of numerous commentaries in after times. His high place in mediæval times may be judged from the fact that Dante calls him his master, and represents him as his guide through the invisible world. The first printed edition of *V.* appeared about 1469. From that time he has been edited and translated by scholars of nearly every country and period.

Fig. 2588. — VIRGIL. (From an ancient gem.)

Vir'gil, in *Illinois*, a twp. of Kane co.

Virgil, in *New York*, a post-village and township of Cortland co., 40 m. S. of Syracuse.

Virgilian, (*ver-jil'-,*) *a.* Pertaining, or having reference to Virgil. — Resembling the style, or after the manner of Virgil.

Virgin, (*ver'jin,*) *n.* [Fr. *vierge;* Sp. *virgen*, from Lat. *virgo, virginus.*] A female pure and unpolluted; a maid or maiden; a woman who has had no carnal knowledge of man.

(*Astron.*) Same as VIRGO, *q. v.*

—*a.* Pure; untouched; chaste; fresh; new; unused; unsullied or undefiled; as, *virgin* ore. — Maidenly; modest; becoming a virgin; indicating diffidence or modesty; as, *virgin* blushes.

Virginal, (*ver'jin-al,*) *a.* [Fr.] Relating, or belonging to a virgin.

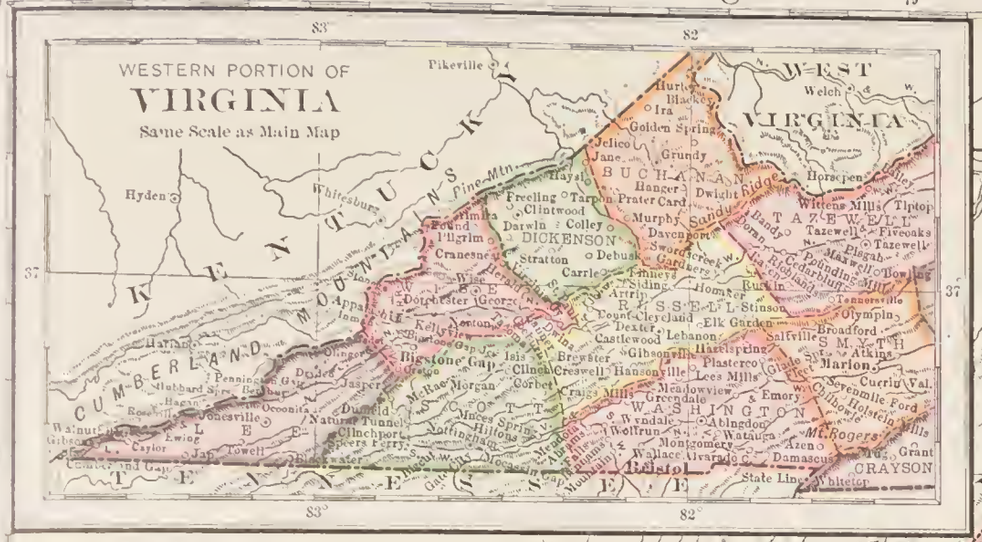
(*Mus.*) An instrument of music, in vogue in the 16th century, resembling the harpsichord species, and consisting of one string, jack, and quill to each note; — probably so named from its being used by virgins or maidens, and frequently called, plurally, *virginals.*

Vir'gin Gorda, in the British W. Indies, one of the Virgin Islands, 9 m. long, and 4 broad; Lat. 18° 30′ N., Lon. 64° 14′ W.

Virginia, (*vir-jin'i-a,*) a Roman virgin. See APPIUS.

Virgin'ia, an E. and one of the 13 original States of the American Union, lies between Lat. 36° 30′ and 40° 38′ N., and Lon. 75° 10′ and 83° 43′ W., and is bounded N. by West Virginia and Maryland; E. by the last-named State and the Atlantic Ocean; S. by North Carolina and part of Tennessee; and W. by West Virginia and Kentucky. Greatest length, E. to W., along its southern border, about 425 m.; mean length, 350 m.; extreme breadth, 205 m.; gross *area*, 42,450 sq. m.; land *area*, 40,125 sq. m., equal to 25,680,000 acres. — *General Description.* The State is separated from West Virginia by the Shenandoah and Alleghany mountain-chains, which latter extend also through the S.W. section of the State, whose extreme limit is formed by the Cumberland Mountains separating *V.* from Kentucky. On the E. slopes in the N. part of the State is a low outlying range called Bull Run Mountains, separated from the Blue Ridge chain by spurs of low, heavily-wooded hills, alternating with swamps and mountain torrents. The Blue Ridge, the most E. of the true Appalachian ranges, maintains throughout its course in the State a more nearly uniform elevation than either of the other ranges. W. of this chain lies the broad, beautiful, and fertile valley of the Shenandoah, with the mountain range of the same name forming its background. This range, presenting a narrow, well defined ridge toward the central and S. portions of its course, in the N.E. spreads out like a fan into several distinct ridges. The highest peak in *V.* is White Top in Grayson co., 6,000 ft. above sea-level; and next in altitude are the Peaks of Otter (Fig. 159), — so celebrated for their picturesque surroundings, — which attain an elevation of about 4,260 ft. The E. part of the State, though hilly, is not mountainous, and the S.E. region is a rolling country, with extensive swamps in many localities. The Valley of Virginia, as the fertile tract watered by the Shenandoah and feeders of the James is called, lies at an elevation of from 1,200 to 1,500 feet above the sea. The State is plentifully watered; having as its principal rivers the James, Potomac (forming the boundary between *V.* and Maryland), Shenandoah, Rappahannock, Rapidan, York, Elizabeth, Nansemond, Nottaway, Blackwater, Pamunkey, Mattapony, and the N. and S. Anna; all discharging their waters into the Chesapeake and the Atlantic. The S. part of the State is drained by the Roanoke and its numerous affluents; and by the Blackwater and Meherrin, two arms of the Chowan; these main streams have their embouchure in Albemarle Sound, N. Carolina. The S.W. division of *V.* is intersected by the Holston and Clinch rivers, and their branches — being the head-waters of the Tennessee. The æstuary of Elizabeth river, and Hampton Roads adjacent, form one of the most commodious harbors on the N. Atlantic seaboard. A long narrow peninsula, called the *E. Shore of Virginia*, and comprising the cos. of Accomac and Northampton, extends from Lat. 38° to Cape Charles, and forms the E. point of demarcation between the lower Chesapeake Bay and the ocean. Along the seaboard of this peninsula, a series of sand-bars or spits of land, with occasional narrow sounds or inlets, extend for a considerable distance; as also does a succession of shallow reefs or islets, situated some 2 to 10 m. from the mainland, and in some places connected with it by extensive sand-drifts. The shores of that portion of Chesapeake Bay within the limits of *V.* are indented by numerous small bays, inlets, and sounds, forming excellent anchorage ground for vessels drawing little water, and abounding in shell-fish. The State is prolific in scenery of the grandest and most picturesque character; among its natural curiosities and chief points of interest may be mentioned the Natural Bridge (Fig. 1916), in Rockbridge co.; Weir's Cave in Augusta co.; Blowing Cave (which sends out a blast of cold air in summer, and draws in air in winter); flowing and ebbing springs, &c. — *Clim.* The climate of the E. and S.E. sections of the State is hot, with malaria in the swampy river bottoms, producing bilious, typhoid, and intermittent fevers; the higher regions are cold in winter, but, taken as a whole, the characteristic climate of *V.* may be designated as pleasant and healthful. — *Geol., Min., &c.* The E. portion of *V.* is composed wholly of tertiary sands, clays, and marls, the newer pliocene and deposits belonging to the present epoch being found along the borders of the Chesapeake and the Atlantic Ocean; while further inland, strata of the miocene group emerge from beneath these and abut against the highest platform of granite, gneiss, and other metamorphic rocks, the E. margin of which is defined by a line connecting the lowest falls upon the principal rivers. From Petersburg the divergent line between the two formations extends S.S.W., leaving the State in the S.E. corner of Mecklenburg co. The miocene marl strata which underlie the greater portion of the E. division of the State, abound with fossil shells which afford fertilizing material in abundance. The metamorphic belt stretches W. beyond the Blue Ridge, and widens greatly toward the S., extending so far as Carroll and Grayson cos., on the line of N. Carolina. This forms the metalliferous belt of the State, producing gold, copper, lead, and iron. Strata of the upper secondary extend in two parallel and narrow belts, following the general course of the Blue Ridge through a considerable portion of the metamorphic district; in this section lie the coal-beds of James River, which are referred to the oölite period. The area of the Virginian coal-field is estimated at about 1,000 sq. m. The great valley of *V.*, W. of the Blue Ridge, extending to the North Carolinian frontier, consists chiefly of lower silurian rocks, among which the prevailing limestones insure a fertile soil. Along the mountain range next W. of the Blue Ridge occur the many and celebrated medicinal springs of Bath, Rockbridge, Montgomery, Augusta, and Rockingham cos. In Washington and Smyth cos., on the N. Branch of the Holston river, deposits of gypsum and salt are largely distributed. Iron ores exist in great abundance along the Blue Ridge, and are extensively mined, as are also the ores of manganese, of which *V.* supplies about two-thirds the whole product of the U.S. Besides these mineral products, fire and porcelain clays, fine granite, slate, soapstone, sulphur, and marble are found, the variegated kinds of the latter being of remarkable beauty. From 1830 till 1861 gold-mining was regularly carried on in *V.*, and from $50,000 to $100,000 annually received at the mint from this State; but the working has not been found remunerative, and the production, steadily declining, is now very considerably reduced. The gold belt is from 15 to 20 miles in width, and thus far developed in Fauquier, Culpepper, Orange, Spottsylvania, Louisa, Fluvanna, Goochland, Buckingham, Campbell, and Pittsylvania cos. Copper is also found in the lower region, mostly in the form of sulphurets or copper pyrites. — *Soil, Agric., &c.* The soil of the tide-water region of *V.* presents a light sandy loam, capable, with proper care and manuring, of producing large crops of fruit and esculent vegetables; but it has been to a great extent impoverished by superficial cultivation without reinvigoration by manure, and many estates, once highly cultivated and productive, have dwindled away to mere wildernesses of scrub and small timber. These lands are, however, readily susceptible to reclamation; the free application of marl and gypsum is sufficient in two or three years to restore them to a condition of high productiveness. In the basins of the Potomac, York, James, and Rappahannock rivers, great quantities of excellent tobacco are raised. The valley of Virginia possesses a rich soil, admirably suited to the production of cereals, and is in fact the granary of the State. Much of the mountainous territory remains as yet uncultivated, some of it, indeed, being incapable of tillage; but the valleys between the parallel ridges are generally amply irrigated, and yield prolific crops if properly tilled. The variety of vegetation native to the State is very great, ranging from semi-arctic pines and balsams to a very profitable growth of semi-tropic cotton. More than half the area of the State is covered by woodland, hard and soft woods being in nearly equal proportion. The fauna is highly varied, including, besides numerous wild animals, a great variety of game and other birds, while the waters of the State are rich in edible fish, crustaceous and shell-fish. Agriculture is actively pursued, there being over 19,000,000 acres in farms, of which about 9,000,000 acres are improved. Indian corn is the leading cereal, the yield in 1895 being 32,607,158 bushels. In its tobacco crop *V.* is only exceeded by Kentucky and North Carolina, closely approaching the latter State. Of the improved land, about one-eighth the area was in meadows, pastures, orchards, and vineyards, the remainder being under tillage. The unimproved land in farms was mainly in forest and woodland, though a considerable percentage was in abandoned fields. The State had, in 1890, 127,600 farms, valued, with buildings and fences, at $254,490,600, the implements and machinery being valued at $6,593,688; the live stock at $33,404,281, while the annual estimated value of all farm products was $42,244,458. Indian corn is grown in all parts of the State, in the

Fig. 2589. — SEAL OF THE STATE.



VIRGINIA

SCALE OF MILES

0 5 10 20 30 40 50 60

State Capitals ☆ County Seats ⊙

Places of 20,000 and over	NORFOLK
" " 10,000 to 20,000	Danville
" " 5,000 to 10,000	Staunton
" " 2,000 to 5,000	Hampton

Hammond's 8 x 11 Map of Virginia.
Copyright, 1904, by C.S. Hammond & Co., N.Y.

Longitude West from Greenwich

tide-water division for sale and in other divisions for home consumption. It is justly highly esteemed as food for man and for fattening stock. The peanut constitutes the principal selling crop in many of the eastern counties where the sandy character of the soil is suitable to its cultivation. The production of this crop has greatly and rapidly increased, the annual product amounting to over 1,000,000 bushels, valued at over $2,000,000. Cotton forms a valuable crop in the southeastern counties, where the season for its development is the longest and the soil most congenial. The oat crop is principally consumed at home as provender for stock. Hay is raised mainly in the Piedmont valley and Appalachia division, where it grows remarkably well. It can also be grown in other parts with the exception of those where the soil is of too sandy a character. Here the pea takes its place. Vegetables and fruits constitute a very large and increasingly valuable item in the products of the tide-water counties, the soil being eminently favorable to their growth, and numerous steamships affording cheap and rapid transportation to the northern markets. In the tide-water division also the oyster business gives employment to thousands of people.—*Pol. Div.* The State is divided into 100 counties, viz.:

Accomac,	Dinwiddie,	Lancaster,	Prince William,
Albemarle,	Elizabeth City,	Lee,	Pulaski,
Alexandria,	Essex,	Loudoun,	Rappahannock,
Alleghany,	Fairfax,	Louisa,	Richmond,
Amelia,	Fauquier,	Lunenburgh,	Roanoke,
Amherst,	Floyd.	Madison,	Rockbridge,
Appomattox,	Fluvanna,	Matthews,	Rockingham,
Augusta,	Franklin,	Mecklenburg,	Russell,
Bath,	Frederick,	Middlesex,	Scott,
Bedford,	Giles,	Montgomery,	Shenandoah,
Bland	Gloucester,	Nansemond,	Smyth,
Botetourt,	Goochland,	Nelson,	Southampton,
Brunswick,	Grayson,	New Kent,	Spottsylvania,
Buchanan,	Greene,	Norfolk,	Stafford,
Buckingham,	Greenville,	Northampton,	Surry,
Campbell,	Halifax,	Northumberland	Sussex,
Caroline,	Hanover,	Nottaway,	Tazewell,
Carroll,	Henrico,	Orange,	Warren,
Charles City,	Henry,	Page,	Warwick,
Charlotte,	Highland,	Patrick,	Washington,
Chesterfield,	Isle of Wight,	Pittsylvania,	Westmoreland,
Clarke,	James City,	Powhatan,	Wise,
Craig,	King and Queen,	Prince Edward,	Wythe,
Culpepper,	King George,	Prince George,	York.
Cumberland,	King William,	Princess Anne,	

Cities and Towns. The principal urban centres are Richmond (State cap.), Petersburg, Norfolk, Portsmouth, Staunton, Alexandria, Lynchburg, Fredericksburg, Lexington, and Winchester. — *Govt. and Const.* The executive authority is vested in a Governor (salary $5,000), who is elected by popular suffrage for 4 years, and who is ineligible for two consecutive terms. The Lieut.-governor and the Attorney-general (salary $1,500 and fees) are also elected by the people for 4 years. The other executive officers are the Secretary of State, Auditor of Public Accounts, Second Auditor, Register of the Land Office, and Superintendent of the Penitentiary; all of whom are elected by the General Assembly of the State for 2 years, and receive each a salary of $2,000 per annum. The apportionment based on the census of 1880 gives to *V.* 10 representatives in the lower house of the National Congress, and 12 electoral votes. By the remodelled constitution drafted in 1868, and ratified by both houses on the 8th of Oct. in the same year, the 14th and 15th amendments to the Federal Constitution were adopted as modifications of the former State constitution of 1851. According to the revised law, therefore, it is enacted that every male citizen of the U. States, 21 years of age and upward, who shall have been a resident of the State 12 months, and of the county, city, or town in which he shall offer, three months preceding any election, shall be entitled to vote upon all questions submitted to the people at such election, with certain exceptions in cases of persons from whom political disabilities imposed by the late war have not been removed. In most respects, judicial administration in *V.* assimilates with that of the other States of the Union.—*Manuf.* In 1890, according to the Federal census of that year, *V.* produced manufactured products to the value of $88,363,824. There were 59,591 hands employed in the manufacture of these goods, to whom $19,644,850 were paid in wages. This is a small result as compared with the great manufacturing States. The leading item of manufacture is tobacco; iron comes next; then cotton, lumber, wooden-ware and furniture, woollens, sumac, paper, leather, zinc, lead, jute, acids, fertilizers, lime, paper boxes, etc. Openings for new manufacturing enterprises are inviting, especially in the following lines: Pig-iron from native ore by use of coke, pronounced the best in the U. S., now brought to the ore-beds by the Richmond and Alleghany R. R. and other lines just completed, or to be soon so. Steel-rail from iron of best quality; engines for the system of roads centring in the State; cotton into fabrics, on account of access of raw material, cheap labor, abundant water-power, and healthy locality; also, cotton-seed oil, porcelain wares from Kaolin; with abundant cheap fuel and clays needed for manufacture; sulphuric acid from iron pyrites found in abundance on railroad lines; fire-bricks for furnaces, cupolas, and coke-ovens, etc., from clays of best quality, and finding good demand at kilns for home consumption; woollen fabrics; jute and ramie fabrics, the plants growing to perfection on the soil of river-bottoms and second-low grounds. Markets for all above enumerated are very accessible from any of the railway centres and by steamship lines north and south.—*Educ.* The system is as complete in the cities, towns, and thickly-settled sections as in any other State, and is rapidly improving. Sparsity of population in many sections is the chief obstacle to primary schools. The University of Virginia, located near Charlotteville, Albemarle co., is supported by an annual appropriation by the State and other endowments. The children enrolled in the public schools number about 350,000. — *History.* This State — the "Old Dominion," and "Mother of Presidents," as it has been frequently and popularly styled — was the first of the American colonies settled by the English, who founded a plantation on the N. bank of James River, 1607, under the auspices of the London Company of Merchant Adventurers. (See RALEIGH (SIR WALTER), and SMITH (JOHN).) In 1609, the London Company became reorganized, and received a territorial grant covering a tract of country 200 m. N., with an equal distance S. of Old Point Comfort, and W. to the Pacific. The governing council, by the terms of this charter, were placed under the authority of the Company's council in England, which appointed Lord Delaware governor of the colony, and he arrived thither in 1610. The settlement, after passing through a series of vicissitudes, ultimately became prosperous, owing to the influx of immigrants from the mother country — men generally of the patrician stamp, who obtained crown-grants of, or purchased, large estates, and thus became progenitors of families representing what has been termed, in modern times, the "true Virginian stock." In 1637, the laws of the colony were revised and consolidated, and from *A Perfect Description of Virginia*, published in London in 1649, we find its then population set down as consisting of "15,000 English, and 300 good negro servants." The cultivation of tobacco, begun by the early settlers, had by this time attained to a considerable degree of importance; about 30 ships coming yearly to trade. In 1641 Sir William Berkeley was appointed governor, and being a staunch royalist, soon became obnoxious to the home parliament. The colony remained fixed in its loyalty to the royal cause until 1652, when an English fleet, sent out by Cromwell, compelled the submission of the loyalists, and brought about the supercession of Berkeley as governor by the appointment of Richard Bennet, a Puritan settler in Maryland. At this time, and since 1619, *V.* possessed a legislative body of her own, called the *House of Burgesses*, which retained its powers until the Revolution of 1775. On the restoration of Charles II., Sir William Berkeley was reinstated in his govt.; the legal code of the colony was again revised in 1662, the Church of England re-established, and severe laws were passed against "Noncouformists, Quakers, and Anabaptists." In 1671, the pop. was estimated at "40,000, including 2,000 black slaves and 6,000 Christian servants, of whom about 1,500 were imported yearly, principally English." The latter were, for the most part, convicts. About this time, the shipment of tobacco (the only exportable

Fig. 2590.—LITTLE STONY FALLS, (60 feet in descent,)
(Little Stony is a tributary of Little Kanawha, or New River, in Giles co.)

commodity) was estimated at from 15,000 to 20,000 hhds. of 350 lbs. each. A patent of Charles II., making a grant of the colony to two of his favorites, Lords Arlington and Culpepper, and the heavy exaction of taxes by Governor Berkeley, brought about an insurrection, known as "Bacon's Rebellion," which was suppressed with difficulty. On the death of Berkeley, in 1677, Lord Culpepper was declared governor, and he, in his turn, was succeeded by Lord Howard of Effingham. In 1689, the colony reluctantly acquiesced in the accession of William and Mary to the English throne. In 1705, by legal statute, slaves were declared to be real estate. In 1698, Williamsburg, founded and named in honor of William III., became the cap. of the colony. In 1754, during the war which broke out against the French on the Ohio, Geo. Washington made his first appearance in history. *V.* opposed, in concert with the other colonies, the obnoxious Stamp Act of 1764–5, but was not represented in the first Continental Congress which met in New York in the last-named year. The Virginian legislature, in 1769, passed a renewed remonstrance against the measures passed for the taxation of the colonies, upon which the governor, Lord Botetourt, dissolved the assembly. The merchants and planters, however, neutralized, in some degree, the effect of this dissolution of their representative body by entering into a non-importation agreement, shutting out home-imports to the amount of over $3,000,000. In March, 1773, the House of Burgesses, under the leadership of Jefferson, Patrick Henry, and R. H. Lee, passed certain patriotic resolutions, which was the cause of again subjecting the legislature to dissolution at the hands of the newly appointed governor, the Earl of Dunmore. In the following year, a war broke out between the colonists and certain bodies of Indians, commanded by Logan (*q.v.*) and other chiefs, which ended in the discomfiture of the savages. In 1775, hostilities commenced between the English executive and the colonists, and Norfolk was bombarded by Lord Dunmore, in 1776. In the same year the Declaration of Independence was proposed in the Continental Congress by the Virginia delegates under instructions from the colonial convention. In 1779 the British Gen. Matthews destroyed Norfolk, took Portsmouth and Gosport, and burnt or captured all the vessels then in the James and Elizabeth rivers. In Jan., 1781, Gen. Arnold captured and burned Richmond, and, later in the year, the greater part of E. Virginia was sacked by Gens. Cornwallis and Phillips, entailing a loss to the colonists of $10,000,000 worth of property. The surrender of Lord Cornwallis at Yorktown, Oct. 19, 1781, virtually put an end to the war. A convention of States, called for by *V.* in May, 1786, led to the ratification of a constitution, June 25, 1788. In 1784 *V.* had ceded to the national govt. her claim to lands N.W. of the Ohio, founded on the grant in the charter to the Virginia Company in 1619, reserving to herself her tracts S. of the Ohio, and bounty lands N.W. of that river. From this time forward till the outbreak of the civil war in 1861, *V.* maintained a predominant influence in the councils of the nation, seven occupants of the presidential chair, at different times, having hailed from the "Old Dominion." Shortly after the inauguration of the War of Secession, an ordinance of withdrawal from the Union passed the legislature, April 17, 1861, by a majority of 33 votes. *V.* then became the principal battle-ground of the war, and bore more heavily than any other of the so-called Confederate States the brunt of the war. The 100th anniversary of the battle of Yorktown and the surrender of the British troops under Lord Cornwallis to the united French and American forces, which virtually ended the Revolutionary struggle, was celebrated at Yorktown under national and State auspices in October, 1881. The programme of the celebration covered several days, during which (the 18th) was laid the corner-stone of a monument to be raised at national expense at the scene of the surrender at Yorktown. *Pop.* (1890) 1,655,980; (1900) 1,854,184, of whom 660,722 were colored.

Virgin'ia City, in *Montana*, a post-town, cap. of Madison co., 50 m. N.E. of Dillon (the nearest R. R. station on Union Pac. R. R.) In a rich gold-mining region; Lat. 45° N., Lon. 111° 45′ W. *Pop.* (1897) 1,000.

Virginia City, in *Nevada*, a city, cap. of Storey co., on the E. slope of Mount Davidson, 6,205 feet above the sea, 15 m. N.N.E. of Carson City. It grew rapidly, on account of the rich silver mines in its vicinity, but afterward declined, the population falling from 10,917, in 1880, to about 5,700, in 1897.

Virginia Islands, in the W. Indies, a group of abt. 100 islands, occupying a space 100 m. long, and 20 wide, between Lat. 18° 5′ and 18° 50′ N., Lon. 64° 10′ and 65° 40′ W. Of these, Great Britain owns about 50, the principal of which are Tortola, Anegada, Virgin Gorda, Jost Van Dyke, Guano Isle, Beef and Thatch Islands, Prickly Pear, Camanas, Cooper's Salt, and St. Peter's; St. Thomas, Santa Cruz, St. John, and others, belong to Denmark; and Culebra, with several other islets, to Spain. *Surface*, diversified; *soil*, fertile. *Prod.* Sugar, cotton, molasses, rum, tobacco, salt, ginger, turmeric, pimento, indigo, fruits, and vegetables. *Climate*, variable, and earthquakes are frequent. Only ¼th are inhabited. The *V. I.* were discovered by Columbus in 1494.

Vir'gen (*jĕn*) **River,** in Utah and New Mexico, rises at the S. base of the Wahsatch Mountains, flows S., and falls into the Colorado near Lat. 35° 30′ N.

Virginity, (*vĕr-jĭn'i-tĕ,*) *n.* [Fr. *virginité*, from Lat. *virginitas.*] Maidenhood; quality of a virgin; state of having had no carnal knowledge of man.

Vir'ginville, in *Pennsylvania*, a post-village of Berks co., 68 m. E of Harrisburg.

Vir'go, *n.* [Lat., the virgin.] (*Astron.*) One of the 12 zodiacal constellations, or signs, being the 6th in order, beginning with Aries. Virgo is usually represented with an ear of corn in her hand, and is hence called *Segnum Cereris.* The sun enters this sign about the 22d of August. The constellation Virgo contains one bright star of the first magnitude, called *Spica Virginis.*

Vir'gulate, *a.* Wand-shaped.

Vir'gule, *n.* [Fr., from Lat. *virgula.*] A comma. (a.)

Virides'cent, *a.* [From Lat. *viridis*, green.] (*Bot.*) Greenish.

Virid'ity, Vir'idness, *n.* [Fr. *viridité*, from Lat. *viriditas* — *vireo*, to be green or verdant.] Verduro; greenness; the color of fresh vegetables.

Virile, (*vĭ'rĭl* or *vĭr'il,*) *a.* [Fr. *viril*; Lat. *virilis*, masculine, manly, — *vir*, a man.] Belonging to the male sex; pertaining to man, in the eminent sense of the word; as, *virile* maturity. — Masculine, in distinction from *puerile* or *feminine*; as, *virile* strength.

Viril'ity, *n.* [Fr. *virilité*; Lat. *virilitas.*] Manhood; quality of being virile; state of the male sex which has

arrived to the maturity or strength of man, and to the power of procreation.—The procreative power.

Viro'qua, or VAROQUA, in *Wisconsin*, a fine city and township, cap. of Vernon co., 28 m. S.E. of Lacrosse. *Pop.* (1895) 1,630.

Virtu, (*vĕr-too'*,) (frequently written VERTU,) *n.* [It. *virtù*, virtue.] A love of the fine arts; or, a taste for curiosities, bijoutry, specimens of rococo, &c.—Objects of art or antiquity considered collectively—such as fill museums and private collections.

Virtual, (*vert'yu-al,*) *a.* [Fr. *virtuel*, from Lat. *virtus.*] Having virtue; potential; possessing the power of acting, or of visible efficacy without the material or sensible part; as, a *virtual* intention of the mind.—Being in essence or effect, not in fact; as, Bismarck is the *virtual* ruler of Germany.

Principle of virtual velocities. (*Math.*) The law that two forces are in equilibrium when they are in the inverse ratio of the virtual velocities of the points to which they are applied, estimated in the direction in which the forces respectively act.—*Virtual focus.* (*Opt.*) The point from which rays, having been rendered divergent by reflexion or refraction, appear to issue.—*Virtual moment of a force.* (*Dynamics.*) The product of the intensity of the force multiplied by the virtual velocity of its point of application.—*Virtual velocity.* (*Mech.*) The velocity which any point of a body in equilibrium would actually acquire during the first instant of its motion, if that equilibrium were disturbed.

Vir'tually, *adv.* In a virtual manner; by means of some virtue or influence, or the instrumentality of something else; in efficacy or effect only, not in fact.

Virtue, (*vĕrt'yu,*) *n.* [Fr. *vertu*; It. *virtu*; Lat. *virtus, virtutis*, from *vir*, a man.] Acting power; energy, physical or moral, which works some good effect; strength; force; efficacy; as, the *virtue* of a medicinal herb.—That assemblage of qualities which constitutes a true man; excellence, or that which constitutes value, merit, or worth.—Moral goodness. See ETHICS.—Any particular moral excellence or estimable quality; as, the *virtue* of sobriety.—Female chastity; virginity; purity; as, she sets herself up as a paragon of *virtue*.

(*Fine Arts.*) An order of angels, generally represented in works of art in complete armor, bearing pennons and battle-axes; in many ancient paintings the *V.* are depicted as armed females overcoming their opposite VICES, (*q. v.*) The *V.* are 14 in number: viz., Liberty, Honor, Promptitude, Fortitude, Concord, Friendship, Majesty, Health, Security, Faith, Prayer, Praise, Power, and Religion.

Cardinal virtues. See CARDINAL.

Theological virtues, the three virtues, Faith, Hope, and Charity.—*In* or *by virtue of*, by authority of; through the force or efficacy of; as, *by virtue of* an Act of Congress.

Vir'tueless, *a.* Wanting in virtue; vicious.

Virtuos'ity, *n.* State or characteristics of a virtuoso; artistic feeling; æsthetic cultivation; sentimentalism.

Virtuo'so, *n.*; Eng. *pl.* VIRTUOSOS; It. *pl.* VIRTUOSI. [It., from *virtù*, a love of excellence.] A lover of virtu; a person skilled in the fine arts, particularly in music; or, a person who is a connoisseur in antiquities, curiosities, bijoutry, rococo, &c.

Virtuo'soship, *n.* The pursuits or practices of a virtuoso.

Virtuous, (*virt'yu-us,*) *a.* [Fr. *vertueux.*] Having, or partaking of virtue; morally good; acting in conformity to the moral law; practising the moral duties, and abstaining from vice; acting in consonance with the divine law; excellent in moral principles; righteous; blameless; good; as, a *virtuous* life, a *virtuous* mind.—Potent; efficacious; possessing special power or efficacy; having peculiar operative properties; as, *virtuous* herbs. (*Dryden.*)—Chaste; pure; unpolluted; as, a *virtuous* woman.

Vir'tuously, *adv.* In a virtuous manner; in conformity with the moral or divine law, or with duty or righteousness; as, a child who has been *virtuously* educated.

Vir'ulence, Vir'uleney, *n.* [Fr. *virulence*, from L. Lat. *virulentia.*] Quality of being virulent; that quality or characteristic of a thing which renders it extremely active in doing injury; malignancy; acrimony; venomousness; as, the *virulence* of cholera.—Acerbity or acrimony of mind or temper; malignancy of disposition; extreme causticity or bitterness; as, the *virulence* of animosity.

Vir'ulent, *a.* [Fr., from L. Lat. *virulentus*—*virus.*] Full of poison or deadly virus; extremely venomous; potent in doing injury; as, the *virulent* bite of a cobra-di-capello.—Malignantly hostile; bitter or rancorous in animus or enmity; as, a *virulent* attack upon a person's character.

Vir'ulently, *adv.* In a virulent or acrimonious manner.

Vi'rus, *n.* [Lat., a slimy or poisonous liquid.] (*Med.*) Active or contagious matter of an ulcer, pustule, &c.—The special agent in transmitting contagious disease; as, the *virus* of small-pox.

—Hence, in a moral sense, the animus, spirit, or drift of that which is injurious; as, the *virus* of jealousy.

Vis, *n.* [Lat.] Power, force, strength.

Vis inertiæ. (1) The propensity of nature to remain in its natural condition, whether of motion or rest, and to resist change. (2) Inertness; supineness; inactivity, as of the mind.—*Vis insita*, the power or innate force essentially residing in any body, and by which it endeavors to preserve its present state, whatever that be.—*Vis viva.* (*Mech.*) The force of a body in motion estimated by force; the distance to which the body goes—in distinction from *vis mortua*, or dead force.—*Vis vitalis.* (*Physiol.*) Vital force or vigor.—*Vis motrix*, motive or moving force.

Vi'sa, *n.* and *v. a.* [Fr.] See VISÉ.

Visage, (*vĭz'aj,*) *n.* [Fr., from L. Lat. *visagium falsum*, a mask.] The look, face, aspect, or countenance of a person, or of other animals;—principally applied to human beings; as, a lean and melancholy *visage*.

Visaged, (*vĭz'ajd,*) *a.* Having a face, visage, or countenance.

Visa'lia, in *California*, a post-village, cap. of Tulare co., abt. 200 m. S.E. of Stocktou.

Vis-a-vis, (*vĭz-a-vē',*) *n.* [Fr., face to face.] One who, or that which, fronts, or is face to face with, another; as, a lady was my *vis-a-vis* in the quadrille.—A carriage which enables two persons to sit opposite to each other.

Viscera, (*vis-se'rah,*) *n.* [Lat. pl. of *viscus, visceris*, an entrail.] (*Anat.*) The contents of the three great cavities of the body; the brain, *e. g.*, is the viscus of the cranium, the heart one of the viscera of the thorax, and the stomach one of the abdominal viscera. The term is usually restricted to the organs of the thorax and abdomen.

Vis'ceral, *a.* [Fr.; Lat. *visceralis.*] Pertaining, or having reference to the viscera.

Vischer's Ferry, (*vish'erz,*) in *New York*, a post-village of Saratoga co., 16 m. N.W. of Albany.

Viscid, (*vis'sid,*) *a.* [L. Lat. *viscidus*, clammy, from *viscum.*] Having the qualities of birdlime; glutinous; sticky; tenacious; adhering closely, and having a ropy consistency; not readily separating; as, gum is a *viscid* substance.

Viscid'ity, *n.* [It. *viscidità.*] Quality of being viscid or sticky; glutinousness; tenacity; as, the *viscidity* of soft soap.—That which is ropy or viscid; viscous concretion.

Visconti, (*vis-kon-te.*) The name of one of the most illustrious families of Lombardy, which rose to sovereign rank in northern Italy in the 13th century, and was equally distinguished by the share it took in the political contests of the Middle Ages, and by the services which it rendered to literature and science. The name *V.* is derived from the Latin *vice-comites*, and at first was merely the title of an office, but it gradually became a family surname, though when it came to be applied to this family authentic history fails to explain. The power of the *V.* began in 1277, when *Ottone V.*, archbishop of Milan, vanquished his popular opponents headed by Martino della Torre, and became perpetual Lord of Milan. In 1441, Filippo-Maria *V.* engaged the services of Francesco Sforza, to whom he gave his natural daughter Bianca in marriage; and on his death in 1447, the *V.* family was succeeded by that of Storza in the lordship of the Milanese. See SFORZA.

Viscount, (*vī'kount,*) *n.* [Fr. *vicomte*; It. *visconte*; Pg. *visconde*, from Lat. *vice-comes.*] Originally, an earl's substitute, acting as sheriff of a county; now, especially in England, a nobleman or peer of the realm, next in rank below an earl, and above a baron.—Also, the degree of rank of nobility borne by such individual; as, to create a *viscount*.

Viscountess, (*vī'kount-es,*) *n.* [Fr. *vicomtesse*; Sp. *vizcondesa.*] The wife of a viscount; a peeress of the fourth rank of nobility.

Vis'countship, Viscounty, *n.* [Fr. *vicomté.*] The quality, rank, degree, or office of a viscount.

Viscos'ity, Vis'cousness, *n.* [Fr. *viscosité*, from L. Lat. *viscositas.*] Quality of being viscous; glutinousness; viscidity; tenacity; that quality of soft substances which makes them adhere so as not to be easily parted; as, the *viscosity* of pitch.

Viscous, (*vis'kŭs,*) *a.* [From Lat. *viscus*, birdlime.] Glutinous; clammy; sticky; adhesive; tenacious; viscid; having a ropy consistence.

Vis'cousness, *n.* Same as VISCOSITY, *q. v.*

Vis'cus, *n.* [Lat.] (*Anat.*) See the plural VISCERA.

Vis'cum, *n.* [Lat.] (*Bot.*) A gen. of the ord. *Loranthaceæ*. *V. album* is the common Mistletoe, which is parasitic on many trees, as willows, thorn, limes, elms, oaks, firs, and apple-trees. The mistletoe of the oak was an object of superstitious veneration by the Druids. The fruit is a viscid pulp, which is employed for making birdlime.

Visé, (*vē-zā',*) VISA, *n.* [Fr. *pp.* of *viser* = Lat. *videre*, to see.] An indorsement of a passport in certain countries of the European continent, permitting the bearer to proceed on his journey.

—*v. a.* To examine and indorse, as a passport.

Viseu, (*ve'sai-oo,*) a town of Portugal, prov. of Beira, 47 m. S.E. of Oporto; *pop.* 1,076.

Vishnei-Volotchok, (*vish'ne-vo-lot-chok',*) a town of Russia, govt. of Tver, on the Tsna, 230 m. S.E. of St. Petersburg; *pop.* 10,120.

Vish'nu. [Sansk.] (*Hind. Myth.*) See HINDOOISM.

Visibil'ity, Vis'ibleness, *n.* [Fr. *visibilité*, from Lat. *visibilitas.*] State or quality of being visible or perceptible to the eye; state of being discoverable or apparent; perceivableness; exposure to view.

Visible, (*vĭz'i-bl.*) *a.* [Fr., from Lat. *visibilis.*] Perceivable by the eye; perceptible; discovered to the view; as, a *visible* object.—Apparent; palpable; open; conspicuous; as, I noticed a *visible* change in his manner toward me.

Visibly, (*vĭz'-,*) *a.* In a manner perceptible to the eye.

Vis'igoths, *n. pl.* (*Hist.*) See GOTHS.

Vision, (*vĭzh'un,*) *n.* [Fr. and Sp., from Lat. *visio.*] (*Optics* and *Physiol.*) The faculty, sense, or act of seeing. See EYE, LIGHT, and SIGHT.

—Anything which is the object of sight.—Particularly, a mental or optical delusion: something imagined to be seen, but not real; a spectre; a phantom; an apparition; a revelation from God; an appearance or exhibition of something supernatural or prophetic; as "The baseless fabric of a *vision*." (*Shaks.*)—Hence, the production of fancy; something imaginary or ideal; as, the *visions* of a dream.

Arc of V. (*Astron.*) The arc which measures the sun's distance below the horizon, when a star or a planet before hid by its rays, begins to be visible. Thus, the arc of vision for Jupiter is about 10°.—*Beatific* or *intuitive vision.* (*Theol.*) That vision which the faithful enjoy in heaven.—*Direct vision.* (*Opt.*) That vision which is performed by the agency of direct rays.—*Field of vision*, field of sight or view.—*Reflected vision*, that which is produced by rays reflected from mirrors.—*Refracted vision*, that which is refracted by lenses or prisms.

—*v. a.* To dream; to see in vision; as, "*visioned* terrors."

Vis'ional, *a.* Pertaining to a vision. [*Scott.*

Vis'ionariness, *n.* Quality of being visionary.

Vis'ionary, *a.* [Fr. *visionnaire.*] Affected by visions, or by phantoms; disposed to receive imaginative impressions; given to reverie; as, a *visionary* thinker.—Imaginary; not real; chimerical; possessing no solid basis or substantial foundation; as, a *visionary* project.

—*n.* One whose imagination is disturbed.—One who forms imaginary or impracticable designs or schemes; one who is confident of success in a project deemed by others to be vain and fanciful.

Visit, (*vĭz'it,*) *v. a.* [Fr. *visiter*, from Lat. *visitare*, frequent. of *viso*, from *video*, to see.] To see frequently or habitually; to go or come and see; to attend; as, a physician *visits* his patients.—To go or come to see for inspection, examination, correction of abuses, &c.; as, a bishop *visits* his diocese, an inspector *visits* those persons or books which are placed in his charge.—Hence, usually in a scriptural sense, to send good or evil on judicially; as, "God *visit* thee in good things." *Judith* xiii. 20.

—*v. n.* To practise going to see others; to keep up the interchange of civilities and salutations; as, a round of *visiting*.

—*n.* Act of visiting; act of going to see another, or of calling at his, or her, house; a going to see, or attending on; as, a *visit* of courtesy, condolence, or congratulation; a *visit* to Europe; a physician makes many *visits*.—Act of going to view or inspect; visitation; as, the *visit* of a government commissioner.

Right of visit. (*International Law.*) See SEARCH.

Vis'itable, *a.* That may be visited or inspected.

Vis'itant, *n.* One who visits; a visitor.

Visitation, (*vĭz-it-ā'shun,*) *n.* [Fr., from Low Lat. *visitatio.*] Act of visiting, or state of being visited; access for inspection or investigation; as, the *visitation* of a sanitary commission.—Good or evil dispensed by God, generally the latter; retributive infliction.

(*Law.*) Act of a superior or superintending officer or officers, who visit a corporation, college, church, hospital, or other institution, to examine into its affairs, and see that its laws and observances are duly carried out; as, parochial *visitation*.

(*Eccl.*) A festival of the Roman Catholic Church, in honor of the visit of the Virgin Mary to Elizabeth. It is celebrated on the 2d of July.

(*Eccl. Hist.*) In the Roman Catholic Church, a religious community founded originally in Savoy, in 1610, and in 1808 established in the U. States, under the denomination of *The Order of the Visitation of Our Lady.*

Visitato'rial, *a.* An improper rendering of VISITORIAL, *q. v.*

Vis'iter, *n.* A visitor.

Vis'iting, *a.* Authorized to visit and inspect; as, a *visiting* committee.

—*n.* Act of going to see, or attending; visitation.

Vis'itor, *n.* [Fr. *visiteur.*] One who comes or goes to see another, as in civility or friendship; as, to receive *visitors*.—A person officially authorized to visit a corporation or institution, (see VISIT, § *International Law,*) to see that the laws and regulations belonging thereto are properly carried out; as, the *visitor* of a college.

Visne, (*veen,*) *n.* Same as VENUE, *q. v.*

Vis'or, Viz'or, (also VISARD, VIZARD,) *n.* [Fr. *visière*, from Lat. *visus, video*, to see.] The movable and perforated face-guard of a helmet, through which the wearer sees.—Hence, a mask or head-covering to disfigure and disguise; as, "Deceit doth mask in *visor* fair." (*Spenser.*)—The peak or fore-piece of a cap.

Visored, (*vĭz'erd,*) *a.* Wearing a visor, masked; disguised.

Vis'ta, *n.*; *pl.* VISTAS. [It., sight, from Lat. *videre*, to see.] A view or prospect through an avenue, as between rows of trees;—hence, the trees or other things that form the avenue; any distant view through or between intervening objects.

Vis'ta, in *New York*, a post-village of Westchester co., 120 m. S.E. of Albany.

Vis'tula, (Ger. *Weichsel,*) a river of N. Europe, rises in the Carpathian Mountains, in Austria Silesia, and flowing N.E. through Poland, then N.W. through E. Prussia, passing Cracow, Warsaw, and other cities, divides into three branches, one of which, called the Noya, and another, the Old Vistula, enters the Frische-Haff N.W. of Elbing; while the other, or main stream, which preserves the name of *V.*, turns westward, and enters the Baltic at Dantzic. Its total course is estimated at 530 m.

Visual, (*vĭzh'yu-al,*) *a.* [Fr. *visuel*; It. *visuale*, from Lat. *isus, video.*] Pertaining or relating to sight or vision; used in sight; serving as the instrument of seeing; as, the *visual* nerve.

V. angle. (*Opt.*) The angle at which an object is viewed.—*V. ray*, that beam of light which impinges on the eye from the object observed.—*V. cone.* (*Persp.*) A cone whose vertex forms the point of sight.—*V. plane*, any plane which passes through the point of sight.—*V. point*, that point in the horizontal line where the visual rays focus.

Visualize, (*vĭz'yu-al-īz,*) *v. a.* To render visual. (R.)

Vita'ceæ, *n. pl.* (*Bot.*) The Vine family, an order of plants, alliance *Berberales.* DIAG. Regular, symmetrical

flowers, axile placentæ, stamens opposite the petals, and anthers opening longitudinally. — They are shrubby plants, usually climbing, with simple or compound leaves, which are opposite below and alternate above; flowers small, green; æstivation of petals induplicate; ovary superior, with a very short, simple style and stigma; fruit a nuculanium; seeds few; embryo erect, in horny albumen. There are probably 8 genera, including some 260 species, which are exclusively natives of warm and tropical regions. See VITIS.

Vi'tal, *a.* [Fr., from Lat. *vitalis* — *vita* (for *victo*), life.] Pertaining or relating to life, whether animal or vegetable; as, *vital* powers. — Containing life; animate; living; as, *vital* heat. — Necessary to life; contributing to existence; as, *vital* air. — Being the seat of life, or that on which life depends; as, *vital* parts of the body. — Essential; very necessary; highly important; as, a subject of *vital* consequence. — So disposed as to be capable of living, — a Latinism. (R.)

Vital statistics, statistics having reference to the duration of life, with its attendant circumstances.

Vi'talism, (*-izm,*) *n.* (*Physiol.*) The doctrine which ascribes every function of the organism to the direct agency of a vital principle or force.

Vital'ity, *n.* [Fr. *vitalité*; L. Lat. *vitalitas*, from *vita*, life.] State, quality, or condition of being vital; act of living; the principle of animation or of life. See LIFE.

Vital'zation, (*-zā'shun,*) *n.* Act or process of vitalizing.

Vi'talize, *v. a.* [Fr. *vitaliser.*] To give vitality to; to infuse life; to furnish with the vital or animate principle; as, *vitalized* blood.

Vi'tally, *adv.* In such a manner as to give life. — Essentially; necessarily.

Vi'tals, *n. pl.* Vital parts; parts of animal bodies essential to life. — Hence, the part essential to life, or to a sound or whole state; as, repudiation of the public debt preys upon the *vitals* of a nation's credit.

Vitchegda, (*ve-cheg'da,*) a river of Russia which traverses the govt. of Vologda, and falls into the Dwina, 12 m. W. of Solvitchegodsk, after a W. course of 380 m.

Vitebsk', or **Vitepsk',** a city of Russia in Europe, cap. of govt. of same name, on the Dwina, at the confluence of the Viteba, 389 miles S. of St. Petersburg. *Manuf.* Woollens and leather.

Vitelline, (*vit'el-lin,*) *n.* The albumen of the yolk of eggs.

—*a.* [Lat. *vitellus*, the yolk of an egg.] Pertaining to, or consisting of, the yolk of an egg.

Vitel'lius, AULUS, a Roman general, proclaimed emperor in Germany at the time Vespasian was engaged in war with the Jews, A. D. 69. About the time he arrived in Rome, Vespasian was proclaimed at Alexandria, and, on the latter arriving in Italy at the head of his hostile army, *V.* was put to death.

Vitel'lus, *n.* [Lat.] (*Physiol.*) The yolk of an egg.

(*Bot.*) The sac of the amnios in a thickened state, and forming a case within which lies the embryo.

Viterbo, (*ve-tair'bo,*) a town of Italy, at the base of Mont Cimino, in the Campagna di Roma, 41 m. N.N.W. of Rome. Its streets are broad and well-paved, and some of its churches are rich in works of art. This city was one of the principal in the Etruscan League, and, in the Middle Ages, the capital of the Patrimony of St. Peter. In one of its public squares the emperor Frederick Barbarossa humiliated himself before Pope Adrian IV. *Pop.* 15,400.

Vi'tex, *n.* (*Bot.*) A genus of European and Asiatic plants, order *Verbenaceæ*. The Chaste tree, *V. agnus castus*, a native of the countries around the Mediterranean, derives its name from the practice of Grecian matrons to strew their couches with its leaves, especially during the sacred rites of Ceres, in order to banish impure thoughts.

Vitiate, (*vĭsh'ĭ-āt,*) *v. a.* [Fr. *vicier*, from Lat. *vitio, vitiatus*, from *vitium*, fault, defect, blemish.] To make faulty; to injure; to spoil; to mar; to taint; to corrupt; to stain; to injure the substance or quality of, so as to impair and render defective; as, a *vitiated* taste. — To render of no force or validity; to make void; to deprive of efficacy, wholly or in part; as, fraud *vitiates* a contract.

Vitiation, (*vĭsh-ĭ-ā'shun,*) *n.* [L. Lat. *vitiatio.*] Act of vitiating, or state of being vitiated; depravation; corruption; rendering invalid; as, *vitiation* of the bodily constitution, the *vitiation* of a policy of insurance.

Vitiosity, *n.* [Lat. *vitiositas.*] Quality of being vicious. (R.)

Vi'tious, Vi'tiously, Vi'tiousness, *a., adv.,* and *n.* Same as VICIOUS, VICIOUSLY, VICIOUSNESS.

Vitim, (*vi-teem',*) a river of Siberia, rises in the Vitim-Steppe, S.E. of Lake Baikal, govt. of Irkoutsk, and joins the Lena in Lat. 59° 15′ N., Lon. 112° E., after a N.N.E. course of 900 m.

Vi'tis, *n.* [Lat., a vine.] (*Bot.*) A genus of plants, order *Vitaceæ*. All the species are climbers, furnished with tendrils opposite the leaves, as in the Grape-vine, the leaves of some being simple, and either undivided or variously lobed, and those of others compound. Their small greenish flowers, whose sexes are very frequently found on different plants, are dispersed in panicles set opposite the leaves. The well-known Grape-vine, or common Wine Grape, *V. vinifera*, is naturalized in nearly all temperate climates, but supposed not to be indigenous to this country. No plant in the vegetable kingdom possesses more interesting attributes, and is cultivated with greater care, than the common vine. By cultivation it sports into endless varieties, differing in the form, color, size, and flavor of the fruit, and in respect to the hardiness of its constitution. In N. England its cultivation is chiefly confined to the garden and as a dessert fruit; but there are extensive vineyards in the Middle and Western States, for the production of wine. The vine is propagated by cuttings. Varieties without end may be raised from the seed, which will bear fruit the fourth or fifth year. — There are several species of vines, which

Fig. 2591. — VITIS VULPINA.

grow wild and bear grapes abundantly in N. America, but they are generally inferior to *V. vinifera*. Of late years, however, good varieties have been obtained, by careful cultivation, from *V. labrusca*, *V. vulpina* (Fig. 2591), *V. æstivalis*, and others. See OIDIUM, WINE, CATAWBA WINE, &c.

Vitre, (*veet'ra,*) a town of France, dept. of Ille-et-Vilaine, on the Vilaine, 20 m. E. of Rennes. *Manuf.* Woollens, canvas, and linen. *Pop.* 9,850.

Vit'reo-elec'tric, *a.* (*Physics.*) Containing or exhibiting positive electricity, or that which is excited by rubbing glass.

Vit'reous, *a.* [Fr. *vitreux, vitré*; Lat. *vitreus*, from *vitrum*, glass or wood.] Pertaining or relating to, or derived from, glass; as, *vitreous* electricity. — Resembling glass; as, the *vitreous* humor of the eye. — Consisting of glass; as, *vitreous* particles.

Vitreous electricity. See ELECTRICITY. — *Vitreous humor.* (*Anat.*) See EYE.

Vi'treousness, *n.* Quality or state of being vitreous.

Vitres'cence, (*-trĕs'sens,*) *n.* Quality of being vitrescent; glassiness.

Vitres'cent, *a.* [From Lat. *vitrum*, glass.] Susceptible of being formed into glass; tending to become glass.

Vitres'cible, *a.* That may be vitrified.

Vitrifac'tion, *n.* [See *vitrify.*] Act, process, or operation of converting into glass by heat.

Vitrifacture, (*-făkt'yur,*) *n.* [From Lat. *vitrum*, glass, and *facere*, to make.] The manufacture of glass and ceramic wares.

Vitrifi'able, *a.* That may be vitrified.

Vitriform, *a.* Having the appearance or form of glass.

Vit'rify, *v. a.* [Fr. *vitrifier*, from Lat. *vitrum*, glass, and *facio*, to make.] To make or convert into glass.

—*v. n.* To become glass.

Vitri'na, *n.* [From Lat. *vitrum*, glass.] (*Min.*) A genus of fresh-water gasteropods, with ovate, thin, glossy, and fragile shells. They greatly resemble young specimens of the genus *Helix*, from which they are distinguished by their never being umbilicated or perforated.

Vit'riol, *n.* [Fr., from Lat. *vitrum.*] (*Chem.*) A term applied by old writers to crystallized sulphate of iron, or *green vitriol*. Sulphate of copper and sulphate of zinc were afterwards called *blue vitriol* and *white vitriol*. See COPPER, IRON, ZINC.

Oil of vitriol. (*Chem.*) Same as SULPHURIC ACID.

Vit'riolate, Vit'riolize, *v. a.* To convert into vitriol.

Vitriol'ic, *a.* [Fr. *vitriolique.*] Pertaining to, having the qualities or characteristics of, or obtained from vitriol; as, *vitriolic* acid (oil of vitriol or sulphuric acid).

Vit'riolizable, *a.* That may be converted into a vitriol.

Vitriolization, (*-zā'shun,*) *n.* Vitriolation; act of vitriolizing, or state of being vitriolized.

Vitru'vian Scroll, *n.* [From *Vitruvius.*] (*Arch.*) A decorative enrichment, consisting of convoluted, undulating ornamentation, which is very fanciful and varied; — it frequently occurs in friezes of the composite order.

Vitruvius, MARCUS POLLIO, (*vi-troo'vi-us,*) a writer on architecture, who flourished under Julius Cæsar and Augustus, and is supposed to have been B. at Formiæ, in Campania. His celebrated work, *De Architectura*, is a compendium of the works of various Greek and Roman writers on the same subject. It was first printed about 1480, has passed through very numerous editions, and been translated into English, French, German, Dutch, and Italian.

Vitry-le-François, (*ve'tre-le-frong-swah',*) a fortified town of France, dept. of Marne, 19 m. S.S.E. of Chalons. *Manuf.* Hosiery, leather, and cotton goods. *Pop.* 9,078.

Vit'ta, *n.*; *pl.* VITTÆ. [Lat., a fillet.] (*Bot.*) One of the narrow fistulæ or channels lodged in the coat of the fruit of umbellifers, and containing oil.

Vit'tate, *a.* [From Lat. *vitta*, a ribbon.] (*Bot.*) Striped, after the manner of a ribbon.

Vitto'ria, a town of Spain, cap. of the prov. of Alava, 27 m. S. of Bilboa. *Manuf.* Brass and iron goods, ebony articles, leather, candles, and linen. The French were here defeated by the allied English, Spanish, and Portuguese, under the Duke of Wellington in 1813. *Pop.* 16,500.

Vitto'ria, a town of Italy, in Sicily, prov. of Syracuse, 14 m. W.N.W. of Modica; *pop.* 12,100.

Vit'uline, *a.* [From Lat. *vitulus*, a calf.] Pertaining or relating to a calf or to calves, or to veal.

Vitu'perate, *v. a.* [Lat. *vitupero, vituperatus* — *vitium*, a fault, a vice, and *paro*, to place in order.] To find fault with; to attribute blame or reproach to; to censure; to load with abuse or revilling.

Vituperation, *n.* Blame; censure in the highest degree; overwhelming abuse or reproaches.

Vitu'perative, *a.* Containing vituperation; conveying blame or censure.

Vitu'peratively, *adv.* Abusively; with vituperation.

Vitu'perator, *n.* One who practises vituperation.

Vivace, (*ve-vā'cha,*) *a.* [It.] (*Mus.*) A term which, affixed to a movement, denotes that it is to be executed by the performer in a brisk or lively manner.

Vivacious, (*vi-vā'shus,*) *a.* [Fr. *vivace*; Lat. *vivax, vivacis*, from *vivo*, to live.] Long-lived; tenacious of life. (R.) — Lively; active; brisk; full of spirit or animation; sprightly in temper or conduct; gay; as, a *vivacious* talker.

Viva'ciously, *adv.* With vivacity, life, or spirit.

Vivae'ity, Viva'ciousness, *n.* [Fr. *vivacité*; Lat. *vivacitas.*] Tenacity of life; power of living. (R.) — Sprightliness of temper or behavior; life; spirit; animation; vim; verve; air of life and activity, as displayed in the countenance; as, *vivacity* is sometimes carried to levity.

Vivandière, (*ve-vŏng-dē-air',*) *n.* [Fr.] A female sutler, or a woman who serves soldiers with refreshments on the march, or in the field, and also affords succor to the wounded; — they are generally attached to French regiments of infantry.

Vivarais, (*ve'va-rai',*) an old territory of France, in Languedoc, on the Rhone, now comprised in the depts. of Ardèche and Haute-Loire.

Viv'ary, *n.* [Lat. *vivarium*, from *vivus, vivo*, to live.] A place for keeping or rearing living animals, as a pond, a park, a warren, &c.

Viva Voce, (*vī-vah vo'sa.*) [Lat.] By word of mouth; orally; with the living voice; as, a communication rendered *viva voce*.

Vive, (*veve',*) *v.* [Fr., from Lat. *vivere*, to live.] Live; long live; hurrah to; — used in an exclamatory sense; as, *vive le roi!* long live the king!

Vivero, (*ve'vai-ro,*) a town of Spain, prov. of Lugo, at the mouth of the Landrova in the Bay of Biscay. *Manuf.* Earthenware, linen, and quiltings. *Pop.* 5,170.

Viver'ridæ, *n. pl.* [Lat. *viverra*, a ferret.] (*Zoöl.*) A family of carnivorous mammals, of which the genus *Viverra*, comprising the true Civets, is the type. The characters of the Civet tribe are three premolars above, and four below; two tolerably large tuberculate molars above, one tuberculate and one sectorial molar below; the tongue beset with firm papillæ; claws more or less retracted; a large anal scent-gland and pouch. See CIVET.

Vivers, Vivres, (*vē'vers,*) *n. pl.* [Fr.] Victuals; viands; provisions.

Vives, (*vēvz,*) *n. pl.* (*Farriery.*) A disease of horses, generally happening to young horses while at grass, resembling the strangles, but more particularly seated in the glands and kernels under the ears.

Viv'ian, in *Minnesota*, a post-township of Waseca co., abt. 22 m. S.S.W. of Mankato.

Vivianiaceæ, *n. pl.* (*Bot.*) A small order of plants, alliance *Malvales*. DIAG. Free stamens, no disk, seeds with albumen, a curved embryo, permanent petals, and ribbed calyx. They are herbs or shrubs, inhabiting Chili and S. Brazil.

Viv'ianite, or BLUE IRON-ORE, *n.* (*Min.*) A native hydrated phosphate of iron, composed of 28·75 per cent. of phosphoric acid, 42·27 protoxide of iron, and 28·98 water. It occurs in very long oblique prisms, frequently reniform and globular, also earthy and incrusted. The color, which varies from pale-green to indigo-blue, becomes darker on exposure.

Viv'id, *a.* [Fr. *vivide*, from Lat. *vividus* — *vivo*, to live.] Bright; strong; glowing; animated; exhibiting the appearance of life or freshness; as, the *vivid* blue of an Italian sky. — Lively; gay; sprightly; painting in glowing colors, or forming brilliant and salient images; as, a *vivid* fancy.

Vivid'ity, *n.* Vividness. (R.)

Viv'idly, *adv.* In a vivid manner.

Viv'idness, *n.* Quality of being vivid.

Vivific, Vivifical, *a.* [Fr. *vivifique.*] Enlivening; reviving; reinvigorating; giving life.

Vivifieate, *v. a.* [Fr. *vivifier*, from Lat. *vivificare* — *atum.*] To vivify; to give life to. (R.)

Vivification, *n.* [Fr.; Lat. *vivificatio.*] Act of vivifying, or state of being vivified.

Viv'ify, *v. a.* [Fr. *vivifier*; late Lat. *vivifico* — *vivus*, alive, and *facio*, to make.] To make alive; to endue with life; to animate.

Vivip'arous, *a.* [Lat. *vivus*, alive, and *pario*, I bring forth.] (*Zoöl.*) Noting animals which bring forth their young developed and alive, and commonly extricated

from the egg coverings; as all the mammalia, many reptiles, as the viper or *viviper*, some fishes, and numerous invertebrate animals. In its restricted sense, the term signifies that mode of generation in which the chorion, or external tunic of the ovum, contracts a vascular adhesion with the uterus; and hence, only the placental mammalia are truly viviparous, the rest being termed *ovo-viviparous*.

(*Bot.*) Producing living shoots or suckers; as, a *viviparous* plant.

Vivisec'tion, *n.* [Fr., from Lat. *vivus*, alive, and *sectio*, a cutting.] The dissection of a living animal, with a view to physiological investigations and experiments.

Vixen, (*vik'sn,*) *n.* [A. S. *fixen*, a she-fox.] Properly, a fox's cub of either sex.—A sharp, cross, snappish, bitter, froward, turbulent, quarrelsome woman; a virago; a termagant; as, a two-legged *vixen*.

Vix'enish, *a.* Pertaining to, or resembling a vixen; as, a *vixenish* temper.

Viz. A contraction of VIDELICET, *q. v.*

Viz'ard, VISARD, *n.* A mask; as, a grotesque *vizard*. See VISOR.

Vizagapatam', a city of British India, cap. of a dist., on the Coromandel coast; Lat. 17° 42′ N., Lon. 83° 24′ E. *Pop.* unascertained.

Vizier, (*viz'eer,*) *n.* [Fr. *vizir*; Ar. *wezîr*, *wazîr*, a bearer of burdens.] The title, in various Oriental countries, of a minister and councillor of state. In Turkey, the councillors of state who sit in the Divan, generally 8 in number, are styled *viziers*; and the chief among them, *vizier-azem*, rendered by Western nations *Grand-Vizier* (or prime-minister), is the highest temporal dignitary in the empire.

Vizzine, (*vit-se'ne,*) a town of Italy, in Sicily, prov. of Catania, 28 m. S.W. of Catania; *pop.* 9,850.

Vlaardingen, (*vlar'ding-en,*) a town of the Netherlands, on the Meuse, 6 m. W.S.W. of Rotterdam; *pop.* 7,975.

Vladimir, (*vlad-i-meer',*) in European Russia, a city, the cap of a govt. of same name, on the Kliasma, 112 m. E.N.E. of Moscow; *pop.* 8,250.—Also, a town of the govt. of Volhynia, on the Lul, 28 m. S.S.W. of Kovel; *pop.* 6,050.

Vlad'imir, (THE GREAT,) Grand-Duke of Russia, was the illegitimate son of Sviatoslav, who appointed him governor of Novgorod, from which, however, he was driven by Yaropolk, his brother. In 979 he returned to Novgorod, with a large body of Scandinavian adventurers, took prisoner and put to death Yaropolk, and established himself at Kiev as Grand-Duke of Russia. In 988 he established Christianity, according to the forms of the Greek Church, in his dominions, and, encouraged by the court of Constantinople, he spent the remainder of his life in introducing civilization among his subjects. D. near Kiev, 1015.

Vo'cable, *n.* [Lat. *vocabulum.*] A name; a word; a term; particularly, a phrase taken in the sense of its consisting of certain sounds or letters, irrespective of its meaning.

Vocab'ulary, *n.* [Fr. *vocabulaire*, from Lat. *vocabulum*, a word.] A list or collection of the vocables or words of a language, arranged in alphabetical order, and defined or explained; a word-book, dictionary, or lexicon, whether of a whole language, or of any special or technical branch of lingual science.—Sum-total of phraseology; stock of words employed; as, a copious *vocabulary*.

Vocab'ulist, *n.* A compiler or expositor of words or phrases; a lexicographer.

Vo'cal, *a.* [Fr., from Lat. *vocalis*—*vox*, *vocis*, a voice.] Possessing a voice or utterance; as, "Mincius, crowned with *vocal* reeds." (*Milton.*)—Uttered or modulated by the voice; as, *vocal* melody.—Sonant; sonorous; spoken with intonation and resonance; pertaining to the voice or speech;—used with reference to certain articulate sounds.

Vocal cords or *ligaments.* (*Anat.*) See LARYNX.—*Vocal music*, that music which is made by the voice, as distinguished from *instrumental music*; hence, airs or tunes set to words for performance by the human voice.—*Vocal tube.* (*Anat.*) The part of the air passages above the superior ligaments of the larynx, including the passages through the nose and mouth.

Vocal'ic, *a.* [From Lat. *vocalis.*] Consisting of the voice, or vowel sounds; as, the Gaelic is a *vocalic* language.

Vo'calism, (*-izm,*) *n.* The practice of exercising the vocal organs.

Vo'calist, *n.* A vocal musician; a singer; especially, a public singer distinguished by superior powers of voice;—opposed to *instrumentalist*.

Vocal'ity, Vo'calness, *n.* [Lat. *vocalitas.*] Quality of being vocal, sonant, or utterable.

Vocaliza'tion, *n.* Act of vocalizing; also, formation and emission of vocal sounds.

Vo'calize, *v. a.* [Fr. *vocaliser.*] To form into, and utter by, the voice; to make vocal, sonant, or resonant; as, to *vocalize* the breath.—To practise singing on the vowel sounds.

Vo'cally, *adv.* In a vocal or voiceful manner; verbally.

Voca'tion, *n.* [Fr., from Lat. *vocatio*—*voco*, *vocatus*, to call.] A calling, citing, bidding, or summoning; call; inducement; especially, designation or destination to a particular state or profession.—Hence, employment; calling; occupation; trade; profession; business; as, versatility of genius finds many *vocations*.

(*Theol.*) A calling by the will of God, or a dispensation of heavenly grace; as, the *vocation* of the Gentiles under the gospel.

Vo'cative, *a.* [Fr. *vocatif*; Lat. *vocativus*, from *voco*, *vocatus.*] Relating to, or employed in, calling or address;—expressed of that case of the substantive, pronoun, or adjective, to which a person or thing has application.

—*n.* (*Gram.*) The fifth case or state of nouns in the Latin; or, the case in any language in which a word is placed when a person is addressed;—the so-called case of exclamation or invocation. In strictness of speech it is not a case at all, and as having, therefore, no case ending, it represents simply the root of the word, on which the several cases are formed by means of pronominal suffixes.

Vochya'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Sapindales* DIAG. Complete, unsymmetrical, very irregular flowers, naked petals, anthers opening longitudinally, 3 carpels, and winged seeds.—They consist of trees or shrubs from tropical America, often of great beauty. Little is known of their properties, beyond the hardness of the timber which some of them supply.

Vocif'erate, *v. n.* [Fr. *vociférer*; Lat. *vociferor*, *vociferatus*—*vox*, *vocis*, and *fero*, to carry.] To carry up or raise the voice; to exclaim; to cry loudly; to shout; to call out with vehemence.

—*v. a.* To utter with a loud voice; as, to *vociferate* abusive language.

Vociferation, (*-sif'er-ā-shun,*) *n.* Act of vociferating; vehement utterance of the voice; a shouting; a loud, sonorous outcry.

Vocif'erous, *a.* Clamorous; making a loud outcry; shouting.

Vocif'erously, *adv.* In a vociferous manner.

Vocif'erousness, *n.* Quality of being vociferous.

Vocule, (*vŏk'yūl,*) *n.* [Lat. *vocula*, dim. of *vox*, voice.] A short or weak utterance; a faint or feeble sound, as that heard on separating the lips in pronouncing *p*, *t*, or *k*.—*Rush.*

Vodi'na, or **Vode'na,** a town of European Turkey, in Roumelia, 45 m. N.W. of Salonica. *Manuf.* Cottons and woollens.

Voghera, (*vo-gai'ra,*) a town of N.W. Italy, prov. of Alessandria, 19 m. E.N.E. of Alessandria; *pop.* 12,200.

Vog'lite, *n.* (*Min.*) A hydrated carbonate of uranium, lime, and copper, which occurs in green scales having a pearly lustre.

Vogue, (*vōg,*) *n.* [Fr., a rowing of a ship, from It. *vogáre*, to row = Ger. *wogen*, to wave, fluctuate, vibrate.] The fluctuation of usage or fashion; temporary mode, custom, habit, or practice; popular reception for the time; way or fashion adopted by people at any particular time; repute;—used now invariably as part of the term *in vogue*; as, Anglophobia has of late years been *in vogue* in this country.

Voice, (*vois,*) *n.* [Norm. *voce*; Fr. *voix*; from Lat. *vox*, *vocis*, a voice, kindred with *vŏco*, to call.] (*Physiol.*) Sound intoned and modulated by the organs of speech. In most air-breathing vertebrate animals, there are certain provisions made for the production of sound in some part of the respiratory apparatus. In many animals the sound thus produced admits of being variously modified and altered,—to the greatest extent in man, so as to constitute speech. *V.* and sound, however, are different things, and depend upon different parts of the human organism; the former being produced in the larynx, the latter chiefly by the tongue and mouth. The sound of the human voice is produced by the inferior laryngeal ligaments or vocal cords, which are thrown into vibrations by currents of expired air impelled over their edges. They contain a large quantity of elastic tissue, which enables them to vibrate like tense membranes, and are likewise so attached to the cartilaginous parts of the larynx that they can be made tense either by the depression of the thyroid cartilage towards the cricoid by means of the crico-thyroid muscles, or by the retraction of the arytenoid cartilages, which are moved backwards by the posterior crico-arytenoid muscles, at the same time that they are approximated by the posterior arytenoid. (See LARYNX.) For the deepest notes, the vocal cords are much relaxed by the approximation of the thyroid to the arytenoid cartilages; for the middle notes of the natural voice, the cords are neither relaxed nor stretched, but in a medium state; while the higher notes are produced by the lateral compression of the cords, and narrowing the space between them by means of the thyro-arytenoid muscles, and also by increasing the force of the current of air. Voice is of three kinds:—1. Monotonous, in which the notes have nearly all the same pitch, as in ordinary speaking; 2. Discordant, or the successive transition from high to low notes, and *vice versa*; and, 3. Musical, in which each sound has a determinate number of vibrations, and accords with others, as in singing. The first of these constitutes the *speech voice*, the last the *song voice*. Vocal sounds are divided into *vowels* and *consonants*, the former being continuous tones modified by the form of the aperture through which they pass out; while in sounding consonants, the breath suffers a more or less complete interruption in its passage through parts anterior to the larynx.

—Language; words; expression; manifestation of feeling or opinion; as, "Let us call on God in the *voice* of his church." (*Fell.*)—A vote or suffrage; opinion or choice expressed; as, he was elected by the *voice* of the people.—Command; precept; dictate;—generally in a scriptural sense; as, "Hearken to the *voice* of the Lord."

(*Gram.*) A particular mode of inflecting or conjugating verbs; as, the active or passive *voice*.

—*v. a.* To regulate the tone of; to adapt for the production of the proper sounds or tones, as the pipes of an organ.

Voiced, (*voist.*) *p. a.* Furnished with a voice.

Voice'ful, *a.* Vocal; possessing a voice; as, *voiceful* birds.

Voice'less, *a.* Having no voice; silent.

Void, *a.* [It. *vuoto*; Fr. *vide*, empty.] Empty; not occupied with any visible matter; vacant; as, "The earth was without form and *void*." (1 *Gen.* ii.)—Unsupplied; destitute; free; clear; wanting; as, a person *void* of common sense.—Unoccupied; not filled; without an incumbent; as, a dignity for many years *void*.—Without legal or binding force; null; insufficient to produce its effect; not being effectual to convey or maintain a right, or to be obligatory upon parties; as, to declare an act of Congress *void*.—Vain; unprofitable; lacking substantiality; unreal; as, an image *void* and lifeless.

(*Law.*) Of no legal force or efficacy whatsoever.

—*n.* A vacuum; empty space.

—*v. a.* To make or leave empty or vacant; to quit; to leave; as, to *void* a chamber.—To evacuate; to throw, eject, or send out; to emit; as, to *void* urine, to *void* one's rage upon an object.—To annul or nullify; to vacate; to render of no validity or effect; as, to *void* the performance of a promise.

—*v. n.* To be emitted or evacuated. (B.)

Void'able, *a.* That may be voided, emitted, or evacuated.

(*Law.*) That may be annulled or made void; susceptible of being adjudged void, invalid, or of no force or efficacy; as, a *voidable* decree.

Void'ance, (*-ans,*) *n.* Act of voiding or of emptying.

Void'ed, *p. a.* (*Her.*) A term applied to any ordinary when it is pierced through, so that the field which it overlies appears, leaving only the outer edge of the ordinary, *e. g.*, a saltier, chevron, &c., *voided*.—*Voided per cross*, signifies when pierced with an opening in the shape of a cross, through which the field in like manner appears.

Void'er, *n.* One who, or that which, voids, vacates, or annuls.

Void'ing, *n.* Act of the person who, or thing which, voids.—That which is voided; a scrap; a fragment; a shred; a remnant.

—*p. a.* Receiving that which is evacuated or ejected.

Void'ness, *n.* State or quality of being void.

Voir dire, (*vwahr deer.*) [O. Fr., to utter the truth, from L. Lat. *verum dicere.*] (*Law.*) A preliminary examination of a witness to ascertain whether he is competent. When a witness is supposed to have an interest in the cause, the party against whom he is called has the choice to prove such interest by calling another witness to that fact, or he may require the witness produced to be sworn on his *voir dire*, as to whether he has an interest in the case or not; but the party against whom he is called will not be allowed to have recourse to both methods to prove the witness's interest. If the witness answers he has no interest, he is competent, his oath being conclusive; if he swears he has an interest, he will be rejected.

Voiron, (*vwoi'rawng,*) a town of France, dept. of Isère, on the Morge, 14 m. N.W. of Grenoble. *Manuf.* Iron and steel goods, canvas, and paper. *Pop.* 9,351.

Voiture, (*vwoi'toor,*) *n.* [Fr., from Lat. *vehere*, *vectum.*] In France, a carriage or wheeled vehicle of any kind.

Voiture, VINCENT, a French wit and poet, B. at Amiens, 1598. He became master of the ceremonies to Gaston, Duke d'Orleans, was admitted into the French Academy in 1634, and D. 1648. He wrote verses in French, Spanish, and Italian; but his letters are the chief basis of his literary reputation, and in their day they were extravagantly admired.

Vo'lant, *a.* [Fr., from Lat. *volans*, *volure*, to fly.] (*Her.*) Represented flying, or with the wings spread out, as if flying:—said of a bird; as, an eagle *volant*.

Volan'te, *n.* [Sp.] A large, heavy kind of curricle, peculiar to the island of Cuba.

Vol'atile, *a.* [Fr. *volatil*; Lat. *volatilis*, flying, winged, from *volo*, *volare*, to fly.] Capable of evaporating or wasting imperceptibly away, or of easily passing into an aëriform state, as hartshorn, ether, musk, &c.; as, a *volatile* substance.—Airy; brisk; buoyant; lively; gay; full of spirit or animation;—hence, fickle; apt to change; characterized by levity or whimsicalness; as, a person of *volatile* temper.

Volatile alkali. (*Chem.*) See AMMONIA.—*Volatile oil.* See ESSENTIAL OIL.

Vol'atileness, Volatil'ity, *n.* [Fr. *volatilité.*] State or quality of being volatile; character of being capable of, or disposed to, exhalation or evaporation; that property of a substance which has a tendency to rise and float in the air, and thus to be dissipated; as, the *volatility* of mercury.—Levity; liveliness; airiness; buoyancy of temper or disposition; sprightliness in an extreme degree; hence, mutability of mind; fickleness; changeableness; as, the *volatility* of a woman's fancy.

Vol'atilizable, *a.* That may be volatilized.

Volatiliza'tion, *n.* The act of rendering volatile, or the state of being volatilized.—The process by which bodies are resolved into the vaporous or elastic state.

Vol'atilize, *v. a.* [Fr. *volatiliser.*] To make volatile; to cause to exhale or evaporate; to cause to pass off in vapor or invisible effluvia.

Vol'borthite, *n.* (*Min.*) A native vanadiate of copper, which occurs in small tabular crystals of an olive-green or gray color.

Volcan'ic, *a.* [Fr. *volcanique.*] Pertaining or having reference to a volcano, or to volcanoes; as, *volcanic* heat, *volcanic* action.—Produced or emitted by a volcano; as, *volcanic* scoriæ.—Affected or transmuted by the heat of a volcano.

V. foci, subterranean centres of action in volcanoes, where the heat is supposed to be in the highest degree of energy.—*V. glass.* (*Min.*) A name sometimes given to OBSIDIAN, *q. v.*—*V. rocks.* (*Geol.*) See IGNEOUS ROCKS and VOLCANO.

Vol'canism, (*-izm,*) *n.* Volcanic power or action.

Vol'canist, *n.* One learned in the history and phenomenal action of volcanoes. — A theorist of the formation of mountains by volcanic eruptions.

Volcanization, (*-zā'shun,*) *n.* Act of volcanizing, or state of being volcanized.

Vol'canize, *v. a.* To cause to undergo the application of volcanic heat, and to be affected by its consequent action.

Volca'no, *n.; pl.* VOLCANOES. [Fr. *volcan;* Lat. *Vulcanus,* the god of fire.] (*Geol.*) The name given to a part of the earth's surface, whence vapor, mud, ashes, or melted rocks issue from a hollow depression in a conical hill or mountain. (See Fig. 1457.) Generally the material already erupted, of whatever kind, has formed the hill, or where the point of eruption was already at a high level, has added the conical summit. The geographical extent of volcanic districts is very considerable. It is true that the points of eruption and the movements of great earthquakes are confined to certain regions in which the volcanic vents are distributed at intervals, and most commonly in a linear direction; but there is evidence that similar powers are at work continuously throughout the intermediate spaces, for the ground is from time to time convulsed, gases and vapors are disengaged, and hot springs issue, the waters of which are very commonly impregnated with the same mineral matters which are discharged by the eruption of the volcano. There are also abundant proofs of the existence of volcanic fires under various parts of the bed of the ocean, where their effects, though at present unseen and unknown, are probably destined to become evident at some future but very remote period. The substances thrown out by volcanoes are chiefly earthy and alkaline bodies in a state of fusion, together with red-hot and melted rock, stones, cinders, ashes, steam, and various gases; and although they differ very materially in the quantity of ejected matter, their products so generally agree in quality that they may doubtless be all referred to the operations of one cause. What that cause is, is a question not yet satisfactorily answered; we must, however, notice the perpetuity, as it may also be called, of some active volcanoes—volcanoes which have continued to burn and throw out lava and cinders, not only for years, but for successive ages. The lava in the crater of Stromboli has been in a state of ignition for 2,000 years; so that there has been a constant accession of heat, if not renovation of fuel. We have ample evidence of the connection of earthquakes with volcanoes; and all great eruptions have commonly been preceded by violent convulsions, which have ceased upon the bursting forth of the volcanic fires, as if the pent-up matters had found a vent. All this shows the cause of the eruption to be deep below the surface. There is, further, a manifest connection between volcanic vents situated at great distances from each other. Such a connection has been traced not only between Vesuvius and Ætna, but between these two volcanoes and those of the Greek islands at the distance of a thousand miles. Some of the volcanoes of the Andes appear to alternate in their eruptions, though at great distances from each other. When lava is examined near the vent whence it issues, it is usually a semi-fluid mass of about the consistence of honey. It soon cools externally, and its surface becomes rough and irregular; but being a very bad conductor of heat, the interior remains red-hot long after the surface has cooled. The quantity of matter which has been thrown to the surface by volcanic agencies during the historical period is quite enormous, and may serve to give an idea of their influence in modifying the surface of the globe, when such powers are considered in reference to great periods of time. Iceland, for instance, is little less than mass of lava: and so intense is the energy of volcanic action in that region, that some eruptions of Hecla have lasted six years without ceasing. In this island, too, the volcanic vents are often in alternate action, one serving, as it were, for a time as a safety-valve to the rest; and when, as is often the case, new cones are thrown up, they generally take a linear direction. There are many instances of rocks of decided volcanic origin, *i. e.* extinct volcanic vents, in districts where all other trace of activity has been lost since the earliest historical times. Such are the Vivarais and Auvergne in central France, and the district of Eifel, near Coblentz, on the Rhine. See BASALT, IGNEOUS ROCKS, EARTHQUAKE, &c. For an account of the great eruption of the volcano Krakatoa, see that word.

Volca'no, in *California,* a post-town of Amador co.

Volca'no, or VULCANO, an island of the Mediterranean, off the N. coast of Sicily, the most S. of the Lipari group; Lat. 38° 30′ N., Lon. 15° 13′ E. It consists of a single volcanic mountain 3,000 ft. high, and of a conical shape, with a crater of an oval form, abt. 1 m. in circuit, and 400 yards in depth.

Vole, *n.* A deal at cards that draws all the tricks; as, to win a *vole.*

(*Zoöl.*) The common name of *Arvicola,* the typical genus of the *Arvicotinæ,* a tribe of the *Muridæ* or Rat family, characterized by incisors as broad as deep, ears short and hidden, muzzle broad and rounded, tail very short, and mostly clothed thickly with hair. This genus is represented in the U. States by more than 20 species, generally known as Field Mice, but the most remarkable species is *Arvicola amphibia,* the Water Vole or Water Rat of Europe, which is abt. 8¼ inches in length, and the tail 4¾ inches. Although the feet are not webbed, the Water *V.* swims extremely well, and not only at the surface of the water, but often under it. It burrows in the banks of streams, ditches, and ponds; and its food appears to consist chiefly of aquatic plants.

—*v. n.* (*Games.*) To take all the tricks by a single deal of the cards.

Volée, (*vo-lā',*) *n.* [Fr., a flight, from Lat. *volare,* to fly.] (*Mus.*) A rapid flight of notes; a roulade.

Vol'ery, *n.* [From Fr. *volière,* a bird-cage; Lat. *volo,* to fly.] A flight of birds. (R.)—An aviary, or large bird-cage.

Vol'ga, a river of Russia, which has the largest course, and, with the exception of the Danube, the largest volume of water, of any river in Europe. It rises in Lake Seligher, among the Valdai Mountains, in Lat. 57° N., and takes a direction in general to the eastward, but with many windings, until reaching the city of Kazan. Below Kazan it receives the Kama, and flowing southward, with a great volume of water, it separates into 60 or 70 branches, and discharges itself into the Caspian Sea, near Astrakhan. *Total length,* computed at 2,400 m. Its basin is estimated at 397,000 geographical sq. m. No river in the world is more abundantly stocked with fish than the *V.* Though greatly intermingled by shoals, it is navigable for barges of 1,200 tons for more than four-fifths of its course. For six months of the year it is frozen over, but from May to June, in consequence of the melting of the snow, the river is so greatly swollen that large ships can navigate its stream from Tver to Astrakhan.

Volga, in *Iowa,* a post-village and township of Clayton co., abt. 28 m. S.W. of McGregor.

Volin'ia, in *Michigan,* a post-township of Cass co., 10 m. N.E. of Cassopolis.

Volitation, (*-tā'shun,*) *n.* [From Lat. *volitare,* to fly to and fro.] Act of flying; volant motion; flight.

Volitient, (*-tish'ent,*) *a.* Exercising the will or volitional impulse; having power to will; volitive.

Volition, (*-lish'un,*) *n.* [Fr.; Lat. *volitio,* from *volo,* to will.] The power of exercising the will. See WILL.

Volitional, (*-tish'un-,*) *a.* Belonging or having reference to volition.

Vol'itive, *a.* Possessing or exercising the power to will; as, the *volitive* faculty.—Pertaining or relating to, or having its source in, the will.

(*Gram.*) Employed in the expression of a wish or permission; as, a *volitive* proposition.

Volje, (*vol'jai,*) a lake of Russia, govt. of Novgorod, 40 m. from Lake Bielo, 25 m. long, and 12 m. broad.

Vol'ley, *n.; pl.* VOLLEYS. [Fr. *volée,* a flight, from *voler* = Lat. *volo, volāre,* to fly.] A flight of shot; the discharge of a number of small arms at one and the same time; as, a *volley* of musketry. — A burst or emission of many things at once; as, his vented a *volley* of oaths.

—*v. a.* To discharge with a volley. (R.)

—*v. n.* To be discharged in a volley, or as if in a volley.

Volleyed, (*vol'lid,*) *p. a.* Discharged with a sudden volley or burst; as, *volleyed* reproaches.

Volney, CONSTANTIN FRANÇOIS CHASSEBŒUF, COUNT DE, (*vol'ne,*) a celebrated French writer, b. at Craon, in Brittany, 1757. After spending nearly three years in Egypt and Syria, he returned to France, and published his *Voyage en Syrie et en Egypt,* 2 vols., 1787, which was translated into English and other languages, and procured him an extensive reputation. He was elected a member of the states-general; was confined nearly a twelve-month during the Reign of Terror; was appointed Professor of History in the Normal School in 1794; came to the U. States in the following year, resided here until 1798, when he returned to Europe, and published his *Tableau du Climat et du Sol des Etats Unis d'Amerique,* 2 vols., 1803. He was created a senator and count during the Consulate; and, on the restoration of the Bourbons, he was designated a member of the Chamber of Peers. In all situations, however, he was the defender of liberal principles. His most celebrated work is entitled *The Ruins, or Meditations on the Revolutions of Empires,* a work in which Christianity, as well as all other religious beliefs, is considered merely a system of symbols.

Volney, in *Iowa,* a post-village of Allamakee co., abt. 16 m. N.W. of Prairie du Chieu.

Volney, in *New York,* a post-township of Oswego co., 24 m. N.N.W. of Syracuse.

Vologda, or VOLOGDA, a town of European Russia, cap. of a govt. of the same name, on the river Vologda, 110 m. N. of Jaroslav. *Manuf.* Silks, linens, canvas, dyestuffs, and leather.

Volsci. (*Anc. Hist.*) An ancient, war-like, and numerous people of central Italy, which inhabited the S. part of Latium, and was a branch of the same family as the Umbrians. From B. C. 510, when their cap., Suessa Pometia, was captured by Tarquinius Superbus, they were engaged in almost continual hostilities with the Roman Republic, until they were finally subdued in 338, by L. Furius Camillus, when they disappeared from history.

Volsk, a town of Russia, govt. of Saratov, on the Volga.

Volt, (*vōlt*) *n.* [Fr. *volte;* It. *volta,* a turn, Lat. *volvo,* to roll.] (*Fencing.*) A sudden spring, to evade a thrust.

(*Elec.*) The unit of tension or electro-motive force, from Volta Aless (*q. v.*)

(*Man.*) A gait of two treads, made by a horse going sideways round a centre.

Vol'ta, *n.* [It.] (*Mus.*) A turning; — principally employed in phrases indicating that the part is to be repeated one, two, or more times.

Vol'ta, ALESSANDRO, a celebrated experimental philosopher, was B. at Como, in 1745. He laid the foundation of his fame by two treatises which described a new electrical machine; was for 30 years professor of natural philosophy at Pavia; was made an Italian count and senator by Napoleon, and D. in 1826. *V.* directed his attention particularly to the subject of galvanism, or animal electricity, in which science he made many discoveries and improvements; but the great invention which immortalizes his name is the *Voltaic pile,* or electrical column. (See GALVANIC BATTERY.) His works form 5 vols. 8vo.

Vol'ta, a river of Guinea, in W. Africa, rises in the Kong Mountains, and after a S.S.E. course of 360 m., through the territory of the Ashantees, it enters the sea at Adda, Lat. 5° 40′ N., Lon. 0° 40′ E.

Vol'ta-elec'tric, *a.* Pertaining or having reference to voltaic electricity.

Vol'ta-electrom'eter, *n.* An apparatus for the true measurement of electric currents.

Voltagraphy, (*-tăg'ra-fe,*) *n.* [From *Volta,* and Gr. *graphein,* to write.] Art, act, or process of reproducing in metals deposited by electrolytic action, a form or design which constitutes the negative electrode in electrotypy.

Volta'ic, *a.* [Fr. *voltaique.*] Pertaining or having reference to, originated by, or named in honor of, *Volta* q.v., or the galvanic pile or battery invented by him. — Belonging or relating to, or characterized by, voltaic electricity; as, *voltaic* induction.

V. battery. (*Elec.*) See GALVANIC BATTERY.—*V. couple,* or *element,* a single pair of the conjoined plates of a galvanic battery.— *V. electricity* and *V. pile.* See GALVANISM.

Voltaire, (*vol'tair,*) the assumed name of FRANÇOIS MARIE AROUET, a French poet, historian, and philosopher, and the most celebrated writer of the last century, B. at Châtenay, near Paris, 1694. He was educated by the Jesuits at the College of Louis le Grand, and already showed so clearly the characteristics which marked him through life, that one of his teachers foretold his eminence as the "Coryphée du Déisme." He was early introduced at the *salon* of Ninon de l'Enclos, and became familiar with some of the most distinguished persons of the time. Ninon, pleased with his remarkable intelligence and liveliness, left him a legacy of 2,000 francs, to buy books. His father's ambition was that he should become, not author, but lawyer and judge; and to break off his associations in Paris, sent him away in 1713, as page to the Marquis de Châteauneuf, ambassador to Holland. He was soon sent home, however, after getting into trouble about a love affair, and was next placed with a lawyer. Quickly and finally escaping this attempt to train and train him for official life, he soon appeared in Paris again, and from that time he pursued his course as a literary man. His life was so full of action, incident, and vicissitude, that to give a mere epitome of it would require far more space than can be allotted in this work to a single literary life. A general outline of its leading features, with an account of his principal writings, is all that is possible. In 1716 he was committed to the Bastile, on suspicion of being the author of a satirical poem on Louis XIV., and remained there a year. His first literary work of mark was the tragedy of *Œdipe,* which, with much difficulty, he got represented in 1718. During a visit to Brussels in 1721, *V.* was introduced to Rousseau, but this interview made enemies of them forever. He was sent to the Bastile a second time, in consequence of a quarrel at the Duke de Sully's house, and after his release, spent three years in England, where the prevalence of freethinking made an atmosphere congenial to him. Here, in 1728, he published his celebrated epic poem *La Henriade,* under the title of *La Ligue,* and applied himself to other literary labors. He rose speedily to the summit of renown as an epic poet; he was courted in all the higher circles; and when he returned to France, he found himself a sort of national idol among the French. After the publication of several plays, he retired, about 1735, to the Château de Cirey, near Vassy, in Champagne, belonging to the Marchioness du Châtelet, a lady celebrated for her love of mathematics and abstruse sciences, and who read Leibnitz and Newton in the original Latin. During the several years of his residence with Mme. Du Châtelet, a connection which Lord Brougham defends as entirely Platonic, he wrote, between other works, his *Elements de la Philosophie du Newton,* in which he explained the theories of the great discoverer with clearness, elegance, and learning, though perhaps not always with accuracy. A new epoch opened in *V.'s* life when, in 1736, he was flattered by a letter from Frederick, Prince-royal of Prussia, afterwards Frederick the Great. These two remarkable men first met after the accession of Frederick to the throne in 1740. The meeting was at a château near Cleves, and a second took place soon after at Berlin. The first Silesian war separated them, and *V.* returned to Holland. They continued, however, to correspond. For a while, in 1746, *V.* removed to Paris, where he received the appointment of historiographer of France, and gentleman of the King's bed-chamber. He was at the same time received at the Academy. Soon losing favor at the court, he accepted, in 1750, the often renewed invitation of Frederick II., to settle at his court. Frederick received him with transports of joy. He was lodged in the apartments of the Marshal de Saxe; the king's cooks, servants, and horses were placed at his disposal; he was granted a pension of $4,000; and he and the king studied together for two hours a day, while he was welcomed to the king's table in the evening. At first the connection seemed a charming one, but *V.* soon learned by demonstration, not only that courts are wearisome places, but that Frederick of Prussia and François Arouet were too much like each other to become real friends. Their intimacy, chiefly fruitful in jealousies, dissensions, and all kinds of uneasiness, ended after three years by the flight of *V.* At Frankfort he was joined by his niece, Mme. Denis; and at the same city he was arrested by the Prussian resident, and detained till a volume of Frederick's poems was given up. After a short stay at Colmar, and some trouble about his *Essai sur les Mœurs,* he settled with Madame Denis at Ferney, then a mere hamlet, near the Genevese territory. There he passed the last 20 years of his life, unwearied in writing, and at the same time active in pro-

motling the interests of the little village, which, under his fostering care, grew up into a neat little town, and became the seat of a flourishing colony of watch-makers. As the home of *V.*, Freney became a centre of attraction for the most distinguished persons of all countries. *V.* carried on correspondence with Frederick the Great and Catherine II. of Russia; pleaded eloquently and successfully for the Calas family; educated the grand-niece of Corneille, and gave her a marriage portion; and offered Roussean an asylum. His books and his speculation in the funds had made him enormously rich, but he spent nobly his fortune, and the fugitives from the civil troubles of Geneva and other towns always found an asylum beneath his roof. At the age of 84, yielding to the importunity of his niece, he once more visited Paris, where he brought out a new tragedy, *Irène*. His whole journey and his reception there was one continuous splendid triumph. He was everywhere attended by crowds; occupied the director's seat at the Academy, was crowned at the theatre; and then, exhausted by the excitement and loss of sleep, took opiates, and, after great suffering, fell into a lethargy, and so D. May 30, 1778. Among his latest words were these: "I die worshipping God, loving my friends, not hating my enemies, but detesting superstition." The curé of St. Sulspice refused the rites of burial, and the body of the "great mocker" was interred by night in the abbey of Sullières, whence it was removed at the revolution, and deposited in the Pantheon. The works of *V.*, in the most complete editions, fill 70 vols. 8vo. In addition to those already named, we mention his plays, *Zäire*, *Mahomet*, *Mérope*, and *Oreste;* the too celebrated poem *La Pucelle;* the *Histoire de Charles XII.;* the *Siècle de Louis XIV.;* the *Essai sur les Mœurs et l'Esprit des Nations;* the satirical novel *Candide ou l'Optimiste;* and the *Dictionnaire Philosophique*. The character of *V.* has been variously judged, and this is not the place to attempt a decision. His literary merits admit of less doubt. There was hardly any department of literature to which *V.* did not make contributions; and, to say nothing of many efforts trifling or unsuccessful, the variety of his genius is attested by the number and diversity of the departments in which he attained celebrity. He gave to the French language some of its finest tragedies, and its only epic that is worthy of the name; a few of its liveliest novels, and many of the wittiest and most highly finished of its satirical and other light poems; several of its most spirited and judicious histories, and a large number of its most acute critical essays; and, above all, he poured out a considerable series of writings, which, though their claim to the title of philosophical may perhaps be questioned, passed in their time for the exposition of a true and great philosophy, and exercised on public opinion throughout Europe a tremendous and practical influence. He was a consummate master in the art of representation, owing his effectiveness much less to his great clearness and consecutiveness of thought, than to the remarkable skill and liveliness with which he put his ideas into words; his poetical diction is very refined and terse; and his prose style is unsurpassed for its apt perspicuity, its easy and varied grace, and its brilliant turns and strokes of wit. Posterity has confirmed the sentiment of his contemporaries, that he was the sovereign writer of his century.

Vol'taism, *n.* [From *Volta.*] See GALVANISM.

Vol'taite, *n.* (*Min.*) A species of iron-alum, which occurs in dull oil-green to brown or black cubical crystals and their modifications, near Naples.

Voltam'eter, *n.* An instrument invented by Faraday, for measuring the electro-motive force or strength of a current of voltaic electricity by means of an indicating body, generally water acidulated by sulphuric acid.

Vol'taplast, *n.* [From *Volta*, and Gr. *plastos*, moulded.] A form of voltaic or galvanic battery, suitable for use in electrotyping.

Vol'tatype, *n.* Same as ELECTROTYPE, *q. v.*

Volterra, (*vol-tui'ra.*) a town of Italy, prov. of Pisa, on the river Era, 32 m. S.W. of Florence. It is inclosed by walls of singular Etruscan architecture, and contains numerous ancient monuments. *Manuf.* Alabaster articlee. *Pop.* 4,950.

Vol'ti. [It. imper. of *voltare*, to turn.] Turn over, that is, the leaf; as, *volti subito* (turn over quickly).

Voltigeur, (*vŏl-te-zhoor',*) *n.* [Fr., from *voltiger*, to vault.] (*Mil.*) A soldier belonging to a regiment of light infantry, as distinguished from a *grenadier*, who ie, generally, a taller and heavier man. Voltigeurs are principally employed as skirmishers, and the name is peculiar to the French service.

Vol'tri, a town of Italy, prov. of Genoa, on the Gulf of Genoa, 9 m. W. of the city of Genoa. It is noted for its mineral springs. *Pop.* 11,802.

Voltur'no, a river of S. Italy, rises in the province of Molise, and falls into the Gulf of Gaeta, 20 m. N.W. of Naples, after a W. course of 90 m. On the banks of this river, Oct. 1, 1860, the army of the king of Naples was defeated by Garibaldi.

Volt'zine, or VOLT'ZITE, *n.* (*Min.*) A native oxysulphide of zinc, composed (when pure) of 82·7 per cent. of sulphide of zinc, and 17·3 oxide. It occurs in several places, in small hemispherical incrustations of a dirty rose-red color, which are opaque or only slightly translucent, and have a vitreo-resinous lustre.

Volu'bilate, Volu'bile, *a.* [Lat. *volubilitatus.*] Turning, whirling, or winding; voluble; as, a *volubilate* stem.

Volubil'ity, *n.* [Fr. *volubilité*, from Lat. *volubilitas* —*volvo*, to roll.] State or quality of being voluble; as, (1) Susceptibility of being rolled; tendency to roll; as, the *volubility* of a spherical body.—(2) Act of rolling; as, devious *volubility.*—(3) Fluency of speech; active motion of the tongue in speaking; as, the *volubility* of a talkative woman.—(4) Mutability; liableness to revolution or change; as, the *volubility* of worldly experiences. (R.)

Voluble, (*vŏl'yu-bl,*) *a.* [Fr., from Lat. *volubilis* —*volvo*, to roll.] That turns round with readiness; formed so as to roll with ease, or be easily set in motion; having a tendency to roll or revolve; as, quicksilver is a *voluble* substance.—Fluent; glib; flowing with ease or smoothness, as words; having rapidity or fluency of speech; as, a *voluble* parrot.

(*Bot.*) Having the power of turning; as, the *voluble* stem of the hop-plant.

Vol'ubly, *adv.* In a voluble or fluent manner.

Volume, (*vŏl'yum,*) *n.* [Fr., from Lat. *volumen*, a roll, from *volvo*, to roll.] A collection of sheets of paper, usually printed or written, folded and bound, or covered; a book; that part of an extended work which is bound up together in one cover; as, a novel in three *volumes.* (See TOME.)—As much as is included in a roll or coil; anything which is rolled up; a roll; a turn; a contortion; a convolution; as, the *volume* of a serpent, *volumes* of smoke.

(*Geom.*) The quantity of space, of three dimensions, enclosed by a surface or surfaces. The volume of a body, or its *solid content*, is the quantity of space which it occupies.

(*Mus.*) The compass of a voice, from grave to acute; tone, power, or calibre of voice or sound.

Volumed, (*vŏl'yumd,*) *a.* Having the form of volumes or rolling masses; as, *volumed* clouds.—Of large dimensions, bulk, or volume; massive; extensive; huge; as, the *volumed* waters of Niagara.

Volumet'ric Analysis, *n.* (*Chem.*) A method of quantitative chemical analysis in which the balance and other elaborate apparatus are more or less dispensed with; a few glass vessels, some graduated, being alone necessary. It consists in ascertaining how much of a solution of definite strength and properties must be added to a solution of unknown strength before a given effect, indicative of the termination of a chemical reaction, can be produced. Many solutions of unknown strength can thus have quantitative values rapidly given to them.

Volu'minous, (*-us,*) *a.* [Fr. *volumineux*, from Lat. *voluminosus.*] Comprising many volumes, or of many coils or complications; as, the *voluminous* folds of a serpent.—Consisting of many volumes, books, or tomes.—Diffuse; copious; prolific; having written much or made many volumes; as, Dumas, the Elder, has been the most *voluminous* author of the past century.

Volu'minously, *adv.* In a voluminous manner.

Volu'minousness, *n.* State of being voluminous.

Vol'untarily, *adv.* In a voluntary or spontaneous manner; of one's own free will.

Vol'untariness, *n.* State of being voluntary.

Vol'untary, *a.* [Fr. *voluntaire;* from Lat. *voluntas*, will.] Proceeding from the will or exercise of volition; done freely or of choice; as, a *voluntary* act.—Acting by free choice or spontaneously; acting without being impelled, instigated, or influenced by another or others; spontaneous; free, or having to act by choice or option; proceeding from free will; of his or its own accord; not prompted or persuaded by external or foreign influence; as, *voluntary* labor or service; a *voluntary* sacrifice.—Purposed; intended; done prepense or by design; as, manslaughter is not *voluntary* murder.—Endowed with the power of will; possessing the faculty of volition; as, man is a *voluntary* agent.—Subject to the will, as certain muscles.

(*Law.*) Gratuitous; without compulsion or inducement by valuable consideration; as, *voluntary* evidence.

V. oath, affirmation, or *affidavit.* (*Law.*) An oath, affirmation, or affidavit made in an extrajudicial matter.—*V. conveyance*, a conveyance made without valuable consideration.—*V. escape*, the escape of a prisoner by the given consent of the sheriff.—*V. jurisdiction*, that which is exercised in granting dispensations, and using other non-opposed powers.

V. muscle. (*Anat.*) See MUSCLE.—*V. waste*, waste caused by express acts.

—*n.* A volunteer; one who enters upon anything of his own accord. (R.)

(*Mus.*) An improvised and fanciful piece of music commonly performed on the organ at the opening of church service.

Vol'untaryism, (*-izm,*) *n.* The principle or system of supporting the service of religion by voluntary contribution on the part of its adherents, in opposition to its sustentation by aid or subsidy from the state or government.

Volunteer', *n.* [Fr. *volontaire*, from Lat. *voluntarius.*] A self-elected servant, agent, or participator.

(*Mil.*) One who enters into a military organization of his own choice and free-will, to be subject, while serving, to regular army discipline, and to the observance of the articles of war.

(*Law.*) A party, other than a wife or child, to whom, or for whose benefit, a voluntary conveyance is made.

—*a.* Composed of volunteers.

—*v. a.* To offer or bestow of free will, or voluntarily, or without solicitation, compulsion, or valuable consideration; as, to *volunteer* a song.

—*v. n.* To enter into any service of one's own accord, without solicitation, compulsion, or mercenary inducement; as, he *volunteered* to lead the storming-party.

Vol'untown, in *Connecticut*, a post-township of Windham co.

Volup'tas, or **Volu'pia.** (*Myth.*) The goddess of sensual pleasures, worshipped at Rome, where she had a temple. She was represented as a young and beautiful woman, elegantly adorned, having Virtue under her feet.

Volup'tuary, *n.* [Fr. *voluptuaire*, from Lat. *voluptas*, pleasure.] A man addicted to luxury or the gratification of the senses and appetites, and to other sensual indulgences; a sybarite; a roué; a sensualist; a rake; an epicure.

—*a.* Addicted to pleasure or voluptuousness; affording sensual gratification.

Volup'tuous, *a.* [Fr. *voluptueux;* Lat. *voluptuōsus* —*voluptas.*] Sensual; exciting or administering to luxurious or amatory gratification; affording sybaritic indulgence or pleasure; as, *voluptuous* beauty.

—Addicted to the enjoyments of luxury and pleasure; indulging to excess in sensual gratification; as, a *voluptuous* woman.

Volup'tuously, *adv.* In a voluptuous manner.

Volup'tuousness, *n.* State or quality of being voluptuous.

Volu'sia, in *Florida*, an E. co., bordering on the Atlantic; *area*, 1,288 sq. m. St. John's river bounds it on the S.W. *Surface*, level, and in parts covered with swamps. *Cap.* DeLand. *Pop.* (1897) 12,400.

Volusia, in *New York*, a post-village of Chautauqua co., 340 m. S.W. of Albany.

Volu'ta, *n.;* VOLUTIDÆ, *n. pl.* (*Zoöl.*) The Volute family, comprising marine gasteropodous mollusks which have the shell turreted or convolute, and the aperture notched in front, as in *Voluta musica*, Fig. 2500. There are 700 living, and 200 fossil species.

Volutation, (*-tā'shun,*) *n.* [From Lat. *volutare*, to roll.] A rolling or wallowing of a body, as on the earth.

Volute', *n.* [Fr., from Lat. *volvo*, *volutum*, to turn round.] (*Arch.*) The spiral scroll, appended on each side to the capital of the Ionic order (Fig. 2592). The Corinthian and Composite capitals are also decorated with volutes; but their character is different, their size smaller, and they are always diagonally placed.

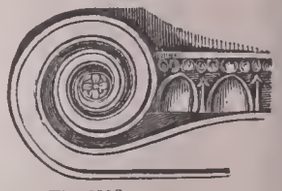


Fig. 2592.—VOLUTE.

(*Zoöl.*) See VOLUTA.

Volut'ed, *a.* Presenting a volute or spiral scroll.

Vol'vox, *n.* (*Bot.*) A genus of minute organisms which swarm in stagnant waters. They are globular bodies, revolving on their axes, and containing more minute globes, each of which also has its proper rotatory motion. The most common species is *V. globator*, the Globe-animal, which is just visible to the naked eye. They were at first supposed to be animals, and were reckoned among *Infusoria*, but the presence of starch having been detected in them by means of iodine, they are now regarded as vegetable.

Vo'mer, *n.* [Lat., a ploughshare.] (*Anat.*) A thin, flat bone separating the nostrils.

Vom'ica, *n.* [Lat., from *vomere*, to throw up.] (*Med.*) Small tumors in the lungs, which eventually suppurate, burst, and degenerate into abscesses, discharging, by cough and expectoration, a discolored pus, of different consistencies, and sometimes marked with blood. When there are many such abscesses, the case is called one of *suppurating phthisis.*

Vom'ic-nut, *n.* (*Bot.*) The seed of *Nux vomica.* See STRYCHNOS.

Vom'it, *v. a.* [Fr. *vomir*, from Lat. *vŏmo*, *vomitum*, to throw up.] To eject the contents of the stomach by the mouth; to spew.

—*v. a.* To throw up or eject from the stomach; to cascade; to puke;—commonly preceding *up* or *out.*—Hence, to eject with violence from any hollow place; to belch forth; as, the Icelandic geysers *vomit* up streams of hot water.

—*n.* The matter thrown up by the stomach.

(*Med.*) An emetic; anything which excites the stomach to eject its contents by the mouth.

Black vomit. [Sp. *vomito prieto.*] (*Med.*) A free vomiting of black matter;—generally, a fatal accompaniment of the yellow fever.

Vomition, (*-mish'un,*) *n.* Act or power of vomiting.

Vom'itive, *a.* Emetic; promoting vomiting.

Vomito, (*vo-mē'to,*) *n.* [Sp.] (*Med.*) The Spanish term for the YELLOW-FEVER, *q. v.*

Vom'itory, *a.* [Lat. *vomitorius.*] Producing emetic results; vomitive; as, *vomitory* medicines.

—*a.* An emetic; a vomit.

(*Arch.*) A door of a theatre by which the crowd is let out.

Vomituritiou, (*-rish'un,*) *n.* (*Med.*) (1.) An ineffectual attempt at vomiting. (2.) The vomiting of but little matter;—the vomiting with but little effort.

Von, a German preposition signifying *of* or *from*, and corresponding to the French *de*, and in certain cases with the Dutch *van*. When prefixed to a surname, it indicates that the possessor is of noble rank. This signification of the word is to be traced to the custom prevalent in the Middle Ages, of calling persons of all degrees by their Christian names, with the addition of the place in which they resided. By degrees this became a prerogative of the nobility, who affixed to their baptismal names that of the castle or village belonging to them.

Von'del, JOOST VAN DER, the greatest of the Dutch poets, B. 1587. His works consist of tragedies, dramatic poems, and epics. D. 1679.

Von Moltke, HELLMUTH, FREIHERR, a celebrated Prussian general, B. in Mecklenburg, 1800. Soon after his birth, his father, a military officer, left Mecklenburg, and acquired an estate in Holstein, where *M.* spent the first twelve years of his life. He was sent to the military academy in Copenhagen, where iron discipline and

François M. A. Voltaire

1694–1778

military frugality laid the foundation of his later character. In 1822 he entered the Prussian army as cornet, and, owing to his eminent qualities, he rapidly advanced through the different stages to the rank of general. As Prussia is indebted to Count Bismarck for her political and diplomatic successes, and for the unification of Germany, so is she to *V. M.* for the strategy of the victorious campaigns of 1866 against Austria, and still more for those of 1870–71 against France. In the latter conflict, *V. M.* was virtually commander-in-chief of the German armies, and contributed greatly, through his masterly operations, to the complete success of the German arms. *V. M.* was a man of great modesty and simplicity; he was reserved, and so little given to talk that he acquired the surname of *the Silent*. He ranked, by general consent, among the best generals and strategists of modern times. Died April 24, 1891.

Voracious, (*-rā'shus,*) *a.* [Fr., from Lat. *vorax* — *voro,* to devour.] Eating or swallowing greedily; eager to devour; ravenous; very hungry; rapacious; as, a *voracious* appetite, a *voracious* whirlpool.

Vora'ciously, *adv.* In a voracious manner.

Vora'ciousness, Voracity, (*-rās'i-te,*) *n.* [Fr. *voracité*; L. Lat. *voracitas.*] Quality of being voracious; greediness of appetite; ravenous; eagerness to devour; rapaciousness: as, the *voracity* of a shark, the *voraciousness* of a lawyer's bill of costs.

Voraginous, (*-răj'in-ŭs,*) *a.* [Lat. *voraginosus,* from *vorare,* to swallow up.] Full of gulfs or whirlpools.

Vor'anlite, *n.* (*Min.*) Same as LAZULITE, *q. v.*

Voronetz', a city of European Russia, cap. of govt. of the same name, on the Voronetz, 130 m. E. of Koursk. *Manuf.* Woollens, hardware, and leather.

Vor'tex, *n.*; Eng. *pl.* VORTEXES; Lat. *pl.* VORTICES. [Lat., from *verto,* anciently *vorto,* to turn.] An eddy or whirlpool; a body of water running rapidly round and forming a cavity in the middle, into which floating bodies are drawn.—A whirlwind, or eddying motion of the air.

(*Philos.*) In the Cartesian system, a collection of material particles, forming a fluid or ether, endowed with a rapid rotatory motion about an axis. By means of this hypothesis and the received doctrine of centrifugal forces, a plausible explanation may be given of the motion of the planets, which move nearly in the same plane; but the motions of the comets which traverse the heavens in all directions are inexplicable, and are, in fact, inconsistent with the hypothesis. Descartes, nevertheless, had the merit of attempting to show how the universe might have assumed its present form and be preserved on mechanical principles.

Vor'tex-wheel, *n.* A turbine. See WATER-WHEEL.

Vor'tical, *a.* [From Lat. *vortex, vorticis.*] Whirling; turning; eddying; as, a *vortical* motion.

Vorticel'lidæ, *n. pl.* [From Lat. *vortex.*] (*Zoöl.*) A family of *Infusoria*, containing a great number of species, often called *Bell* or *Bell-flower Animalcules*, from their form. The genus *Vorticella* (fig. 121) consists of minute cup-shaped or bell-shaped creatures, each placed at the top of a long flexible stalk, the other end of which is attached to some object, as the stem or leaf of an aquatic plant. Around the edge of the bell or cup is a fringe or rather long cilia, the motion of which brings food to the mouth.

Vortiginous, (*-tij'in-ŭs,*) *a.* Moving with rapidity round an axis or centre; vertical.

Vos'ges, (Ger. *Vogesen,*) a chain of mountains in the E. of France, extending from N. to S., in a line nearly parallel with the Rhine, from Basle to Spires, attaining an elevation in their culminating points of from 4,000 to 5,000 feet, and covered with forests. The summits are rounded and regular in outline, and are called *ballons.*

—A N.E. dept. of France, formerly a part of Lorraine, separated from Germany on the East by the Vosges Mountains; *area,* 2,350 sq. m. *Surface,* mountainous; *soil,* fertile in the valleys. *Rivers.* Meuse, Meurthe, Mortagne, Moselle, and Madon. *Prod.* Wheat, maize, hemp, and flax; cattle are extensively reared. *Min.* Iron, copper, silver, and marble. *Cap.* Epinal. *Pop.* 392,988.

Voss, JOHANN HEINRICH, a learned German philologist, b. in Mecklenburg, 1751. He became rector of the gymnasium of Eutin, but subsequently settled at Heidelberg, whither his great reputation had caused him to be invited by the Elector of Baden. He translated Homer, Virgil, Hesiod, and Theocritus, and takes rank as among the very first scholars of Germany. He also produced commentaries of several Greek writers, and may be considered one of the founders of modern philology. D. 1826.

Vos'sius, GERHARD JOHANNES, professor at Leyden and Amsterdam, celebrated for his extensive learning as a theologian and philologist, was the son of a Protestant minister, and was born near Heidelberg, 1577. Some of his works are still considered of great value. He was killed by falling from a ladder in his library, 1649.

Vo'taress, *n.* A female votary or devotee.

Vo'tary, *a.* [L. Lat. *votarius* — Lat. *voveo, vōtum,* to vow.] Bound or consecrated by a vow or promise; devoted; consequent on a vow; as, *votary* abstinence.

—*n.* One bound or devoted by a vow or promise; hence, more generally, one given or addicted to some particular service, worship, study, or state of life.

Vote, *n.* [Fr.; Lat. *votum,* a thing solemnly promised, from *voveo,* to vow.] Suffrage; the expression of a wish, desire, preference, or choice in regard to any measure proposed, either in electing a person to office, or in passing laws, rules, regulations, and the like. — A ballot; a ticket; or, that by which will or choice is expressed in elections, or in deciding propositions; as, a written *vote.* —Expression of will or preference by a majority; legal decision by some announcement of the minds of a number; as, the popular *vote* was in his favor.

—*v. n.* To give a vote or suffrage; to express, indicate, or signify the mind, will, or preference, in electing persons to office, or in passing laws, regulations, and the like.

—*v. a.* To choose by vote or suffrage; to elect by some expression of will or preference. — To grant by vote or expression of the will of a majority; to enact or establish by determination of choice.

Vot'er, *n.* One who votes; one who has a legal right to exercise his suffrage; as, a bottled *voter.*

Vo'tive, *a.* [Fr. *votif;* Lat. *votivus,* from *votus,* vowel.] Pertaining to, or given or promised by, a vow; devoted; consecrated.

V. medal, a medal struck in appreciative memory of some auspicious occurrence. — *V. offering,* a tribute dedicated in fulfilling the vow of a worshipper.

Vo'tively, *adv.* By vow; in a votive manner.

Vouch, *v. a.* [O. Fr. *voucher,* to vouch, to call.] To obtest; to call to witness; as, "Let him *vouch* the silent stars." (*Dryden.*) — To attest; to declare; to affirm; to warrant; to maintain by affirmation or affidavit; as, I can *vouch* his integrity of character. — To confirm; to support; to establish proof.

—*v. n.* To bear witness; to give evidence or complete attestation; as, her innocence was *vouched* for.

Vouchee', *n.* The person who is vouched, or called into court to support or make good his warranty of title in the process of common recovery.

Voucher, *n.* One who vouches or gives full attestation. — A book, paper, or document, which serves to vouch the correctness of accounts, or to confirm and establish facts of any kind.

(*Law.*) One who calls on another to make good his warranty of title.

Vouchsafe', *v. a.* [*vouch* and *safe.*] To permit to be done without danger. — To condescend to grant; as, his majesty *vouchsafed* him audience.

—*v. n.* To condescend; to deign; to yield.

Vouchsafe'ment, *n.* Act of vouchsafing; also, a gift or grant vouchsafed in condescension.

Voussoir, (*voos'swahr,*) *n.* [Fr.] (*Arch.*) One of the wedge-shaped stones of an arch (*a, a,* Fig. 2593), by the proper disposition of which, in a semicircle or other curve, the arch is formed. The centre stone of the arch (*b*) is called the *key-stone.*

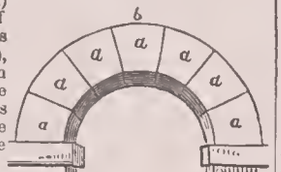


Fig. 2593. — VOUSSOIRS.

Vow, *n.* [Lat. *votum*; It. and Sp. *voto*; Fr. *vœu.*] A promise made to divine power to perform some future act or to pursue some future line of conduct, and calling upon that power to be propitious or unpropitious to him according as he keeps or breaks his word. In most cases the *V.* partakes of the character of a bargain; a piece of service is asked and a reward promised in the event of its being performed. The use of *V.* is to be found in most religions, made either under some pressing necessity for the success of some enterprise, or in consequence of some deliverance. Among the Jews they were very common. — In the Roman Catholic Church a *V.* "is a promise made to God of a thing which we think to be agreeable to Him, and which we are not on other grounds obliged to render to Him." "To promise to God to do what He commands, or to avoid what he forbids, is not a *V.*, because we are already obliged so to act." *V.* are divided into *solemn* (taken in the face of the Church) and *simple* (or private). Release from a *V.* must be obtained from a spiritual superior, who has power to grant it. Five *V.* were said to be reserved for papal dispensation only: — that of chastity; the *V.* to enter into a religious order; *V.* of pilgrimages to Rome and to Compostella; and the *V.* of a crusade. Monastic *V.* are now most commonly understood when *V.* are spoken of.

—*v. a.* [Fr. *vouer*; Lat. *voveo.*] To devote; to give, consecrate, or set apart to God, or other deity, by a solemn promise. — To asseverate; to assert or declare solemnly.

—*v. n.* To make vows or solemn promises.

Vow'el, *n.* [Fr. *voyelle;* It. *vocále,* from Lat. *vocalis,* sounding.] (*Gram.*) A letter which can be pronounced alone, and is thus distinguished from consonants, which require to be sounded with vocal aid; or, a free uncompounded modulation of the voice; a simply opening the mouth or lingual organs, as the sounds of *a, e, o*; a voice sound; also, a letter which represents such a sound. — In the English language, *a, e, i, o, u,* and sometimes *w* and *y,* form the series of *written* vowels; the *spoken* vowels are, however, much more numerous. The sound of the vowels can be continued as long as the breath lasts; and hence they predominate in all natural expressions of the emotions. A diphthong consists of two vowels, the sounds of which run into one another. The harmoniousness of a language depends in great measure upon the proportion of vowels to consonants.

—*a.* Vocal; pertaining or having reference to, or consisting of, a vowel or vowels.

Vow'elish, *a.* Having the characteristics of a vowel.

Vow'elism, (*-izm,*) *n.* Use or adaptation of vowels. (R.)

Vow'er, *n.* One who makes a vow.

Vox, *n.* [Lat.] A voice; the voice.

Voyage, (*voi'aj,*) *n.* [Fr.; Sp. *viage*; from Lat. *via,* a way.] Originally, a going or passing on the way or road; a journey; a travelling; specifically, in the modern sense, a passing by sea or water from one place, port, or country to another; especially, a journey by water to a distant place or country. — *Long voyage,* formerly, a term applied to a voyage to India and back round the Cape of Good Hope or by Cape Horn; as, a mariner o the *long voyage.*

—*v. n.* To take a journey or voyage; particularly, to sail, pass, or travel by water; as, *voyaging* through arctic seas.

—*v. a.* To travel; to pass over.

Voy'ager, (*-jer,*) *n.* [Fr.] One who voyages, or who sails or passes by sea or water.

Voyageur, (*vwah-yah-zhoor',*) *n.* [Fr., from *voyager,* to travel.] The French name for a traveller by land or water. — A Canadian river-boatman.

Voy'ol, *n.* (*Naut.*) A rope used on shipboard to bring the pressure of the capstan to bear on the cable without the necessity of winding the latter round the barrel; also, a block through which the messenger passes; — otherwise called *viol* or *voyal.*

Vraisemblance, (*vrā'sŏng-blŏngz',*) *n.* [Fr.] The semblance or appearance of truth.

Vugh, Vugg, Vo'gle, (*voog,*) *n.* (*Mining.*) A cavity in a lode.

Vukovar, (*voo-ko-var',*) a town of Austria, in Sclavonia, on the Danube, at the influx of the river Vuko, 24 m. S.E. of Eszek. *Manuf.* The twisting of silk. *Pop.* 6,270.

Vul'can. [Lat. *Vulcanus*; Fr. *Vulcain.*] (*Myth.*) The Roman god of fire and the patron of all metallic handicrafts; the son of Jupiter and Juno, and identical with the Greek Hephæstus. Being extremely ugly and deformed, Juno, ashamed to own such a child, dropped him from heaven, when the infant god, falling into the sea, was rescued and adopted by Thetis, who kept him till nine years of age, when he was restored to his parents. Soon after his return to Olympus, Vulcan took his mother's part in one of the quarrels between husband and wife; Jupiter, enraged at Vulcan's audacity, flung him from heaven. After travelling a whole day, the youth alighted on the island of Lemnos, breaking his ankle in the fall; here he raised forges and workshops, and seems to have commenced as the chief of artificers; some poets, however, fix his workshop on Olympus, another on Etna, where the Cyclops were his ministers and chief assistants, by whose aid he fabricated all the great works attributed to him. He fashioned Pandora, and had Venus given him for his wife, by whom he was father of Cupid. Vulcan is represented bearded, covered with dust and soot, and blowing the fires of his forges, or else in the act of forging Jove's thunderbolts.

Vulca'nian, *a.* [Lat. *Vulcanius.*] Pertaining or relating to Vulcan, or to the working of metals.

(*Geol.*) Same as PLUTONIAN, *q. v.*

Vul'canist, *n.* A rare orthography of VOLCANIST, *q. v.*

Vulcaniza'tion, *n.* The process of combining India-rubber with sulphur, and so imparting to the former new properties which render it applicable to many useful purposes. See INDIA-RUBBER.

Vul'canite, *n.* (*Chem.*) See INDIA-RUBBER.

Vul'canize, *v. a.* To change the properties of, as India-rubber, by the process of vulcanization.

Vul'gar, *a.* [Fr. *vulgaire*; Lat. *vulgaris* — *vulgus,* the people.] Pertaining or having reference to the common unlettered people; used or practised by common or uncultivated people; having reference to common or plebeian life; consisting of low or unrefined persons; not select, educated, or distinguished; as, the *vulgar* classes, *vulgar* life, &c. — Belonging or relating to the mass or multitude of people; national; common; public; general; ordinary; hence, used by all classes of people; vernacular; as, to translate from a foreign tongue into the *vulgar.*—Unrefined; mean; rude; low; rustic; boorish; wanting in polish, cultivation, or good taste; base; as, *vulgar* persons, minds, manners, speech, &c.

—*n.* The mob; the people at large; the common people; the lower grades of society; the rabble; the riff-raff; — it has no plural termination, but has often a plural verb.

Vulga'rian, *n.* A person of vulgar speech, manners, or ideas.

Vul'garism, (*-izm,*) *n.* Vulgarity; want of good breeding or refinement; grossness or gaucherie of manners; as, the *vulgarism* of ordinary life. — A low or vulgar phrase or expression; a slang word or term.

Vulgar'ity, *n.* [Fr. *vulgarité.*] Quality of being vulgar, low-bred, or illiterate or uncultivated in mind or manners; mean condition of life; characteristic state of the lower orders of society; as, "People within the line of *vulgarity.*" (*Browne.*)—Grossness or boorishness of appearance, manners, or language; absence of refinement or good breeding; as, *vulgarity* of expression or deportment.

Vul'garize, *v. a.* To make vulgar; as, language *vulgarized* by the introduction of slang phrases.

Vul'garly, *adv.* Commonly; in the ordinary manner among the common people.—In a rude, coarse, or ill bred manner; meanly; boorishly; as, how *vulgarly* some persons conduct themselves.

Vul'garness, *n.* Vulgarity.

Vul'gate, *n.* [Fr.; Lat. *vulgata,* for public use.] (*Eccl.*) The name given to the Latin version of the Scriptures in use in the Roman Catholic Church. It was decreed by the Council of Trent that the Vulgate is to be "held as authentic," which, according to the interpretation usually put on that decree by theologians, means not that it is in any way substituted for the originals, but that it contains nothing contrary to true faith and morals.

Vulnerabil'ity, Vul'nerableness, *n.* State, quality, or condition of being vulnerable.

Vul'nerable, *a.* [Fr. and Sp.; L. Lat. *vulnerabilis* — *vulnus, vulneris,* a wound.] That may be pierced or wounded; susceptible of wounds or external injuries; as, the heel of Achilles was the only *vulnerable* part of his body.—Assailable; liable to injury, or to the chance of being affected harmfully; as, a man of *vulnerable* temperament.

Vul'nerableness, *n.* See VULNERABILITY.

Vul'nerary, *a.* [Fr. *vulnéraire*, from Lat. *vulnerarius.*] Pertaining or relating to wounds; useful in healing wounds, or adapted to the cure of external injuries; as, a *vulnerary* remedy.

—*n.* (*Med.*) Any plant, drug, or compound of utility in the treatment and cure of wounds.

Vul'nerose, Vulnose', *a.* Full of, or characterized by, wounds.

Vulnif'ic, Vulnif'ical, *a.* [From Lat. *vulnus*, a wound, and *facere*, to make.] Wounding, or causing the inflictiou of wounds.

Vul'pes, *n.* [Lat., a fox.] (*Zoöl.*) See Fox.

Vulpine (*vŭl'pĭn*), *a.* [Lat. *vulpinus*, from *vulpes*, a fox.] Pertaining or having reference to, or resembling, the fox; hence, crafty; cunning; artful; sly; trickish; foxy; as, a person of *vulpine* instincts.

Vul'pinite, *n.* [From *Vulpino*, Italy.) (*Min.*) An anhydrous sulphate of lime, containing about 8 per cent. of silica.

Vul'ture, *n.* [Lat. *vultur.*] (*Zoöl.*) See VULTURIDÆ.

Vultu'ridæ, *n. pl.* (*Ornith.*) An important family of birds-of-prey, embracing the largest of the flying birds, as the gigantic condor of South America and the great lämmergeyer of Europe and Asia, and whose distinguishing characteristic is the habit of feeding upon carrion, a habit which has brought them into favor in many hot countries as useful scavengers. Though, when pressed by hunger, they will attack small animals, they much prefer dead and even decaying carcasses, which they have the power of discovering at enormous distances. It has long been supposed that this is due to an extraordinary sensitiveness of the olfactory organs, but later study has relegated it from the sense of smell to that of sight, which is now believed to be remarkably keen in the *V.* It is well known that, in the case of a camel or other beast of burden falliug dead in a desert caravan, vultures of some species quickly appear, often in considerable numbers, though none had been before visible to the eyes of the members of the caravan, and speedily devour the carcass of the dead beast. The most probable explanation of this phenomenon is that offered by Canon Tristram, to the effect that some one of the vultures, which soar at immense heights, sees the fallen body, and at once swoops downward. A more distant bird, observing this movement and knowing its meaning, follows its neighbor's course. Still others follow, so that the downward swoop of the first quickly brings a number into the field, each eager for its share of the prey. For instance, in the Crimea, during the siege of Sevastopol, these birds congregated in enormous multitudes, though they had been very scarce there before, the unwonted abundance of food having apparently brought them together from a vast expanse.

The *V.* are distinguished from eagles, hawks, and other birds-of-prey by the shape of their beak, which is of moderate size, nearly straight above, and suddenly curving downward, being rounded at the tip and without "teeth" in the upper mandible. The head and upper neck are nearly bare of feathers. Their claws are short and feeble, so that, in their assaults on living prey, they are confined to the smaller quadrupeds and birds. Their wings are strong, and their power of swift and sustained flight is remarkable. The *V.* are divided by the more recent writers into two families, the *V.* proper, or those of the Old World, and the *Sarcorhamphidæ*, or New World vultures, which differ from the former in important structural features, though similar to them in habit. Of the Old World *V.* the most striking representative is the huge lämmergeyer, once common but now rare in the Alps, and extended widely through the mountain regions of South Europe and Asia and North Africa. This great bird is nearly 4 feet high when sitting, 5 feet in length, and has a spread of wing of from 9 to 10 feet. It has the reputation of swooping on goats and chamois and hurling them from the brink of precipices and of carrying off young children. The latter stories, however, are difficult to believe in view of the weakness of its claws, which are not adapted for carrying heavy weights. Another well-known species is that called the Egyptian vulture, or Pharaoh's Hen, a bird of delicate build and appearance, yet living on the most repulsive kind of food. It is abundant in India and has a wide range in Africa. The Griffon vulture (*Gyps fulvus*) is one of the best known species, having a wide distribution in Europe and Africa. The genus *Vultur*, formed by Linnæus, is now restricted to a single species, *V. monachus*, commonly known as the cinereous vulture, which is found from the Straits of Gibraltar to the seacoast of China. Nearly all these birds inhabit rocky cliffs, on the ledges of which they build their nests.

The American *V.* includes four genera, *Sarcorhampus*, embracing the condor; *Gypagus*, the king vulture; *Catharista*, the turkey buzzard, and *Pseudogryphus*, the great California vulture. Of these the condor is the most remarkable, from its great size and strength, though these have often been exaggerated. Its only rival among birds-of-prey is the lämmergeyer, it measuring about 3½ feet in length, with an immense spread of wing (said to be 15 feet from tip to tip). No other birds match the condors in power of flight, they soaring to immense heights, until lost in or far above the clouds. The king vulture, with its gaudily colored head and nasal caruncle, is a smaller bird, which inhabits the wooded plains of South and Central America, and owes its name to the manner in which it bullies other vultures. It is reddish-yellow above, white beneath, with bluish-gray ruff and black quills and tail. The most familiar of the *V.* in the United States is the common turkey buzzard (*Cathartes aura*), which is esteemed in southern cities for its services as a destroyer

Fig. 2594.—KING VULTURE.

of carrion. It is about 2½ feet long, black in color with a purplish sheen, and has a carmine and bluish-red head, fleshy neck, and white feet. The fourth genus mentioned, *Pseudogryphus*, has a very limited range on the western slopes of North America, and is threatened with extinction through the use of poison.

Vulturine (*vul'yur-in*), *a.* [Lat. *vulturinus.*] Belonging to, or concerning, the vulture; having the qualities of, or resembling, the vulture;—hence, rapacious; voracious.

Vul'turish, *a.* After the manner of a vulture.

Vul'turous, *a.* Resembling a vulture; rapacious; preying.

Vul'viform, *a.* [Lat. *vulva*, a wrapper, and *forma*, form.] (*Bot.*) Resembling a crevice with projecting edges.

Vy'asa, or **Ve'davyasa,** (a compiler of Vedas.) The name given to the supposed author or compiler of the four Sanskrit Vedas, and of the poem *Mahabharada.* Nothing is known of his history.

Vyat'ka, or **Viat'ka,** a government of northwestern Russia, adjoining Perm on the west, and of 39,124 sq. m. area. Its surface is an undulating plateau of from 800 to 1,400 ft. above sea-water, deeply grooved by rivers, whose banks, broken by ravines, rise like hills. The Kama and Vyatka, with several of their tributaries, are navigable. On the banks of the Izha and Votka are important iron works. Much of the territory is occupied by forests and marshes, the former covering three-fourths of the area, while there are many extensive marshes, and lakes are numerous. The products are corn, iron, hides, leather, timber, &c. Cattle and sheep are largely raised, and the Vyatka horses, a fine but small breed, are well known throughout Russia. There are no railways, but the great highway to Siberia traverses the province. Industries have attained considerable development, the province having numerous and diversified manufactories and a large trade. At Izhevsk is the government manufactory of guns. *V.* is one of the few governments of Russia where the *Zemstvo*, consisting largely of representatives of the peasantry, has been permitted by the government to create a series of educational institutions. Its schools, libraries, village hospitals, and statistical publications are highly spoken of. *Pop.* (1897) 3,105,790.

—A city, the capital of the above government, on the Vyatka river, 653 m. N.E. of Moscow, stands on the steep hills above the river and also on their slopes and at their base. The city is built mostly of wood, and has an important trade in the products of the province, though it has few manufactures. *Pop.* (1897) 26,260. The history of *V.* is of interest. It began as a trading-post of Novgorod, the great commercial republic of ancient Russia, dealing in furs, horses, wax and honey. A town grew around the fort and was surrounded by walls. It was twice taken and plundered by the Tartars. On the fall of Novgorod, in the 15th century, through the intriguing policy of the princes of Moscow. *V.* lost its republican institutions also (1489), and the autocratic Czar, Ivan the Great, became supreme ruler in Russia. It was known as Khlyuoff until 1780.

Vyaz'ma, a town of Russia, 109 m. N.E. of Smolensk, and in the goverment of that name. It was populous as early as the 11th century, and carried on an active trade with Narva, on the Gulf of Finland. It was taken in the 15th century by the Lithuanian princes, and subsequently by Moscow, and in 1611 by the Poles, who held it till the peace of 1634. It is now an important center for the trade of Smolensk, dealing in corn, hemp, linseed, tallow, hides, fish, metals, and manufactured goods. *Pop.* (1897) 14,440.

Vy'ernyi, formerly ALMATY, capital of Semiryetchensk, a Russian province of Central Asia, in N. Lat. 43° 16′, 47 m. south of the Ili river. Founded in 1854 as a small block-house, the advantages of the situation caused a rapid growth in population, which is now over 17,000. Thick growths of poplar, elm and fruit trees surround the houses, the streets are wide and planted with trees, and are refreshed with channels of running water. There is an active trade in wheat, rice, corn, tea, oil, and tobacco. *V.* is subject to earthquakes, due to the dislocation of rocks on the northern slope of the Alatau Mountains, at whose base the town is built. A severe shock occurred on June 9, 1887, which destroyed or damaged nearly 1,000 stone houses and killed 326 people.

Vy'ing, *ppr.* of VIE (*q.v.*)

Vyrn'wy, a river of England, which rises on the borders of Merioneth and Montgomery and joins the Severn, 8½ m. above Welshpool. In 1881 a series of engineering operations were begun for the utilization of this stream for the water supply of Liverpool, there being formed, by July 14, 1892, an artificial lake 4¾ m. long by 1½ m. broad, 1,121 acres in area, and holding 2,103 million cubic feet of water. The retaining wall, which is built of cyclopean stones, is 100 feet high, and is sunk 60 feet below surface level. The distance followed by the water, in its flow to Liverpool, is 68 m.

Vysh'niy Volot'chok, a town in the Russian government of Tver, 82 m. by rail N.W. of the city of Tver. Its importance is due to its situation in the center of the Vyshne-Volotsk system of navigation, which connects the upper Volga with the Neva. A portage of less than 17 m. between the Tversta, an affluent of the Volga, and the Tsna, whose waters reach Lake Ladga, was long used to transport boats from the one basin to the other. This was succeeded by a canal, which became an important link of communication between the Volga and the Neva. This canal is being abandoned in favor of the Marünsk system, and the prosperity of the town is declining, though its trade is still considerable. *Pop.* (1897) 12,930.

V.—SECTION II.

VAND — VARA

Vaca'tion Schools. (*Educ.*) Prominent educators in New York city, aided by the Association for Improving the Condition of the Poor, undertook to open several schools in that city during the long summer vacation of 1897, and met with encouraging success. The city's Board of Education co-operated so far as to allow the free use of certain school-rooms, with such lights and fuel as were needed, but exercised no control. The experiment was begun by opening ten schools, where 150 teachers were employed, and an average daily attendance of 5,700 pupils was secured, at an average cost for each school of about $1,000. The significance of this philanthropic innovation is very great. The vacation season is far from a pleasant thing to the children of the common people who make up the bulk of the population in great cities. It is proper to add that the friends of the movement deem its success in some degree due to the fact that it was sustained by private benevolent enterprise rather than by the school authorities, who, however good their intentions, would be likely to deaden the plan by the formalities of government control.

Vac'cine, *n.* The virus of cow-pox, taken directly from the cow, or from cow-pox pustules in a human body, used in inoculating to prevent smallpox.

Vail, THOMAS HUBBARD, clergyman, was born in Richmond, Va., Oct. 21, 1812; educated at Trinity College, Hartford, and the General Theological Seminary; ordained a priest of the Protestant Episcopal Church (1837); consecrated first bishop of Kansas (1864). He was the founder of Bethany College, Topeka, Kan. Was a forcible preacher and an able writer. Died Oct., 1889.

Vale (*vā'le* or *vä'lā*), *n.* [Lat. *imper.* of *valeo*, to be in health.] An adieu; a farewell.

Val'ence, *n.* [Lat. *valens* (gen. *valentis*), powerful.] The worth or value of a chemical atom as regards its power of displacing other atoms in chemical compounds.

Valenciennes' Lace. (*Manuf.*) See LACE.

Val'ley City, in *North Dakota*, a post-village, cap. of Barnes co., 60 m. W. of Moorhead, Minn. *Pop.* (1897) 1,195.

Valley Falls, in *Kansas*, a post-village of Jefferson co., 24 m. N.E. of Topeka; has water-power and some manufactures. *Pop.* (1895) 1,172.

Valver'de, in *Texas*, a S.W. co.; *area*, 2,880 sq. m.; drained by the Rio Grande del Norte, which bounds it S. and S.W., and the Pecos river. *Surface*, hilly, suitable for grazing purposes; about 3,000 acres in irrigation; has fine building-stone. *Cap.* Delrio. *Pop.* (1897) 3,250.

Vambéry (*vahm'ba-re*), ARMINIUS, or HERMANN, an Hungarian traveller and Orientalist, was born in 1832; has distinguished himself by travelling in the disguise of a dervish, by routes heretofore unknown to Europeans, through the deserts of Turkestan to Khiva, and thence by Bokhara to Samarcand, in 1861–66. Of that perilous journey, through an unknown country and a population fanatically hostile to Christians, he has given the world an account in his *Travels and Adventures in Central Asia* (London, 1864). Among his other works are *Wanderings and Adventures in Persia* (1867); *Sketches of Central Asia* (1868); *History of Bokhara* (1873); *Central Asia and the Anglo-Russian Boundary Question* (1875); *Islam in the 19th Century* (1875); *Primitive Civilization of the Turko-Tartar People* (1879); *The Future Contest for India* (1886); and several others, including valuable dictionaries of the Turkish language. He is now professor of Oriental languages at the University of Budapesth.

Van Dyke, HENRY JACKSON, clergyman, was born at Abingdon, Pa., March 2, 1822; educated at the University of Pennsylvania and Princeton Theological Seminary; was pastor of churches in Bridgeton, N. J. (1845–52), Germantown (1852–53), and called to the First Presbyterian Church, of Brooklyn, N. Y., in 1853. He published *The Lord's Prayer; The Church, Her Ministry and Sacraments* (1890). Died May 25, 1891.

Van Dyke, HENRY JACKSON, JR., son of the foregoing, was born in Germantown, November 10, 1852; educated at Princeton and at the University of Berlin. He was pastor of the United Congregational Church at Newport, R. I., in 1878; was called to the Brick Presbyterian Church, of New York city, in 1882. He has published: *The Reality of Religion* (1884); *Straight Sermons to Young Men and Other Human Beings* (1893); *The Story of the Other Wise Man* (1895), &c.

Van Dyke, JOHN CHARLES, author and critic, was born in New Brunswick, N. J., April 21, 1856; was educated at Columbia, and studied law; has also studied in the art centers of Europe. He became librarian of Sage Library, New Brunswick, in 1877; and is also professor of the History of Art in Rutgers College; has published several volumes of critical essays on literature and art.

Vanbrugh (*van-broo'*), SIR JOHN, an English dramatist and architect, was born in London, 1666. He was educated in France and joined the French army, but in 1695 was appointed secretary to the commission for finishing Greenwich Hospital, and returned to London, where he devoted himself to architecture and dramatic literature, writing many brilliant but coarse plays, of which *The Provoked Husband* (originally, *The Journey to London*, left incomplete at his death, but finished by Colley Cibber) and *The Confederacy* held their place for a long time on the English stage. His comedies were edited in 1840 by Leigh Hunt in connection with the plays of Congreve, Wycherley, and Farquhar. As an architect he is best remembered by Bleuheim Palace and Castle Howard. He was Clarencieux King-at-arms for twenty years before his death, and in 1714 he was made comptroller of the royal works and knighted. Died in 1726.

Vance, ZEBULON B., politician, was born in Buncombe co., N. C., May 13, 1830; studied law; was a member of Congress (1858–61); joined the Confederate army in 1861; was elected Confederate governor of North Carolina in 1862 and 1864; after the reconstruction was governor in 1870, and U. S. Senator from 1879 until his death, April 19, 1894.

Vance, in *North Carolina*, a N. co.; *area*, 342 sq. m.; drained by Swift creek, and small streams tributary to the Roanoke river. *Surface*, rolling; *soil*, fertile. *Cap.* Henderson. *Pop.* (1897) 18,350.

Vancou'ver, in *Washington*, a city, cap. of Clarke co., on Columbia river, 6 m. N. of Portland, Ore. Fruit, lumber, and dairy products are the principal shipments. Headquarters of the Military Department of the Columbia. *Pop.* (1897) 4,750.

Van'derbilt, CORNELIUS, popularly called "Commodore *V.*," was born on Staten Island, N. Y., in 1794; began to show his financial talent at the age of 16, when he bought a boat to carry farm produce to New York. At 23 he was worth $10,000. For about 12 years he was captain of a steamboat plying between New York city and New Brunswick, N. J. In 1829 he began running a line of steamboats on the Hudson river and Long Island Sound. In 1851 he started a line to San Francisco by way of the Isthmus, with a branch line to New Orleans. He also started a transatlantic line to Havre, France, but gave it up at the outbreak of the Civil War, and presented the steamer *Vanderbilt*, which cost $800,000, to the U. S. government. He invested in railroads and grew rich rapidly; established the New York Central Railroad, and gained control of connecting lines, until (1873) he controlled 2,000 miles of track. He gave $1,000,000 to found Vanderbilt University, at Nashville, Tenn.; also gave to Rev. Charles T. Deems $50,000 to purchase the Church of the Strangers in New York city. He left a fortune of $100,000,000 to his son, WILLIAM HENRY VANDERBILT. Died Jan. 4, 1877.

Vanderbilt, WILLIAM HENRY, was born at New Brunswick, N. J., May 8, 1821; in 1864 he became associated with his father, Cornelius Vanderbilt, in the management of the Harlem Railroad. After inheriting the estate, he devoted himself to the care and development of the Vanderbilt system of railroads. His most conspicuous public act was in connection with the bringing of the Egyptian obelisk to New York Central Park, for which he paid all the expense of transportation. He also gave $500,000 to the New York College of Physicians and Surgeons (1884). Died Dec. 8, 1885, leaving the Vanderbilt millions to his sons, CORNELIUS and WILLIAM KISSAM, the former of whom became chief manager, and died Sept 12, 1899.

Vanderbilt Univer'sity. (*Educ.*) A Methodist Episcopal co-educational institution at Nashville, Tenn. In response to special calls, a convention met at Memphis, Jan. 24, 1892, composed of delegates from Tennessee, Alabama, Mississippi, Louisiana, and Arkansas, to concoct some scheme for promoting higher education throughout the Methodist Episcopal Church South. A plan for a university was adopted, a board of trustees nominated, and shortly afterward a charter obtained under the title of the Central University of the Methodist Episcopal Church South. Efforts were made to raise the necessary funds, but were fruitless, and the enterprise seemed likely to fail, when Bishop McTyeire induced the elder Cornelius Vanderbilt to give to the institution $500,000. Out of gratitude for this gift, its name was changed to Vanderbilt University. Vanderbilt afterward increased his gift to $1,000,000; his son, William H., made gifts at various times which amounted to $450,000, and his grandson, Cornelius, gave $30,000. The board of trust, consisting of 31 members, is self-perpetuating. The bishops of the Methodist Episcopal Church South and the chancellor of the university are *ex officio* members of the board. The other members are elected for a term of 8 years. Its productive funds are $1,050,000. In 1896 it had 80 instructors, 656 students, and 16,000 volumes in its library. Its income in that year was $100,000.

Vane, SIR HENRY, statesman, was born in Kent, England, in 1612, became governor of the colony of Massachusetts in 1636, and in 1640, as a member of the Long Parliament, one of the foremost impeachers of Strafford (*q. v.*). After the death of Pym, in 1643, he became virtually prime-minister of England; opposed the execution of Charles I., and also the usurpation of Cromwell, and in 1649 was placed at the head of the Admiralty, where he highly distinguished himself by his vigorous administration of naval affairs. After the restoration of Charles II., he was tried for high treason, and executed, 1662.

Van'ner, *n.* See ORE-CRUSHING and DRESSING MACHINERY.

Vapereau (*văp-a-ro'*), LOUIS GUSTAVE, litterateur, was born at Orleans, France, 1819; became in 1832 secretary to M. Victor Cousin, whom he assisted in his *Pensées de Pascal*. In 1843 he became professor of Philosophy at the College of Tours, holding that position for a period of 10 years. He next undertook the editorship of the *Dictionnaire des Contemporains* (1858 and subsequent editions). Since 1859 he has issued yearly *L'Année Littéraire et Dramatique*, an annual review of the principal productions of French literature. He is also engaged upon another important work, *Dictionnaire Universel des Littératures*; has written various other books, and has been a frequent contributor to reviews, &c., and is honorary inspector-general of primary schools.

Va'por, *n.* (*Physics.*) Loosely speaking, a vapor and a gas are identical, but certain distinctions of meaning exist in preferred usage, the term vapor being commonly applied to the gaseous condition of those substances or elements which we are accustomed to see in a solid or liquid state, and the term gas to those which we ordinarily see in a vaporous form. Thus we speak of hydrogen as a gas, but refer to steam as the vapor of water. It is also proper to use the term vapor when referring to any gas near its condensing point, or in a condition where it can be liquefied by pressure alone. Before the fact was established that all gases may be liquefied by the application of sufficient cold and pressure, and that consequently gas was only a form of matter, dependent on temperature and pressure, there existed a need for such a word as vapor, with a distinct meaning from gas. Now that it is demonstrated that all vapors are gases, and that all gases are vapors, the distinction remains as a matter of usage. The vapor we see in the air, of which clouds are formed, is properly called aqueous vapor, and is always present to a greater or less extent, being dense when the humidity is high. When the quantity reaches the point of saturation, the vapor develops into a well-defined mist or cloud, or into rain. Hence we speak of a saturated vapor as one about to pass into the liquid state because of condensation, whereas an unsaturated vapor will endure a considerable increase of pressure, or a fall in temperature, or both, without condensing to a liquid.

Va'ra, *n.* A Spanish measure. In length, in Spain, it is 2·78 feet or ·85 meter, but this varies in Spanish-America, as follows: in Bolivia the vara equals 32·90 in.; Brazil, 43·31 in.; Chile, 32·91; Colombia, 31·50 in.; Cuba, 33·38 in.; Mexico, 32·99 in.; Peru, 32·91.; Venezuela, 33·38 in.; Paraguay, 33·00 in.; British Honduras, 32·75 in.; Curaçao, 33·37 in.; Argentine Republic, 34·12 in.; Honduras, 33·03.; Costa Rica, 32·83 in.; Portugal, 43·28 in. (the last accounts for the measurement used in Brazil). Measuring a surface, the square vara equals 7·74 sq. ft., or ·72 sq. meter. In Honduras 1·90 sq. vara equals 1 sq. yd.; in Mexico 1 sq vara (vara cuadrida) equals ·84 sq. yd. As a cubic measure (usually for solids), a vara equals 20·56 cubic yds. or 15·71 cubic meters.

Va'riant, *n.* A thing differing from another in form, but otherwise essentially the same; a different form, reading, version, spelling, type, &c.

Vas'eline, *n.* (*Chem.*) An ointment made from petroleum, and much used as a base or vehicle for various medicative preparations. Chemically, it is known as *petrolatum*, which is a mixture of the semi-solid hydrocarbons found in paraffine, the heaviest product of petrolcum, and is obtained by distilliug off the lighter portions of the oil, and purifying and deodorizing the remainder.

Vasomo'tor, *a.* Producing or governing movements of contraction or dilatation; a term applied to nerves that govern the motions of the blood-vessels.

Vas'sar, MATTHEW, founder of Vassar College, was born in Norfolk, England, April 29, 1792; removed to America in 1796; succeeded his father in the brewing business, acquiring a fortune. In 1861 he donated $400,000 to the institution that became known as Vassar College, at Poughkeepsie, N. Y., and left, by bequest, $400,000 more to the same object. His nephews, Matthew (1809–1881) and John Guy (1811–1888), who succeeded him in business, continued his work, each having given large sums to Vassar College, and to other educational and charitable purposes. Matthew Vassar died at Poughkeepsie, June 23, 1868.

Vassar Col'lege. (*Educ.*) A non-sectarian institution for the education of young women, at Poughkeepsie, N. Y. It was founded in 1861 by Matthew Vassar, a brewer, who, born at Norfolk, England, was brought to this country when four years old by his father, who established at Poughkeepsie the brewery ont of which Matthew made his fortune. His original gift to Vassar was added to by his brother and nephew, and the institution has a fund of $1,020,000. The building, collections, and apparatus are valued at $1,000,000 more. In 1896 its revenues from all sources were nearly $300,000. The courses of study are such as are offered in the best colleges for young men, and the requirements for admission are equal to theirs. In 1896 it had 56 instructors, 534 students, and 25,000 volumes in its library.

Vaughn, HERBERT, a Roman Catholic prelate, was born at Gloucester, Eng., April 15, 1832; educated at Stonyhurst College and at Rome; ordained a priest in 1854; returned to England; was founder and became president-general of St. Joseph's Foreign Missionary College, at Mill Hill, Middlesex. In 1871 he accompanied to the U. S. the first detachment of priests sent on a special mission to the colored people. He became bishop of Salford (1872); archbishop of Westminster (1892); was created cardinal (1893), and made head of the Catholic Church in England. He was a practical reformer; built St. Bede's College, in the interest of commercial education. Died June 20, 1903.

Vauquelin (*vōk'lahn*), LOUIS NICOLAS, analytical chemist, born near Pont l'Eveque, France, in 1763; succeeded Ducret in 1801 as professor in the College of France. He discovered glucina and chromium, and greatly conduced to improving the methods of chemical analysis. Died in 1829.

Vaux (*vō*), CALVERT, landscape architect, was born in London, England, Dec. 20, 1824; removed to America (1848), and was associated with A. J. Downing and Frederick L. Olmstead in their chief enterprises in landscape architecture. He was accidentally drowned, in November, 1895.

Vaux, WILLIAM SANDYS, archæologist, born at Winchester, Eng., 1818, graduated at Oxford, in 1840. He for many years held the post of Keeper of the Coins and Medals in the British Museum, of which institution he has published a valuable *Handbook*. His *Nineveh and Persepolis* has exhausted four editions, and been translated into several European languages. As a numismatologist, *V.* has a high reputation.

Ved'dalis, *n. pl.* See CEYLON.

Veg'etable Leath'er. (*Manuf.*) A textile fabric woven from flax or other fibrous material, and afterward embossed with certain substances which impart to it the appearance of leather. Also India-rubber spread upon linen.

Vegetable Oil. (*Chem.*) An oil imported from China, and used for lamps, &c.

Vello'zia, *n.* (*Bot.*) A genus of *Hæmodoraceæ*, chiefly Brazilian, having leafy, often dichotomously-branched stems, bearing linear rigid leaves in tufts at the end of

Fig. 3090.—VELLOZIA COMPACTA.

the branches. The flowers are large, white, yellow, blue, or violet; solitary, or two or three among each cluster of leaves; and campanulate, giving the name of tree-lily to the plant. The short trunk is often very thick. Thirty to 40 species inhabit tropical and Southern Africa, Brazil, and Madagascar.

Vel'lum-cloth, or **Trac'ing-cloth,** *n.* (*Manuf.*) A kind of cotton fabric used by designers, &c.

Vellum-paper, *n.* Same as VELLUM-POST (*q. v.*).

Velours (*va-loorz'*), *n.* (*Manuf.*) A kind of mixed plush or velveteen fabric manufactured of cotton, linen, and mohair, chiefly in Germany.

Velours d'Utrecht. (*Manuf.*) Same as UTRECHT VELVET (*q. v.*).

Velt, *n.* (*Camb.*) A French measure used in gauging brandy, equivalent to 2 gallons, or 7·57 liters.

Veue'tiau Glass. (*Ceramics.*) See AVENTURINE.

Ventu'ra, in *California*, a S. co.; *area*, 1,682 sq. m.; partially irrigated by the Santa Clara river. *Surface*, generally mountainous; *soil*, fertile in the valleys. *Cap.* Ventura. *Pop.* (1897) 12,300.

—A post-village, cap. of Ventura co., about 300 m. S.E. of San Francisco. *Pop.* (1897) 2,790.

Ve'nus. (*Myth.*) The Roman goddess of beauty, the mother of love, the queen of laughter, the mistress of the graces and of pleasures, identified with the Greek *Aphrodite*. She arose from the sea near the island of Cyprus, or Cythera, and was carried to Olympus, where all the gods admired her beauty. Jupiter attempted to gain her affections, but *V.* refused, and the god, to punish her obstinacy, gave her in marriage to his ugly son Vulcan. The power of *V.* over the heart was fortified by a girdle, called *zone* by the Greeks, and *cestus* by the Romans. This girdle gave beauty, grace, and elegance, when worn even by the most deformed; it excited love, and kindled extinguished flames. *V.* gained the prize of the golden apple of discord from Pallas and Juno (see PARIS), and rewarded her impartial judge with the hand of the fairest woman in the world. The worship of *V.* was universally established; statues and temples were erected to her in every kingdom. The rose, the myrtle, and the apple, were sacred to her; and, among birds, the dove, the swan, and the sparrow, were her favorites. She is generally represented with her son Cupid, on a chariot drawn by doves. The figure of *V.* was a favorite subject of ancient sculptors. One of the most famous specimens extant, and certainly the finest relic of ancient art, is the *V. de Medici*, preserved in the celebrated *Tribune* at Florence. It is a nude statue, 4 feet 11½ inches in height, without the plinth. The face has little expression, and not much beauty, the value of the work consisting almost entirely in its proportions. It was found in 1680, in eleven pieces, in the ruins of the villa of Hadrian, near Tivoli, and is the production of Cleomanes, the son of Apollodorus, an Athenian sculptor, said to have lived 200 B.C. The right arm and the lower half of the left arm, wanting, have been restored by Bandinelli. The *V. of Milo*, in the *Louvre*, at Paris, was discovered in the island of Milo, and is supposed to be a copy of the *V.* of Cos, by Praxiteles. In 1877, the arms of this famous statue were reported as discovered in Milo, within a few feet of the spot where, in 1820, the statue was found, but their authenticity is generally doubted.

(*Zool.*) See VENERIDÆ.

Venus's Chariot. (*Zoöl.*) See HYALEA.

Venus's Fly-trap. (*Bot.*) See DIONÆA.

Venus's Looking-glass. (*Bot.*) See SPECULARIA.

Venus's Slipper. (*Zoöl.*) See CARINARIA.

Vera (*va'ra*), a seaport of Spain, 40 m. from Lorca, on the Mediterranean. *Pop.* 9,236.

Veracious (*-rā'shus*), *a.* [Fr. *vrai*, from Lat. *verax*, *veracis—verus*, true.] Truthful; observant of truth; habitually given to speak truth; as, a *veracious* individual.—Characterized by truth or veracity; not false; as, a *veracious* history.

Vera'gua (DON CHRISTORAL COLON DE TOLEDO DE LA CERDA Y GANTE), DUKE OF, Marquis of Jamaica, and Admiral and Andelantado Mayor of the Indies, the 13th in descent from Christopher Columbus, was born in Madrid, Spain, in March, 1837; educated at the University of Madrid, and received a legal training; was elected to the Cortes, as a Liberal, in 1871; re-elected in 1874, and in 1878 was made a senator; has been minister of the interior, vice-president of the Senate, and royal commissioner of agriculture. The Duke and Duchess were the guests of the U. S. in 1893, and witnessed the opening ceremonies of the Columbian Exposition, at Chicago, May 1 of that year. The Duke is a descendant of Francesca, sister of Diego Columbus, great-grandson of Columbus, with whom the male line became extinct in 1578.

Verba'rium, *n.* A game in which the players try to form the greatest number of words from the letters of a given one, or to form one word from its own disarranged letters.

Verestcha'gin, VASILI, painter, was born at Tcherepovets, Russia, in the government of Novgorod, Oct. 26, 1842; studied with GÉRÔME, in Paris. He is noted for his realistic battle scenes from the Turcoman campaign, India, and the Russo-Turkish War of 1877. In 1884 he visited Syria and Palestine, and afterward painted a notable series of pictures of the life of Christ, and other sacred themes. He went to Manchuria in 1904 to observe the Russo-Japanese war for artistic purposes, and was drowned in the sinking of the battleship *Petropavlovsk*, April 13, 1904.

Ver'ga, GIOVANNI, novelist, was born in Catania, Sicily, in 1840. He has written many society novels, and a series of stories of rustic life, all of which have been popular in current Italian literature. He has been introduced to the world at large by the association of one of his stories, *Cavalleria Rusticana*, with Pietro Mascagni's opera, the story of which is taken from Verga's novel. An English translation of the novel was issued in Boston, in 1896.

Vergennes' (CHARLES GRAVIER), COMTE DE, statesman, was born at Dijon, France, Dec. 28, 1717; from 1740 to 1774 was engaged in the diplomatic service, after which date he was minister of foreign affairs under Louis XIV.; in this capacity he was the staunch friend of the American patriots of the Revolution, and was finally a party to the treaty of peace signed at Paris, Sept. 3, 1783, by which American independence was definitely recognized. Died Feb. 13, 1787.

Verlaine', PAUL, poet, was born at Metz, March 30, 1844, and became a French citizen in 1873. He was noted for his originality in theme and forms of verse, and for the singular contradictoriness of sentiment expressed in his poems, singing alternately perverse sin and religious repentance. In his unique style, his lyrics are unequalled in modern French literature. Died Jan. 8, 1896.

Vermont', Univer'sity of. (*Educ.*) The official designation of this non-sectarian, co-educational institution is "The University of Vermont and State Agricultural College," the two having been united in 1865. The university is more than a century old, since it was chartered in 1791. It is at Burlington, which has been called the most beautiful city in all New England, and stands on Lake Champlain, upon a high bluff overlooking the lake, with a view of the Adirondack Mountains opposite. The college buildings are on the crest of the hill. Though incorporated in 1791, the university was not organized until 1800, and graduated its first class in 1804. It did not prosper, however, until after 1825. In that year Lafayette laid the corner-stone of the present main building (University Hall). A bronze statue of the great Frenchman, by J. Q. A. Ward, stands in the grounds—the gift of John P. Howard, who also enlarged and reconstructed the main building in 1884. North of this building is the Williams Science Hall, and north of that the Billings Library (of which the townspeople are allowed the free use), one of the masterpieces of the architect, H. H. Richardson. It contains 50,000 volumes, part of which are books collected by George P. Marsh, the philologist. The university has a medical department, and courses in civil, electric, and mechanical engineering. In 1896 it had 50 instructors and 475 students. Its revenues in that year were $70,000.

Verne, JULES, writer of imaginative fiction, was born at Nantes, France, Feb. 8, 1828; studied law, but began writing in 1850, and in 1863 commenced his series of marvellous stories, characterized by a combination of scientific knowledge and imaginative power. Some of the most familiar are: *Five Weeks in a Balloon; Twenty Thousand Leagues Under the Sea; Trip to the Center of the Earth; The Mysterious Island;* and *Around the World in Eighty Days*. Several of his works have been dramatized. Died March 24, 1905.

Ver'non, in *Louisiana*, a W. parish; *area*, 1,540 sq. m.; bounded W. by Sabine river. *Surface*, nearly level; nine-tenths covered with valuable yellow pine; *soil*, generally fertile. *Cap.* Leesville. *Pop.* (1897) 6,350.

Vernon, in *Texas*, a post-town, cap. of Wilbarger co., 163 m. N.W. of Fort Worth. *Pop.* (1897) 3,160.

Vernon-Har'court, LEVESON FRANCIS, engineer, was born at London, Eng., in 1839; was educated at Harrow and Baliol College, Oxford, where he took a first-class in mathematics and natural science. He has been engaged chiefly in hydraulic and maritime works; in 1865 was appointed professor of Engineering in University College, London; member of the Institution of Civil Engineers (1871); has received a Telford medal, three Telford premiums, and the Manly premium.

Vero'na, in *Pennsylvania*, a post-borough of Allegheny co., 10 m. N.E. of Pittsburg; has repair shops (A. V. R. R.) and other manufacturing interests. *Pop.* (1897) 2,000.

Vest, GEORGE GRAHAM, lawyer and politician, was born in Frankfort, Ky., Dec. 6, 1830; graduated at Central College, Ky. (1848), and studied law in Lexington; removed to Missouri (1853) and began the practice of his profession; was a member of the legislature (1860–61); joined the Confederacy, and was a member of the Confederate Congress and Senate; was elected to the U. S. Senate in 1879, and re-elected in 1885, 1891 and 1897. Died Aug. 9, 1904.

Veuillot (*ve-yoo'*), LOUIS, a French author and journalist, was born in 1813. In 1838, after a visit to Rome, he became the uncompromising champion of the Church, leading the Ultramontane party and editing the *Univers*. In 1848 his extreme opinions incurred ecclesiastical censure, and the paper itself was suppressed in 1860, to reappear in 1867. His published works include *Mélanges Religieux, Historiques et Littéraires* (1857–59); *Le Parfum de Rome* (1865); and *Les Odeurs de Paris* (1866). Died in 1883.

Viardot-Garcia (*ve-ār-do-gār'-she-ah*), MICHELLE PAULINE, an eminent vocalist, was born in Paris, 1821, a sister of the late Madame Malibran. At four years of age she spoke in four languages, and at seven was able to play pianoforte accompaniments for the pupils of her father, Manuel Garcia. In course of time she became one of Liszt's most accomplished pupils on the pianoforte, and made her first appearance on the London operatic stage in 1839, as *Desdemona*. Her voice, like that of her sister, was mezzo-soprano, embracing a compass of three octaves. After a brilliant career of nearly thirty years, during which she married M. Viardot, director of the Paris Italian Opera, she left the stage in 1862, and began to teach and compose, being professor of singing for several years at the Paris conservatory.

Vi'brant, *a.* Having a rapid motion to and fro, as the string of a musical instrument.—Due to or exhibiting vibrations; resonant; tremulous.

Vi'broscope, *n.* An instrument invented by Duhamel for recording vibrations.

Vicks'burg, in *Michigan*, a post-village of Kalamazoo co., 13 m. S. by E. of Kalamazoo; has flour and planing mills, and is the trade center of a large agricultural region. *Pop.* (1894) 1,573.

Vidocq', Eugene François, a French detective, was born at Arras, July 23, 1775, the son of a baker; was a thief in his childhood; afterward was in the army, in Belgium. Being discharged on account of a wound, he began a life of vagabondage; was convicted of forgery in 1796, and sent to the galleys for 8 years; escaped and joined a band of highwaymen, who expelled him after exacting a solemn oath from him not to betray them. He proceeded to Paris and immediately surrendered the band to the authorities. He also offered his services as a detective, an offer which the authorities accepted on the principle of "setting a thief to catch a thief." He gathered together a company of so-called "detectives," and with them made some remarkable discoveries of burglaries, &c., which were afterward believed to have been organized and carried out by the gang itself. He was dismissed in 1825, and afterward figured in dishonest business operations. He wrote two volumes, purporting to be accounts of his experiences, but he was such a consummate liar that his works are not considered authentic. Died April 28, 1857.

Vig'fusson, Gudbrand, scholar, was born at Frakkanes, Iceland, March 13, 1827; educated principally at Copenhagen University; went to England in 1864, where for ten years he was completing the *Icelandic Dictionary* begun by Richard Cleasley; was appointed professor of Icelandic Language and Literature at Oxford (1884). He published editions of several Icelandic sagas, critical essays, &c.; his last book, prepared in conjunction with T. Yorke Powell, is *Corpus Poeticum Boreale* (1883). A pathetic incident of his last illness was his homesick longing to see once more the ice and snow-fields of his native Iceland. Died Jan. 31, 1889.

Vi'las, William Freeman, statesman, was born in Chelsea, Vt., July 9, 1840; removed to Madison, Wis. (1851); graduated at Wisconsin University (1858); studied law in Albany, N. Y., and was admitted to the bar (1860); served as an officer in the Union army (1861–63); returned to the practice of law in Madison. He was postmaster-general, and later secretary of the interior, in President Cleveland's first cabinet. In 1891 he was elected to the U. S. Senate; in 1896 was a prominent opponent of the Bryan nomination.

Vilers, Charles Marie Le Myre de, diplomatist, was born in 1833; entered the navy in 1849; in 1859 received the decoration of the Legion of Honor; entered the civil service; for gallantry in the defence of Paris during the Franco-Prussian War he received the rosette of the Legion of Honor; entered the diplomatic service; in 1883 was sent to Madagascar as minister plenipotentiary; from that date has been the active exponent of French influence in that island. For his first success in diplomacy there (1888) he received the cross of the Legion of Honor. As the result of his latest mission (1894), the French occupied Antananarivo on Sept. 30, 1895, finally annexing the island.

Vil'lard, Henry, originally Gustavus Hilgard, financier, was born in Spires, Bavaria, April 11, 1835; removed to the U. S. in 1853; was newspaper correspondent in the far West, and afterward European correspondent of the New York *Tribune;* in 1870 became interested in railroad securities, and ultimately president of several Pacific Coast roads. In 1881 he was made president of the board of directors of the Northern Pacific R. R., and again in 1888. He has given liberally to the University of Washington, the State University of Oregon, &c. Died November 12, 1900.

Vil'liers, Charles Pelham, long known as the "Father of the House of Commons," was born in England, Jan. 3, 1802. He became a barrister in 1827, and from 1833 to 1852 was examiner of witnesses in the Court of Chancery. In 1835 he was elected to Parliament, for Wolverhampton, which he continuously represented, latterly as a Union Liberal. He was the colleague of Cobden and Bright in the fight for the repeal of the Corn Laws. In 1853 he became a member of the Privy Council. He declined a peerage in 1885; was distinguished in social life as a gifted conversationalist.

Villiers, Frederic, war correspondent and artist, was born in London, Eng., in 1850; educated in France and in the art schools of South Kensington; became a student of the Royal Academy (1870). In 1876 he entered upon his work as correspondent and illustrative artist, combining the two in articles sent to the London *Graphic*, from Servia, whither he went with Archibald Forbes. Since then he has been continuously employed at various points. During 1894–95 he was representative of *Black and White*, in China, during the war with Japan.

Villis'ca, in *Iowa*, a post-town of Montgomery co., 65 m. E. of Council Bluffs; has brick and tile yards, and cooper shops. *Pop.* (1895) 2,034.

Vi'lott, in *Oklahoma*, a post-village of Kay co., 15 m. from Hunnewell, Kansas.

Vin'cent, John Heyl, clergyman, bishop of the Methodist Episcopal Church, was born in Tuscaloosa, Ala., Feb. 23, 1832. His early education was received at academies in Lewisburg and Milton, Pa., and at the Wesleyan Institute; the rlpo scholarship of his later years is the inevitable evolution of a superior brain and an aspiring and inspiring temperament. His pastoral charges were in Illinois and New Jersey. In 1865 he established the *Sunday-school Quarterly*, in Chicago; and in 1866 the *Sunday-school Teacher*, in which he introduced his new lesson system, which has since become international. He wrote extensively on topics relating to Sunday-school work. He is most widely known as the chief organizer of the Chautauqua system of educational circles, &c., and the Chautauqua Assembly, which he established in 1874. In 1868 he became corresponding secretary of the general Sunday-school Union of the Methodist Episcopal Church, and editor of the Sunday-school and tract publications of that Church. He was elected bishop in 1888, his episcopal residence being for a few years at Buffalo, N. Y., and latterly at Topeka, Kansas. He has written *Chautauqua Text-Books* in history, and many other works, including *Studies in Young Life* (1890); *My Mother* (1892); *The Story of a Letter* (1893); *Earthly Footsteps of the Man of Galilee* (1894), &c. His lectures, *That Boy, That Boy's Sister*, and *Tom and His Teachers*, have received a cordial hearing in many towns in the U. S.

Vin'land. (*Anc. Geog.*) The name given by the early geographers to that part of New England now supposed to be represented by the southern coast of Massachusetts, with Rhode Island, which is claimed to have been discovered by the Norsemen in the 10th century. According to tradition—more or less well established, as will presently be seen—one Björn Herjulfsen, while making the voyage between Iceland and Greenland, of which his father, Herjulf, and Eric the Red were the first colonists, was driven by stress of weather upon the American coast. He did not, however, land on its shores, which were first visited 14 years afterward, or about 1000 A. D., by Leif, a son of Eric the Red, who built a number of wooden huts thereon, to which was given the name of *Leifsbûdir* (Leif's booths), afterward changed to Vinland, in consequence of the grape being found growing in the newly-found country. In 1003 an expedition under the command of Thorwald, a brother to Leif, sailed along the coast toward Long Island, but he was killed in the year following in an encounter with the natives, and further exploration was stopped for the time being. In 1007, Vinland was visited by one Thorfinn Karlsefne, an Icelander, who, with his followers of 160 men, remained there for 3 years, and then returned, abandoning the idea of further attempts at colonization. Rafn, in his *Antiquitates Americanæ*, has published the most complete collection of the evidence which proves the pre-Columbian settlement of America. Much also to the same effect is to be found in Wilhelmi's *Island, Horitramannaland, Grönland und Vinland*, published at Heidelberg, in 1842. It has been a long-debated question whether or not the existence of Vinland was known to Columbus when he first publicly ventilated his project of crossing the Atlantic Ocean. Certain Scandinavian writers, Rafn and Finn Magnusen particularly, are pertinacious in recording their belief that he derived his first hints of a new world from the accounts of these old Icelandic expeditions. Indeed, Magnusen has, as we think, pretty well established the fact, recorded in his *Nordisk Tidsskrift for Oldkyndighed*, that Columbus did actually visit Iceland 15 years prior to his setting out on his great expedition, that is to say in 1477, and it is probable that while there he may have heard of the Vinland discovered 4 centuries and a half before. See Norumbega.

Vin'ton, David Hammond, U. S. A., was born in Providence, R. I., May 4, 1803; graduated at West Point, and went on military duty to Florida and Mexico. When the Civil War broke out, he was chief quartermaster of the Department of Texas; was taken prisoner by the Confederates, but exchanged in a few months, and served as quartermaster-general and chief quartermaster of New York; retired in 1866. Died Feb. 21, 1873.

Vinton, Frederick Porter, artist, was born in Bangor, Me., Jan. 29, 1846. He received his training under Bonnat and Laureus in Paris, and leading masters in Munich; returned to America and located in Boston, devoting himself chiefly to portraits from life, but has done some fine work in ideal figures.

Vi'olet O'dors. (*Chem.*) The perfume of the violet is extracted from the flower by the "enfleurage" process, and is one of the most expensive of the odorous volatile oils. It is rarely obtained pure. Orris-root, the dried rhizome of three species of *Iris*, has much the same odor as violets, and is, consequently, used to adulterate the true violet-oil, and also to imitate it, both as an extract and as sachet-powder. Costus-root, again, a plant of the northwestern Himalayas, belongs with the perfumes of the violet order, being used for the same purposes as orris, and is in turn greatly adulterated by the most alien substances that absorb the odor of the dried costus. This costus-perfume is used among Asiatics for protecting Kashmir materials from damage by moths, and is greatly imported into China for use as incense, and burned before religious images. It is also smoked and used as a medicine. Several woods also yield the characteristic violet odor, and two or three flowers. The finest violet extract, or perfume, is very expensive, and is made from the pomade, on which violets have been placed, extracted by alcohol, and reinforced by cassia, a perfume derived from the flowers of the cassia-trees (acacias), grown for the purpose on the Riviera. The odor of these flowers is very like that of *Viola odorata*, but, curiously enough, the seeds and root-bark, when chewed, give out an odor of garlic, an association of smells that has been noticed in other plants. An exposure of the body to turpentine, or the taking of it internally, gives a violet odor to the urine. A synthetic violet perfume is now being extensively made, and is used for scented soaps, and forms the basis of most cheap violet extracts. Cassia and orris-roots, in combination with other essential-oils, furnish most of the violet perfumes, and sachet-powders depend upon the pulverized orris for their character. Orris also strengthens other perfumed mixtures.

Vir'chow, Rudolf, pathologist, was born at Schivelbein, Pomerania, Germany, Oct. 13, 1821. In 1843 he graduated in medicine at the University of Berlin, and began to lecture on Anatomy, being also prosector of the Charité Hospital. His life has been divided between medical science and politics. In 1856 he became professor of Pathological Anatomy at the University of Berlin, and director of the Pathological Institute; in 1880 he entered the Reichstag. In the wars of 1866 and 1870 *V.* was director of the German hospital service. During the last illness of the Emperor Frederick *V.* was called as an expert in cancerous disease, and became recognized as an ultimate authority in that special pathological problem. He wrote many valuable works on medical subjects. In politics he opposed Bismarck and was a friend of the workman. He advocated sanitary reforms, and as alderman in Berlin was interested in all municipal work. Died Sept. 5, 1902.

Vir'den, in *Illinois*, a city of Macoupin co., 21 m. S. by W. of Springfield. Coal mining is the principal industry, but has also brick and tile manufactures and poultry-packing interests. *Pop.* (1897) 1,920.

Vireon'idæ, *n. pl.* (*Ornith.*) An American family of insectivorous birds, the vireos, or greenlets. They are small and trim, and the many species present few striking points of difference, olive-greens prevailing above and white or yellowish-white below. They are closely allied to the shrikes in structure; but few species range even in summer as far north as Canada. All are pleasant singers and some excel in that direction, the warbling, red-eyed, and white-eyed species being among the most common and pleasing warblers of the northeastern States. A West Indian species is called *Whip-Tom-Kelly*, in imitation of the notes. A distinguishing peculiarity of the vireos is their nest-building, in which all species so nearly agree as to make it difficult to distinguish their nests apart; their eggs are also much alike—pinkish, translucent white, delicately dotted with red about the larger end. The typical nest is a deep cup, woven of strips of thin inner bark, as of the grapevine, and of shreads of hempen fibers, intermixed with bits of down and lined with fine grass; and it is always suspended by its rim from the under side of the fork of a low branch.

Virgin'ia, in *Illinois*, a city, cap. of Cass co., 15 m. N. of Jacksonville. *Pop.* (1897) 1,795.

Virgin'ia, Univer'sity of. (*Educ.*) It is a subject of pride at this non-sectarian institution that it was planned by Thomas Jefferson, who was its first rector. It is located at Charlottesville, Albemarle co., four miles from Monticello, the home of Jefferson. Chartered in 1819 and opened in 1825, it has peculiar features which distinguish it from all other colleges in the U. S. One of these features is that it has no general curriculum, but is divided into separate, independent schools, 23 in number, each under the charge of a professor, who, in some cases, has assistant instructors. The students select their schools, usually three in number. The university has medical, pharmaceutical, law, agricultural, and engineering departments. Its academic head is the chairman of the faculty, annually chosen by the board of visitors, composed of a rector and eight members, appointed by the governor of the State and confirmed by the Senate, in whom the government is vested. The State makes the institution an annual appropriation, beginning in 1825 with $15,000, and increasing to $40,000 in 1884, the increase being upon the condition of free tuition in the academical departments to suitably prepared students who are residents of the State. In 1896 the university had 48 instructors and 528 students. At the beginning of that year the library had about 54,000 volumes; but on Oct. 27, 1896, a fire destroyed the rotunda and public hall, two-thirds of the library, and several valuable paintings. Since 1869 it has had numerous gifts in equipments and endowments, including an endowed observatory and an extensive museum of natural history and geology. In the year named the department of agriculture was founded by Samuel Miller, of Lynchburg, with an endowment of $100,000. Its productive funds amounted in 1896 to $262,000, and its total revenues in that year were about $135,000.

Viscom'eter, *n.* Any apparatus or instrument for testing the viscosity of oils. For purposes of lubrication, it is important to know just what viscosity is possessed, especially by the various mineral oils, and a number of ingenious devices have been made for the purpose. Most of them utilize the principle of heating the oil to a specific temperature, and timing its flow over a certain distance. Perhaps the simplest of these is the Phillips, which is made with a plate having a trough interspersed with depressions or cups, extending across its surface. The plate has raised sides, so that it may be partially immersed in water, without danger of flooding the surface. The water being heated to a certain temperature, the plate is tilted to a known angle, and oil is poured in the cups and allowed to flow along the trough, its movement being timed. In the Engler viscometer, a scale is provided for comparison with the flow of water at 20° C., and the oil-cups are made of exact size, so that comparisons can be made at different times and places. The Redwood viscometer has a cylinder for the oil, which is designed to be immersed in a bath of either hot oil or hot water, in which a stirrer is operated to preserve an even temperature throughout

the fluid. The oil is flowed from the cylinder through a minute jet to a graduated flask. Another class of viscometers employs paddles or stirrers to agitate the oil tested, with devices for measuring the strain on the paddles. Of this class are the Napier and the Cockrell. The Doolittle is also similar, but uses concentric rings instead of paddles.

Vi'tascope, *n.* A form of machine for exhibiting kinetoscopic pictures on an enlarged scale. An ordinary camera lens is placed in front of the moving film of photographs, and behind this are a powerful lens and an arc-light, so that the pictures are projected on the screen at about 600 times their size. Compare KINETOSCOPE.

Viz'or, *n.* [Fr. *visière.*] A head-piece or mask to conceal or disguise.—In ancient armor, that part of a helmet which defended the face, and which could be lifted at pleasure. It was perforated with holes for seeing and breathing.—The projecting piece on a cap for protecting the eyes.—The face or countenance. (*Obs.*)

Vladivostock, an important Russian naval station and commercial seaport on the Pacific, on Peter the Great Bay in the Sea of Japan, north of the northern limit of Korea. It is the principal eastern terminus of the Trans-Siberian Railway, 450 miles from Harbin and 5700 from St. Petersburg. It has a harbor of great excellence, is a strongly fortified naval station, with dry-dock accommodation for the largest battleships, and is a free port with a considerable commercial business, being ice free for eight months of the year. The commerce is largely in Chinese hands. Population, 38,000, of whom 24,700 are military, the others mainly Chinese, Japanese and Korean. *V.* played an important part in the Russo-Japanese war of 1904.

Voca'lion, *n.* (*Mus.*) A musical instrument like a harmonium, having broad reeds, producing a 'toue resembling that of the pipe-organ.

Vœlcker (*fŭl'kĕr*), AUGUSTUS, chemist, was born at Frankfort-on-the-Main, Germany, in 1823; became (1862) professor of Chemistry to the Royal Agricultural Society of England. His *Chemistry of Food; Chemistry of Manures;* and *Lectures on Agricultural Chemistry,* are esteemed standard works of their kind.

Vogt (*vōt*), KARL, natural philosopher, born at Giessen, Germany, in 1817; studied physiology, and graduated in medicine at Berne, in 1835. After having his attention called to the study of geology and zoölogy under Agassiz, he became professor of Zoölogy in Giessen University, a position he afterward exchanged for that of the chairs of Geology and Zoölogy in the University of Geneva. His name is widely known by his able lectures *On Man, His Place in Creation and in the History of the Earth,* which have been translated into several of the European languages. He was associated with Agassiz in his work on fresh-water fishes, and was the author of many articles and books on geology, anthropology, anatomy, physiology, and zoölogy. Died in 1895.

Voisin-Bey, FRANÇOIS PHILIPPE, civil engineer, was born at Versailles, France, May 20, 1821; educated at the École de Ponts et Chaussées; became a chief engineer in 1866, and inspector-general in 1880. He is noted as the director-general of the Suez Canal works (1861–70). He was professor of Maritime Works at the above-mentioned school, and also is an officer of the Legion of Honor. He has published several technical works.

Vokes, ROSINA, actress, was born in London in 1854. She is one of a family of actors who at one time travelled as the "Vokes Family," meeting with great success in England and America. In 1877 Rosina married a barrister and playwright, Cecil Clay, and retired from the stage. In 1886 she organized a company, for farces and comedies, which played annually in England and the U. S. Died Jan. 27, 1894.

Vol'apük, *n.* An artificial language intended to be used as a universal means of communication; the word means "world-speech." It was invented about 1878 by Johann M. Schleyer, a German Catholic priest, and for some time created wide interest, especially in Germany, so that a magazine and several hundred books have been published in it, many societies were formed, and an international congress of "Volapükians" was held at Paris in 1889; the matter has since largely fallen out of view, however, as nobody adopted the language in practical affairs. In forming it Schleyer, who was a learned linguist, endeavored to base it upon scientific grounds, and issued a grammar and dictionary. In construction the rules of English were mainly followed, and English nouns were taken as the roots of words whenever possible. Pronunciation was after Continental models, and 37 letters were provided, after omitting q and w; but to several letters entirely new and arbitrary sounds were given. One great advantage is that the language is very easily learned, in spite of its strange, uncouth appearance and sounds.

Volt'meter, *n.* (*Elec.*) An instrument for measuring in volts electromotive force or difference in potential. The volt is the practical unit of electromotive force, as the farad is the unit of electric capacity, the ampere the unit of electric current strength, the ohm the unit of electrical resistance, and the coulomb the unit of quantity. The volt represents an electromotive force such as would carry one ampere of current against one ohm resistance, or as would charge a condenser of one farad capacity with one coulomb of quantity. The voltmeter is generally some form of high-resistance galvanometer, placed in a shunt circuit. The same mechanism is often used to measure also the ampere and ohms. A current of low voltage is not dangerous to animal life, and it is therefore important to know just what degree of voltage is maintained. The customary voltage on exposed trolley wires is 500, and on incandescent-light circuits from 75 to 110.

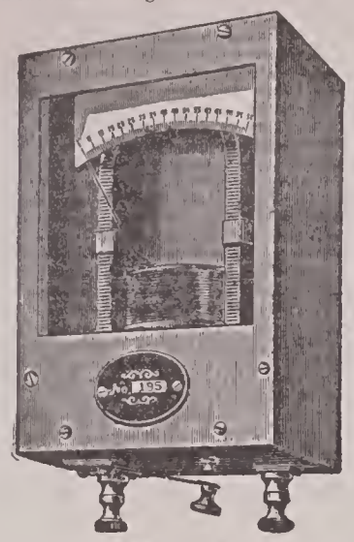


Fig. 3091.—VOLTMETER.

Volu'meter, *n.* (*Physics.*) An instrument for measuring the volume of a gas by the amount of liquid which it displaces in a graduated vessel under known conditions of pressure and temperature.

Volunteers' of Amer'ica. See SALVATION ARMY.

Voo'doo, *n.* [Afr.] Superstitious practices among the negroes in the West Indies and Southern U. S., of conjuring, witchcraft, smoke-worship, and even cannibalism; or, the so-called *V.* doctor or priest that practices these superstitious rites.

Voor'hees, DANIEL WOOLSEY, statesman, was born in Butler co., Ohio, Sept. 26, 1827; graduated at the Indiana Asbury University (1849); studied law, and began practicing (1851); was U. S. district-attorney for Indiana (1858–61); was elected to Congress four terms; was appointed to the U. S. Senate in 1877, and subsequently elected for the unexpired term and the full term ensuing; was re-elected in 1885, and again in 1891. Died 1897.

Vor'tex, Vortex Atom. (*Physics.*) A vortex, as the word is usually understood, is a whirlpool, or motion of rotation in fluids, and is of very frequent occurrence, on various scales, small or large. The tornado, the whirlpool, and the waterspout illustrate it as largely displayed, while there are innumerable examples of the smaller vortex in air and water eddies, due to conflicting currents or other sources of disturbance. Such eddies may be readily formed in a tea-cup by drawing the half-submerged bowl of a spoon through the surface of the liquid. Two small eddies will follow its two edges. These eddies are the external or visible ends of a half ring of whirling liquid, which is formed as a fringe to the blade of the spoon. In rowing, as the oar is lifted from the water at the end of the stroke a similar effect is seen. The characteristic of such eddies which forms their vortex feature is a rotational movement of the central portion, the liquid whirling round on a semicircular axis, or on a circular or closed axis if the vortex is complete. Such a complete vortex ring often appears in nature, and may easily be produced. Thus vortex rings of smoke are often formed at the mouth of a gun or mortar when fired, or pass off from the funnel of an engine, or may readily be produced on a smaller scale by a tobacco smoker, in the skilful propulsion of the smoke from his mouth. To make them experimentally a closed box is employed, with an orifice in one side, while cloth, india-rubber, or other elastic material forms the opposite side. Every tap made on this elastic side will propel a small quantity of air through the orifice as a vortex ring. To make the ring visible the box may be filled with a cloud of sal-ammoniac or other cloud-like vapor. At every tap a smoke-ring will be ejected, which moves on as a whole through space, while its substance rotates round the center of the ring as an axis (Fig. 3092). An interesting characteristic of these rings is the following: If one follows another in quick succession, the foremost one will be seen to expand, while the rear one contracts and passes through it. Then this one in turn will slacken speed and expand, while the other will contract and accelerate its pace, pass through, and again get in front. This strange phenomenon will continue until the friction of the air checks the motion of the rings. The properties of vortex rings were first investigated by Prof. Von Helmholtz, with very interesting results. In the cases mentioned the rings are formed in a viscous fluid. Indeed, the possibility of forming them depends on the viscosity of the fluid, while this viscosity acts to destroy the vortical rotation. Helmholtz applied the results obtained from his study of smoke rings to the conception of a perfect fluid, *i.e.*, one destitute of viscosity, or unaffected by friction. His reasonings led him to the conclusion that if vortex motion should exist at any time in such a frictionless fluid, it must always continue to exist, and if at any point no vortex motion existed, such a motion could never come into existence. No external could produce it, since no such cause could act on a fluid destitute of friction. For precisely the same reason, it may be said, no such cause could act to bring its motions to an end. Nor could these motions begin or cease of themselves. The absence of friction does away with all exercise of external energy and prevents any loss or gain of internal energy. Thus, in a perfect fluid, the peculiar evolution described as taking place between two neighboring smoke-rings would go on indefinitely. And any other relation of two rings, or peculiarity of form in a single ring, must be of similar eternal duration. Contact of such a ring with a substance of different character could not be accompanied with any transference of energy, the absence of friction preventing them from acting on each other. Helmholtz further demonstrated that a vortex with ends, like that made by a spoon in a cup, cannot exist in a perfect fluid. Either the vortex must form a closed ring, or must continue through the fluid until it arrives at its boundary, as the partial ring in the cup presents ends at the air boundary. In a fluid without boundary it could not exist. These premises, as deduced by Helmholtz, have led Sir William Thomson (Lord Kelvin) to a highly interesting conclusion, namely, that the atoms of matter are such indestructible vortex rings in a perfect fluid. Such a vortex atom in a frictionless plenum would be as persistent as the indestructible hard atom imagined by Lucretius, and at the same time capable of vibration. The vortex rings might be interlocked, or twisted, or knotted in any imaginable manner, these conditions being absolutely unchanging when once existing. They might come into contact as a result of their onward motion, and rebound through their elasticity, like ordinary visible vortex rings, but no change in form and no transfer of inherent energy could take place. This theory of vortex atoms, while interesting and attractive, is one that it has proved difficult to make satisfactory to scientists. In the first place, it depends on the assumption that the luminiferous ether is such a frictionless fluid. Whether or not this assumption is well founded we are, as yet, in ignorance. But the vortex-atom theory requires other assumptions which would demand an extraordinary constitution of the universe. It necessarily denies the existence of attraction and repulsion and the theory of gravitation, claiming that gravitative results are due to quite other than their seeming causes. To explain gravitation under the vortex-atom hypothesis, the doctrine of impact, as originally advanced by Le Sage, of Geneva, is adduced. This advocates the presence in the universe of vast multitudes of particles, or corpuscles, far smaller than atoms, and flying incessantly through space at a speed far greater than that of the heavenly bodies. To the impact of these on the bodies of space he ascribes the seeming effect of gravitation. In the case of their impinging on the earth, for instance, part of them are checked by the sun, which shadows the earth from them in that direction. Thus, their impelling force is not equal on all parts of the earth, which tends to move in the direction in which their flow is checked, or toward the sun. At the same time, to produce the full effect of gravitation, every atom of the earth must be subject to these impacts, so that the corpuscles must find free passage through the earth's mass, and multitudes of them pass through without meeting an obstruction. This theory, indeed, becomes so complicated, when carried to its ultimate, that it tends to fall to the earth of its own weight. One necessary consequence of such a continual bombardment, as pointed out by Clerk Maxwell and others, is the following: Either the corpuscles must rebound at the speed with which they came (in which case they could transfer no energy to the earth and cause no motion), or they must lose a part of this energy and go back more slowly than they came. Such lost energy would show itself as heat, and, as Maxwell justly says, the amount of heat so generated would in a few seconds raise the earth and the whole material universe to a white heat. In brief, it may be said that the advocates of the vortex-atom theory have so far contented themselves with working out its mathematics, and have not actively grappled with the several physical objections. Thomson, indeed, endeavors to explain away the objection above stated, but far from satisfactorily. Beautiful as the theory is, and acceptable as many have found it for this reason, it demands conditions of the greatest improbability, some of which seem impossible to exist. The favorable acceptance which it has had, therefore, is not likely to be a permanent one.

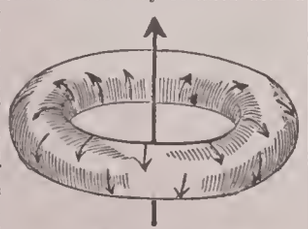


Fig. 3092.—VORTEX-RING.

Vot'ing Machines'. See BALLOT REFORM.

Vo'tograph, *n.* A machine invented by John W. Rhines for receiving and recording votes at an election, by means of keys which the voter manipulates, and thus prints the names of the candidates voted for.

W.

W the twenty-third letter of the English alphabet, is a double letter, which in form resembles two V's, and belongs chiefly to the Teutonic and Sclavonic tongues. It was not in use among the Greeks, Romans, or Hebrews; neither, in the present day, has it properly any place in the French, Italian, Spanish, or Portuguese. Its English form is derived from the fact of the letter *v* being identical with *u* in the Latin, and in the more early form of the English language. It is pronounced hy opening the month with a rounding of the lips, and a somewhat strong emission of the breath. The sound of the French *ou* in *oui*, pretty closely resembles the English *w*. In German, the sound of *w* resembles our *v*, as *warm*, pronounced *varm;* while, with them, *v* takes the sound of *f*, as in *von*, pronounced *fon*. When *w* commences a syllable, it is a consonant; but in all other positions it is regarded as a vowel, though it has no vocal power unless accompanied by one of the proper vowels. At the end of words, *w*, when preceded by *a* or *o*, is often silent. It is also silent when it precedes *r*, as in *wrath*, *wreck*, *wrist*, &c. When followed by *h*, it is always aspirated, as in *when*, *whence*, *whether*. As an abbreviation, *W.* stands for *West*.

Waag, (*vag,*) a large river of Hungary, rising in the Carpathian Mountains, and after a course of 200 m., joining the Danube at Komorn.

(*Comb*). In Denmark and Norway, a weight of 39 lbs. and five-eighths; and in Sweden, a weight of 123¼ lbs. of tin.

Wabash, (*waw'bash.*) a river of Indiana and Illinois, rises in Mercer co., Ohio, and flows first N.W. to Huntington co., then W.S.W. to Vigo co., from which point it continues S.S W., forming the boundary between Indiana and Illinois, and enters the Ohio river near Shawneetown, Gallatin co., Illinois, Lat. 37° 50′ N., Lon. 88° W. It is 550 m. long, and is navigable for steamboats, in high water, 300 m. The Wabash and Erie Canal follows the course of *W.* River for 180 m., from Huntington to Terre Haute.

Wa'bash, in *Illinois*, an E.S.E. co., bordering on Indiana; *area*, 220 sq. m. *Rivers.* Wabash, and Boupas creek. *Surface*, level; *soil*, fertile. *Cap.* Mt. Carmel. *Pop.* (1897) 12,650.—A township of Clark county.—A township of Wabash county.

Wa'bash, in *Indiana*, a N.E. county; *area*, 430 sq. m. *Rivers.* Eel, Salamonie, and Wahash. *Surface*, diversified; *soil*, fertile. *Cap.* Wahash. *Pop.* (1897) 28,200. —A township of Adams county.—A township of Fountain county.—A township of Gibson county.—A township of Jay county.—A township of Parke county.—A township of Tippecanoe county.—A flourishing city, cap. of Wabash co., on the Wahash and the C., C., C. & I. R. Rs., 30 m. E. of Logansport. *Pop.* (1897) 5,950.

Wabash, in *Ohio*, a flourishiug township of Darke county.

Wa'basha, in *Minnesota*, a S.E. county; *area*, 540 sqnare miles. *Rivers.* Mississippi and Zumbro. Lake Pepin borders it on the N. *Surface*, undulating; *soil*, very fertile. *Cap.* Wabasha.—A city, cap. of the above co., on the Mississippi river and the C., M. & St. P. R.R., 33 m. N.W. of Winona. *Pop.* (1895) 2,545.

Wabaun'see, in *Kansas*, a N.E. county; *area*, 804 sq. m. *Rivers.* Kansas river and Mill creek. *Surface*, undulating; *soil*, fertilo. *Cap.* Alma.—A post-village, former cap. of the above co., on the Kansas river, 13 m. E. of Manhattan.

Wabble (*wŏb'bl*), *v. n.* [A. S. *wapelian*, to wabble; Icel. *vappa*, to move the feet with difficulty.] To move staggeringly from one side to the other, as a spinning-top when about to fall;—expressed of a revolving or whirling body.

—*n.* A hobble; a staggering, unequal motion.

Wab'bling, *a.* Having an irregular motion backward and forward, like a revolving body.

Wac'camaw, a river of *North Carolina*, rises in Bladen co., and flowing S.W., unites with the Great Pedee at Georgetown, S. C., to form an estuary called Winyaw Bay.

—A township of Brunswick co.

—A township of Columbus co.

Wachusett (*waw-chu'set*), in *Massachusetts*, a mountain in Worcester co., 2,000 feet high.

Wa'co, in *Texas*, a flourishing city, cap. of McLennan co., on the Texas Central, Mo., Kan. & Tex., and 3 other R.Rs., 95 m. N.E. of Austin; one of the most important cities in the State, having extensive and varied manuf. and a large general trade; ships quantities of cotton. *Pop.* (1897) 21,650.

Waco'nia, in *Minnesota*, a post-village and township of Carver co., about 11 m. N.W. of Chaska.

Wad, (*wod,*) *n.* [Ger. *watte* = A. S. *wœd*, clothing, from Sansk. *ve*, to weave.] A little mass of some soft or flexible material, such as hay, straw, tow, paper, or oakum, used for stopping the charge of powder in a gun, and pressing it close to the shot, or for keeping the powder and shot close;—sometimes called *wadding.*—A little mass, tuft, or bundle, as of hay or tow.

—*v. a.* To form into a wad or wadding; as, to *wad* cotton. —To insert a wad or wadding into, as a gun.—To stuff or pad with some soft substance or waddiug, as cotton, &c.; as, to *wad* a coat.

Wad,Wadd, *n.* (*Min.*) A term used to denote various mixtures of different oxides of manganese, which cannot he always considered as distinct species, or as having a very definite chemical composition.

Wa'day, Wady, Berooo, or Borgoo, a country in the interior of Africa, S. of the Great Desert, and E. of Darfour. It is said to be a larger territory than Darfour, and to excel it also in fertility and in abundance of water; but as the country has not yet been visited by any European, nothing of it is accurately known.

Wad'dam, in *Illinois*, a township of Stephenson county.

Wadding, (*wŏd'-,*) *n.* A wad, or any soft, pliable substance suitable for the making of wads; material for ramming down above the charge of muzzle-loading firearms.—A spongy web, as of cotton or other flocculent material, used for stuffing or padding various parts of ladies' dresses, men's over-coats, pelisses, &c.

Wad'dington. in *N. York*, a post-vill. of St. Lawrence co., 18 m. E.N.E. of Ogdensburg.

Waddle, (*wŏd'dl,*) *v. a.* [Corrupted from D. *waggelen*, to stagger, totter.] To move or sway from side to side in walking; to deviate to one side and the other: to vacillate in one's gait; to shamble or shuffle, or move clumsily and totteringly along; as, a duck *waddles.*

—*v. a.* To trample or tread down, as grass, by walking through it.

Wad'dler. *n.* One who, or that which, waddles.

Wade, Benjamin Franklin, an American jurist and statesman, b. at West Springfield, Mass., 1800, of a family in very poor circumstances. After following the occupations of drover and school teacher, diligently educating himself at every spare moment, he entered upon the study of the law, and at the age of 28 was admitted to the bar, and in the course attained a high reputation. In 1837, and again in 1841, he was elected State Senator; in 1847 Judge of the Third Judicial District of Ohio; and in March, 1851, was returned to the U. S. Senate from Ohio by the Whig party, and re-elected in 1857 and in 1863 by the Republicans. During this period, and during the Civil War itself, Mr. *W.* bore an active part in public affairs, serving as President of the Senate, and Acting Vice-President of the U. States, and had the issue of the impeachment trial terminated in President Johnson's conviction, the senator would have been *ex-officio* President of the U. States. He received a large number of votes for Vice-President at the Chicago Convention of 1868, but at the formal ballot Mr. Colfax had a small majority. Since 1869 Mr. *W.* has not held office, and has taken no prominent part in public affairs, except to serve as Commissioner of the Government to San Domingo in 1871. D. 1878.

Wade, *v. a.* [A. S. *wadan*, to wade; D. *waden*, to ford, wade.] To walk or go through water, touching the bottom with the feet; to go or walk through any substance that yields to the feet;—often assuming an active form by the ellipsis of *through:* as, she *waded through* the mire.—To move or pass with labor or difficulty, or proceed slowly and hesitatingly among things or circumstances of an obstructive or embarrassing character; as, he has *waded through* his worst difficulties.

—*v. n.* To pass or cross hy walking in or through a liquid or slushy substance; as, a brook to be *waded* over.

Wade, in *Illinois*, a twp. of Jasper co.

Wade, in *Maine*, a plantation of Aroostook co.

Wad'er, *n.* The person who, or thing which, wades. (*Zoöl.*) A wading-hird. See Grallatores.

Wades'borough, in *Kentucky*, a prec. of Callaway co

Wadesborough, in *North Carolina*, a post-village, capital of Anson county, 120 miles S.W. of Raleigh.

Wad'ham's Mills, in *New York*, a post-village of Essex co., aht. 10 m. E. of Elizabethtown.

Wad'-hook, *n.* A hook or screw to extract wadding from a gun or fire-arm.

Wad'ing-bird, *n.* (*Zoöl.*) See Grallatores.

Wad'ing River, in *New Jersey*, flows into Little Egg Harbor River from Burlington co.

Wad'ing River, in *N. York*, a post-vill. of Suffolk co.

Wad'ley's Falls, in *New Hampshire*, a post-village, of Strafford co., 36 m. E. of Concord.

Wadma'lan's Island, in *S. Carolina*, a township of Colleton dist.

Wads'worth, in *Nevada*, a vill. of Washoe co.

Wadsworth, in *Ohio*, a post-village and township of Medina co., 12 m. S.E. of Medina.

Waeg, (*vah'ĕg.*) (*Camb.*) At Antwerp, a qnantity of coal 150 lbs. weight.

Wa'fer, *n.* [Low Sax. *wafel*, a wafer, from Ger. *wabe* = Lat. *favus*, a honeycomb.] A thin cake, as of bread or dough; especially, the bread given in the Roman Catholic celebration of the Eucharist; as, a consecrated *wafer.*—A thin, adhesive disc for securing letters, or sticking papers together.—*Wafer-cake*, a sweet cake of extreme thinness.

—*v. a.* To seal or close with a wafer, as a letter.

Waffle, (*wŏf'fl,*) *n.* [L. Ger. and D. *wafel.*] A thin cake baked hard and rolled, or a soft indented cake baked in an iron utensil on coals.

Waf'fle-iron, *n.* A utensil for baking waffles.

Waft, *v. a.* [Sw. Goth. *wefta* = Ger. *weben*, to weave.] To impel hy a waving motion; to convey through water or air; to bear through a fluid or buoyant medium; as, fair winds *wafted* them across the ocean; to *waft* a sigh.

—*v. n.* To float; to he moved or to pass in a huoyant medium.

—*n.* (*Naut.*) A signal displayed from a ship's stern, by hoisting an ensign furled in a roll, to the head of the staff.—An unpleasant aroma; as, a *waft* of stench.

Waft'age, *n.* Transportation or conveyance through a buoyant medium, as air or water.

Waft'er, *n.* One who, or that which, wafts.—A passage-hoat.

Wag, *v. a.* [A.S. *wagian;* Ger. *bewegen*, to stir, move.] To move one way and the other with qnick turns; to move a little way, and then turn the other way; to move lightly from side to side, or to and fro; to move vibratingly; to shake slightly; as, to *wag* the head, a dog *wags* his tail.

—*v. n.* To move lightly, or with quick turns, from side to side; to swing; to vibrate; as, the *wagging* of a straw.—To stir; to move qnickly;—nsed in a colloquial and humorous sense; as, "See, quoth he, how the world *wags.*" (*Shaks.*)—To pack off; to go from; to depart; as, let him *wag.*

—*n.* [A. S. *wœgan*, to deceive, illude.] A droll; a man full of jocular humor; one full of merry frolicsome tricks; one who cuts jokes at the expense of others; a hanterer; a wit; a sly humorist; as, a prig affords fine sport to a *wag.*

Wage, (*vah'je*) (*Camb.*) In Germany, a weight of various extent ranging from 45½ to 135 lbs., according to locality and custom.

Wage, (*wāj,*) *v. a.* [A. S. *wigan.*] To carry on, as a war, or hostilities; to engage in, as a contest, as if by pledge previously given.—To stake; to pledge; to bet; to lay;

to risk; to wager; to risk on the event of a contest; as, to *wage* a dollar on the game.

To wage battle, to give gage or security for joining in the *duellum*, or combat. (*Burrill.*)—*To wage one's law.* See COMPURGATION.

Wage, *n.* Pay; hire; compensation; meed; rewnrd; recompense; stipend; stipulated payment for services performed; as, a day's *wage*;—used almost invariably in the plural.—See WAGES.

Wager, (*wā'jŭr*), *n.* [Fr. *gageure*, from *gage*, a pledge, a token.] A bet; a stake; a pledge; a gage; that which is laid, deposited, risked, or hazarded on the result of a contest, or some moot question; ns, to make a *wager*.—The subject of a bet or wager; as, "Their ruin was the *wager* of the other's contention."—*Sidney.*

(*Law.*) A contract by which two parties or more agree that a certain sum of money, or other thing, shall be paid or delivered to one of them, on the occurrence or non-occurrence of a certain event. Wagers were valid contracts at common law, and the amount won could be recovered in a court of law, unless the wager operated as an incitement to breach of the peace or of morality, or was *contra bonos mores*, or affected the feelings or interests of a third party, or disturbed the peace of society. In this country the law and decisions of courts in matters of wagers in the several States are much at variance. It is doubtful, however, whether an action by a winner of a mere wager or bet against a loser would be now sustained in any court.

Wager-policy. (*Law.*) A policy made when the insured has no insurable interest. It has nothing in common with insurance but the name and form. It is usually in such terms as to preclude the necessity of inquiring into the interest of the insured, as "interest or no interest," or "without further proof of interest than the policy." Such contracts, being against the policy of the law, are void. (*Bouvier.*)—*Wager of battle.* See BATTLE.

—*v. a.* To lay or stake, as a wager or bet; to risk or hazard on the issue of a contest, or on some question that is to be decided, or on some casualty; as, to *wager* a heavy sum of money.

—*v. n.* To lay a wager or stake; to make a bet.

Wa'gerer, *n.* One who wagers or lays a bet; a bettor.

Wages, (*wā'jiz*,) *n.* (Plural in termination, but singular in signification.) [Norm. *gazes*, *gages*, sureties, wages.] That which is covenanted to be paid for work done; hire; reward; that which is paid or stipulated for services; price paid for labor; the return made or compensation paid to those engaged to perform any kind of labor or service by their employers; recompense; fruit; that which is given in return;—the term is commonly applied to the payment of manual or mechanical labor, other than that performed by the more educated classes, to which the word *salary* bears reference.

Wag'gery, *n.* [From *wag.*] Tricks of a wag; mischievous frolic or merriment; sportive trick or gayety; banter, or good-humored sarcasm; jocoseness; pleasantry.

Wag'gish, *a.* Like a wag; roguish or mischievous in sport, merriment, or pleasantry; good-humored, jocular, or frolicsome; as, a *waggish* boy.—Done in waggery or frolic; made for sport or mischievous pleasantry; as, a *waggish* trick.

Wag'gishly, *adv.* In a waggish or frolicsome manner.

Wag'gishness, *n.* Quality of being waggish.

Waggle, (*wăg'gl,*) *v. n.* [Du. *waggelen;* Ger. *wackeln.*] To waddle; to oscillate from side to side in walking; as, a *waggling* motion.

—*v. a.* To wag, or move one way and the other; as, a dog *waggles* his tail.

Wag'ner, RICHARD, a German composer, B. at Leipsic, 1813, received his education in Dresden and at the University of Leipsic. At an early age he began to write for the lyrical stage, and was appointed musical director of the Royal Theatre at Dresden, where several of his operas, particularly *Rienzi*, *Der Fliegende Holländer*, *Tannhäuser*, and *Lohengrin*, were produced. Professing liberal principles, he became involved in the political troubles of Saxony in 1848, and being compelled to flee, took refuge at Zurich. He has contributed to the musical literature of the day, and his æsthetic opinions, as well as the merits of his operas, have become the subjects of controversy; one party representing him as a musical reformer of great and original genius, and the other as a visionary in his notions. His operas, founded upon the myths of the *Nibelungenring*, were produced in Bayreuth in 1876 (where he founded, in 1878, a great musical school); consisting of *Das Rheingold*, *Die Walküre*, *Siegfried*, and *Die Götterdämmerung*. *Parsifal* was produced at Bayreuth, 1882. D. at Venice, Feb. 13, 1883.

Wag'on, Wag'gon, *n.* [A. S. *wægen*, *wægn;* Dn. and Ger. *wagen.*] A four-wheeled vehicle, usually drawn by horses;—especially, one used for the carriage of freight or heavy goods or substances; as, a covered *wagon*.—In England, a freight-car on a line of railroad.

—*v. a.* To convey or transport in a wagon.

—*v. n.* To practise the carrying of goods or commodities in a wagon; as, he *wagons* between the coast and some of the interior towns.

Wag'onage, Wag'gonage, *n.* Money paid for conveyance in a wagon.

Wag'on-boiler, *n.* (*Mach.*) A low-pressure boiler of wagon-like shape, with arched top and incurvated sides.

Wag'oner, Wag'goner, *n.* [A. S. *wagnere.*] The driver of a wagon; a teamster; as, a jolly *wagoner*.

(*Astron.*) Same as CHARLES'S WAIN, *q. v.*

Wag'oner, in *South Carolina*, a township of Oconee county.

Wag'onful, *n.*; *pl.* WAGONFULS. As much as will fill a wagon; a wagon-load.

Wag'ontown, in *Pennsylvania*, a post-village of Chester co., 62 m. E.S.E. of Harrisburg.

Wag'ram, a village of Lower Austria, on the river Rossbach, 10 m. from Vienna. It was the scene of a battle between the Austrians and the French, July 5 and 6, 1809, in which the former were defeated.

Wag'tail, *n.* (*Zoöl.*) The common name of the genus *Motacilla*, comprising European species of insessorial birds belonging to the *Sylvicolidæ* or Warbler family. These birds are to be seen wherever there are shallow springs and running waters; and they are easily distinguished by their brisk and lively motions, as well as by the great length of their tails, which they jerk up and down incessantly, from which circumstance they derive their name. They are handsome and sprightly birds, especially the White *W.* or Dish-washer (*Mocatilla alba*), the *Lavandière* of the French (Fig. 2595), which is about 7 inches in length.

Fig. 2595.—WHITE WAGTAIL.

Waha'bees, or WAHABITES, a Mohammedan reforming sect, founded by Abd-el-Wahab, in Yemen, about 1749; which seeks to purge away the innovations and corruptions introduced in the course of ages, and to bring back the doctrines and observances of Islam to the literal precepts of the Koran. They made a successful campaign against Ghaleb, the Grand Sheik of Mecca, in 1792 and 1793; and totally destroyed a Turkish army sent against them in 1801. They took Mecca and Medina in 1803, conquered the greater part of Arabia, and overran Syria. Mehemet Ali sent an army against them, which they defeated near Medina, in 1812. The *W.*, defeated at Zohran, were victorious at Brissel in 1815, when peace was concluded. Ibrahim Pasha made war on them in 1816, and after an obstinate resistance, drove them into Derayeh in 1818, which he took in Dec., and sent Abdullah, their chief, and several of his family, to Constantinople, where they were beheaded. The greater part of the territories conquered by the Wahabees fell under the authority of the Pasha of Egypt; but they gave much trouble, by fomenting insurrections in 1827, 1834, 1838, and 1839; and are still now dominant throughout the greater part of Arabia.

Wahkia'kum, or **Wakiacum,** in *Washington*, a S.W. co., bordering on the Columbia river; *area*, 244 sq. m. *Cap.* Cathlamet. *Pop.* (1897) 3,000.

Wahkou'sa, in *Iowa*, a township of Webster county.

Wah'lahgas, or ALLAGASH RIVER, in *Maine*, has its origin in a chain of lakes in Piscataquis co., and flowing N., enters the Walloostook River near its junction with the St. François.

Waif, (*wāf,*) *n.* [Norm. Fr. *weif*; L. Lat. *wayfium.*] A stray; that which is found without an owner, or that which is come across, as it were, by chance.

Wail, *v. a.* [Icel. *vælur*, lamentation; W. *wylaw*, to weep, wail.] To cry out in sorrow or lamentation for; to moan; to bewail; to grieve over.

—*v. n.* To utter a loud voice of sorrow; to weep; to express sorrow audibly; to moan; as, a *wailing* cry.

—*n.* A loud cry of sorrow or lamentation; violent expression of grief.

Wail'er, *n.* One who wails or expresses loud lamentation.

Wail'ing, *n.* Loud cries of sorrow; deep lamentation.

Wail'ingly, *adv.* With wailing or loud lamentation.

Wain, *n.* [A. S. *wæn.*] A wagon, or four-wheeled carriage for the transportation of goods, or for carrying grain, hay, &c.; as, "To glean the fallings of the loaded *wain*."—*Dryden.*

(*Astron.*) See CHARLES'S WAIN.

Wain'scot, *n.* [D. *wagenschot.*] (*Arch.*) A name given to boards serving to line the internal walls of an apartment, staircase, &c. *W.* is usually made in panels, to serve instead of hangings, wall-paper, &c.

—*v. a.* To line with boards, as a hall, staircase, or apartment; to line with panelling, or as if with panel-work; as, a *wainscotted* chamber.

Wain'scoting, *n.* Wainscot, or the material used in its construction; also, the act of covering or lining walls with boards in panels.

Wair, *n.* (*Carp.*) A piece of plank two yards long and a foot broad.

Waist, *n.* [W. *gwasg*, the place where the girdle is tied.] That part of the human frame which is immediately below the ribs or thorax; or, the small part of the body between the thorax and the hips.

(*Naut.*) That part of a ship's upper deck which is between the fore and main-masts, or between the quarter-deck and forecastle; as, the boarders were stationed in the *waist*.

Waist'band, *n.* The band or upper part of breeches, pantaloons, trowsers, or drawers, which encompasses the waist.—A sash worn round a lady's waist.

Waist'cloth, *n.* A cotton wrapper worn about the waist by the natives of India.

(*Naut.*) A covering for hammocks, made of canvas or tarpaulin, and stowed on a ship's gangways, between the quarter-deck and the forecastle.

Waistcoat, (pron. colloq. *wes'kut.*) A vest; a short coat or garment for men, extending no lower than the hips, and covering the waist.

Waist'er, *n.* (*Naut.*) A seaman, usually a green hand or broken-down man, stationed in the waist of a ship of war.

Wait, *v. n.* [Fr. *guetter*; It. *guatare*, akin to D. and Prov. Ger. *wachten*, to watch.] To stay or rest in expectation; to stop or remain stationary, till the arrival of some person or event; to stay proceedings, or suspend any business, in expectation of some person, event, or the arrival of some propitious or suitable time; not to depart; to continue by reason of hindrance; as, I cannot bear to *wait*.—To lie in ambush, as an enemy.

To wait on or *upon.* (1.) To attend, as a menial or servitor; to perform personal services for. (2.) To go to see; to visit ceremoniously or on business; as, when shall I have the pleasure of *waiting upon* you? (3.) To follow, as an issue; to await; as, ruin *waits* on such folly.

—*v. a.* To await; to rest or remain stationary in expectation of the arrival of; to stay for.—To attend on; to accompany ceremoniously or as a mark of respect. (B.)

—*n.* A watching; ambush; as, to lie in *wait* for one.

—*pl.* Itinerant musicians or singers who perform Christmas carols at night or in the early morning.

To lay in wait, to form an ambuscade.—*To lie in wait*, to hide in ambush; to lie perdu in order to take a person or party by surprise;—hence, to make insidious attempts to insnare.

Wait'er, *n.* One who waits; particularly, a servant who waits in a house of public entertainment; an attendant; a domestic in waiting.—A server or salver; a tray, as that on which tea-equipage is carried, or the like.

Wait'ing, *a.* An epithet applied to one who waits.

—*n.* Act of staying in expectation or attendance.

Wait'ing-maid, Wait'ing-woman, *n.* An upper servant who attends a lady.

Wait'ress, *n.* A female attendant in a public-room, or at an hotel or like place of entertainment.

Walts'field, in *Vermont*, a post-townsbip of Washington co., 12 m. S.W. of Montpelier.

Wait'zen, a town of Hungary, on a bend of the Danube, 21 m. N. of Pesth; *pop.* 13,000.

Walve, *n.* (*Eng. Law.*) A woman beyond the pale of legal protection.—A female outlaw.

Waive, *v. a.* [O. Fr. *guesvar*, to give over; probably from O. Ger. *werfan* = A. S. *werpan.*] To relinquish; to forego; not to insist on or claim; to defer for the present; as, to *waive* one's decision.—To reject; to discard; to forsake; to cast off.

(*Law.*) To relinquish voluntarily, as a right which may or may not be enforced at one's option.

Waiv'er, *n.* (*Law.*) A declining to accept or avail one'a self of something, as an estate, or of irregularities in legal proceedings.

Wai'wode, Valvode, Waywode, *n.* In the Turkish empire, the governor of a small province or city.

Wake, *v. n.* (*imp.* and *pp.* WAKED, (*wākt.*) [A. S. *wacian;* D. *waken;* Ger. *wachen*; Dan. *vaage.*] To be awake; to continue awake; to watch; not to sleep; as, "She praying still, did *wake*, and *waking* did lament."—(*Spenser.*)—To be roused from sleep; to be awakened; to cease from sleep; as, lest one should sleep, and never *wake*.—To sit up during the time usually devoted to sleep; to revel in the small hours.—To be excited from a quiescent or torpid state; to be excited, or stirred or roused up; to be alive or active; to have the faculties put in motion; as, his passions *waked* from slumber.

—*v. a.* To rouse from sleep or repose; as, be good enough to *wake* me early.—To excite or arouse; to start into life, action, or motion; as, beauty *wakes* the soul to admiration.—To reanimate; to revive; to bring to life again, as if from the state of death.

"To second life *waked* in the renovation of the just."—*Milton.*

—To watch with at night; as, to *wake* a corpse.

—*n.* Act of waking, or of being awaked: as, give me a *wake* in the morning.—State of holding vigils, especially for solemn or festive purposes.—Hence, specifically, the revel or festival held in country parishes, in England, on the anniversary of the day of dedication of the church; or, frequently on the day of the saint to whom the church was dedicated. In Ireland, it is called the *patron day*; as, a village *wake*.—Hence, also, the sitting up, or watching, of persons with a dead body, as extensively practised in Ireland.—The track left by a ship in passing through the water; hence, metaphorically, in the train of; as, he followed in his patron's *wake*.

In the wake of, immediately following or coming after; as, he moves *in the wake of* his predecessor in office.

Wake, in *N. Carolina*, a central co.; *area*, 950 sq. m. *Rivers.* Little and Neuse. *Surface*, hilly; *soil*, generally fertile. *Min.* Granite and plumbago. *County-seat*, Raleigh.

Wakefield, (*waik'feeld,*) a town of England, in the West Riding of Yorkshire, 9 m. from Leeds. It is one of the greatest corn-markets in England. *Pop.* 38,000.

Wakefield, in *Maryland*, a post-village of Carroll co., 68 m. N.N.W. of Annapolis.

Wakefield, in *Minnesota*, a township of Stearns county.

Wakefield, in *New Hampshire*, a post-township of Carroll co., 35 m. N.E. of Concord.

Wakefield, in *Rhode Island*, a post-village of Washington co., 30 m. S.W. of Providence.

Wake Forest, in *N. Carolina*, a township of Wake co.

Wake'ful, *a.* Not sleeping; indisposed to slumber; vigilant; watchful.

Wake'fully, *adv.* In a wakeful or vigilant manner.

Wake'fulness, *n.* State of being wakeful; indisposition to sleep; want of slumber; forbearance of sleep or repose; watchfulness.

Wake'man, *n.*; *pl.* WAKEMEN. In England, the official designation of the chief magistrate of the city of Ripon, co. York.

Richard Wagner

1813–1883

Wake'man, in *Ohio*, a post-township of Huron county

Wak'en, *v. n.* and *a.* Same as AWAKEN, *q. v.*

Wakener, (*wāk'ner,*) *n.* One who, or that which, wakens.

Wak'ening, *n.* Act of one who wakens; act of ceasing to sleep.

Wak'er, *n.* One who, or that which, wakes or rouses from sleep; n watcher.

Wakesh'ma, in *Michigan*, a post-township of Kalamazoo co.

Wak'ing, *n.* State or time of being awake.

Wakul'la, a river of *Florida*, flows into Appalachee Bay from Wakulla co.

—A N.W. co., hordering on Appalachee Bay; *area*, 576 sq. miles. *Rivers.* Ocklockonnee, St. Mark's, and Wakulla. *Surface*, diversified; *soil*, generally fertile. *Cap.* Crawfordsville. *Pop.* (1895) 3,700.

Wal'cheren, an island of Holland, in the province of Zealand, in the German Ocean, at the mouth of the Scheldt. It is 11 m. long, with a breadth of 10. It is very fertile; but it lies low, and would be subjected to inundations from the sea, were it not protected by strong dykes. *Pop.* 50,000.

Wal'chowite, *n.* (*Min.*) A mineral resin, met with in rounded translucent masses, in the brown-coal of Walchow, in Moravia.

Wal'cott, in *Minnesota*, a post-office of Rice co., about 5 m. S. of Faribault.

Wald, *n.* [A.S. and Ger.] A forest; — nsed as a termination in German names; as, tho Böhmer*wald*, i. e., Bohemian Forest.

Wald, a town of Switzerland, 18 m. from Zurich. *Manuf.* Cotton-spinning and iron goods. *Pop.* 4,577.

Waldeck, (*val'dek.*) a former principality of N.W. Germany, consisting of two counties, Waldeck and Pyrmont, now belonging to the German Empire; Lat. between 51° and 51° 30′ N., Lon. between 8° 30′ and 9° 11′ E.; *area*, 461 sq. m. The country is hilly, but fertile. A third of the surface is covered with forests, and cattle-rearing is extensive. *Cap.* Arolsen. *Pop.* 56,807.

Wal'demar I., called *the Great*, king of Denmark, B. 1131, succeeded Eric V., 1147. His reign was illustrated by expeditions against the pirates of the Baltic, and he compelled Magnus VI., king of Norway, to sign a humiliating treaty; D. 1181. — WALDEMAR II., called *the Victorious*, younger son of the preceding, succeeded his brother, Canute VI., 1202. He made many warlike expeditions into Sweden, Norway, and Germany, created a powerful navy, and revised the laws of his kingdom; D. 1241. — WALDEMAR III., eldest son of the preceding, was regent from 1219 to 1231. — WALDEMAR IV., third son of Christopher II., was in Bavaria at the death of his father in 1333. In 1340–44 he recovered part of his kingdom by force of arms, and obtained some further successes against Sweden in 1353 and 1357; eventually, however, he was glad to obtain peace by making some sacrifices; D. 1376.

Wal'den, in *Illinois*, a former twp. of Stephenson co.

Walden, in *New York*, a post-village of Orange co., 90 m. S.W. of Albany.

Walden, in *Vermont*, a post-town and township of Caledonia co., 22 m. N.N.E. of Montpelior.

Walden's, in *Alabama*, a former township of Calhoun county.

Walden'ses, or VAUDOIS, *n. pl.* (*Eccl. Hist.*) A sect, said to have derived their name from Peter Waldo, a merchant of Lyons, who practised what he regarded as the pure doctrine of the Scriptures about 1180. His views spread through France, Italy, and Bohemia, and his adherents became especially numerous in Provence, and in the valleys of Piedmont. They were condemned by the Synod of Tarragona, in 1242, and a large number of them were put to death. Those living in the valleys suffered especially from persecution, and under Sixtus IV. a crusade was preached against them. The persecutions of the *W.* of Piedmont continued with but rare interruption till about the middle of the 18th century, and it was only in 1848 that Sardinia granted them full religious and ecclesiastical liberty and equality of civil and political rights with the Roman Catholics. Until that time they were confined to 3 retired valleys of the Cottian Alps, Lucerne, Perosa, and San Martino, but since 1848 they have organized new congregations in other towns of Sardinia, and since 1858 in all parts of Italy. Their religious doctrines are similar to those of the Reformed churches. They recognize the Bible as their only rule of faith, and agree with the Calvinists in regard to the Lord's Supper, but have not adopted the doctrine of absolute predestination. Every congregation has a consistory composed of the minister, an elder, and a deacon. Above these consistories is placed the supreme consistory, called *the Table*, and composed of 3 clergymen and 2 laymen.

Wal'do, PETER. See WALDENSES.

Wal'do, in *Maine*, a S. county, bordering on the Penobscot Bay and River; *area*, 800 square miles. *Surface*, undulating; *soil*, moderately fertile. It contains a number of excellent harbors. *Cap.* Belfast.—A post-town and township of the above county, 35 m. N.E. of Augusta.

Wal'do, in *Ohio*, a post-village and township of Marion co., 36 m. N.W. of Columbus.

Waldo, in *Oregon*, a post-vill. and precinct of Josephine co., 50 m. N.E. of Crescent City, California.

Wal'doborough, in *Maine*, a post-town and port of entry of Lincoln county, at the mouth of Muscongus River, in Muscongus Bay, 55 miles E.N.E. of Portland.

Waldstein'ia, *n.* (*Bot.*) A genus of plants, order *Rosaceæ*. They are perennial, acaulescent herbs, with lobed or divided radical leaves, and yellow flowers. *W. fragarioides*, the Dry Strawberry, is a handsome plant, in hilly woods, found from Canada to Georgia, and bearing some resemblance to the strawberry.

Wald'wick, in *Wisconsin*, a township of Iowa county.

Wale, *n.* [A.S. *walan*, marks of stripes or blows.] A weal; the mark left by a rod or whip on animal flesh; a streak; a stripe. — A ridge or streak rising on the surface of cloth; hence, the texture of cloth.

—*pl.* (*Naut.*) Lines of planking in a ship's sides and quarters, thicker than the other streaks of plank. They occur at points where some extra strength or curvature is required.

—*v. a.* To mark with wales, weals, or stripes, as by a cane.

Wales, (*wails.*) [Lat. *Cambria;* Welsh *Cymry*, the land of the Cymri; Fr. *Galles.*] A principality of England, and in appearance almost a peninsula, being bounded N., S., and W. by the St. George's Channel, the Irish Sea, and the Bristol Channel, and for a considerable portion of the E. by the rivers Severn and Dee, and by the cos. of Chester, Salop, Hereford, and Monmouth; Lat. between 51° 23′ and 53° 26′ N., Lon. between 2° 41′ and 5° 15′ W.; *area*, 7,425 sq. m. *W.* is divided into *North W.*, containing the cos. of Anglesea, Carnarvon, Denbigh, Flint, Merioneth, and Montgomery; and *South W.*, containing the cos. of Brecknock, Cardigan, Carmarthen, Glamorgan, Pembroke, and Radnor. *W.* is by far the most mountainous portion of S. Britain; its continued ranges, intersected by numerous deep ravines and wide-spreading valleys, presenting some of the most varied scenery to be found in the whole island, remarkable for its rugged and romantic charms. The *Cambrian range* includes the entire system of Welsh mountains, each offshoot receiving a distinct name from the culminating point of its range; of these the most celebrated are Snowdon, whose peak is 3,571 feet above the sea; Cader Idris, or "Arthur's Seat," 2,900; Plinlimmon, 2,566; and the Black Forest range, whose culminations in the Beacons of Carmarthen and Brecknock are respectively 2,890 and 2,900 feet. The most important rivers of *W.* are the Severn, Wye, Towy, Conway, Dee, and Tivy. The vegetable products are chiefly barley, oats, potatoes, and turnips, with small quantities of the other grains, and all useful vegetables in abundance; it is as a grazing country, however, that the Principality is chiefly noted. The minerals of *W.* are extremely abundant; that great source of national wealth and prosperity, coal, is found in 9 of its 12 counties; iron is abundant; copper is found in some localities of admirable quality; lead is procured in all the N. cos., and silver in different places; as, also, limestone, marble, slate (Fig. 2378), and several valuable clays and loams. Merthyr Tydvil, Aberdare, Trodegar, Holywell, Swansea, and Wrexham are the great manufacturing centres. Woollen has long been considered the staple fabric of Welsh manufacture; flannels, stockings, socks, gloves, and hosiery generally are among the most important items of this nature; linen and cotton cloths, twist, with hardware, especially in iron and copper, embrace the leading articles of manufacture. — *Inhabitants.* The Welsh have many strange customs and peculiar superstitions. They are remarkably fond of poetry and music, and their language is said to be peculiarly adapted to poetical effusions. Their ancient language is, however, falling fast into disuse throughout the Principality, more especially the southern part. Family distinction is held in great estimation. The aboriginal Celtic race still inhabit some parts of the country. Llewellyn ap Gryffydd was the last prince who exerted himself for the independence of Wales. In 1282 he was subdued by Edward I., and fell on the field of battle. From that time, Wales has been annexed to the English crown; but the union was not complete till the reign of Henry VIII., when the government and laws were assimilated with those of England. It gives the title of *Prince of Wales* to the heir-apparent of the English throne. *P.* (1897) 1,612,160.

Wales, in *Maine*, a post-town of Androscoggin co. *Pop.* (1897) 485.

Wales, in *Massachusetts*, a post-village and township of Hampden co., 65 m. W.S.W. of Boston.

Wales, in *Michigan*, a post-township of St. Clair co., abt. 12 m. W. of Port Huron.

Wales, in *New York*, a post-township of Erie co., 22 m. E.S.E. of Buffalo.

Wales, in *Utah*, a twp. of San Pete co.

Wal'honding, a river of *Ohio*, formed by the junction of several forks at Loudonville, in Ashland co., and flowing S.E. unites with the Tuscarawas at Coshocton to form the Muskingum. It is sometimes called *Mohiccan* and *White Woman River.*

Walk, (*wawk,*) *v. n.* [O. Ger. *walagôn*, to walk.] To move onward on the feet; to step slowly along; to advance by alternate steps moderately repeated, as animals; to move with the slowest pace, as a horse; to move by steps or paces without running, trotting, cantering, or galloping. — To move or go on the feet for exercise or amusement; as, he *walks* out daily. — To go about or abroad in an unquiet manner; to stir restlessly to and fro; to appear as a spectre or a somnambulist.

—In a scriptural sense, to live and act or behave; as, she *walks* in the ways of grace. — To depart; to move off; to go from; as, he was made to *walk* about his business.

To walk, to enter, as a house. — *Walking-papers, walking-orders, walking-ticket*, papers or instructions commanding dismissal or departure. (Colloq.)

—*v. a.* To perambulate; to traverse; to pass through or upon; as, to *walk* the streets (an elliptical expression for to walk *in*, or *through*, the streets).—To lead, drive, or ride with a slow pace; to cause to walk, step, or stride slowly or leisurely; as, to *walk* a horse up hill.

To walk the plank, a phrase borrowed from the former practice of pirates of projecting a plank from the ship's side, and compelling such persons as were doomed to death to walk off it into the sea; used, figuratively, and in the modern sense, to signify the vacating of an office under compulsion.

—*n.* Act of walking, or of moving on the feet at a slow, or not very rapid, pace. — Act of taking pedestrian exercise; as, a constitutional *walk*. — Gait; step; manner or mode of walking; method of perambulation; as, a man with a wooden leg may be known at a distance by his *walk*. — Length of way or circuit through which one walks; or, a place for taking pedestrian exercise or a journey on foot; way; road; hence, a range; a place or region in which animals may wander and graze; as, a shady *walk*, a *walk* for sheep. — Hence, regular or frequented track, or sphere or place of action; as, it opened a boundless *walk* for his imagination. — Demeanor; conduct; line or manner of action or behavior; as, the *walk* of rectitude.

Walk'able, *a.* That may be safely walked on or over.

Walk'er, *n.* One who, or that which, walks; a pedestrian.

Walk'er, GEORGE, a celebrated Irish divine, who distinguished himself by his gallant defence of Londonderry, in 1689, against the forces of James II., till it was effectually relieved. He afterwards repaired to London, published an account of the siege, and was nominated by William III. to the bishopric of Derry; but, continuing to accompany the army, he was slain at the battle of the Boyne, in 1690.

Walk'er, ROBERT JAMES, an American statesman, born in Northumberland, Pa., 1801. He was a student at the University of Pennsylvania, in Philadelphia; graduated there 1819; commenced the practice of law in Pittsburg in 1819, and made his first mark in public life by placing the name of Gen. Jackson in nomination for the Presidency previous to its being suggested in any other quarter. In 1826 he removed to Natchez, Miss., and in 1835 was elected to the U. S. Senate. Shortly after taking his seat in that body, he came in direct collision with Henry Clay on a public-land question, and his able and spirited reply to the great orator was very favorably received by the people of the West. He was consulted by President Jackson in relation to the prospective acquisition of Texas and California; supported the leading measures of President Van Buren's administration; and afterwards exerted great influence over the administration of President Tyler; and was secretary of the treasury during the Presidency of Mr. Polk, 1845–1848. At the close of Mr. Polk's term of office, *W.* resumed the practice of law, and did not again take a prominent part in national politics until he was appointed by President Buchanan, in 1856, to the governorship of Kansas, a position which he resigned in consequence of disagreement with the President. During the Civil War, *W.* resided for some time in Europe, where his influence in behalf of this country was very ably and successfully exerted. He largely contributed to the successful negotiation of the Alaska purchase from Russia. D. Nov. 11, 1869.

Walker, WILLIAM, an American adventurer, B. in Nashville, Tenn., 1824. In July, 1853, he organized an expedition for the conquest of Sonora, Mexico, but was unable to escape the vigilance of the authorities until Oct., 1853, when he sailed with a number of followers, and landed at La Paz, in Lower California; but though reinforced in March, 1854, his party dispersed from want of provisions, without accomplishing anything, and *W.* surrendered himself to the U. S. authorities, was tried for the violation of neutrality in May, 1854, and acquitted. The following year, taking advantage of internal troubles in Nicaragua, he started with 62 followers for an expedition in that state, for which see FILIBUSTER. *W.* was tried by court-martial in Honduras, and shot, Sept. 12, 1860.

Walker, in *Alabama*, a N.W. co.; *area*, 824 sq. m. It is traversed by Mulberry Fork of Black Warrior river. *Surface*, mountainous; *soil*, fertile in the valleys. *Cap.* Jasper. *Pop.* (1897) 16,960.

Walker, in *Georgia*, a N.W. co., borderlug on Alabama and Tennessee; *area*, 404 sq. m. *Rivers.* Chickamanga and Chattooga. *Surface*, mountainous; *soil*, moderately fertile. *Min.* Stone-coal, lead, marble, limestone, and gypsum; also numerous mineral springs. *Cap.* Lafayette. *Pop.* (1897) 14,650.

Walker, in *Illinois*, a township of Hancock co.

Walker, in *Indiana*, a township of Jasper co.

—A township of Rush co.

Walker, in *Kansas*, a township of Anderson co.

Walker, in *Michigan*, a township of Kent co.

Walker, in *Pennsylvania*, a post-township of Center co., 10 m. E. of Bellefonte.

—A township of Huntingdon co.

—A township of Juniata co.

—A township of Schuylkill co.

Walker, in *Texas*, an E. central co.; *area*, 740 sq. m. *Rivers.* San Jacinto and Trinity. *Surface*, level; *soil*, generally fertile. *Cap.* Huntsville. *Pop.* (1897) 13,860.

Walker's, in *Alabama*, a former township of Etowah county.

Walker Creek, in *Arkansas*, a township of Lafayette co.

Walker's Creek, in *Virginia*, rises in Bland co., and flowing N.E., enters New river in Giles co.

—A township of Rockbridge co.

Walker's Lake, in the S.W. of Nevada, 30 m. long, and 10 broad; Lat. 38° 45′ N., Lon. 118° 20′ W. Receives the waters of Walker river, but has no outlet.

Walker's River, in *California*, rises in Calaveras county, and flowing E., falls into Walker's Lake, in Nevada.

Walk'ersville, in *Maryland*, a post-village of Frederick co., 81 m. N.W. of Annapolis.
Walkersville, in *Missouri*, a village of Shelby co., abt. 40 m. S.W. of Quincy, Illinois.
Walkersville, in *Pennsylvania*, a village of Centre co., 100 m. N.W. of Harrisburg.
Walk'erton, in *Indiana*, a post-town of St. Joseph co., 16 m. S.E. of Laporte.
Walk'ertown, in *Pennsylvania*, a village of Chester co., 29 m. W. of Philadelphia.
Walk'erville, in *Illinois*, a post-township of Greene co.
Walk'ing-stick, *n.* A staff or stick carried in the hand for sport or amusement in walking; a cane; a rattan. (*Zoöl.*) See PHASMIDÆ.
Walk'ing-wheel, *n.* (*Mach.*) Same as TREAD-WHEEL, *q. v.*
Wall, (*wawl,*) *n.* [A. S. *wull, weall;* Lat. *vallum*, a rampart.] A work or structure of stone, brick, or other material, raised to some height, serving to inclose a space, forming a division or partition, supporting superincumbent weights, &c., and affording a defence, shelter, or means of security.
—*pl.* Fortifications or ramparts in general; defensive works; as, to man the *walls* of a fortress.
To drive or *push to the wall*, to bring, drive, or push to extremities; to get the advantage of, or mastery over.—*To go to the wall*, to be hard driven or pushed by necessity; to be the weaker party.—*To take the wall*, to walk on the side next the wall; — hence, to take the precedence.
—*v. a.* To inclose with a wall, or as if with a wall. — To defend by walls, or as if by walls. — To close or fill with a wall; as, to *wall* up an aperture or passage.
Wall, in *Illinois*, a twp. of Ford co.
Wall, in *New Jersey*, a township of Monmouth co., on the Atlantic.
Wal'lace, SIR WILLIAM, a popular Scottish hero, B. in Ayrshire, probably abt. 1270. Having slain the son, and several of the retainers of the English sheriff of Dundee, for an insult offered to him, *W.* fled to the woods, and was outlawed. Gathering together a number of followers, he drove the English out of Aberdeen, Forfar, Brechin, and elsewhere, and in 1297 defeated the English army at the battle of Stirlingbridge — thus liberating his country for a time. Revered as the savior of the nation, he was chosen one of the commanders-in-chief of the Scottish army, and afterwards guardian of the kingdom, during the captivity of Baliol. He penetrated into England, and ravaged Durham with fire and sword. Edward the I., then in Flanders, immediately hastened home, and marched against *W.* who was defeated. His subsequent history is obscurely narrated; but he appears to have carried on a guerilla warfare against the English during several years, until at length he was basely betrayed, and executed in London in 1305.
Wallace, WILLIAM VINCENT, an Irish composer, B. in Waterford, 1814. Born with a passion for music, which was early cultivated by his father, a military band-master, he seems to have had an equal passion for travelling. Having attained considerable skill as a pianist and violinist, he set out at the age of 18 on a long course of wanderings, visiting successively Australia, New Zealand, India, and S. America. After a professional tour in the U. States, he returned to England, where his first opera, *Maritana*, was produced with great success, 1846. This was soon followed by *Matilda of Hungary*. He then visited Vienna and Paris, and for the recovery of his health took a long sea-voyage. In 1854 he produced *Lurline*, one of his best works, and also one of the most successful. His other works are, *The Amber Witch*, *Love's Triumph*, and *The Deserted Flower*. *W.* was essentially a melodist, and many songs of great sweetness are scattered through his works, and have become popular favorites. Among these are his *Fireside Song; Go thou, Restless Wind! Sweet and Low; Bird of the Wild Wing*, &c. After a protracted illness at Paris, in 1864–65, he was removed for milder air to the Chateau de Bagen in the Haute-Garonne, and there he died, Oct. 12, '65.
Wallace, in *Arkansas*, a township of Franklin co.
Wallace, in *Kansas*, a W. co.; *area*, 900 sq. m. *Cap.* Sharon Springs. *Pop.* (1895) 1,592.
Wallace, in *Pennsylvania*, a post-township of Chester co., abt. 12 m. N.W. of West Chester.
Wal'laceville, in *Pennsylvania*, a post-village of Venango co., 15 m. N. of Franklin.
Wallachia, (*vol-la'ke-a,*) (Ger. *Wallachei,*) one of the Danubian provs. (now united under the name of *Roumania*), bordered on the N. by a range of mountains separating it from Transylvania and Moldavia; on the S. by a boundary equally majestic, the Dambo flowing from W. to E., and dividing it from the frontier of Turkey. Lat. bet. 43° 40′ and 45° 42′ N., Lon. bet. 22° 25′ and 28° 5′ E. *Area.* Estim. at 25,700 sq. m. *Desc.* Considerably diversified. In the north it is mountainous. The central and southern parts are less uneven, consisting partly of valleys, fertile and romantic, and partly of plains, extensive and pleasant. Few countries are more indebted to nature, or might carry cultivation to a greater length. Comparatively little, however, has been done to correct physical defects. The extensive marshes are left undrained, while mountainous tracts are covered with forests. Even in the most favored tracts the country appears deserted, and hardly ever discovers the trace of European culture. The Danube is the principal river. The climate is hot and moist in summer, and very cold in winter. The chief wealth of *W.* consists in its pastures, which feed numerous herds of cattle and sheep. Forests are extensive, and excellent wool is exported. *Manuf.* Unimportant. Gipsies, who here form no inconsiderable part of the population, are partly employed in rude hardware work. The trade of the country, almost as backward as its agriculture and manufactures, is in the hands of Jews, Greeks, and Armenians. *Rel.* The Greek church. *Cap.* Bucharest. See ROUMANIA.
Walla-Walla, a river of *Washington*, rises in Umatilla co., Oregon, and flowing W.N.W., falls into the Columbia river at Walla-Walla.—A S.E. co., bordering on Oregon; *area*, 1,296 sq. m. *Rivers.* Columbia, Walla-Walla, Yakima, and Snake or Lewis. *Cap.* Walla-Walla. *Pop.* (1897) 15,100.—A city, cap. of the above co., 150 m. N.E. of The Dalles, Oregon. *Pop.* (1897) 6,550.
Walled Lake, in *Michigan*, a post-village of Oakland co., 28 m. N.W. of Detroit.
Wallenpau'pack Creek, in *Pennsylvania*, enters the Lackawaxen from Wayne co.
Wallenstadt, (Lake of,) (*val'len-stat,*) a lake of Switzerland, in the canton of St. Gall. It is 11 m. long, with a breadth of from 2 to 9 miles, and is connected with Lake Zurich by the Linth Canal.
Wallenstein, ALBRECHT WENZEL EUSEBIUS, COUNT VON WALDSTEIN, (*val'len-stine,*) the great general of the Imperialists, in the Thirty Years' War, B. 1583, of an ancient and wealthy family of Bohemia. In his youth he repaired to Italy, where he studied philosophy, astronomy, and the sciences then in vogue, and would have become an adept in the abstruse doctrines then so generally believed in, had not the condition of his country called him from the study of the occult sciences to the practice of war. As a soldier and leader he gained honor and distinction on his first field by defeating the Turks, who had penetrated into Hungary. From this time he devoted himself to the service of his country, and in a few years rose to be regarded as the most popular and consummate general in Europe; his vast wealth, immense estates, and extraordinary popularity giving him a power and influence hardly less than sovereign. He became in a few years the main-stay and support of the Imperial cause, and, both alone and in conjunction with Tilly, obtained several victories, and more than once raised the empire from the verge of ruin by his counsel and skill as a commander. For these services he received the dukedom of Mecklenberg, and immense tracts of land both in Bohemia and Hungary. His power and his influence, however, procured for him many enemies, to whom his sovereign, forgetful of the services he had rendered, lent so willing an ear that *W.*, indignant at the coldness of the Emperor, threw up his commission and retired to the privacy of his paternal estates. Hardly had *W.* quitted the court of his ungrateful master when the "Lion of the North," as he was called — Gustavus Adolphus of Sweden — invaded the empire with his Protestant army, and carried such defeat and ruin into the heart of the Imperial dominions, that the Emperor Ferdinand, seeing his generals slain, his armies routed, and a haughty foe advancing on his capital, was compelled to implore *W.* — the man he had so deeply injured — to return, and not only save the empire from ruin, but his sovereign from humiliation. Having obtained his own terms from the weak and ungrateful Ferdinand, *W.* raised his banner, and so much was he beloved by the soldiery that in less than seven days he had armed and equipped 50,000 men at his own cost, and, advancing against the successful enemy, drove Gustavus out of Bavaria, and following him into Saxony, forced him at Lützen to hazard a pitched battle, in which, though the Imperialists were defeated, the death of Gustavus, who fell in the moment of victory, was considered an ample equivalent. The death of the Swedish king made the rest of the war easy, and by *W.*'s vigilance the empire was again saved. Ferdinand, once more firmly seated on his throne, again became envious of the man to whom he owed both life and crown, and, taking offence at the devotion of *W.*'s officers, accused their chief of treason, and issued an order to take him dead or alive. Upon this, *W.* fled with a party of friends to the Castle of Egar, where its commander treacherously murdered him and all his devoted friends, 1634.
Waller, (*wawl'ter,*) *n.* A builder of walls.
Wal'ler's, in *Kentucky*, a township of Union county.
Wallet, (*wŏl'let,*) *n.* [From A. S. *weallian*, to travel.] A bag for carrying the necessaries for a journey or march; a knapsack; a peddler's pack; a mendicant's receptacle for alms; also, a paunch or bag-like purse; a pocket-hook for keeping money about the person. — Anything bulging, protuberant, or swaging; as, *wallets* of flesh. — *Shaks.*
Walleteer', *n.* One who carries a wallet; a vagrant; a tramper. (Colloq.)
Wall-eyed, (*wawl'id,*) *a.* Having an eye in which the iris is of a very light gray color, approaching to white; as, a *wall-eyed* horse.
Wall'-flower, *n.* (*Bot.*) See CHEIRANTHUS.
Wall'-fruit, *n.* (*Hort.*) Fruit ripened by being planted against a wall.
Wall'ing, *n.* Act of fortifying or inclosing with a wall. —Walls in general, or material for their construction.
Walling wax, a composition of wax and tallow, used by etchers and engravers to make a bank or wall round the edge of a plate, and so form a trough into which the acid is poured over the lines incised through the etching ground, and which *bites in* the lines as it lies upon the surface. The wax is rendered soft by steeping in hot water, and when of the consistency of putty, is stuck round the plate, and allowed to cool and harden, a spout being made on one side to carry off the acid.
Wal'lingford, in *Connecticut*, a post-borough and township of New Haven co., 11 m. northeast of New Haven.
Wallingford, in *Illinois*, a post-village of Will co., 160 m. N.E. of Springfield.
Wal'lingford, in *Vermont*, a post-township of Rutland co., 62 m. S.S.W. of Montpelier.
Wal'lis's Island, the principal of a group in the S. Pacific Ocean, discovered by Captain Wallis in 1767, surrounded by a reef of rocks. Lat. 13° 18′ S., Lon. 177° W.
Wall'kill, in *New York*, a river which rises in Sussex co., New Jersey, and flowing N.N.E. enters the Rondout in the E. part of Ulster co., New York. — A township of Orange co. It contains the flourishing town of Middletown, abt. 7 m. N.W. of Goshen, one of the most active and prosperous, of its size, in the State, and a point of junction and railroad centre, and carrying on extensive manufactures of saws, nails, hats, leather, &c.
Wall'kill, in *New York*, a post-village of Ulster co. *Pop.* (1897) 580.
Wall'-knot, (*-nŏt,*) *n.* (*Naut.*) See KNOT.
Walloom'scoik River, in *Vermont*, rises in Bennington co., and flowing W., enters the Hoosack River in Washington co., New York.
Wal'loons, *n. pl.* (*Geog.*) A name formerly given to that portion of the Belgians who were of Celtic origin, and whose language is essentially the French of the 13th century. The name is Teutonic, and is etymologically allied to Valais, Wales, &c. The "*W.* country" comprised the present provinces of Limburg, Liege, Namur, and Luxemburg, and a part of East and West Flanders. More than 1,800,000 of the present inhabitants of these provinces are mixed Celts, and speak the Walloon language.
Walloostook' River, in *Maine*, formed by the N.W. and S.W. branches in Somerset co., and flowing N.E., unites with the St. Francois to form the St. John's River.
Wallop, (*wŏl'lup,*) *v. n.* [A. S. *weallan*, to boil or bubble; Ger. *wallen.*] To boil with a continued noisy bubbling or heaving of the liquor.—To waddle; to move in a rolling or unwieldy manner. — To gallop; to move at a quick pace, by violent exertions.
—*v. a.* To flog; to thrash; to beat or whip soundly; as, to *wallop* a coalheaver. (Colloq.)
—*n.* A thick piece or chunk of fat. — A gallop; a rapid rolling movement. — A blow or beating.
Wallow, (*wŏl'lo,*) *v. n.* [A. S. *wealwian*, to roll, wallow; Lat. *volvo*, to roll, tumble.] To roll one's body on the earth, in mire, or on other substances; to tumble and roll in water or mire, as cattle or swine. — To live or disport one's self in filthy vice or beastliness; preceding *in;* as, *wallowing in* sensuality.
—*v. a.* To roll or tumble in anything unclean or corrupting.
—*n.* A kind of rolling gait.
Wal'lower, *n.* One who, or that which, wallows. (*Mach.*) A trundle.
Wall'-paper, *n.* Paper-hangings.
Wall'-pellitory, *n.* (*Bot.*) See PARIETARIA.
Wall'-pepper, *n.* (*Bot.*) A name of *Sedum acre.* See SEDUM.
Wall'-plate, *n.* (*Arch.*) A piece of timber placed along the top of a wall, to receive the ends of the roof timbers, or so placed on a wall as to receive the joists of a floor.
Wall'-rock, *n.* Granular limestone, used in building walls. (U. S.)
Wall'-rue, *n.* (*Bot.*) See ASPLENIUM.
Wall'-sided, *a.* (*Naut.*) With sides nearly perpendicular, as a ship; — as distinguished from *tumbling home.*
Wall'-spring, *n.* A spring of water issuing from stratified rocks.
Wal'lum Pond, in *Rhode Island*, a village of Providence co., 25 m. N.W. of Providence.
Wall'-wort, *n.* (*Bot.*) See ELDER-WORT.
Wal'ney Island, an island of England, in the N. of Lancashire, between Morecambe Bay and the estuary of Duddon, 4 m. from Dalton. *Ext.* 10 m. long, abt. 1 broad.
Walnut, (*wŏl'-,*) *n.* [A. S. *wal-hnut, walh-hnutu.*] (*Bot.*) See JUGLANS.
Wal'nut, in *Arkansas*, a township of Benton co.
Walnut, in *Illinois*, a post-township of Bureau co., about 11 m. N.N.W. of Princeton.
Walnut, in *Indiana*, a post-township of Marshall co.
—A township of Montgomery co.
Walnut, in *Iowa*, a township of Appanoose co.
—A village and township of Jefferson co.
—A township of Madison co.
—A township of Wayne co.
Walnut, in *Kansas*, a township of Atchison co.
—A township of Crawford co.
Walnut, in *Missouri*, a township of Adair co.
Walnut, in *Ohio*, a township of Fairfield co.
—A township of Gallia co.
—A township of Pickaway co.
Walnut Creek, in *Kansas*, a township of Mitchell county.
Walnut Creek, in *Missouri*, a township of Macon county.
Walnut Creek, in *Ohio*, a post-township of Holmes county.
Walnut Grove, in *California*, a post-town of Sacramento co., 32 m. S. of Sacramento.
Walnut Grove, in *Illinois*, a township of Knox co., about 14 m. N.E. of Galesburg.
—A post-township of McDonough co.
Walnut Grove, in *Kansas*, a township of Neosho county.
Walnut Grove, in *New Jersey*, a village of Morris co., about 6 m. W.N.W. of Morristown.
Walnut Hill, in *Illinois*, a post-village of Marion co., 12 m. S.W. of Salem.
Walnut Lake, in *Minnesota*, a township of Faribault co., about 33 m. S.E. of Mankato.
Wal'pole, SIR ROBERT (Earl of Oxford), an English statesman, born at Houghton, 1676. In 1705 he was ap-

pointed Secretary at War, and, in 1708, he became the leader of the Whig party in the House of Commons; but when the Tories, under Harley and St. John, obtained power, *W.* was, with other members of the late Whig administration, voted by the Commons to have been guilty of corruption, and ordered to be expelled the house. The Whig party, however, strenuously supported him, and he was re-elected to Parliament, though the house declared the election void. At the accession of George I., the Whigs again became the leading party, and *W.* was made Paymaster-general of the Forces. Distinguishing himself by his zeal for the welfare of the Hanoverian dynasty, as well as by his able conduct as a politician, he acquired so much consideration, that, during the troubles caused by the rebellion of the Pretender, he was nominated First Lord of the Treasury and Chancellor of the Exchequer. In 1721 he was appointed Prime-Minister. After holding office with great firmness during 20 years, he was compelled to resign, and was created Earl of Orford. D. 1745.

WALPOLE, Horace, Earl of Orford, the youngest son of the preceding, B. 1707, was elected to parliament in 1741; retired from public life in 1768, and led a life of literary ease at his seat at Strawberry Hill, near Twickenham, where he formed a collection of books, manuscripts, pictures, and other works of art or of curiosity, and set up a printing-press, from which proceeded several elegant works, by himself and others. His best works are his *Letters*. D. 1797.

Wal'pole, in *Massachusetts*, a post-vill. and twp. of Norfolk co., 17 m. S.S.W. of Boston.

Walpole, in *New Hampshire*, a post-vill. and twp. of Cheshire co., 44 m. W.S.W. of Concord.

Walpur'gis Night, *n.* The night of the festival of Walpurga, niece of St. Boniface, the apostle of the Germans. This feast (May 1) is a common day in Germany for the commencement of leases, &c. It is also known as the day on the eve of which, according to popular superstition, the great witch-festival is held on the summit of the Brocken, in the Harz Mountains.

Wal'rus, *n.* (*Zoöl.*) See MORSE.

Wal'sall, a town of England, co. of Stafford, on the Tame, 8 m. from Birmingham. *Manuf.* Carriage-springs, brass and iron utensils, and foundries in both metals. *Pop.* 42,000.

Walsh'ville, in *Illinois*, a township of Montgomery co.

Wal'terborough, in *South Carolina*, a post-town, cap. of Colleton co., 90 m. S.E. of Columbia.

Wal'tham, in *Illinois*, a township of La Salle county.

Waltham, in *Maine*, a post-township of Hancock co., 25 m. S.E. of Bangor

Waltham, in *Massachusetts*, a city and township of Middlesex co., 10 m. N.W. of Boston. The village, situate on Charles river, contains numerous cotton mills, and one of the largest watch manufactories in the U. S. *Pop.* (1895) 20,877.

Waltham, in *Vermont*, a township of Addison co., 33 m. W.S.W. of Montpelier.

Wal'tham Abbey, a town of England, co. of Essex, near the river Lea, 13 m. from London. *Manuf.* Pins. About 3½ m. from it, at a small town called *Enfield*, there is a government factory which annually produces upwards of 10,000 breech-loading rifles. *Pop.* 5,000.

Wal'ther von der Vo'gelweide, the celebrated minnesinger, one of the earliest German poets, belonging to the period called the *Suabian Æra*. He was born probably soon after 1160, and passed his life in going from court to court, patronized successively by Frederick, duke of Austria, Philip, king of the Romans, Otto, margrave of Saxony, Hermann, landgrave of Thuringia, the Emperor Frederick II., and other princes. *W.* made extensive travels, seeing Paris, North Italy, Constantinople, and the Holy Land. In 1206 he took part in the poetical contest on the Wartburg, and in the crusade of Frederick II. in 1228. His poems consist of love-songs and patriotic appeals to his countrymen, possessing in a high degree the best qualities of the poetry of their age.

Wal'ton, in *Florida*, a N.W. co., bordering on Alabama and the Gulf of Mexico; *area*, 1,360 sq. m. *Rivers.* Choctawhatchee and Yellow-water. *Surface*, level; *soil*, generally poor. *Cap.* De Funkiah Springs. *Pop.* 8,000.

Walton, in *Georgia*, a N. central co.; *area*, 390 sq. m. *Rivers.* Appalachee and Alcovy; also, Bay and Cornish creeks. *Surface*, elevated and irregular; *soil*, moderately fertile. *Min.* Iron, gold, and granite. *Cap.* Monroe.

Walton, in *Kan.*, a twp. of Labette co.

Walton, in *Kentucky*, a post-village of Boone co., 20 m. S.W. of Covington.

Walton, in *Michigan*, a twp. of Eaton co.

Walton, in *New York*, a post-village and township of Delaware co., 90 m. W.S.W. of Albany.

Walton, in *Va.*, a twp. of Charlotte co.

Walton, in *West Virginia*, a post-township of Roane co.

Wal'tonham, in *Missouri*, a village of St. Louis co., 12 m. N.W. of St. Louis.

Waltz, (*wawlts,*) *n.* [Ger. *walzer*, from *walzen*, to roll, to wheel; Fr. *valse.*] The name of the German national dance (now naturalized throughout Europe and the U. States), performed by two persons, who, almost embracing each other, whirl rapidly round on an axis of their own, while at the same time they move quickly in a circle, whose radius is proportioned to the dimensions of the room; also, the species of music which accompanies this dance.

—*v. a* To dance a waltz.

Waltz, in the State of *Indiana*, a township of Wabash county.

Waltzer, (*wawlts'er,*) *n.* [Fr. *valseur*, fem. *valseuse.*] A person who dances a waltz.

Waltz'ing, *n.* Act of dancing a waltz.

Wal'worth, in *New York*, a post-village and township of Wayne co., 18 m. E. of Rochester.

Walworth, in *Wisconsin*, a S.S.E. co., bordering on Illinois; *area*, 576 sq. m. It is drained by Honey, Sugar, Geneva, Turtle, and Whitewater creeks. Besides Lake Geneva, 8 m. long, there are 23 smaller lakes. *Surface*, undulating; *soil*, very fertile. *Cap.* Elkhorn.—A post-village and township of the above co., 53 m. S.E. of Madison.

Wamble, (*wŏm'bl,*) *v. n.* [Fries. *vommelen;* Dan. *vammel.*] To experience nauseous disturbance; as, the qualms of a *wambling* stomach. (*L'Estrange.*) (Vulgar.) — To roll or move irregularly to and fro.

—*n.* Nauseous disturbance of the stomach.

Wam'mel, *v. n.* To move with awkwardness or irregularity; — an English provincialism, used chiefly with reference to the movements of machinery.

Wampee', *n.* (*Bot.*) The Chinese name for the fruit of *Cookia punctata*, highly esteemed in China and the Indian Archipelago.

Wampum, (*wŏm'pum,*) *n.* [Ind.] The American Indian name for beads made of shells, formerly used as money, or as a medium of commerce. They were also united to form a broad belt, which was worn as an ornament, and was called *wampumpaque*, or *wampeaque.*

Wamps'ville, in *New York*, a post-village of Madison co., 23 m. E. of Syracuse.

Wanamin'go, in *Minnesota*, a post-village and township of Goodhue co., 20 m. E. of Faribault.

Wan, (*wŏn,*) *a.* [A. S. *wana, wona*, deficient, lacking.] Deficient in, or lacking color; pale; sickly of hue or complexion; languid of look or aspect; as, a countenance thin and *wan.*

—*n.* Pallor; wanness. (R.)

Wand, (*wŏnd,*) *n.* [Dan. *vaand;* Icel. *vöndr*, a twig.] A flexible rod; a small stick, twig, or sapling; as, "A skilful shepherd peel'd me certain *wands.*" (*Shaks.*) — Hence, specifically, a staff of office or authority; as, a chamberlain's *wand.*— Also, a rod used by conjurors or necromancers; as, a long divining *wand.*

Wander, (*wŏn'der,*) *v. n.* [A. S. *wandrian.*] To stray; to rove; to range about; to ramble here and there without any certain course or object in view; as, to *wander* about the country.— To deviate; to roam; to go astray; to depart; to migrate; to depart from the right or true path; to depart from the subject under discussion; as, to *wander* from home, *wandering* thoughts or fancies.— To be delirious; not to be under the guidance and control of reason; as, the mind *wanders.*

—*v. a.* To traverse; to stroll through, or travel over, without a definite course; as, "*Wand'ring* that wat'ry desert."—*Milton.*

Wan'derer, *n.* One who wanders; a rover; a roamer; a rambler; one who deviates from duty or rectitude.

Wandering, (*wŏn'-,*) *n.* Peregrination; a travelling without a settled course. — Aberration; mistaken way; deviation from duty or rectitude. — Uncertainty; want of being fixed; a roving of the mind or thoughts from the point or business in which one ought to be engaged. — The roving of the mind in a dream or in delirium.

Wanderingly, (*wŏn'-,*) *adv.* In a wandering manner.

Wanderoo', *n.* (*Zoöl.*) A species of Macaque, *Macacus silenus.*

Wand'y, *a.* Long and flexible, like a wand or switch.

Wane, *v. n.* [A. S. *wanian, gewanian.*] To be decreased or diminished; as, the *waning* moon. — To fall away; to decline; to sink; to be deficient; as, *waning* health, *waning* favor.

—*n.* Decrease of the illuminated part of the moon's disc. — Diminution; decrease; decline; failure; declension; as, his power is in its *wane.*

Wang, *n.* [A. S. *wange*, the cheek, jaw; Icel. *vângr.*] The jaw or cheek-bone. (Vulgar.) — A slap; a blow; a cuff; as, to hit one a *wang* on the ear.

Wan'gan, *n.* [Ind.] A kind of boat, used chiefly by lumber-men for transporting provisions, tools, and the like; — so called in Maine.

Wanghee', Whanghee', *n.* [Chin. *wang*, yellow, and *hee*, a root.] A species of tough, flexible cane, imported from the E. Indies, said to be the root of the narrow-leaved bamboo, and used for walking-sticks. It has a pale, hard bark, and pliable stem, with internodes of about an inch and a half or two inches, and a number of little holes at the knots.

Wan'go, *n.* A name sometimes given to the BOOMERANG, *q. v.*

Wan'ly, *adv.* In a wan manner; palely.

Wan'ness, *n.* State of being wan; paleness; a sallow, dead, pale hue or complexion.

Wan'nish, *a.* Somewhat wan; palish; as, *wannish* features.

Wanpon'see, in *Illinois*, a township of Grundy county.

Wan'ship, in *Utah*, a post-village, former cap. of Summit co., about 50 m. E. of Salt Lake City.

Want, (*wawnt,*) *n.* [Either from *wanted, pp.* of A. S. *wanian*, to wane, decrease, or by contraction from O. Ger. *unan ist*, it is wanting.] Deficiency; destitution; lack or absence of that which is necessary or useful; scarcity or deprivation of what is needed or desired; as, he exhibits a *want* of common sense; they are in *want* of supplies, &c. — Generally, poverty; penury; indigence: destitution; as, "Habitual superfluities become actual *wants.*"—*Paley.*

—*v. a.* To be deficient of or in; to lack; to be without; to be destitute of; as, to *want* ideas, judgment, sense, learning; to *want* the necessaries of life; — employed impersonally; as, it *wants* a day of the appointed time. —To need; to have occasion for, as useful, proper, or requisite; to require; as, in winter we *want* warm clothing; he *wants* help to carry on business.—To desire; to crave; to wish for; to feel a longing for, or need of; as, what a rational man *wants* in a wife are good looks, good sense, and good temper.— To be defective in; to fall short of; not to contain or have; to be lacking in respect of, or to the amount of; as, there *wants* one more than eleven to make up a dozen.

—*v. n.* To fall short; to be deficient or lacking; to fail; not to be sufficient. — To be missed; not to be present; as, the party was complete, *wanting* one. — To fail; to omit; to neglect; as, he *wanted* not in the keeping his appointment.

Wa'n't. A vulgar contraction of *was not.* (Used colloq.)

Want'age, *n.* Deficiency; lack; that which is wanting.

Wan'tage, in *New Jersey*, a township of Sussex co. *Pop.* (1897) 3,460.

Want'ing, *p. a.* Absent; deficient; not at hand or forthcoming; as, one of the set is *wanting.* — Slack; remiss; lax; as, I shall not be found *wanting* in zeal.

Wanton, (*wŏn'tun,*) *a.* [W. *chwantu*, to lust.] Gay; sportive; airy; frolicsome; quick and irregular of motion; moving or flying loosely or buoyantly; as, "Her tresses . . . in *wanton* ringlets wav'd." (*Milton.*)—Loose; unrestrained; as, a *wanton* tongue. — Luxuriant; overgrown; superfluous; as, the *wanton* growth of tropical vegetation. — Not regular; turned fortuitously. — Deviating from moral rectitude; licentious; sensual; dissolute. — Hence, lustful; lascivious; libidinous; infringing the laws of chastity; as, *wanton* pleasures.

—*n.* A trifler; an insignificant flutterer; as, "A beardless boy, a silken *wanton.*" (*Shaks.*) — A pet; — a term of slight endearment; as, "Peace, my *wantons.*" (*Ben Jonson.*) — A lascivious person; a lewd man or woman, more particularly the latter.

—*v. n.* To revel; to play loosely or unrestrainedly; to frolic; to move nimbly and irregularly. — To play lasciviously; to indulge in lewd sports.

Wan'tonly, *adv.* Lasciviously; loosely; without regularity or restraint; sportively; frolicsomely; playfully.

Wan'tonness, *n.* Gayety; frolicsomeness; waggery; sportiveness. — Negligence of restraint; licentiousness; as, acts of popular *wantonness.* — Lasciviousness; lewdness; lechery; as, the *wantonness* of a goat.

Wan'y, *a.* Wanting or diminished in some parts; not of uniform size throughout; — said especially of sawed boards or timber when tapering or uneven, from being cut too near the outside of the log.

Wap, *v. a.* and *n.* Same as WHOP, *q. v.*

Wapakoneta, in *Ohio*, a post-village, cap. of Auglaize co., 95 m. W.N.W. of Columbus.

Wapan'see, in *Illinois*, a former township of Grundy county.

Wapel'la, in *Illinois*, a post-village and township of De Witt co., 18 m. S. of Bloomington.

Wapello, in *Iowa*, a post-village and township, cap. of Louisa co., 42 m. S.S.E. of Iowa City.

Wapentake, (*wŏp'en-tāke,* sometimes *-tăk,*) *n.* [A.S. *wæpentac.*] In England, one of the territorial sub-divisions into which the county of York is divided; they are the same as the *hundreds* of other counties.

Wapinshaw, (*wŏp'in-shaw,*) *n.* Same as WEAPONSHAW, *q. v.*

Wap'iti, *n.* [Iroquois Ind.] (*Zoöl.*) See DEER.

Wapp, *n.* (*Naut.*) On shipboard, the rope which serves to set taut the shrouds in wall-knots.

Wappatoo', WAPPATO, *n.* The name given by the Indians of Oregon to the edible bulb of *Sagittaria variabitis*, eaten by them as food.

Wap'pe, *n.* A yelping cur.

Wap'per, *n.* A name given to some of the smaller species of the river gudgeon.

Wap'ping, *n.* The yelping of a dog. (R.)

Wap'pinger's Creek, in *New York*, falls into the Hudson River from Dutchess co.

Wapsin'onoc, in *Iowa*, a township of Muscatine county.

Wapsipin'icon River, in *Iowa*, rises in Howard co., and flows into the Mississippi, 25 m. N.E. of Davenport, after a S.E. course of 200 m.

Wap'wallopen Creek, in *Pennsylvania*, flows into the Susquehanna from Luzerne co.

War, *n.* [Fr. *guerre;* It. and Sp. *guérra.*] State of opposition or contention; act of opposition or hostility; disposition to enmity, or inimical action. — A hostile contest between nations or states, carried on by force, either for resisting aggression or invasion, or for revenging insults and redressing injuries, for the extension of commerce or acquisition of territory, or for gaining and establishing the superiority and prestige or the dominion of one over the other; declared hostilities; open appeal to, and arbitrament by, arms. — Instruments, munitions, and appliances of war; as, "His complement of stores, and total *war.*" (*Prior.*)—Poetically, army; forces.—Art of war; profession of arms. See ARMY, ARTILLERY, BATTLE, CAVALRY, FORTIFICATION, INFANTRY, MARTIAL LAW, NAVY, &c.

Civil war, an internecine war or conflict between different sections or parties of the same nation or country. —*Holy war.* See CRUSADE. — *Public war*, a contest by force between independent sovereign states. — *War-department, war-office*, that branch of the civil service of government which has charge of, and supervision over, all matters having reference to war.

—*v. n.* To fight; to contend; to strive violently; to be in opposition; as, ideas which common sense *wars* against. — To make war; to attack or invade a nation or state with force of arms; to carry on hostilities, or to be in a state of contention by violence; as, "Our countrymen were *warring* on that day." —*Byron.*

War, *v. a.* To meet in hostile action; to make war upon. —To carry on, as a strife or contest; as, "He teacheth my hands to *war*." — 2 *Sam.* xxii.

Waraju' River, in *Minnesota*, rises in Murray co., and flows into the Minnesota river, W. of Marrah Tankah Lake, after an E. course of 80 m.

Waras'din, a fortified town of Austrian Croatia, on the Drave, 114 m. from Vienna. *Manuf.* Silk-spinning. *Pop.* 9,500.

War'-beat, War-beaten, *a.* Same as WAR-WORN, *q.v.*

War'beck, PERKIN, or PETEREIN, a pretender to the English throne, who assumed the character and title of Richard, Duke of York, one of the princes supposed to have been murdered in the Tower. Being defeated in arms, he was executed in the reign of Henry VII., 1499. Some obscurity still remains about his history.

Warble, (*wŏr'bl,*) *v. a.* [Ger. *wirbeln*, to warble.] To sing or utter musically with a quick and varied voice, or with vibrations; to trill; to modulate with turns or variations; as, the lark *warbles* his song. — To carol; to utter melodiously; to modulate; as, to *warble* a lay or tune.—To cause to quaver, trill, or vibrate; as, thou *warbled* string.

—*v. n.* To sing with a varied voice, or with trillings or variations, as a bird.—To be uttered melodiously; to be quavered or modulated.

—*n.* Act of warbling; also, a song; a quavering or trilling modulation of the voice.

War'bler, *n.* A singer; a songster; one who, or that which, warbles; — commonly applied to birds; as, the feathered *warblers*.

(*Zoöl.*) See SYLVICOLA, and SYLVICOLIDÆ.

War'bling, *a.* Making, or giving forth, melodious notes.

—*n.* Singing; act of shaking or modulating notes.

War'blingly, *adv.* In a warbling or melodious manner.

War'burton, ELIOT, an English author and traveller, born in 1810, was educated at Cambridge, and lost in the steamer "Amazon," June 4, 1852, while en route to America. His principal works are, *The Crescent and the Cross*, which, in 1859, had reached its 15th edition; *Hochelaga, or the New World; Darien*; *Prince Rupert and the Cavaliers*.

Ward, *a.* [A. S. *weard*; O. Sax. and O. Fries. *ward.*] An affix indicating tendency or direction to, or motion toward, &c., employed in the construction of a large class of words; as in *upward*, *downward*, *skyward*, &c.

Ward, *v. a.* [A. S. *weardian*, to guard; *weard* = Ger. *wärter.*] To guard; to keep in safety; to watch over; as, to *ward* the gates of a city.—To defend; to protect; as, to *ward* a person from danger. — To repel; to turn aside, as anything injurious or mischievous that approaches; to fend off; — generally preceding *off;* as, to *ward off* a blow; to *ward off* a thrust in fencing; to *ward off* an objection.

—*v. n.* To stand on the defensive with a weapon.

—*n.* Act of guarding; watch; vigilance; as, to keep watch and *ward*. — One who is appointed to guard, watch, and defend; a warden.—Custody; durance; confinement under guard; state of a minor under guardianship; as, he was placed in *ward*.—A garrison; defence; protection; fortification; one who, or that which, guards or defends; as, "the castle's *ward*." (*Spenser.*)—Hence, guard made by a weapon in fencing; as, "Thou know'st my old *ward*." (*Shaks.*) — A certain district, division, or quarter of a town or city; as, he belongs to the Fourth *Ward*.—A minor or person under the care of a guardian or guardians; as, a *ward* in chancery.—A tract or division of a forest.— One of the apartments into which an hospital is divided; as, a fever *ward*. — A part of a lock which corresponds to its proper key, and prevents any other key from opening the lock.

Ward, EDWARD MATTHEW, (*wawrd,*) R.A., an English artist, B. in London, 1816. He became a student of the Royal Academy in 1834, repaired to Rome two years afterwards, resided there till 1839, and, on his homeward journey, visited Munich, where he made a brief sojourn, for the purpose of acquiring from Cornelius, the great German painter, instruction in fresco. In 1840 he exhibited at the Royal Academy his *King Lear*. His first success was obtained in 1843, by his painting called *Dr. Johnson perusing the Manuscript of the Vicar of Wakefield*. After this time, his works attracted the attention of art-patrons and the public; and he continued to increase in skill and power as an artist with every fresh effort. His best productions may be cited as being: *Scene in Lord Chesterfield's Ante-room in* 1748; *The Royal Family of France in the Prison of the Temple*; *The Last Sleep of Argyle*; and *Charlotte Corday going to Execution*. D. 1879.

Ward, in *Indiana*, a twp. of Randolph co.

Ward, in *Iowa*, a twp. of Clarke co.

Ward, in *New York*, a township of Allegheny co., 4 m. E. of Belmont.

Ward, in *Ohio*, a twp. of Hocking co.

Ward, in *Penna.*, a twp. of Tioga co.

Warden, (*wôrd'n,*) *n.* [O. Eng. *wardein.*] A guardian; a keeper; a custodian. — An officer who keeps and guards; as, the *warden* of a prison. — A large, hard pear adapted for baking and stewing.

Warden of a college, the president, master, or chief dignitary.— *Warden pie*, a pie made of warden pears.— *Lord Warden of the Cinque Ports.* (Eng.) See CINQUE PORTS.

War'denry, War'denship, *n.* Office or jurisdiction of a warden.

Ward'er, *n.* [From *ward.*] One who wards; a keeper; a guard; a custodian. — A staff or truncheon, which, when thrown down by the judge of a tournament, stayed further proceedings.

Ward'ian Case, *n.* [From W. B. *Ward*, the inventor.] A close glass case placed upon a trough containing soil, and accurately fitted to it, intended for the growth of plants in the windows of apartments.

Ward'robe, *n.* [*Ward* and *robe*; Fr. *gurderobe.*] A room or apartment where clothing or wearing apparel is kept; or, more generally, a portable closet or piece of furniture for hanging up wearing apparel. — Hence, wearing apparel in general; articles of dress and decoration; as, a sumptuous *wardrobe*.

Ward'-room, *n.* (*Nav.*) In large ships of war, the cabin set apart for the accommodation of officers ranking as lieutenants. Small vessels of war have no ward-room.

Wards'borough, in *Vermont*, a post-township of Windham co., 93 m. S.W. of Montpelier.

Ward'ship, *n.* Guardianship; care and protection of a ward; right of jurisdiction over a ward. — Pupilage; state of being under a guardian; minority.

Wards'man, *n.* One who keeps watch or ward.

Ware, (*wĕr,*) *n.*; *pl.* WARES. [A. S.; D. *waar;* Dan. *vare;* Icel. *vara.*] (Chiefly used in the plural.) Merchandise; goods; commodities; fabrics; — this term, although originally and rightfully a collective noun, may be used plurally, when articles of traffic or merchandise of different kinds are in question; it is also very frequently employed in composition; as, earthen*ware*, hard*ware*, glass*ware*, tin*ware*, china*ware*, &c.

Ware, a town of England, in Hertfordshire, on the Lea, abt. 3 m. from Hertford. *Pop.* 5,500.

Ware, in *Georgia*, a S.E. co., bordering on Florida; *area*, 800 sq. miles. *Rivers.* Santilla, also, Little Hurricane Creek. *Surface*, flat, and in great part occupied by swamps, the largest of which is the Okefonokee, 30 m. long, and 17 broad; *soil*, sandy and fertile. *Cap.* Waycross. *Pop.* (1897) 10,350.

Ware, in *Massachusetts*, a river which rises in Worcester co., and falls into the Connecticut River in Hampden co. — A post-village and township of Hampshire co., 80 m. S.W. of Boston. It contains numerous cotton and woollen mills, and manufactories of straw goods, and iron-, copper-, and tin-wares.

War Eagle, in *Arkansas*, a township of Madison county.

Ware Creek, in *Virginia*, a township of New Kent co.

Wareham, (*wair'hăm,*) a town of England, in Dorsetshire, near the mouth of the river Frome, 9 miles from Poole. Its chief traffic consists in exporting pipe-clay. *Pop.* 8,000.

Ware'ham, in *Massachusetts*, a post-village and township of Plymouth county, 40 miles south-southeast of Boston.

Ware'house, *n.*; *pl.* WAREHOUSES. [*Ware* and *house.*] A storehouse for wares or goods; a magazine; a depot; a factory. — *Bonded warehouse*, a building in which dutiable and excisable articles can be stored during the period which intervenes between their importation or production and their consumption.— See WAREHOUSING SYSTEM.

—*v. a.* To deposit or place for safety in a warehouse, as merchandise, &c. — To deposit in the government warehouse or custom-house stores, to be kept until duties are paid, as certain ratable or excisable goods or commodities.

Ware'houseman, *n.* A person who receives goods and merchandise to be stored in his warehouse for hire.

(*Law.*) A *W.* is bound to use ordinary care in preserving goods and merchandise stored in his warehouse, and his neglect to do so will render him liable to the owner. The *W.*'s liability commences so soon as the goods arrive, and the crane of the warehouse is applied to raise them into the warehouse.

Ware'housing, (*-houz-,*) *n.* Act of depositing goods, &c., in a warehouse, or in a custom-house store.

Warehousing system. (*Com.*) A plan for storing dutiable and excisable articles during the intervening period between their importation and their consumption. The charge paid for storage of such commodities is as low as possible; and, as a rule, if they are re-exported, or if, being produced at home, they are consigned to foreign countries, no duty at all is paid. The object of such an arrangement is that the tax levied indirectly on consumption may be as light as possible, because the period between the payment of the duty and the consumption of the article is as short as possible. The warehousing system was established in the U. S. by act of Congress of Aug. 6, 1846, called the *Warehousing Act*.

Ware'house Point, in *Connecticut*, a post-village of Hartford co., 13 m. N.E. of Hartford.

Wa'rendorf, a town of Prussian Westphalia, on the Ems, 16 m. from Munster. *Pop.* 5,000.

Wares, *n. pl.* See WARE.

Ware'town, or WAERTOWN, in *New Jersey*, a village of Ocean co., 12 m. S.E. of Tom's River.

War'fare, *n.* [*War* and *fare* = A. S. *faran*, to go.] Contest; strife; struggle; as, literary or journalistic *warfare*. — Specifically, military life; active service in the field; hostilities; war. — Contest with spiritual enemies; as, Christian *warfare*.

War'farer, *n.* One who engages in warfare.

War'fordsburg, in *Pennsylvania*, a post-village of Fulton co., 85 m. S.W. of Harrisburg.

War'-horse, *n.* The horse of a cavalry soldier; a charger.

Warily, (*wā'-,*) *adv.* In a wary or cautious manner; with circumspection; with timorous prudence or wise foresight.

Wariness, (*wā'-,*) *n.* Quality or state of being wary; wise or prudent care to foresee and take precautions against harm or evil; circumspection.

Wark'worth, a village of England, of Northumberland, on the Coquet, 3½ m. from Alnwick. At its S. end stands Warkworth Castle, a seat of the Duke of Northumberland, celebrated for its magnificence.

War'like, *a.* Having the nature or appearance of war; pertaining or relating to war or military service; martial; as, *warlike* preparations. — Fit for war; disposed for war; possessing military instincts; soldierly; as, a *warlike* race.

Warm, (*worm,*) *a.* [A. S. *wearm.*] Having a moderate degree of heat; not cold; as, *warm* blood, *warm* water. —Liable to heat; having prevalence of heat, or little or no winter; tropical; as, a *warm* climate. — Hence, zealous; ardent; fiery; impetuous; habitually excitable or passionate; irritable; easily excited or provoked; not cool, phlegmatic, lukewarm, or indifferent; as, his wife has an unpleasantly *warm* temper of her own; you have my *warmest* wishes. — Characterized by violence, fury, vehemence, or heat of action; as, there will be a pretty *warm* struggle for the senatorship. — Rich; comfortably placed, as regards property or means; beforehand with the world; as, a man worth a million is a *warm* man indeed.

(*Paint.*) Noting such colors as have yellow or yellowish-red for their basis; — in distinction from *cold* colors, which latter mainly consist of blues and their compounds; as, the *warm* tints of a picture by Turner.

—*v. a.* To make warm; to communicate a moderate degree of heat to; to apply or supply heat to: as, a wood-fire *warms* an apartment.—To make engaged or earnest; to interest; to excite ardor or zeal in; to engage; as, "The soul, with great and manly feelings *warmed*." *Ch'l.*

—*v. n.* To grow warm; to become moderately heated. — To become ardent, animated, or zealous.

Warm'er, *n.* The person who, or thing which, warms.

Warm'ful, *a.* Giving warmth; serving to warm.

Warm'-hearted, *a.* Cordial; sincere; hearty; generous; feeling lively interest or affection; as, a *warm-hearted* man.

Warm'ing-pan, *n.* A long-handled, covered pan, to contain lighted coals for warming a bed.

War'minster, a town of England, in Wiltshire, 18 m. from Salisbury; *pop.* 5,500.

War'minster, in *Pennsylvania*, a post-township of Bucks co.

Warm'ly, *adv.* In a warm manner; with gentle heat. — Eagerly; ardently; earnestly; passionately; zealously; as, he *warmly* expressed his sympathy.

Warm'ness, *n.* Warmth. (R.)

Warm Springs, in *Georgia*, a post-village of Meriwether co., 36 m. N.N.E. of Columbus. The mineral spring at this place has a temperature of 90°, and discharges 1,400 gallons per minute.

Warm Springs, in *N. Carolina*, a post-village of Buncombe co., 290 m. W. of Raleigh.

Warm Springs, in *Virginia*, a township of Bath county.

Warm Springs, or BATH COURT-HOUSE, in *Virginia*, a post-village, cap. of Bath co., 170 m. W.N.W. of Richmond. It is noted for its mineral springs, situated in a narrow valley between two mountain ridges. The largest spring is 40 feet in diameter, and its temperature is 98° Fahr., winter and summer. The water holds in solution muriate, sulphate, and carbonate of lime, and sulphate of magnesia. There are a number of large buildings for the accommodation of visitors.

Warmth, *n.* State or quality of being warm; moderate heat; as, vital *warmth*. — Ardor; fervor; zeal; state of active or lively interest; as, *warmth* of affection. — Animation; earnestness; eagerness; enthusiasm; passion; as, *warmth* of temper, *warmth* of expression, spiritual *warmth*, &c.

(*Paint.*) A tone of color arising from the use of pigments expressive of heat; or the so-called *hotter colors*, as reds, deep-yellows, russet-browns, &c.

Warn, (*worn,*) *v. a.* [A. S. *wyrnan*, to forbid; Ger. *warnen.*] To admonish of any duty; to give notice to; to inform previously; to notify by authority; to summon; as, to *warn* a special committee. — To give notice to of approaching harm, danger, or evil, that it may be avoided; to caution against anything that may prove inimical or injurious; to admonish against evil practices; as, to *warn* one against intended treachery.

Warn'er, *n.* One who warns or admonishes.

War'ner, in *New Hampshire*, a post-vill. and twp. of Merrimac co., 16 m. N.W. of Concord.

War'ner's Land'ing, in *Wisconsin*, a post-village of Vernon co., abt. 18 m. S. of La Crosse.

War'ner's Ranch, in *California*, a township of San Diego co.

Warneton, (*warn'tawng,*) a town of Belgium, in West Flanders, on the Lys, 10 m. from Ypres. *Manuf.* Chocolate and starch. *Pop.* 6,842.

Warning, *n.* Admonition; caution; notification against risk or danger, or against such evil practices or pursuits as are suggestive of, or liable to, danger. — Previous notice or intimation; as, to discharge a servant without *warning*.

Warn'ingly, *adv.* In a warning or admonitory manner.

War'-office, *n.* The office of the war department of a kingdom or state; or the place in which the military affairs of a country are superintended and managed.

Warp, (*worp,*) *v. n.* [A. S. *weorpan, wurpan;* Ger. *werfen.*] To turn or incline from a straight, true, or proper course; to swerve; to deviate; as, "Methinks my favor here begins to *warp*." (*Shaks.*) — To turn, twist, or be twisted out of a straight direction, or as by shrinking; as, green timber will *warp*.—To wind yarn off bobbins to form the warp of a web. — To turn and wave, or fly with an undulatory motion, like a flock of birds or swarm of insects.—To slink; to drop the young prematurely; — said of domestic animals.

—*v. a.* To turn or twist out of shape, or out of a straight direction, as by shrinking or otherwise, as boards, &c. —To cause to bend or incline; to turn aside from the true direction; to pervert; as, his mind is *warped* by

prejudice.—To slink, or cast prematurely, as the young of cattle, sheep, and the like.

(*Naut.*) To tow or move with a line or warp attached to buoys, to anchors, or to other ships, &c., by which means a ship is drawn usually in a bending course, or with various turns.

(*Rope-making.*) To run off the reel into hauls, to be tarred.

(*Agric.*) To fertilize by letting the tide upon, for the deposition of slimy matter, as laud.

Warped surface. (*Geom.*) A surface which may be generated by a straight line moving so that no two of its consecutive positions shall he in the same plane.

Warp, *n.* (*Weaving.*) The longitudinal threads of a woven fabric; they are crossed by the transverse threads, or *woof.*

(*Naut.*) A rope employed in drawing, towing, or moving a ship or boat; a tow-line; a hawser.—A premature dropping of young;—said of certain domestic animals.

(*Agric.*) The deposit of muddy waters artificially introduced into low lands.—State of being warped, shrunk, or twisted; as, the *warp* of a plank.

Warp'age, (*-aj,*) *n.* A charge per ton made on shipping in some harbors.

War'-paint, *n.* Paint of various colors, with which American Indians and other savages streak or tattoo their skin, preparatory to going on a warlike expedition.

War'-path, *n.* The route taken by a party of Indians proceeding on a hostile expedition.

Warp'er, *n.* One who, or that which, warps, twists, or contracts.

(*Weaving.*) One who prepares the warp of webs.

Warp'ing, *n.* Act of one who warps, or that which warps.—Art, process, or business of preparing the warp of webs for the weaver.

(*Agric.*) A mode of increasing the fertility of tillage lands on the banks of rivers liable to be overflowed by their waters.

Warp'ing-bank, *n.* A bank of earth raised round a field to retain water let in for the purpose of enriching land.

War'-proof, *n.* Courage or valor that has undergone the test of war.

Warp'-thread, *n.* (*Weaving.*) One of the threads which compose the warp.

War'rant, (*wŏr'-,*) *v. a.* [Fr. *garantir*; It. *guarantire*; from A. S. *warian, werian.*] To give a guaranty to; to authorize; to give power or authority to, as to do or forbear anything, by which the person authorized is secured or held harmless from any loss, damage, or detriment by such act; as, these thoughts cannot *warrant* you from suspicion in others.—To declare with assurance or confident anticipation; as, I *warrant* he who is born to be hanged will never be drowned.—To justify; to maintain, support, or verify by authority, proof, or evidence; as, one is *warranted* in assuming this to be a fact.

(*Law.*) To assure; to secure to, as a grant to a guarantee.—To secure, as the valid title of goods to a purchaser; or, to provide indemnification in the event of loss.—To guarantee to a purchaser the quality or quantity of goods or articles sold, as being equal to that which they are represented to be; as, *warranted* Sheffield cutlery.

—*n.* An act, instrument, or obligation, by which one person authorizes another to do some thing which he has not otherwise a right to do; an act or commission investing one with a certain right, power, or authority, and thus securing him from loss, damage, or detriment; anything which warrants, authorizes, or justifies the doing of; as, the breaking of rules by others is no *warrant* for our doing so likewise.—That which serves as guaranty, security, or assurance for anything; as, his word alone is sufficient *warrant.*—A voucher; that supplies proof or attestation; as, a pretender to piety hacks his imposture by Scriptural *warrant.*—A writing or document which empowers a person to receive money, goods, or other thing or things; as, a *warrant* for the transfer of bonded spirits.

(*Crim. Law.*) The authority issued by a justice of the peace for the apprehension of some one. The *W.* should be under hand and seal of the justice; should set forth the time and place of making it, and the cause for which it is made; and should name the person against whom it is granted. It is good for the county in which it is issued, but cannot be enforced in another without being backed by a justice of that county. The officer is justified in apprehending the party at any time, and even in breaking open the doors of a house in pursuit of him.

(*Mil.*) A certificate of rank issued to commissioned officers.

Dock-warrant. (*Com.*) A custom-house license or permit. (England.)

Warrant of attorney. (*Law.*) A power given by a client to his attorney to appear and plead for him, or to suffer judgment to pass against him by confession. It authorizes a creditor to enter up judgment and levy execution, and is frequently granted as a security for a debt.—*Warrant-officer.* (*Army and Navy.*) A non-commissioned officer, as sergeant-major, sergeant and corporal in the army; or gunner, boatswain, and carpenter in the navy.

War'rantable, *a.* That may be warranted or authorized by commission, rescript, or right; justifiable.

War'rantableness, *n.* Quality of being warrantable.

War'rantably, *adv.* In a manner that may be warranted, justified, or defended.

Warrantee', *n.* One to whom a warranty is made.

War'ranter, *n.* One who warrants.

Warrantor', *n.* (*Law.*) One who makes a warranty.

War'ranty, *n.* Warrant; security; guaranty.

(*Law.*) As regards things personal, it is the general rule that a purchaser of goods and chattels may have a satisfaction from the seller, if he sells them as his own and the title proves deficient, without any express warranty for that purpose; but that with regard to the goodness of the things so purchased, the vendor is not bound to answer, unless he has expressly warranted them to be good, or unless he has in any way misrepresented them; but a warranty is implied in certain cases by the custom of trade or the nature of the contract.

(*Insurance.*) A stipulation or agreement on the part of the insured party, in the nature of a condition.—*An express W.* is a particular stipulation introduced into the written contract by the agreement of the parties. *An implied W.* is an agreement which necessarily results from the nature of the contract: as that the ship shall be sea-worthy when she sails on the voyage insured.—An express *W.* usually appears in the form of a condition, expressed or directly implied in the phraseology of the policy, stipulating that certain facts are or shall be true, or certain acts are or shall be done by the assured, who by accepting the insurance ratifies the stipulation. Where the stipulation relates wholly to the future, it is a promissory condition or *W.* An express *W.* must be strictly complied with; and the assured is not permitted to allege, in excuse for non-compliance, that the risk was not thereby affected, since the parties have agreed that the stipulated fact or act shall be the basis of the contract, unless compliance is rendered illegal by a subsequent statute. The doctrine of the *W.*, and conditions in the different species of insurance, has been the subject of a great mass of jurisprudence.

—*v. a.* To guarantee; to warrant; to vouch for.

Warren, (*wŏr'ren,*) *n.* [Fr. *garenne*; L. Lat. *warenna.*] A piece of ground appropriated to the propagation and preservation of rabits.—A weir or place for taking fish in a river.

Warren, Joseph, an American patriot, b. in Roxbury, Mass., 1741. He graduated at Harvard College in 1759, studied medicine, and settled in Boston, where he soon acquired an extensive practice. He warmly embraced the cause of the colonies in the controversy with the British government, and, in 1772, was made a member of the committee of correspondence formed for the purpose of communication with the several towns in Massachusetts. In 1774, he was elected a delegate to the Massachusetts congress, of which he was made president, and also chairman of the committee of public safety. On June 14, 1775, he received a commission as major-general; and when a majority of the council of war determined to fortify Bunker Hill, he insisted on having a share in the action that would take place. As he was warned by Elbridge Gerry against the hazard of exposing his person: "I know that I may fall," was the answer of *W.*; "but where is the man who does not think it glorious and delightful to die for his country?" His glorious death, June 17, 1775, has been noticed under Bunker Hill, *q. v.* His statue, by Henry Dexter, was inaugurated on Bunker Hill, June 17, 1857.

Warren, in *Arkansas*, a post-village and township, cap. of Bradly co., abt. 100 m. S.E. of Little Rock.

Warren, in *Connecticut*, a post-village and township of Litchfield co., 40 m. W. of Hartford.

Warren, in *Georgia*, a N.E. central co.; *area*, 264 sq. m. *Rivers.* Ogeechee; also Rocky Comfort creek. *Surface*, diversified: *soil*, moderately fertile. *Min.* Granite and soapstone. *Cap.* Warrenton. *Pop.* (1897) 11,680.

Warren, in *Idaho*, a post-village of Idaho co.

Warren, in *Illinois*, a W. co.; *area*, 540 sq. m. *Rivers.* Henderson; also Ellison's and Swan creeks. *Surface*, level; *soil*, fertile. *Min.* Stone-coal and limestone. *Cap.* Monmouth. *Pop.* (1897) 22,810.—A post-village of Jo Daviess co., 145 m. W.N.W. of Chicago.

—A township of Lake co.

Warren, in *Indiana*, a W. co., bordering on Illinois; *area*, 360 sq. m. It is bounded on the S.E. by the Wabash river. *Surface*, undulating; *soil*, fertile. *Cap.* Williamsport. *Pop.* (1897) 11,350.

—A township of Clinton co.

—A post-vill. of Huntington co., 85 m. N.E. of Indianapolis.

—A township of Marion co.

—A township of Putnam co.

—A township of St. Joseph co.

—A township of Warren co.

Warren, in *Iowa*, a S. central co.; *area*, 576 sq. m. *Rivers.* South and Prairie; also Squaw and Otter creeks. *Surface*, generally level; *soil*, productive. *Min.* Stone-coal. *Cap.* Indianola. *Pop.* (1895) 18,506.

—A township of Bremer co.

—A township of Keokuk co.

—A township of Lucas co.

—A township of Poweshiek co.

Warren, in *Kentucky*, a S.S.W. co.; *area*, 530 sq. m. It is traversed by Big Barren river. *Surface*, undulating; *soil*, fertile. *Cap.* Bowling Green. *Pop.* (1897) 31,480.

Warren, in *Maine*, a post-village and township of Knox co., 40 m. E.S.E. of Augusta.

Warren, in *Maryland*, a post-village of Baltimore co., 48 m. N. of Annapolis.

Warren, in *Massachusetts*, a river which rises in Bristol co., and falls into Narragansett Bay in Rhode Island.

—A post-village and township of Worcester co., 73 miles S.W. of Boston.

Warren, in *Michigan*, a post-township of Macomb co.

Warren, in *Mississippi*, a W. co., bordering on Louisiana; *area*, 590 sq. m. *Rivers.* Mississippi, Big Black, and Yazoo. *Surface*, low and flat, except in the W.; *soil*, very fertile. *Cap.* Vicksburg. *Pop.* (1897) 34,900.

Warren, in *Missouri*, an E. co.; *area*, 435 sq. m. *Rivers.* Missouri; also Bear, Charette, Massies, Peruque, and Smith creeks. *Surface*, undulating; *soil*, fertile. *Cap.* Warrenton. *Pop.* (1897) 10,460.—A township of Camden co.—A post-village and township of Marion co., 95 m. N.N.E. of Jefferson City.

Warren, in *New Hampshire*, a post-township of Grafton county.

Warren, in *New Jersey*, a N.W. co., bordering on Pennsylvania; *area*, 360 sq. m. *Rivers.* Delaware, Musconetcung, Paulinskill, and Pequest. *Surface*, mountainous; *soil*, fertile in the valleys. *Min.* Magnetic and hog iron, brown hematite, zinc, manganese, marble, soapstone, and roofing-slate. *Cap.* Belvidere. *Pop.* (1895) 37,283.

—A township of Somerset co.

Warren, in *New York*, an E.N.E. co., bordering on Lake George; *area*, 940 sq. m. *Rivers.* Hudson and Schroon. *Surface*, hilly; *soil*, inferior. *Min.* Iron, black-lead, limestone, and marl. *Cap.* Caldwell. *Pop* (1897) 28,600.

—A post-township of Herkimer county, 70 m. S.W. of Albany.

Warren, in *North Carolina*, a river which forms the boundary between Granville and Warren cos., and enters the Roanoke river on the border of Virginia.

—A N. co., bordering on Virginia; *area*, 454 sq. m. *Rivers.* Roanoke and Warren; also Fishing creek. *Surface*, undulating; *soil*, fertile. *Cap.* Warrenton. *Pop.* (1897) 21,200.

Warren, in *Ohio*, a S.W. co.; *area*, 428 sq. m. *Rivers.* Great Miami and Little Miami; also Cæsar's, Todd's, and Clear creeks. *Surface*, undulating; *soil*, very fertile. *Cap.* Lebanon. *Pop.* (1897) 26,650.—A township of Belmont co.—A township of Jefferson co.—A fine city and township, capital of Trumbull co., 160 m. N.E. of the city of Columbus.

—A township of Tuscarawas co.

—A township of Washington co.

Warren, in *Pennsylvania*, a N.N.W. co., bordering on New York; *area*, 855 sq. m. *Rivers.* Allegheny; also Broken Straw, Conewanga, Teonesta, and Kenjua creeks. *Surface*, hilly; *soil*, generally fertile. *Cap.* Warren. *Pop.* (1897) 39,300.—A township of Bradford co.

—A township of Franklin co.

—A post-borough, capital of Warren co., 120 m. N.N.E. of Pittsburg.

Warren, in *Rhode Island*, a post-village and township of Bristol co., 10 m. S.E. of Providence.

Warren, in *South Carolina*, a township of Colleton co.

Warren, in *Tennessee*, a S.E. county; *area*, 450 sq. m. *Rivers.* Collins, and the Caney Fork of Cumberland River. *Surface*, hilly; *soil*, generally fertile. *Cap.* McMinnville.

Warren, in *Vermont*, a post-township of Washington co., 16 m. S.S.W. of Montpelier.

Warren, in *Virginia*, a N. co.; *area*, 250 sq. m. *Rivers.* The Shenandoah and its N. Fork. *Surface*, hilly; *soil*, generally fertile. *Min.* Copper, iron, limestone, and manganese. *Cap.* Front Royal.

Warren, in *Wisconsin*, a township of Waushara county.

War'ren Creek, in *Utah*, a township of San Pete county.

War'renham, in *Pennsylvania*, a post-village of Bradford co., abt. 14 m. S.E. of Oswego, N. Y.

War'reusburg, in *Missouri*, a fine city and township, cap. of Johnson co., 98 m. N.W. of Jefferson City. *Pop.* (1897) 5,250.

Warrensburg, in *New York*, a post-village and township of Warren co., 65 m. N. of Albany.

War'ren's Store, in *Alabama*, a township of Hale co.

War'rensville, in *Illinois*, a post-village of Du Page co., 30 m. S.W. of Chicago.

Warrensville, in *Ohio*, a post-village and township of Cuyahoga county, 154 miles north-northeast of Columbus.

Warreusville, in *Pennsylvania*, a post-village of Lycoming co., abt. 7 m. N.N.E. of Williamsport.

War'renton, in *Alabama*, a township of Dallas co.—A post-village, former cap. of Marshall co., 135 m. N.E. of Tuscaloosa.

Warrenton, in *Mississippi*, a post-vill. of Warren co., on the Mississippi, 8 m. S. of Vicksburg.

Warrenton, in *Missouri*, a post-village, cap. of Warren co., 75 m. E.N.E. of Jefferson city.

Warrenton, in *N. Carolina*, a post-village and township, capital of Warren county, 63 miles N.N.E. of Raleigh.

Warrenton, in *Ohio*, a post-village of Jefferson co., on the Ohio River, 11 m. S. of Steubenville.

Warrenton, in *Virginia*, a post-town, cap. of Fauquier co., 100 m. N.W. of Richmond.

War'rentown, in *Pennsylvania*, a village of Armstrong co., 47 m. E.N.E. of Pittsburg.

War'rick, in *Indiana*, a S.W. co., bordering on the Ohio River; *area*, 336 square miles. It is traversed by Big Pigeon and Little Pigeon creeks. *Surface*, undulating; *soil*, fertile. *Min.*, Coal. *Capital*, Booneville.

War'rington, a town of England, in Lancashire, on the Mersey, 5 m. from Newton. *Manuf.* Fustians, corduroys, glass-ware, hardware, soaps, pins, files, &c. *Pop.* 28,000.

Warrington, in *Pennsylvania*, a post-township of Bucks co., 6 m. N.W. of Doylestown.—A township of York co.

Warrior, (*wŏr'ri-ur,*) *n.* A person engaged in war or military life; emphatically, a brave man; a veteran soldier; a man of approved military skill and valor.

War'rior, in the State of *Alabama*, a post-village of Jefferson co.

War'rior's Mark, in *Pennsylvania*, a post-village

and township of Huntingdon co., 105 m. W.N.W. of Harrisburg.

Warsaw, (*waur'saw,*) a city of Russian Poland, and formerly the capital of the Polish kingdom, situated on the Vistula, being connected with Praga, its fortified suburb, by a floating bridge; Lat. 52° 13′ N., Lon. 21° 2′ E. Warsaw consists of an old and new town, independent of its suburbs; the place is one of great antiquity, though possessing few attractions in its streets and older buildings to support its claim as a capital, being, with the exception of a few buildings, wretchedly built. The chief odifices are the council house, a collegiate church, the barracks, Tamek or palace of the ancient kings, now the residence of the Russian viceroy, and containing the diet hall, and all the national archives; the Marieville Bazaar, or a square surrounded with arcades; several statues, some private palaces of the nobility, with the castle and an equestrian statue of Sobieski.—*Manuf.* Woollen stuffs, soap, tobacco, gold and silver wire, hats, hosiery, paper, chemicals, carriages, harness, and, to a small extent, carpeting. It is the centre of industry, commerce, and literary activity of the kingdom, and the great entrepot of commerce in Poland. The university, suppressed by the Emperor Nicholas after the insurrection of 1830, has been reëstablished within recent years through the influence of the Grand-Duke Constantine. In 1566 *W.* succeeded Cracow as the capital of Poland. In 1793 Kosciusko retreated on Warsaw, and defended it with success against the Prussians, during the summer of 1794; but, on the arrival of Suwarrow and the Russians, Praga was taken by assault, and delivered to pillage. Since 1815, Warsaw has been the residence of a viceroy representing the Emperor of Russia; it was also the place of meeting of the Polish parliament. In 1830 the Russians were driven from it by the Poles; but it was, in the following year, retaken. *Pop.* (1897) 484,460.

War'saw, in *Alabama,* a post-township of Sumter county.

Warsaw, in *Illinois,* a town and river port of Hancock county, on the Mississippi, about 3 miles S. of Keokuk.

Warsaw, in *Indiana,* a city, cap. of Kosciusko co., 40 m. W.N.W. of Fort Wayne. *Pop.* (1897) 4,050.

Warsaw (formerly *Fredericksburg*), in *Kentucky,* a post-village, cap. of Gallatin co., on the Ohio, 50 m. below Cincinnati.

Warsaw, in *Minnesota,* a township of Goodhue county.

Warsaw, in *Missouri,* a post-town, cap. of Benton co., 80 m. W.S.W. of Jefferson City.

Warsaw, in *N. Y.,* a p.-v. and twp., cap. Wyoming co., 45 m. S.E. of Buffalo. W. is the head-quarters of the extensive Salt industry of the co.

Warsaw, in *O.,* a p.-v. of Coshocton co.

Warsaw, in *Pennsylvania,* a township of Forest co.—A post-village and township of Jefferson co., 7 m. N.E. of Brookville.

Warsaw, in *Virginia,* a post-village, cap. of Richmond co., 70 m. N.E. of Richmond.

War'-song, *n.* A song inciting men to deeds of war:—especially, among the N. American Indians and other savage nations, a song accompanying the war-dance, full of incentive allusions to the past prowess of the tribe, and prophesying deeds of prospective valor.

Wart, (*wawrt,*) *n.* [A.S. *weart.*] (*Med.*) A hard unsightly excrescence or tumor that forms on the cuticle or outer skin, usually of the hand or some other conspicuous place. They are of slow growth, small, insensible, and generally conical in form. The best application for their removal is some caustic or escharotic, as nitrate of silver, caustic potash, or strong acetic acid.

(*Bot.*) A hardened protuberance found on some plants.

War'ta, or WARTHA, a river of Poland, rising 35 m. from Cracow, and, after a course of 450 m., joining the Oder at Custrin, or Kustrin, in the prov. of Brandenburg.

Wart'-hog, *n.* (*Zoöl.*) A name given to the African swine of the genus Phacochœrus (*F. Cuv.*), from the large warty protuberances on each cheek.

Wart'y, *a.* Having warts; full of, or overgrown with, warts; as, a *warty* skin, a *warty* leaf.—Of the nature or character of warts.

War'-whoop, (*-hwhōōp,*) *n.* [*war* and *whoop.*] The whooping cry or shout uttered by Indians when in conflict with an enemy.

War'wick, RICHARD NEVILLE, EARL OF, "the Kingmaker," was B. about 1428. He was the eldest son of Richard Neville, Earl of Salisbury, and having by marriage become possessor of the immense estates of the Beauchamp family, was created Earl of Warwick, when about the age of twenty-one. His personal character and great abilities, his enormous wealth and lavish expenditure, and his extended and important family connections, made him at once the mightiest English noble of his time, and the favorite of the people. The story of his life would be also that of the *Wars of the Roses,* in which he is the most prominent figure. A family alliance with Richard, Duke of York, father of Edward IV., led him to take the side of the house of York, and his dashing courage at the battle of St. Alban's in 1455, when he led the van, chiefly decided the victory of the Duke of York. In 1460, *W.,* who was then governor of Calais, landed in Kent with an army, was joined by large numbers, marched on London, and on July 10, defeated the Lancastrians at Northampton, and took Henry VI. prisoner. Queen Margaret escaped, and raised an army, with which she defeated the Duke of York at Wakefield in December, and the Earl of Warwick at St. Alban's in February, 1461. But these victories were fruitless, for *W.,* joined by Edward, now Duke of York, compelled the royal army to retire to the north, and occupied London, where Edward was at once proclaimed king. *W.,* at first loaded with honors, did not long retain the favor of the king. Edward, growing uneasy under the dominion of the haughty earl, married Elizabeth Woodville in 1464, and raised to his favor persons adverse to *W.,* who, in turn, made alliance with Queen Margaret, 1470, and married his younger daughter to Prince Edward, son of Henry VI. *W.* then invaded England with a fresh force, proclaimed and restored Henry VI., and with the Duke of Clarence, Edward's brother, entered London in triumph. But once more the tide turned; Edward, landing in Yorkshire in March, 1471, won the decisive victory of Barnet, April 14, at which the King-maker and his brother, Lord Montagu, were killed.

Warwick, (*wor'ik,*) a town of England, cap. of co. of same name, 20 m. from Birmingham. It is of great antiquity, and justly celebrated for its castle, the principal

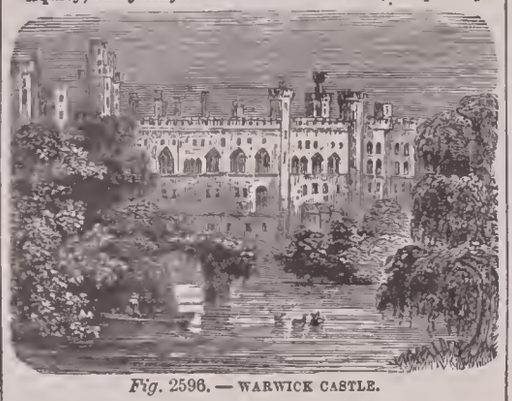


Fig. 2596.—WARWICK CASTLE.

residence of the earls of Warwick (Fig. 2596), beautifully situated on a rocky elevation, on the banks of the Avon. Of this edifice, Guy's Tower, 128 feet high, was built in 1394; and Cæsar's Tower, still more ancient, is 147 feet high. *Pop.* 10,570. In 1871 the castle was partly destroyed by fire, but was rebuilt almost immediately by public contribution.

War'wick, in *Md.,* a p.-vill. of Cecil co.—In *Mass.,* a p.-twp. of Frankin co., 72 m. W.N.W. of Boston.

Warwick, in *New York,* a post-village and township of Orange co., 110 m. S.W. of Albany.

Warwick, in *Ohio,* a township of Tuscarawas county.

Warwick, in *Pennsylvania,* a township of Bucks county.—A post-township of Chester county.—A village and township of Lancaster county, 9 m. N.E. of Lancaster.

Warwick, in *Rhode Island,* a post-township of Kent co., 10 m. S.W. of Providence.

Warwick, in *Virginia,* a S.E. co., bordering on James river; *area,* 165 sq. m. *Surface,* diversified; *soil,* fertile. *Cap.* Newport News. *Pop.* (1897) 10,250.

—A village, former cap. of the above co.

Warwick Neck, in *Rhode Island,* a point of land in Kent co., projecting into Narraganset Bay, near the S. extremity of which, at the entrance to E. Greenwich Harbor, is a light-house with a fixed light; Lat. 41° 34′ 12″ N., Lon. 71° 27′ W.

War'wickite, *n.* (*Min.*) Native borotitanate of magnesia and iron, met with in dark-brown to black crystals, in granular limestone, near Edenville, New York.

War'-worn, War'-beaten, (*-bēt'n,*) *a.* Worn with military service, or long and hard campaigning; as, a *war-worn* veteran, a *war-worn* uniform.

Wa'ry, *a.* Circumspect; heedful of danger; cautiously watching and guarding against deception, artifices, and dangers of whatsoever kind; timorously prudent; scrupulous; as, a *wary* leader, a *wary* diplomatist.—Guarded; careful; mindful.

Was, (*wŏz.*) The past tense of the substantive verb *to be;* as, I *was,* he *was,* she *was.*

Was'co, in *Oregon,* a N. co., bordering on Washington. *Rivers.* Columbia, John Day, and Des Chutes, or Fall river. *Surface,* mountainous on the W., where Mount Hood, a peak of the Cascade Range, attains an elevation of 14,000 feet; *soil,* generally unfertile. *Cap.* The Dalles. *Pop.* (1897) 10,100.

Wasc'eca, in *Minnesota,* a S. co.; *area,* 430 sq. m. It is drained by Le Sueur river. *Surface,* undulating; *soil,* fertile. *Cap.* Waseca. *Pop.* (1895) 14,713.

Wash, (*wŏsh,*) *v. a.* [A. S. *wœscan, wacsan;* Du. *waschen;* Ger. *waschen;* Dan. *vaske.*] To cleanse by ablution or lavatory operation; to purify by dipping or rubbing in water; to apply water or liquid to for the purpose of cleansing; as, to *wash* the hands or face, to *wash* linen, to *wash* sheep, to *wash* a floor or pavement, and the like.—To wet, by covering with water;—hence, to overflow or dash against; as, waves *wash* the base of a cliff.—To separate extraneous matter from; to abrade or disintegrate by the force of moving water; as, the inundations *washed* away the levee.—To remove from, or take away by the action of water; to draw or drag off;—used in conjunction with *off, out,* or *away;* as, the colors are *washed out,* he was *washed off* his feet, &c.—To rub over or coat thinly with some liquid substance; as, to *wash* a picture with a glaze of varnish.—To overlay with a thin surface of metal; as, glass *washed* with quicksilver.

To wash gold, or other ores, to apply water to crushed ores, in order to separate the metallic particles through their superior gravity.

To wash a ship. (*Naut.*) To wash and scrape a ship by careening her over.

—*v. n.* To cleanse one's self by the use of water; to perform the customary act of ablution.—To perform the operation of cleansing clothes, linen, &c., in water; as, to hire a woman to *wash.*—To bear without detriment the operation of washing; as, will this cloth *wash?*—To be abraded or worn away by the action of water, as by a torrent or inundation, or by the dashing of the sea.

—*n.* Act of washing or ablution; lavatory operation; a washing or wetting with water; a dipping or steeping in water—hence, the quantity of linen belonging to a person or family washed at one time; as, to send one's things to the *wash.*—A bog; a marsh; a fen; the shallow part of a river or arm of the sea; or, a tract of land sometimes covered with water and at other times left dry.—Matter collected by water; alluvion, or substances collected and deposited by water; as, the *wash* of a sewer.—Waste liquor and kitchen refuse; as, hog *wash.*—In distilling, the fermentable liquor produced by dissolving the proper subjects for fermentation and distillation in common water.—That with which anything is wetted, washed, coated, &c., upon the surface; as, (1.) A color spread or floated thinly over broad masses or spaces of a picture to make it appear the more natural. (2.) A thin coat of metal, or other substance, laid on boards or other work for beauty or preservation. (3.) A cosmetic for the complexion; as, a face-*wash;* also, a preparation for improving the hair; as, a hair-*wash.* (4.) A lotion; a medical preparation in a liquid form, to be applied externally; as, a black *wash.*—In England, the quantity of ten strikes of oysters.

(*Naut.*) The blade of an oar, or the broad, thin part which cleaves the water.

Wash'able, *a.* That may be washed or cleansed.

Wash'a, a lake of *Louisiana,* 12 m. long, abt. 12 m. S.W. of New Orleans, and connected by several bayous with the Gulf of Mexico.

Wash'-ball, *n.* A ball of soap used in ablutions.

Wash'-board, *n.* A board with a ribbed or fluted surface on which linen, &c. is rubbed in course of being washed.—The mop-board of a room.

(*Naut.*) A movable piece of board placed above the gunwale of a boat, or elsewhere, to prevent the water from washing over.

Wash'burn, in *Arkansas,* a township of Logan co.—A township of Sebastian co.

Washburn, in *Illinois,* a post-village of Woodford co., on the Chicago & Alton R.R. *Pop.* (1897) 710.

Washburn, in *Maine,* a post-town of Aroostook co., on the Aroostook river. *Pop.* (1897) 1,120.

Washburn, in *Wisconsin,* a village of Grant co., about 16 m. E. of Lancaster.

Washer, (*wŏsh'ĕr,*) *n.* One who, or that which, washes.—An iron ring between the nave of a wheel and the linch-pin.—A piece of iron, leather, &c., in the form of a flattened ring, interposed between the surface of wood, &c., and the head or nut of a bolt, to protect the surface from being damaged during the process of screwing up; it is also used to render screen and other junctions air-tight.

Wash'erman, *n.* A man employed in laundry-work.

Wash'erwoman, *n.* A laundress.

Wash'-gilding, *n.* Same as WATER-GILDING.

Wash'-house, *n.* An apartment, usually in an outbuilding, for washing linen, &c.; a laundry.

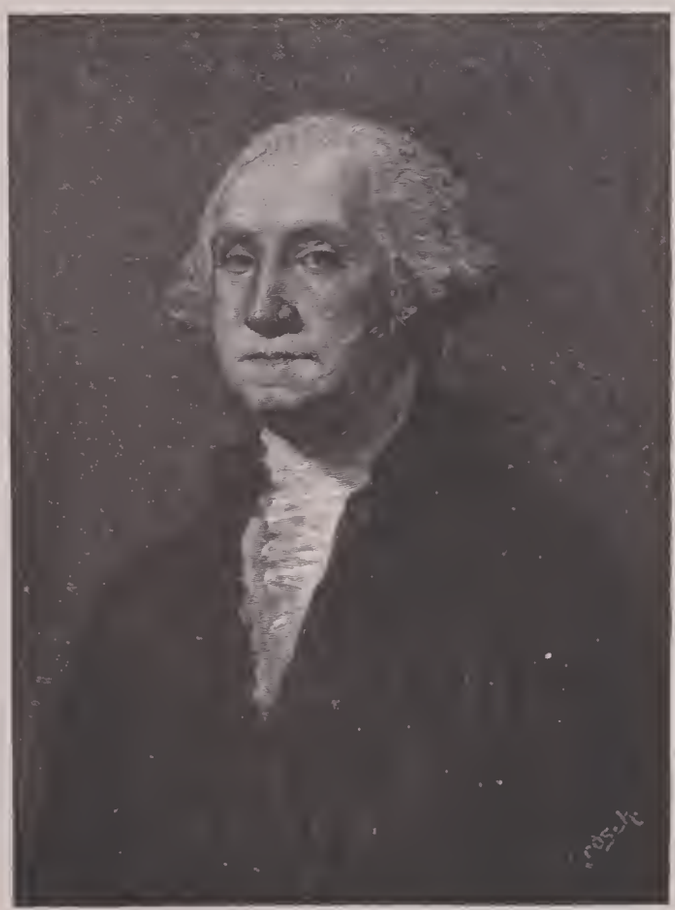
Wash'iness, *n.* State or quality of being washy.

Washing, (*wŏsh'-,*) *n.* Ablution; act of one who washes or cleanses with water.—A wash, or the quantity of clothes, linen, &c., washed at one time; as, he owes for a month's *washing.*

Wash'ing-machine, (*-ma-sheen',*) *n.* A machine used in laundries.

Wash'ing-stuff, *n.* Among gold miners, any deposit of earth containing gold enough to pay for working and washing it.

Wash'ington, GEORGE, the leader of the American revolution, and first President of the United States, B. in Westmoreland co., Va., February 22, 1732; son of Augustine *W.,* and his second wife, Mary Ball; a descendant of John *W.,* who emigrated to Virginia from England about 1657, whose family has been satisfactorily traced in England to the 12th century, and to the co. of Durham. Augustine *W.* died in 1743, when George was in his 12th year. He left a large landed property to his widow and 5 children. To his eldest son Lawrence he gave an estate on the Potomac, afterwards so famous as Mount Vernon; George inherited that on the Rappahannock occupied by the father at the time of his death; a plantation of 600 to 700 acres was bequeathed to each of the other children; while the income of the whole property was given to the mother till the sons respectively should come to age. The education of George, obtained at an ordinary school, comprised little more than reading, writing, and arithmetic; but between his 14th and 16th years he studied geometry and surveying, in which he made considerable progress. Though it has been questioned if he knew any language but English, it is understood that he studied French after the responsibilities of command had fallen on him, for the purpose of holding communication with the auxiliaries sent from France to join the army of independence. On the other hand, his practical acquirements were precociously developed. When but sixteen years old he was employed in surveying the vast wilderness owned by his connection, Lord Fairfax, in the district of the Alleghany Mountains. He pursued the profession of a surveyor, which, in a country then full of estates, utterly unknown in character and extent to their owners, was a lucrative one; and he is said to have thus obtained an unconscious training for his subsequent warlike operations by acquiring a minute acquaintance with some parts of the country, and a knowledge of the general characteristics



George Washington

1732–1799

of the whole. Before he was twenty years old he received an important command as adjutant-general of one of the military districts into which Virginia was divided to resist the Indians, and his genius raised him to a more important command in the American war with France in 1754. In a mission across the frontiers to ascertain the objects of the French, he discovered through his extraordinary sagacity the plans of aggrandizement which led ultimately to the destruction of French power in America. He distinguished himself in the war which then broke out, and as all this occurred before he was twenty-three years old, his history decidedly supports the theory that the faculty of the military commander is generally developed early in life. In 1759, *W.* married Mrs. Martha Custis, a widow. She brought considerable property to add to *W.*'s large estates, and for some years his hands were as full of business, in the management of private property and attendance on the provincial legislature, as they ever afterwards were when he was at the head of the Union. It was one of his peculiarities that he carried out small matters with the same articulate organization as large. He slurred over nothing, and his household books, of which facsimiles have been extensively circulated, would have stamped him as a pedantic trifler, had they not exemplified the same rigid adherence to system and accuracy of detail with which he subsequently organized the government of a great nation. He took an unnoticeable

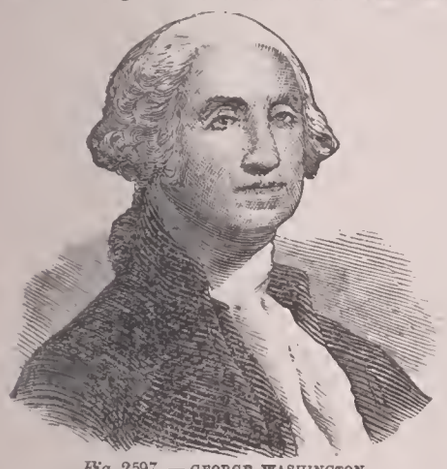


Fig. 2597. — GEORGE WASHINGTON.

but active part in his own province, in the preparations for the assertion of independence. He was appointed one of the delegates from Virginia to the first general congress in 1774, and had the command of the independent companies of the State. Still, his position had never been brilliant or even conspicuous, and it is perhaps the most remarkable instance of that common sense which characterized the revolution, that the supreme command of the army of Independence should have fallen into his hands. He became commander-in-chief on the 15th of June, 1775. The history of *W.*, from this period, is the history of the revolutionary war, to be found in other parts of this work. Suffice it to say that he created the American army; fought the English generals, Howe, Clinton, Burgoyne, and Cornwallis, with various results; till, finally, he surrounded Cornwallis at Yorktown, and compelled him to capitulate. To his intrepidity, prudence, and moderation, this country is almost wholly indebted for the independence which was secured to it by the treaty of peace concluded in 1783. Soon after this event, *W.* resigned his commission to Congress, and in his address on that occasion, the magnanimity of the hero was blended with the wisdom of the philosopher. He returned to his seat at Mount Vernon (*q. v.*), and, like Cincinnatus of old, he returned to his former and favorite pursuits of agriculture. The federation of the States having failed to afford an efficient government, Washington proposed conventions for commercial purposes, which led to the Convention of 1787, of which he was a member, which founded the present federal Constitution, considered by him as the only security against anarchy and civil war. Under this Constitution he was chosen President, and inaugurated at New York, April 30, 1789. His government was marked by that well-tempered prudence which distinguished all his conduct. Having been reëlected as President, he held office till 1797, when he again retired to his estate at Mount Vernon. In 1797, when there arose a difficulty with France, threatening hostilities, he was appointed lieutenant-general and commander-in-chief, a post which he accepted with extreme reluctance, but with that spirit of obedience to the call of duty which had been the governing rule of his life. On the 12th of December, 1799, he was exposed in the saddle, for several hours, to cold and snow, and attacked with acute laryngitis, for which he was repeatedly and largely bled, but sank rapidly, and died, Dec. 14. *W.* was childless, but most happy in his domestic relations. He was mourned even by his enemies, and deserved the record: "First in peace, first in war, and first in the hearts of his countrymen." The following estimate of the character and intellect of the great American patriot is from President Jefferson: — "His mind was great and powerful, without being of the very first order; his penetration strong, though not so acute as that of a Newton, Bacon, or Locke; and, as far as he saw, no judgment was ever sounder. It was slow in operation, being little aided by invention or imagination, but sure in conclusion. Hence the common remark of his officers of the advantages he derived from councils of war, where, hearing all suggestions, he selected whatever was best; and certainly no general ever planned his battles more judiciously; but, if deranged during the course of action, if any member of his plan was disarranged by sudden circumstances, he was slow in readjustment. The consequence was, that he often failed in the field, but rarely against an enemy in station, as at Boston and York. He was incapable of fear, meeting personal danger with the calmest unconcern. Perhaps the strongest feature in his character was prudence, never acting until every circumstance, every consideration, was maturely weighed; refraining, if he saw a doubt; but, when once decided, going through with his purpose, whatever obstacles opposed. His integrity was the most pure, his justice the most inflexible, I have ever known; no motives of interest or consanguinity, of friendship or hatred, being able to bias his decision. He was, indeed, in every sense of the word, a wise, a good, and a great man. His temper was naturally irritable and high-toned; but reflection and resolution had obtained a firm and habitual ascendency over it. . . . . His person was fine, his stature exactly what one could wish. Although in the circle of his friends, where he might be unreserved with safety, he took a free share in conversation, his colloquial talents were not above mediocrity, possessing neither copiousness of ideas nor fluency of words. In public, when called on for a sudden opinion, he was unready, short, and embarrassed. Yet he wrote readily, rather diffusely, in an easy and correct style. He read little, and that only on subjects of agriculture and English history."

Wash'ington, the capital of the United States of America, is situated in the District of Columbia, on the E. bank of the Potomac river, 160 m. from its mouth, 39 m. S.W. of Baltimore, 136 m. from Philadelphia, 226 m. from New York, 432 from Boston, 497 m. E. from Cincinnati, 700 m. from Chicago, 856 m. from St. Louis, 2,000 m. from San Francisco, and 1,033 m. N.E. from New Orleans; Lat. (taken from the Capitol) 38° 52′ 20″ N., Lon. 77° 0′ 15″ W. The natural situation of *W.* is pleasant and salubrious, and it is laid out on a plan which renders it one of the handsomest and most commodious cities in the world. The city covers an area of 10 sq. miles, or, including Georgetown (now West Washington) and the country sections of the district, 70 sq. miles. Of the area of the city proper, more than half is occupied is occupied by streets, parks, &c., there being 235 miles of streets, mostly paved with asphalt, and planted with shade trees, of which there are in all over 85,000. The city possesses numerous small parks and other reserved spaces, and possesses besides a zoölogical park of 140 acres, 600 acres of improved park and forest at the National Soldiers' Home, two miles from the city, and the Rock Creek Park of over 1,500 acres, purchased in 1892, which extends for miles along a picturesque stream and through forest land. The architecture of the newer portions of the city is of great beauty and attractiveness, being rendered strikingly so by its many imposing public buildings. Chief among these is the Capitol, in which the sessions of the National Congress are held and the Supreme Court holds its sittings. This edifice (Fig. 2551), conspicuously placed on an eminence, is a noble example of classic architecture, 751 feet long and 285 to the top of its dome, its total cost being about $14,000,000. The Senate Chamber, 112 by 82 feet, has galleries for 1,000 spectators. The Hall of Representatives is 139 by 93 feet, with galleries for 1,500. The rotunda under the dome contains national paintings by Trumbull, Weir, Vanderlyn, Powell, Chapman, &c., while the interior of the building is highly ornamented by rich marbles, frescoes, groups of statuary, and other adornments. The other more prominent public edifices of the city include the Treasury Department building, a granite Ionic edifice, built at a cost of $7,000,000; the Doric structure of the Department of the Interior, containing the Patent Office; the Corinthian marble edifice of the Post-office Department; the Renaissance granite structure of the State, War, and Navy departments, and the newly constructed Congressional Library building, of white granite, in Italian Renaissance style, built at a cost of $6,000,000. The Presidential mansion, known as the "White House," is a plain freestone edifice, which may soon be replaced with a building of more striking architecture. There may be named, in addition, the buildings of the Agricultural Department, the Department of Justice, the Pension Office, the National Museum, the Army Medical Museum, the Smithsonian Institution, &c. One of the most striking erections in the city is the Washington Monument, a towering white marble obelisk, 555 feet in height. The public institutions of the city are numerous, including various asylums, hospitals, homes, &c., free public museums, libraries and art galleries, and various educational institutions, embracing Georgetown College (1789), Columbian University (1814), the Catholic University of America (1887), the American University, the National Deaf Mute College, &c. The city is adorned with an abundance of statuary, many of the heroes and statesmen of the Republic being reprodnced in bronze. *W.* has numerous clubs and an abundance of literary and scientific societies, including the Anthropological, Philosophical, and Biological and other scientific societies, the Columbia Historical, and a number of literary and patriotic societies. It is also a center for conventious of a great variety of character, Convention Hall accommodating an audience of 10,000 people. Two of its institutions have a world-wide fame in the world of science, the Smithsonian Institution and the National Museum, each possessing great collections and being the center of a vast amount of valuable scientific work. —*Hist.* *W.* was founded in 1790, and became the seat of government of the U. S. in 1800. Its capitol and other public buildings were burned by the British army in 1814, and the navy yard by the Americans. These have all been rebuilt on a greater scale, though *W.* made no great progress until after the Civil War. Since then its development has been rapid, and it has grown into perhaps the most beautiful capital city in the world. *Pop.* (1860) 61,122; (1890) 230,392; (1900) 278,718.

Washington, one of the States of the American Union, the 42d in order of admission, and, with the exception of Alaska, the most N.W. section of the U. S. It is bounded N. by British Columbia, S. by Oregon, E. by Idaho, and W. by the Pacific Ocean, and lies between Lat. 45° 30′ and 49° N., and Lon. 117° and 125° W. Maximum length E. to W. 345 m., breadth N. to S. 230 m., area 69,180 sq. m., or 44,275,200 acres.—*Gen. Desc.* *W.* has a coast line of about 250 m. in length. In the N. the State is separated from Vancouver's Island by the Strait of Juan de Fuca, which forms part of the inland sea known as Puget Sound. The Sierra Nevada mountains of California take the name of the Cascades, or Cascade Range, in Oregon and Washington, traversing the latter in a nearly N. and S. course, at an average distance from the coast of 100 m. This range separates the State into unequal divisions, the E. and W., which differ from each other in climate, soil, geological character, and natural productions. The loftiest peaks in this range are Mt. Rainier (14,444 ft.) and Mt. Baker (10,827 ft.). The Coast Range does not traverse the entire breadth of the country, but is located between Hood's Canal and the ocean, in the N.W. portion of the State. Mt. Olympia, the highest peak in this range, attains an altitude of 8,200 feet, being visible at sea many miles from the coast. Around and from the base of this main sierra the mountains descend to spurs foot-hills, which abruptly terminate at the Pacific coast. The division of the State west of the Cascade Range embraces the Puget Sound Basin, the Coast Range district, the valley of the Chehalis, and the region drained by the Lower Columbia and its N. tributaries. Puget Sound is the general name popularly given to the vast ramification of waters known geographically by the various names of Strait of Juan de Fuca, Puget Sound, Admiralty Inlet, and Hood's Canal, together with a great number of bays, inlets, and harbors, each having a separate name. This great maze of waters constitutes one of the finest bodies of inland water in the world. Nothing can exceed the beauty of these waters and their safety. Not a shoal exists within the Strait of Juan de Fuca, Admiralty Inlet, or Hood's Canal, that can interrupt their navigation by the largest vessels. These waters cover in all an area of about 2,000 sq. m. The Strait of Juan de Fuca is 95 m. long and 11 m. in average width. It connects by Puget Sound with Admiralty Inlet, which extends from 60 to 70 m. into the State, and with Hood's Canal and the multitude of smaller inlets and bays. The shores of all these inlets are bold and the adjoining waters usually deep, so much so that in many places a large vessel can moor directly against the shore without need of wharfage. The country surrounding these waters is remarkably salubrious, and presents every advantage for the development of a vast commercial and naval marine, with conveniences for docks, and many suitable locations for mercantile cities. No part of the world affords finer inland sounds or a greater number of harbors suitable for vessels of the largest class than may be found within the Strait of Juan de Fuca. These waters extend from 47° to 49° N. Lat., covering an area of 1,500 sq. m., and with a total shore line of 1,594 m. The Columbia river, traversing the whole breadth of the State from N. to S. and forming a large section of its southern boundary, constitutes a main artery for travel and transportation of merchandise and produce from the interior to the Pacific, forming a highly important channel of communication between the sections of country separated by the Cascade Mountain range. The principal affluents of this noble stream are Lewis Fork, and Clarke and Spokane rivers.—*Soil and Products.* The soil in the western valleys is very generally fertile, while between the Cascades and the eastern boundary of the State the plain of the Columbia presents a sterile, barren region, nearly destitute of wood and water. The valleys of the Puyallup and Stock rivers, emptying into Puget Sound, afford a large quantity of good tillable land. The soil in the river bottoms is thinly timbered with maple, ash, elm, balm, and willow. These lands yield heavy crops of cereals, while vegetables reach an enormous size. The highlands are generally of a rolling character, and well adapted to cultivation. In the valley of the Skagit river, rising in the Cascade Range, and of other streams also embouching into Puget Sound, are found large tracts of cleared lands possessing highly fertile soil. In the valley of the Skokomish river, which takes its rise in the Coast Range and empties into Hood's Canal, some 30 m. N.E. of Olympia, the soil is equal to the best bottom land in the W. States. The average yield of potatoes to the acre is 60 bushels; wheat, 40; peas, 60; timothy grass, 5 tons, and oats, 70 bushels. Into Hood's Canal, at different points from 5 to 30 m. below the mouth of the Skokomish, several smaller streams emerge, the valleys of which are marked by the same general features as that of Skokomish. The Chehalis river, rising in the Cascades not far north of the Columbia, and navigable for light-draught steamers a distance of 60 m. from Gray's Harbor, into which it

falls, borders a valley which is the richest and most extensive body of tillable land in the W. section, and well deserves the title accorded to it—that of the garden of *W.* This valley varies in breadth from 15 to 50 m. Cowlitz Valley, bordering on the Columbia, has fine agricultural land, both prairie and bottom. The field, orchard, and garden products of the section W. of the Cascade Range are similar to those of the Willamette Valley, in Oregon. The crops of wheat, barley, and oats are equal to those of any other part of the continent. In fruits, the apple, pear, cherry, and plum are abundant, and of excellent quality. The coolness of the nights is unfavorable to the maturing of Indian corn, peaches, and grapes, yet in well-sheltered nooks in the valleys these are successfully cultivated. In the central portion of the State, situated between the Cascades and the Columbia river, with the exception of certain valleys, the soil is generally thin, sterile, stony, and dry. On the tributaries of the Yakima river, however, particularly toward its upper waters, the land is highly fertile and well adapted to most crops. The same is true of Yakima Valley itself. Timber of large growth is scarce in this section of *W.*, with the exception of that found in the country along the N. feeders of the Yakima, where good building pine is abundant. *Eastern W.* differs in almost every respect from the western section of the State. Much of it is essentially a prairie country, its surface composed of disintegrated lava, coming from the immense lava flow that at one time covered this whole region. This forms a soil unsurpassed for its elements of fertility, but over much of its area the rainfall is insufficient for agriculture, and irrigation is necessary to the profitable tillage of the fields. The mountainous region N. of Spokane river, forming the N.E. section of the State, is mostly occupied by Indian reservations, though the Colville Valley, which is open to settlement, contains much good land and valuable timber. The Walla-Walla Valley, in the S.E. quarter of this region, between the Columbia river and the Blue Mountains, contains over a million acres of arable land. Large quantities of grain and produce are shipped from this region down the Columbia to a ready market. In the Columbia and Palouse valleys are immense tracts of land adapted to cereals, and in this locality, too, sheep-raising succeeds admirably. The forests from the Cascade Range to the Pacific form a dense mass of some of the finest timber growths in the world, affording many examples of trees 400 ft. high, and 14 ft. in diameter near the ground. The principal varieties are several kinds of fir, interspersed with spruce, hemlock, tamarac, white cedar, maple, ash, white oak, and, on some of the mountain slopes, white pine. Puget Sound is now the greatest timber mart of the Pacific seaboard, while the abundance of coal, water-power, and iron ore in the vicinity of navigable waters, together with fine harbors, large saw-mills, and natural facilities for manufacturing cordage, all clearly indicate that the Puget Sound country will at no distant day occupy a prominent position in ship-building. Vast quantities of lumber, besides wheat and fish are annually exported to Australia, Japan, China, the islands of the Pacific, and ports on the W. coast of South America.—*Climate.* The climatic characteristics of *Eastern W.* in winter correspond with those of Pennsylvania, while the summers are dry and hot. The annual rainfall is only about one-fourth as much as in the vicinity of Puget Sound. W. of the Cascade range, the meteorological conditions differ essentially from those of the E. section. It is not unusual for the winter months to be mild, without snow or ice. The agricultural productions of Eastern *W.* are principally wheat, oats, barley, hops, and hay. Hops are one of the most important crops, the yield of 1890, an unusually heavy one, being 42,476 bales. As much as 3,000 lbs. of hops to the acre are reported from the most prolific fields. Other crops are Indian corn, rye, flax, and garden vegetables generally. The State, like its sister State of Oregon, excels in fruits, including apples, pears, prunes, cherries, and the small berries. The lack of rain, as already stated, is being in a considerable measure replaced in the central region of the State by irrigation; where what was once a spread of sage-brush plains is being rapidly converted into a fertile region of farms. There were 48,000 acres of irrigated land under cultivation in 1890, and a considerably larger area has been since brought under water culture, millions of dollars having been invested in irrigating works. Alfalfa, hops, fruits, and vegetables form the principal crops of the irrigated section, while the Yakima Valley, which forms the center of this section, grows also large numbers of watermelons for export.—*Min.* Coal exists in abundance between Puget Sound and the Cascades, and is found throughout the district extending from Bellingham Bay to the Chehalis Valley, and also near the headwaters of the Yakima, the total coal-bearing area being thousands of square miles in extent. The coal is of the bituminous variety, and the mines have been developed to a considerable extent, yielding over a million tons yearly, much of which is shipped to San Francisco. There are large deposits of iron ore, though as yet they have been little worked. The other minerals include gold, silver, lead, copper, zinc, antimony, nickel, bismuth, and some other metals, while granite, sandstone, lime, marble, and valuable clays exist. The islands of Puget Sound, which are so numerous and of such size that two entire counties—Island and San Juan—are formed of them, supply most of the lime used in the State. Little has as yet been done to develop the mineral wealth of the State other than its coal. Two large smelters are in operation at Tacoma and Everett, but the wealth of precious metals awaits active measures of development. The total product of gold up to date has been something over $1,000,000 in value, that of silver only about $20,000, but there will probably be a much larger yield in the future.—*Pol. Div.* *W.* is divided into 34 counties, as follows:

Adams,	Franklin,	Lincoln,	Spokane,
Asotin,	Garfield,	Mason,	Stevens,
Chehalis,	Island,	Okanogan,	Thurston,
Clallam,	Jefferson,	Pacific,	Wahkiakum,
Clarke,	King,	Pierce,	Walla-Walla,
Columbia,	Kitsap,	San Juan,	Whatcom,
Cowlitz,	Kittitas,	Skagit,	Whitman,
Douglas,	Klickitat,	Skamania,	Yakima,
	Lewis,	Snohomish,	

Prin. towns.—Olympia (the capital), Seattle, Tacoma, Spokane Falls, Walla-Walla, Port Townsend, &c.—*Manuf.* *W.* possesses considerable water-power, the falls of Spokane being estimated to yield 35,000 horse-power, which is being utilized by manufacturers. Large flour mills are located here and at other towns through the eastern section, while the principal manufactures in the western section are those of iron, lumber, bricks, and tiles. The capital employed in productive enterprises in 1890 aggregated $34,369,735. Seattle and Tacoma were the principal manufacturing centers, while since that date the city of Everett has become active in production. There are numerous saw and shingle mills, sash and door factories, &c., the capital employed in these plants being about $30,000,000.—*Fisheries.* The most productive salmon fisheries in the world are those of the Columbia river, though of late years they have become greatly depleted by over-fishing. In 1880, the catch was 40,000,000 lbs., of which 22,000,000 were canned. The greatest pack for any one year was in 1883, 629,000 cases. Since then there has been a large decrease, but fish culture promises to restore much of the former yield of the salmon. The sturgeon and oyster-fisheries are also valuable.—*Communication.* A transcontinental railroad, the Northern Pacific, entered Washington in 1885, since which several main lines or important branches of railway have been built in the State, the mileage being about 3,000, of which more than 1,200 miles belong to the Northern Pacific and its branches. Steamboating is active on the Columbia and Snake rivers, but Puget Sound is the principal seat of water transportation.—*Educ.* Provision has been made for public schools by setting aside section 16 or 36 of every township, the total being 2,484,480 acres, whose minimum price is fixed at $10 an acre. In addition to the public schools, there are the University of Washington, several colleges and normal schools, an agricultural college, and numerous academies and private schools.—*Inhab.* The State contains many remnants of the aboriginal tribes, chiefly Indians of the Spokane, Chinook (or Flathead), Nez Perces, and Shoshone tribes. The Nez Perces and some of the Spokanes have attained agricultural habits, cultivating large fields of grain, while they live in cabins or lodges made of skins. It was the custom among some of the tribes to flatten their heads, a practice which gave them the popular title of Flatheads. This habit is now practically obsolete.—*Hist.* For the early history of this region, see OREGON. *W.* was a part of Oregon Territory until the admission of Oregon, in 1853, when this section was separately organized as Washington Territory. There was subsequently considerable trouble with the Indians. Immigration having set actively in that direction, it was admitted into the Union as a State, Nov. 11, 1889. *Pop.* (1880) 75,116; (1890) 349,390; (1900) 518,103.

Wash'ington, in *Connecticut*, a post-village and township of Litchfield co., 33 m. S.W. of Hartford.

Washington, in *Florida*, a W. co., bordering on the Gulf of Mexico; *area*, 1,340 sq. m. *Rivers.* Choctawhatchee and Econfena. *Surface*, undulating; *soil*, moderately fertile. *Cap.* Vernon. *Pop.* (1897) 7,900.

Washington, in *Georgia*, an E. central co.; *area*, 688 sq. m. *Rivers.* Oconee, Ogeechee, and Ohoopee; also Buffalo creek. *Surface*, undulating; *soil*, generally fertile. *Cap.* Sandersville. *Pop.* (1897) 26,150.—A township of Banks co.—A post-village, cap. of Wilkes co., 53 m. W.N.W. of Augusta.

Washington, in *Illinois*, a S. co.; *area*, 540 sq. m. *Rivers.* Kaskaskia; also Beaucoup, Crooked, and Elk creeks. *Surface*, undulating; *soil*, generally fertile. *Cap.* Nashville. *Pop.* (1897) 21,050.—A township of Carroll co.—A city of Tazewell co., 13 m. E. of Peoria. *Cap.* (1897) 1,520.—A township of Will co.

Washington, in *Indiana*, a S. co.; *area*, 500 sq. m. *Rivers.* Blue, Lost, Muscakituck, and the East Fork of White river. *Surface*, hilly on the E., elsewhere undulating; *soil*, fertile. *Cap.* Salem. *Pop.* (1897) 20,000.—A city, cap. of Davies co. *Pop.* (1897) 6,640.—Also the name of 44 townships in: Adams co.—Allen co.—Blackford co.—Boone co.—Brown co.—Carroll co.—Cass co.—Clarke co.—Clay co.—Clinton co.—Davies co., 106 m. S.W. of Indianapolis.—Dearborn co.—Decatur co.—Delaware co.—Elkhart co.—Gibson co.—Grant co.—Greene co.—Hamilton co.—Harrison co.—Hendricks co.—Jackson co.—Knox co.—Kosciusko co.—Marion co.—Miami co.—Monroe co.—Morgan co.—Newton co.—Noble co.—Owen co.—Parke co.—Pike co.—Porter co.—Putnam co.—Ripley co.—Rush co.—Shelby co.—Starke co.—Tippecanoe co.—Warren co.—Washington co.—Wayne co.—Whitley co.

Washington, in *Iowa*, a S.E. co.; *area*, 576 sq. m. *Rivers.* Iowa, Skunk, and English. *Surface*, undulating; *soil*, fertile. *Cap.* Washington. *Pop.* (1895) 18,845.—Also the name of 33 townships in: Adair co.—Adams co.—Appanoose co.—Black Hawk co.—Bremer co.—Buchanan co.—Chickasaw co.—Clarke co.—Clinton co.—Dallas co.—Des Moines co.—Dubuque co.—Franklin co.—Greene co.—Iowa co.—Jackson co.—Jasper co.—Johnson co.—Jones co.—Keokuk co.—Lee co.—Linn co.—Lucas co.—Marion co.—Montgomery co.—Page co.—Poweshiek co.—Ringgold co.—Taylor co.—Van Buren co.—Wapello co.—Warren co.—Washington co., 40 m. W.S.W. of Muscatine. This township contains a city of same name, cap. of the co. *Pop.* (1897) 3,671.

Washington, in *Kansas*, a N. co., bordering on Nebraska; *area*, 900 sq. m. *Rivers.* Little Blue river and Snake creek. *Surface*, diversified; *soil*, fertile. *Cap.* Washington. *Pop.* (1895) 21,602.—A twp. of Anderson co.—A twp. of Crawford co.—A twp. of Doniphan co.—A city and twp. of Washington co.

Washington, in *Kentucky*, a central co.; *area*, 300 sq. m. It is traversed by Chaplain's Fork of Salt river. *Surface*, undulating; *soil*, fertile. *Cap.* Springfield. *Pop.* (1897) 14,230.—A post-village, former cap. of Mason co., 3 m. S.W. of Maysville.

Washington, in *Louisiana*, an E. parish, bordering on Mississippi; *area*, 660 sq. m. *Rivers.* Pearl and Bogue Chitto. *Surface*, undulating; *soil*, sandy. *Cap.* Franklinton.—*Pop.* (1897) 7,600.—A post-town of St. Landry parish, 7 m. N. of Opelousas.

Washington, in *Maine*, a S.E. co., bordering on the Atlantic and New Brunswick; *area*, 2,480 sq. m. *Rivers.* St. Croix, Schoodic, and E. and W. Machias. *Lakes.* Bascanegun, Schoodic, and several others. *Surface*, undulating; *soil*, fertile. *Caps.* Machias and Calais. *Pop.* (1897) 45,540.—A post-township of Knox co.

Washington, in *Maryland*, a N. co., bordering on Pennsylvania; *area*, 435 sq. m. *Rivers.* Potomac; also Antietam, Conecocheague, and Licking creeks. *Surface*, hilly; *soil*, fertile. *Min.* Iron and limestone. *Cap.* Hagerstown. *Pop.* (1897) 45,380.

Washington, in *Massachusetts*, a post-town and township of Berkshire co., 138 m. N.W. of Boston.

Washington, in *Michigan*, a twp. of Gratiot co.—A post-township of McComb co.—A twp. of Sanilac co.

Washington, in *Minnesota*, an E. co., bordering on Wisconsin; *area*, 400 sq. m. *Rivers.* Mississippi and St. Croix. *Surface*, diversified; *soil*, fertile. *Cap.* Stillwater. *Pop.* (1895) 27,417.—A township of Le Sueur co.

Washington, in *Mississippi*, a W. co., bordering on Arkansas; *area*, 880 sq. m. *Rivers.* Mississippi and Sunflower; also Deer creek. *Surface*, level; *soil*, fertile. *Cap.* Greenville. *Pop.* (1897) 42,440.

Washington, in *Missouri*, an E.S.E. co.; area, 780 sq. m. *Rivers.* Maramec, Big, and Big Black. *Surface*, hilly; *soil*, generally fertile. *Min.* Iron, lead, silver, copper, plumbago, copperas, chalk, and limestone. On the S.E. border is the Iron Mountain, of magnetic iron ore, 300 ft. high, and measuring 1½ m. across the summit. *Cap.* Potosi. *Pop.* (1897) 15,000.—A twp. of Buchanan co.—A twp. of Clarke co.—A twp. of Clay co.—A post-village of Franklin co., 55 m. W. of St. Louis.—A twp. of Jackson co.—A twp. of Laclede co.—A twp. of Monroe co.—A twp. of Osage co.

Washington, in *Nebraska*, an E. co., bordering on Iowa; *area*, 381 sq. m. *Rivers.* Missouri and Papillon; also Fish creek. *Surface*, undulating; *soil*, fertile. *Cap.* Blair. *Pop.* (1897) 13,250.—A township of Nemaha co.

Washington, in *New Hampshire*, a post-township of Sullivan co., 29 m. S.W. of Concord.

Washington, in *New Jersey*, a twp. of Bergen co.—A twp. of Burlington co.—A twp. of Gloucester co.—A twp. of Mercer co.—A village and twp. of Morris co.—A post-borough and twp. of Warren co., 48 m. N.W. of Trenton.

Washington, in *New York*, an E. co., bordering on Lake Champlain; *area*, 861 sq. m. *Rivers.* Hudson, Hoosick, Pawlet, and Poultney. *Surface*, mountainous in the N., elsewhere undulating; *soil*, generally fertile. *Min.* Iron, lead, copper, marble, limestone, slate, and marl. *Cap.* Argyle. *Pop.* (1897) 46,950.—A village and township of Dutchess co., 70 m. S. of Albany.

Washington, in *North Carolina*, an E. co., bordering on Albemarle Sound; *area*, 360 sq. m. *Surface*, level, and mostly covered with swamps. *Cap.* Plymouth. *Pop.* (1897) 11,210.—A post-town, cap. of Beaufort co., 127 m. S.E. of Raleigh.—A township of Guilford co.

Washington, in *Ohio*, a S.E. co., bordering on W. Va.; *area*, 635 sq. m. *Rivers.* Ohio, Muskingum, Little Muskingum. *Surface*, diversified; *soil*, productive. *Min.* Bituminous coal and iron. *Cap.* Marietta. *Pop.* 44,830.—A city, cap. of Fayette co. *Pop.* (1897) 6,250.—Also the name of 43 townships in: Auglaize co.—Belmont co.—Brown co.—Carroll co.—Clermont co.—Clinton co.—Columbiana co.—Coshocton co.—Darke co.—Defiance co.—Franklin co.—Guernsey co., 32 m. N.E. of Zanesville.—Hancock co.—Hardin co.—Harrison co.—Henry co.—Highland co.—Hocking co.—Holmes co.—Jackson co.—Lawrence co.—Licking co.—Logan co.—Lucas co., containing the city of Toledo.—Mercer co.—Miami co.—Monroe co.—Montgomery co.—Morrow co.—Muskingum co.—Paulding co.—Pickaway co.—Preble co.—Richland co.—Sandusky co.—Scioto co.—Shelby co.—Stark co.—Tuscarawas co.—Union co.—Van Wert co.—Warren co.—Wood co.

Washington, in *Oregon*, a N.W. co.; *area*, 645 sq. m. It is traversed by the Tualatin river. *Surface*, mountainous in the N.W., elsewhere diversified; *soil*, fertile. *Cap.* Hillsborough. *Pop.* (1897) 12,500.

Washington, in *Pennsylvania*, a W.S.W. co., bordering on W. Va.; *area*, 890 sq. m. *Rivers.* Monongahela; also Chartier's, Raccoon, Wheeling, and Ten Mile creeks. *Surface*, diversified; *soil*, fertile. *Min.* Bituminous coal and limestone. *Cap.* Washington. *Pop.* (1897) 80,280.—A post-borough, cap. of Washington co., 25 m. S.W. of Pittsburg.—Also the name of 21 townships in: Armstrong co.—Berks co.—Butler co.—Cambria co.—

WASHINGTON

SCALE OF MILES

0 10 20 30 40

State Capital ☆ County Seats ◎

Indian Reservation Boundaries ——

Places of 25,000 and over SEATTLE

" " 10,000 to 25,000 Walla Walla

" " 5,000 to 10,000 Everett

" " 2,000 to 5,000 Republic

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Hammond's 8 x 11 Map of Washington

Longitude 121° West from 120° Greenwich

WASHINGTON.

Land surface,
Sq. m. 66,880
Water surface,
Sq. m. 2,300
Pop. 1900....518,103
White 496,304
African.....2,514
Indian.....10,039
Chuese ... 3,629
Japanese...5,617
Native-born,
406,739
Foreign-born,
111,364
Males.....304,178
Females..213,925

COUNTIES.

Adams .....G 3
Asotin. .....H 3
Chehalis.....B 2
Chelan .....E 2
Clallam .....A 2
Clarke .....C 4
Columbia .....G 3
Cowlitz... ....C 3
Douglas .....F 2
Ferry .....G 1
Franklin .....F 3
Garfield .....H 3
Island .....G 1
Jefferson.....B 2
King .....D 2
Kitsap .....C 2
Kittitas .. . .D 2
Klickitat.....E 4
Lewis .....C 3
Lincoln .....G 2
Masou .....B 2
Okanogan.....E 1
Pacific.....B 3
Pierce. .....C 3
San Juan.....C 1
Skagit .....D 1
Skamania.... C 3
Snohomish....D 2
Spokane.....H 2
Stevens .....H 1
Thurston.....C 3
Wahkiakum ..B 3
Walla Walla ..G 3
Whatcom.....D 1
Whitman ....H 3
Yakima .....E 3

CITIES-TOWNS

Pop. Thousands.

80 Seattle .....C 2
37 Tacoma ....C 2
36 Spokane ...H 2
10 Walla WallaG 3
7 Everett.....C 2
6 Bellingham C 1
4 Ballard.....C 2
4 Olympia ....C 2
4 Vancouver..C 4
3 Aberdeen ...B 3
3 Port Townsend
C 1
3 North Yakima
E 3
2 Roslyn .....E 2
2 Hoquiam ...B 3
2 Port Angeles
B 1
2 Dayton .... H 3
2 Colfax .....H 3
2 Snohomish..C 2
2 Republic....G 1
1 Puyallup....C 2
1 Chehalis.....C 3
1 Ellensburg..E 3
1 Centralia....C 3
1 Blaine .....C 1
1 Anacortes...C 1
1 Pullman ....H 3
1 Montesano ..B 3
1 Mt. Vernon..C 1
1 Steilacoom..C 2
1 Buckley.....C 2
1 Waitsburg..G 3
1 Cosmopolis. B 3
1 Davenport . G 2

Pop. Hundreds.

9 Pomeroy....H 3
9 Palouse ....H 3
9 Oakesdale ..H 2
8 Elma .....B 2
8 Shelton.. ....B 2
7 Northport ..H 1
7 Cheney ... ..H 2
7 Ritzville ....G 2
7 Kent .....C 2
7 Castlerock.. C 3
7 Goldendale E 4
7 Orting .....C 2
7 Marysville ..C 1
7 Tekoa.....H 2
7 Southbend . B 3
7 Issaqnah....C 2
6 Garfield ....H 2
6 Kelso.....C 3
6 Cathlament B 3
6 Winlock ....C 3
5 Wilbur.....G 2
5 Colville.....H 1
5 Ilwaco .....B 3
5 Kalama .....C 3
5 Sumner .....C 2
5 Medical Lake
H 2
4 Coupeville ..C 1
4 Auburn.....C 2
4 Waterville ..E 2
4 Asotin .....H 3
4 Wenatchee..E 2
4 Farmington H 2
4 Rockford....H 2
4 Uniontown. H 3
3 Hamilton ...D 1
3 Rosalia.....H 2
3 Lynden .... C 1
3 Stevenson ..D 4
3 Spangle.....H 2
3 Sumas.....C 1
2 Kettle Falls.G 1
2 Yakima.....E 3
2 Toledo ..... C 3
2 Friday Harbor
B 1
2 Tumwater ..G 3
2 Pasco .....F 3
2 Latah.....H 2
2 Concully ....F 1
2 Bossburg ...G 1
2 Prosser .....F 3
1 Port Orchard
C 2
1 Ocosta .....A 3
1 Pataha.....H 3

Martha Washington

1732-1802

Clarion county.—Dauphin county.—Erie county.—Fayette county.—Franklin county.—Greene county.—Indiana county.—Jefferson county.—Lawrence county.—Lehigh county.—Lycoming county.—Northumberland county.—Schuylkill county.—Snyder county.—Westmoreland county.—Wyoming county.—York county.

Washington, in *Rhode Island*, a S.E. co., bordering on the Atlantic Ocean; *area*, 340 sq. m. It is traversed by the Pawcatuck river. *Surface*, hilly; *soil*, fertile. *Cap.* Kingston. *Pop.* (1895) 24,736.

Washington, in *Tennessee*, a N.E. co.; *area*, 344 sq. m. *Rivers.* Nolichucky and Watauga. *Surface*, mountainous; *soil*, fertile in the valleys. *Min.* Iron. *Cap.* Jonesborough. *Pop.* (1897) 20,360.

—A small village, formerly the cap. of Rhea co., 134 m. E.S.E. of Nashville.

Washington, in *Texas*, a S.E. central co.; *area*, 600 sq. m. *Rivers.* Brazos; also Yegua creek. *Surface*, undulating: *soil*, fertile. *Products.* Cotton, live-stock, &c. *Cap.* Brenham. *Pop.* (1897) 31,360.

—A post-village of the above co., 65 m. N.W. of Houston.

Washington, in *Utah*, a S.W. co., bordering on Arizona; *area*, 2,446 sq. m. *Rivers.* Rio Virgin. *Surface*, diversified; *soil*, generally fertile. *Cap.* St. George. *Pop.* (1895) 4,619.

—A post-village and township of the above co., 6 m. N.E. of St. George.

Washington, in *Vermont*, a N. central county; *area*, 703 sq. m. *Rivers.* Onion, Mad, and Winooski. *Surface*, diversified; *soil*, generally fertile. *Cap.* Montpelier. *Pop.* (1897) 30,660.

—A post-township of Orange co.

Washington, in *Virginia*, a S.S.W. co., bordering on Tennessee; *area*, 622 sq. m. *Rivers.* North, Middle, and South Forks of Holston river. *Surface*, mountainous; *soil*, moderately fertile. *Min.* Iron, stone-coal, limestone, gypsum, and salt. *Cap.* Ahingdon. *Pop.* (1897) 31,330.

—A township of Alexandria co.

—A township of Norfolk co.

—A post-town, cap. of Rappahannock co., 120 m. N.W. of Richmond.

—A township of Richmond co.

—A towuship of Westmoreland co.

Washington, in *West Virginia*, a township of Boone co.

—A township of Calhonn co.

—A township of Ohio co.

Washington, *Wisconsin*, an E.S.E. co.; *area*, 430 sq. m. *Rivers.* Milwaukee, Ossin, and Rubicon; also Cedar and Sank creeks. *Surface*, uudulating; *soil*, very fertile. *Min.* Iron. *Cap.* West Bend. *Pop.* (1895) 24,077.

Washington, a name given in 1854, by Dr. Kane, to a section of N.W. Greenland, which is crossed by the parallel of 80° N. Lat. The great Humboldt Glacier, 300 feet in vertical height, aud over 40 m. long, the largest glacier yet discovered, occurs upon its coast.

Washington Court-house, in *Ohio*, cap. of Fayettc co., situated in the center of a rich agricultural region. This beautiful and thriving town was visited by a cyclone in September, 1885, which destroyed several hundred houses. It lies in a rich farming and stock-raising district, while its manufactures include several large shoe factories, a vapor-stove works, flour mills, foundry and machine shops, &c. *Pop.* (1897) 6,260.

Washington, Fort, in *Pennsylvania*, a post-village of Montgomery co., near the site of au old Revolutionary fort of that name.

Washington Hollow, in *New York*, a post-village of Dutchess co.

Washington Lake, in *California*, a lakc of Yolo co., 3 m. long, and ½ m. wide.

—In *Minnesota*, a township of Sibley co.

Wash'ingtonville, in *New York*, a village of Orange co., 12 m. S.W. of Newbnrgh.—A village of Oswego co.

Washingtonville, iu *Ohio*, a village of Columbiana co., 162 m. N.E. of Columbus.

Washingtonville, in *Pennsylvania*, a post-borough of Montour co., 75 m. N.E. of Harrisburg.

Wash'Ingtonite, *n.* (*Min.*) A kind of titaniferous irou-ore, of a steel-gray color.

Washington, (Mount.) See MOUNT WASHINGTON.

Washita, or OUACHITA, (*wosh'e-taw,*) a river of Arkansas and Louisiaua, which rises in Polk co., Arkansas, and after receiving many small tributaries, takes a S.E. course to the Louisiana line, whence it flows S. till it enters the Red River 30 m. from its mouth, after a course of abt. 500 m. It is navigable for large steamers ae far as Camden, 300 m. above its mouth, and for smaller steamers, in time of high water, to Arkadelphia and Buckport. After its junction with the Tensas, it is also called *Black River.*

Wash'ita, in *Arkansas*, a S. central co., traversed by the above river. *Surface*, diversified; *soil*, eaudy and fertile. *Cap.* Camden. See OUACHITA.

Wash'ita, or **Ouachita,** in *Louisiana*, a N. parish; *area*, 735 sq. m. *Rivers.* Washita; also Bartholomew and Bœuf Bayous. *Surface*, diversified; *soil*, moderately fertile. *Cap.* Monroe. See OUACHITA.

Wash'oe, in *Nevada*, a N.W.co., bordering on California; *area*, 5,620 sq. m. It is traversed by the Truckee river. *Surface*, mountainous. *Min.* Gold, silver, lead, iron, &c.

—A post-village of the above co., located 14 m. N.N.W. nf Carson City.

Wash tenaw, in *Michigan*, a S.E. co.; *area*, 720 sq. m. *Rivers.* Hnron, Macon, the N. hranch of the Raisin, and the E. Branch of Grand river; also, Saline and Stony creeks. *Surface*, diversified; *soil*, fertile. *Cap.* Ann Arbor. *Pop.* (1897) 44,300.

Wash'-leather, *n.* Split sheep-skin dressed with oil, in imitation of chamois, or shammy, and used for various household purposes, as for dusting, cleaning glass, or plate, and the like; — also, alumed or buff leather for regimental helts.

Wash'-off, *a.* A term used In calico-printiug, haviug the signification of permanent, durable, or able to hear washing, in respect to fugitive colors uot fixed by steaming or other process.

Wash'-pot, *n.* A pot, pitcher, or vessel In which auythiug is washed.

Wash'-stand, *n.* An article of furniture to hold the requisite utensils employed in washing the persou.

Wash'-tub, *n.* A tuh used in lauudries.

Washy, (*wŏsh'y,*) *a.* [From *wash.*] Watery; damp; slushy; as, a "*washy* ooze." (*Milton.*)—Weak; watery; thin; wanting strength or substanco; as, *washy* tea, *washy* grog, a *washy* polish.—Liable to sweat profusely from laborious cxertion; as, a *washy* horse. (Local U. S.)

Wasi'oja, in *Minnesota*, a post-village and township of Dodge co., 21 m. N.W. of Rochester.

Wasp, (*wŏsp,*) *n.* [A. S. *wesp.*] (*Zoöl.*) See VESPARIÆ.

Wasp'ish, *a.* Having the qualities or form of a wasp; very slender-waisted, like a wasp.—Irritahle; irascible; snappish; petulant; quick to take up a quarrel, or resent any petty affront; as, a *waspish* woman, a person of *waspish* temper.

Wasp'ishly, *adv.* In a waspish, snappish, or peevish manner.

Wasp'ishness, *n.* State or quality of being waspish; snappishuess; petulance; irascibility; readiness to take offence; peevishness.

Wassa'ie, in *New York*, a post-village of Dutchess co., 85 m. N. of New York.

Wassail, (*wŏs'sil,*) *n.* See DRINKING USAGES.

—*v. n.* To hold a merry-making; to attend a wassail or drinking-bout; to carouse.

Wasselonne, (*vas'e-lone,*) a town of France, dcpt. of Bas-Rhin, 14 m. W.N.W. of Strasburg. *Manf.* Woollen and cotton yarn, and hosiery. *Pop.* 5,500.

Wast, (*wŏst.*) Past teuse of the substautive verb *to be*, in the second person; as, thou *wast.*

Wastage, (*wāst'aj.*) *n.* Waste; loss or diminution by use, decay, evaporation, &c.

Waste, (*wāst.*) *v. a.* [A. S. *westan;* D. *verwoesten;* Ger. *verwüsten.*] To desolate; to destroy; to bring to ruiu; to devastate; as, "Peace to corrupt, no less than war to *waste*." (*Milton.*)—To diminish by gradual dissipation or loss; to spend; to consume; to wear out; to uso up; to impair by gradual or constant deprivation; as, the patient is much *wasted* and cufeebled.—To cause to be lost; to destroy by scattering or by injury; to expend without uso or nccessity; to dissipate wantonly or luxuriously; to equander; to suffer to be lost nnnecessarily or to throw away, or to cause to be lost through recklessness or negligence; to lavish vainly; to employ prodigally; as, to *waste* one's property in speculating; to *waste* ono's time and means in tho pursuit of a chimerical project; to *waste* drink or victuals.

—*v. n.* To dwinllo; to be diminished; to be consumed by time or mortality; to lose bulk or substance by degrees; as, money *wastes* away unaccouutably.—Specifically, to reduce in flesh by sweating:—said of a jockey in training for a horse-race.

—*a.* Devastated; destroyed; ruined; stripped; left bare; hence, dreary; dismal; dcsolate; as, the *waste*, howling wilderness. (*Deut.* xxxii. 10.)—Uncultivated; untilled; nnproductive; worthless; that which is rejected, or used only for meau purposes; that of which no account is taken, or of which no valuo is found; as, *waste* land, *waste* paper, and the like.—Superfluous; lost for want of occupiers; as, *waste* fertility.

Waste-land, any tract of surface not In a stato of vegotation, and producing little or no useful herhage or wood.

Laid waste, ruined; desolated; as, a country *laid waste* hy fire, sword, or pestilence.

—*n.* Act of squandering, dissipating, wasting, dcsolating, or expending without use or necessity; dissipation of property or means through wantouness, extravagance, luxury, nogligence, or speculative aubition; consumption; loss; uscless expense; wanton destruction; any loss or deprivation which is neither needful nor promotive of a good end; any loss for which there is no equivalent; as, time running to *waste;* *waste* of capital or resources; *waste* of talk in wrangling about trifles; *waste* in household affairs, &c.—That which is wasted, devastatcd, or desolate; a harren or uncultivated country or tract of ground; unoccupicd or unemployed space; land untilled though capable of tillage; any dreary void or deserted region; as, the ocean's watery *waste;* the *waste* of the African Sahara.—That which ls valueless; refuse; dregs; worthless remnant; dross; as, the *waste* of cotton and other fibrous substauces; kitchen *waste*, &c.

(*Law.*) *W.* is whatever tends to the destruction or depreciating the value of an inheritance. It may be either *volantary* or a crime of commission, as tho pulling down of a house; or *permissive*, by omission only, as by suffering it to fall, for want of uecessary repairs. It is not waste if the lose arisee from an act of Providence, as by tempest, lightning, or the like. The remedy for *W.* is granted hy a court of equity, which will issue an injunction to restrain the *W.*, and for an account of the profits made. The remainder need not wait until waste has actually been committed before bringing his action; for if he ascertains that the teuant is about to commit any act which wonld operate as a permanent injury to the estate, or if he threatens or shows any intention to commit waste, the court will at once interfere and restrain him by injunction from doing so.

(*Mining.*) A vacaut space left in the gobbing, on each side of which the refuse is piled up to snpport the roof.

Waste'-book, *n.* (*Com.*) A book in which memoranda of business transactions are made, previous to their being posted in the journal.

Waste'ful, *a.* Full of waste; injurious or destructive to property; ruinous; as, *wasteful* neglect, *wasteful* expenditure.—Lavish; prodigal; expending money, property, or resources, without proper use or necessity; as, a *wasteful* hand.

Waste'fully, *adv.* In a wasteful manner.

Waste'fulness, *n.* State or quality of being wasteful.

Waste'-gate, *n.* A sluice-gate.

Waste'-pipe, *n.* A pipe for carrying off waste wator or other fluid.

Wast'er, *n.* One who, or that which, wastes, squanders, or dissipates prodigally; one who consumes extravagantly, or without use.—A thief in a candle.

Waste'-weir, *n.* A weir for the outlet of the superfluous waters of a canal or channel.

Wast'ing, *p. a.* Consuming by slow degrees.

—*n.* Consumption; decay; decline.

Watau'ga, a river of *N. Carolina*, rises at the base of the Blue Ridge, in Watauga co., and flowiug W.N.W. enters the Holston River, 12 m. N. of Jonesborough, in Tennessee.—A N.W. co., bordering on Tennessee; *area*, 392 sq. m. It is traversed by the Watauga River. *Surface*, mountainous; *soil*, fertile in the valleys. *Cap.* Boone. *Pop.* (1897) 11,106.

Wateh, (*wŏtch,*) *n.* [A. S. *wæccan*, to awake, arise; D. *waken;* Ger. *wachen.*] Act of watching; a keepiug awake; forhearance or deprivation of sleep; vigilance for keeping or protecting against danger; attendance without sleep; guard; close observation; preservative or preventive alortness of the attentiou; as, to be on the *watch.*—A guard; a sentry; a look-out; a vldette; one who watches, or those who watch; as, to summon the *watch.*—Post or office of a watchman; place where a guard is kept; as, an officer of the *watch* to take *watch* aud ward.—Period of the night in which one person or a set of persons staud as sentinels, or, from the time from one relief of sentries to another; as, the morning *watch*, the midnight *watch.*

(*Horol.*) A small portable time-piece or chronometer, generally of a small size and round flat shape, for measuring timo; a pocket time-kecper. A pocket-watch is very siuilar in principlo to a good clock, except that the regulation of the former is by a balance and spring, and that of tho latter hy a pendulum. Until a time relatively recent, all the *W.* used in the U. States were of European manufacturo. During the war of 1812, *W.* were made in Worcester, Mass., but the close of the war caused a resumption of English importation, and the home manufacture failed. It was only iu the year 1850, that, a connected system of machinery being applied to the manufacture of the American *W.*, the first manufactory was erected at Roxhury, which, after several transformations, was finally established at Waltham, Massachusetts, and at Elgin, Illinois; these two factories alone turn out nearly 200,000 watches per annum. Tho utmost simplicity is introduced in the number and arrangement of the pieces of which the American *W.* is composed; they are in all 112, each of them, more or less, the total product of machinery. Every piece may be fitted indiscriminately with any of the others, the jewelled holes and pivots only excepted. These are recorded at the factory with the number of each watch, so that they cau alwaye be duplicated with certainty of perfect fit by seuding the number and name of the piece to the factory. Several other watch manufactories now exist in the U. S., their product being so exact in movement and so low in price that the importation of foreign watches, once large, has now almost ceased.

(*Naut.*) On shipboard, that portion of the shlp's crew on duty at one time. This ls nsually half; and the watches are called the *starboard* aud *port* watches. Large crews are divided into three watches. The period of time called a *watch* is four hours, the reckoning heginning at noon or midnight. Between 4 and 8 P. M. the time is divided iuto two short or *dog* watches, in order to break the constaut recurrence of the watches at the same hours.

Anchar watch. (*Naut.*) A watch of three or four men stationed at an anchor, when a vessel is riding, to see that all is right and ready for nse. (*Totten.*)—*To be on the watch*, to be on the qui-vive or look-out for some event.—*Watch and ward.* See WARD.—*Watch and watch.* (*Naut.*) On shipboard, an arrangement by which the watches are alternated every other four hours, in distinction from keeping all hands on deck during one or more watches. This is given in bad weather, and when the day's work cannot he carried on.

—*v. n.* To be or to keep awake; to be wakeful; to keop vigil; to be or continue without sleep.

"*Watching* care will not let a man slumber."—*Eccl.* xxxi. 2.

—To be vigilant or attentive; to look with heedfulness or eteadiness; to keep guard; to stand sentry; to he on the look-ont; to act as sentinel or vidette; ae, to *watch* an enemy's movements.—To look with expectancy; to he insidiously attentive; to be vigilant or alert in preparation for an event or trial, the timc of whose arrival is uncertain; to wait or seek opportunity; as, he *watches* his chance of revenge.—To attend on the sick or bedridden during the night; to act as wakeful nurse or attendant; as, to *watch* a delirious person.

(*Naut.*) To float on the eurface of the water, as a buoy.

To watch over, to be cautiously observant; to keep or guard from any ill or evil; as, he *watched* over his family with solicitnde.

—*v. a.* To observe in order to detect or prevent, or for some particular purpose; to attend or give heed to; to keep in view; uot to allow to escape observation; as, he was narrowly *watched* by spies.—To guard; to tend; to have under tutelage or in keeping; as, a driver *watches* his team.

Watch'-barrel, *n.* The brass box in a watch, which contains the main spring.

Watch'-bell, *n.* (*Naut.*) On shipboard, a bell struck when the half-hour glass is run out.

Watch'-bill, *n.* (*Naut.*) A list of the officers and crew of a ship, with their several stations on board.

Watch'-case, *n.* The outside covering of a watch; also, a case in which a watch is deposited or kept.

Watch'-dog, *n.* A dog kept to guard property.

Watch'er, *n.* One who watches.

Watch'ful, *a.* Wakeful; vigilant; heedful; attentive; cautious; careful to observe; — preceding *of* before the thing to be regulated; as, to be *watchful of* one's own interest; and *against* before the thing to be shunned or guarded against; as, to be *watchful against* an ambuscade.

Watch'fully, *adv.* In a watchful manner.

Watch'fulness, *n.* State or quality of being watchful; wakefulness; indisposition or inability to slumber; hence, heedfulness; vigilance; suspicious attention; careful and diligent heed and observation for the purpose of preventing or escaping danger, or of avoiding errors, mistakes, or misconduct.

Watch'-glass, *n.* A concavo-convex disc of crystal for covering the dial or face of a watch or pocket-chronometer.

(*Naut.*) A half-hour glass, serving to measure the duration of watches on deck.

Watch'-guard, (*-gard,*) *n.* A chain, cord, or ribbon by which a watch is secured to the person.

Watch Hill Point, in *Connecticut,* on the E. of the entrance of Fisher's Island Sound, 2 m. S. E. of Stonington, has a revolving light 50 ft. high; Lat. 41° 18′ 12″ N., Lon. 71° 52″ W.

Watch'-house, *n.* A sentry-box; a house in which a watch or guard is posted.—A lock-up; a place of temporary incarceration for offenders, principally of the drunk and disorderly class.

Watch'ing, *n.* Wakefulness; sleeplessness; vigil.

Watch'-maker, *n.* An artisan whose business is the making and repairing of watches.

Watch'man, *n.*; *pl.* WATCHMEN. A sentry or sentinel; a look-out; a person set to watch and guard.—One who patrols and guards the streets of a town, or the buildings thereof, by night; as, a storekeeper's private *watchman.*

Watchman's rattle, an instrument having attached to the handle a revolving arm, which, by the action of a strong spring upon cogs, gives forth, when swung round, a loud, harsh, strident, rattling noise; — formerly used by the public watchman of towns, &c.

Watch'-tower, *n.* A tower on which a sentinel or watchman is posted, in order to give an alarm in case of danger.

Watch'-word, *n.* A pass-word; a countersign given to sentries, videttes, or other persons mounting or stationed on guard; also, the rallying-cry or private signal of an affiliated brotherhood, political party, or secret society.

Watteeoo, (*wa'te-o,*) an island in the S. Pacific, 6 m. long, and 4 m. broad; Lat. 20° 1′ S., Lon. 158° 15′ W. *Surface,* hilly; *soil,* fertile. It was discovered by Capt. Cook in 1777.

Wat'ensas, in the State of *Arkansas,* a twp. of Prairie county.

Water, (*waw'tŭr,*) *n.* [A. S. *wæter;* D. *water;* Ger. *wasser.*] A fluid composed of oxygen and hydrogen, transparent, and the most abundant and most necessary for living beings of any in nature, except air. (See below, *2 Chem.*) Any body or collection of water, great or small; the ocean; a sea; a lake; a river; any pond or stream; as, to travel by land and *water.* — A liquid substance or humor in animal bodies; urine; as, to pass *water.* — The color or lustre of a diamond, sometimes perhaps of other precious stones; as, a gem of the first *water,* that is, perfectly pure and transparent.—Hence, figuratively, *of the first water,* that is, of the highest quality or first excellence; as, an aristocrat *of the first water.*

(NOTE. Water is frequently employed in the formation of compounds having relationship with, or reference to water, in any manner; as, *water*-borne, *water*-lashed, *water*-nymph, *water*-side, *water*-worn, &c.)

To hold water, to be able to retain water without leaking or percolation; hence, to be sound or conclusive;—used often metaphorically; as, your argument will not *hold water.*

To make water, to urinate; also, in a nautical sense, to leak; as, the ship *makes water.* — *Water of crystallization.* See CRYSTALLIZATION.

(*Chem.*) Water is presented to us in nature in three forms, *solid, liquid,* and *gaseous.* Large masses of ice exist around the poles; and water holding in solution certain mineral and gaseous matters constitutes the seas, rivers, and lakes of the temperate and torrid zones. It also exists in large quantities in the air, either dissolved in invisible vapor, or deposited in the form of cloude. In temperate and warm climates, the surface of the earth, at least, is more or less damp; while the interior of the earth itself contains numberless springs, and the minerals which exist in it contain more or less water chemically combined with them. Besides this, it is essential to all vegetables and animals in a living condition, and constitutes nearly seven-eighths of the human body. Chemically speaking, water consists of hydrogen and oxygen, united in equal equivalents by weight, of eight parts of oxygen to one of hydrogen; or by measure, one part of oxygen to two of hydrogen. The most variously contrived investigations into the composition of water always give the same result, — 88·889 per cent. of oxygen and 11·111 per cent. of hydrogen. Cavendish was the first to discover its real composition. The analysis of water is performed in a variety of ways, the simplest of which is by means of galvanic or voltaic batteries (Fig. 2599). The glass vessel A contains water,

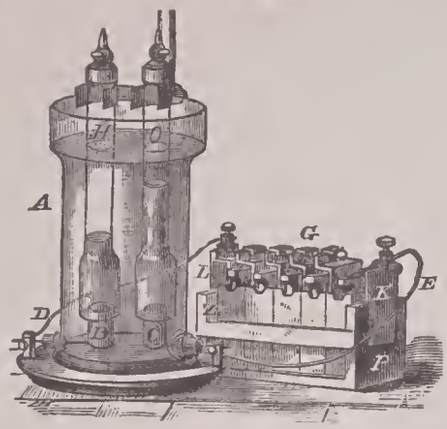


Fig. 2599. — ELECTROLYSIS OF WATER.

to which a little sulphuric acid has been added to increase its power of conducting electricity, for pure water conducts so imperfectly that it is decomposed with great difficulty. B and C are platinum plates bent into a cylindrical form, and attached to stout platinum wires, which are passed through corks in the lateral necks of the vessel A, and are connected by binding screws with the copper wires D and E, which proceed from the galvanic battery G. H and O are glass cylinders with brass caps and stop-cocks, and are enlarged

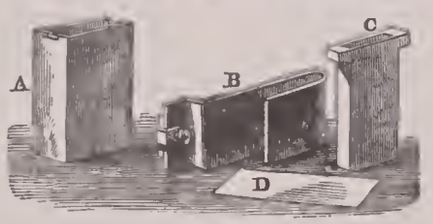


Fig. 2600.

into a bell-shape at their lower ends for the collection of a considerable volume of gas. These cylinders are filled with the acidulated water, by sucking out the air through the opened stop-cocks; on closing these, the pressure of the air will of course sustain the column of water in the cylinders. G is a Grove's battery, consisting of five cells or earthenware vessels (A, Fig. 2600) filled with diluted sulphuric acid (one measure of oil of vitriol to four of water). In each of these cells is placed a bent plate of zinc (B), which has been *amalgamated* or rubbed with mercury (and diluted sulphuric acid) to protect it from corrosion by the acid when the battery is not in use. Within the curved portion of this plate rests a small flat vessel of unglazed earthenware (C), filled with strong nitric acid, in which is immersed a sheet of platinum foil (D). The platinum (D) of each cell is in contact, at its upper edge, with the zinc (B) in the adjoining cell (Fig. 2601), so that at one end (P, Fig. 2599) of the battery there is a free platinum plate, and at the other (Z) a free zinc plate. These plates are connected with the wires D and E by means of the copper plates L and K attached to the ends of the wooden trough in which the cells are arranged. The wire D (Fig. 2599), which is connected with the last *zinc* plate of the battery, is often called the *negative* pole; whilst E, in connection with the last *platinum* plate, is called the *positive* pole. When the connection is established by means of the wires D and E with the *decomposing* cell (A), the *galvanic current* is commonly said to pass along the wire E to the platinum plate C, through the acidulated water in the decomposing cell, to the platinum plate B, and thence along the wire D back to the battery. During the passage of the current, the water intervening between the plates B and C is decomposed, his hydrogen being attracted to the plate B (negative pole), and the oxygen to the plate C (positive pole). The gases can be seen adhering in minute bubbles to the surface of each plate, and as they increase in size they detach themselves, rising through the acidulated water in the tubes H and O, in which the two gases are collected. The proof of the composition of water has also been sought in synthesis, by exploding carefully-measured proportions of oxygen and hydrogen in a eudiometer. The circumstances under which oxygen and hydrogen unite with each other to form water are peculiar. At ordinary temperatures, unlike other gaseous mixtures, a mixture of the two gases undergoes no alteration even when exposed to direct sunlight. Sudden compression has been known to produce their combination, but this was doubtless

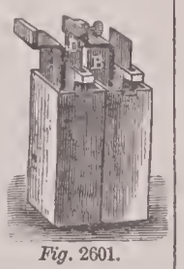


Fig. 2601.

caused by the heat produced, a greater degree of compression gradually exercised having had no effect. Many substances, however, apparently chemically unlike, have the property of causing the union of these two gases merely by their presence. For instance, on introducing spongy platinum, or platinum-black, into a mixture of oxygen and hydrogen, it is instantly exploded. Faraday has shown that a perfectly clear surface of platinum will have precisely the same effect. The efficiency of the metal in this instance seems directly proportionate to its amount of surface and to its temperature, which, when the mass is small, becomes rapidly augmented by the heat evolved by the constantly accelerated combination of the gases. If thin platinum-foil or wire is used, the combination takes place without noise. With platinum sponge the action is at first silent, but afterwards the heat evolved by it raises the temperature, and explosion takes place. At ordinary temperatures water is a transparent mobile liquid, tasteless, inodorous, and, except when in large masses, colorless. In nature, the waters of seas, rivers, and lakes, assume every shade of brown, yellow, green, &c., from the presence of contaminating substances; but the proper color of water in large masses appears to be blue. Water is a perfectly elastic fluid, but its range of elasticity is limited. According to Regnault, it undergoes a compression amounting to forty-seven millionths of its bulk for every pressure of an atmosphere. A cubic inch of water at 60° F. weighs 252·456 grains. At its point of maximum density, it is 770 times heavier than air. The specific heat of water is very great; in order, therefore, to effect any elevation or diminution of its temperature, a large quantity of heat is necessary; hence large masses of water act as great equalizers of local temperature. At 32° F. water solidifies into ice. It may, however, if kept perfectly still, be cooled down to several degrees below freezing-point without congelation taking place; but if it be agitated in the slightest degree, solidification at once takes place, the temperature rising to 32° F. Although water may be cooled down to below 32° F. without freezing, yet it cannot be heated above that point without melting. The freezing-point of water is lowered by the presence of saline matter and other substances in solution. When a saline solution is exposed to cold, pure water crystallizes out, while the salt remains dissolved in the mother liquor. This property is taken advantage of by Arctic navigators, who use melted ice as drinking-water. The temperatures of freezing and boiling water are taken as the two standards of the thermometer scale. The cooling of water is attended by a phenomenon which does not belong to any other liquid. As the temperature decreases, it contracts regularly until cooled down to 39·2° F., but every decrease in temperature beyond this causes it to expand, and that to almost the same amount per degree as it had previously contracted. This singular phenomenon, although for a long time suspected, was only proved positively by Hope in 1804. This property of water has a very important effect in the economy of nature. When the cold weather sets in, water becomes chilled at the surface, and immediately descends, on account of its increased specific gravity, the warmer water at the bottom of the pond or river replacing it. This movement goes on until 39·2° F. is reached, when the surface water, becoming lighter as it becomes colder, remains in its place until it is frozen. The ice thus increases slowly in thickness, as no heat can be abstracted from any portion of the water except that in immediate contact with the frozen layers. The water below, therefore, remains permanently at 39·2° F., a temperature not destructive to the lives of the fish and other animals inhabiting it. Although water expands very gradually between 39·2° F. and 32° F., when it reaches the latter point, expansion takes place suddenly, and with a force sufficient to burst the strongest wrought-iron vessels. The specific gravity of ice in relation to water is variously stated at 0·9184 (Abel and Bloxam), and 0·94 (Miller and Odling), or, in other words, water in freezing expands from 1,000 volumes to 1,063. The action of freezing on the disintegration of rocks, the transference of masses of mineral matter from place to place, &c., constitutes it one of the most important forces at work in nature. (See ICE, ICEBERG, GLACIER.) At a temperature of 212° F., with a barometer pressure of 29·92 inches, water boils and becomes converted into an invisible elastic vapor, occupying 1,696 times its space. The space occupied by the vapor entirely depends upon the temperature, or, in other words, superheated steam exerts additional force for every degree of temperature which it is raised. The converse of this is also true; any attempt to compress a certain bulk of vapor at its proper temperature simply results in the condensation of a sufficient bulk of the vapor to restore the proper tension. An example may render this fact clear. A cubic inch of water at 212° F., when converted into steam at the ordinary pressure of the air, occupies a space of 1,696 inches. Were an attempt made to condense this amount of vapor into say half of its bulk, half of it would be condensed into water. The temperature being kept up, and the pressure being removed, vaporization would continue until the former bulk was filled. The specific gravity of water vapor is 0·622, air being 1·000. In common with all volatile liquids, water has its fixed vapor-tension for every degree of heat; therefore no increase of heat can possibly raise the temperature of a liquid beyond its boiling-point, provided the pressure is unaltered. Diminished pressure consequently decreases the boiling-point of water, which, in vacuo, will boil at about 70° F. The contrary, of course, is also true; steam at 212° F. exerting a force equal to an atmosphere (15 lbs. on the

square inch), whilst at 356° it exercises a pressure of ten atmospheres; and so on. Water vaporizes at all temperatures, even when in the state of ice. Hence the disappearance of small masses of ice during the winter, and the constant vaporization of water at all periods of the year. In the consideration of water vapor, it must not be confounded with the visible *vesicular vapor* seen in the clouds, and in masses of steam escaping into the air, which consists of minute vesicles of water floating in true aqueous vapor. The latent heat of steam is very great, the heat absorbed by the conversion of water at 212° F. into steam of the same temperature, being 966·6° F., or, in other words, the condensation of a pound of steam at 212°, by 5½ lbs. of water at 32°, will yield 6½ lbs. of water at 212°. It has been stated above that water boils at 212° F. This, of course, is only true of water in a state of perfect purity, and heated in a metallic vessel at the mean barometer pressure. If the vessel used is of glass, or is lined with shell-lac, a temperature of several degrees above 212° will be reached before ebullition takes place; the bubbles bursting from the sides of the vessel with such force as to break it very frequently, the introduction of a piece of platinum-wire will soon restore the normal temperature at which ebullition takes place. The presence of soluble salts in water raises the boiling-point. The presence of air in water has a great effect on its boiling-point. According to Donny, water deprived of air, and heated in an open glass vessel, acquired a temperature of 360° F., and then suddenly burst into vapor, shattering the vessel to pieces. It would be useless to enlarge upon or even detail the infinite uses of water in the economy of the world. Its value to the chemist, however, is not so apparent. As a solvent it is invaluable, being a perfectly neutral body, and by its decomposition in a thousand different ways he easily obtains the two gases oxygen and hydrogen in a nascent condition, without which it is almost impossible to take a single step in the laboratory or manufactory. Although perfectly neutral, it enters into combination with numberless bodies, both acid, neutral, and basic, at one time apparently playing the part of a base, at another that of an acid. Thus we find sulphuric acid and water uniting in every proportion. If, however, the dilute acid be heated to boiling-point, aqueous vapor gradually passes off until a certain point is reached, when the acid begins to evaporate also, the water and acid distilling over together. On analyzing the distillate, an equivalent of sulphuric acid will be found united to an equivalent of water. This equivalent of water is called *basic* water, and can only be separated by decomposition. In the same way water combines with the powerful bases potash and soda, and cannot be expelled by heat alone. Such compounds are known as hydrates; the water appears in some sort to play the part of an acid. With neutral salts water enters into combination in two ways, — as water of crystallization and water of constitution, the former of which is expelled with ease, the latter with difficulty. The water of constitution is generally formulated H_2O, while that of crystallization is symbolized by the contraction Aq. (See SALTS.) Water has the property of dissolving an immense number of substances, solid, liquid, and gaseous. The alcohols, most of the acids, and some other liquids, dissolve in water in indefinite proportions; others again, such as ether, carbolic acid, &c., in minute and determinate quantities; while others, like oil, seem perfectly insoluble. The solvent power of water in various solids is widely different. Water dissolves gas to a greater or lesser extent, varying from one-seventieth in the case of nitrogen to 783 times its bulk with ammonia. The solvent power of water for certain substances may be increased by pressure and heat. Water, as found in nature, is never pure, being always contaminated with foreign matter. Rain, which is the purest form of natural water, always contains carbonic acid and carbonate and nitrate of ammonia, and other constituents, depending on the locality in which it falls. That produced by melting fresh-water ice is free from every contamination except small tracee of carbonic acid and ammonia. Pure water is alone obtained by distillation. River-water is very variable in its composition, according to the mineral constituents of the country through which it has flowed. Spring-water is subject to the same variations as river-water; the amount of saline matter is, however, much greater. Most waters obtained from natural sources contain soluble salts of lime, which on boiling incrust the sides of the vessels in which they have been heated. In the boilers of steam-engines these incrustations are attended with great danger to the safety of the boiler. (See INCRUSTATION.) Waters are generally divided into hard and soft. The former contain salts which form insoluble compounds with soap, and have to be neutralized before the detergent is available. *Sea-water* has a pretty uniform composition. It has a specific gravity of about 1·027, and contains on an average about 2,500 grains of dissolved matter to a gallon, of which about 1,900 grains are common salt, and 400 chloride of magnesium and sulphate of magnesia. The quantity of saline matter is continually, although imperceptibly, increasing; for pure water is always being drawn from it by the process of evaporation, and being returned to it by the rivers charged with saline matter. Thus the sea is the recipient of the whole of the soluble matter washed away from the crust of the earth. Up to 1784 water was supposed to be an element.

Wa'ter, *v. a.* To wet; to irrigate; to overflow or drench with water; as, to *water* the soil or plants growing therein.—To furnish with water for drink; as, to *water* horses and cattle.—To diversify with lines, or give a wavy appearance to, by the process of calendering; as, to *water* silk.

—*v. n.* To shed or diffuse water or liquid matter; as, peeling raw onions causes the eyes to *water*.— To get or take in water; as, the ship put into St. Heleua to *water*.

To make one's mouth water, to excite in one a craving desire for; to feel an irresistible longing for, at the sight of; as, the prospect of a good dinner is apt to *make* a hungry fellow's *mouth water*; — derived from the theory that the looking at food tends to increase the flow of saliva.

Wa'ter-aloe, *n.* (*Bot.*) The Water-soldier. See STRATIOTES.

Wa'ter-bearer, *n.* (*Astron.*) Same as AQUARIUS, *q. v.*

Wa'ter-beetle, *n.* (*Zoöl.*) See DYTICIDÆ.

Wa'ter-bellows, (*-loz,*) *n. sing.* and *pl.* (*Metall.*) Same as TROMP, *q. v.*

Wa'ter-bird, *n.* Any aquatic bird, or water-fowl.

Wa'ter-boatman, *n.* (*Zoöl.*) The Boat-fly. See ŒSTRIDÆ.

Wa'terborough, in *Maine*, a post-township of York co., 65 m. S.E. of Augusta.

Waterborough, in *New York*, a village of Chautauqua co., 10 m. E.N.E. of Jamestown.

Wa'ter-brash, *n.* (*Med.*) An affection of the stomach; the result of a general functional debility of that organ, by which the vessels that should secrete the gastric juice throw out a clear, limpid water; hence its medical name of *pyrosis*. The symptoms of this disease usually commence when the stomach is empty, either in the morning or the afternoon, and begin with a sense of burning heat and constriction at the pit of the stomach, producing a sensation as if the organ was being drawn up to the spine. To relieve this sensation, the patient folds his arms over his chest, and bends the body forward; after a time, a quantity of gas collecting in the stomach leads to an eructation, the patient bringing up from two to four ounces of clear, limpid water; sometimes, though rarely, acid, but generally insipid. Two or three eructations, with a gush of water after each, concludes the paroxysm, and for the time the patient is relieved of his suffering. Females are more subject to this disease than men, and those who live on a milk or farinaceous diet more than those who partake of a good stimulating dietary. *W. B.* is an affection to which those of a sedentary habit, and who eat their meals hurriedly, without proper mastication, are liable.

Wa'terbury, in *Connecticut*, a flourishing city of New Haven co., 33 m. S.W. of Hartford. It contains numerous rolling-mills, and manufactories of copper, brass, and German silverware, photographic apparatus, buttons, pins, porcelainware, &c. *Pop.* (1897) 30,150.

Waterbury, in *Vermont*, a post-vill. and twp. of Washington co., 12 m. W.N.W. of Montpelier.

Wa'ter-butt, *n.* A large, open-headed cask, set up on end to contain water, particularly rain-water.

Wa'ter-caltrop, *n.* (*Bot.*) A name commonly given to plants of the genus *Trapa*.

Wa'ter-carriage, (*-kăr'rij,*) *n.* Transportation, conveyance, or freightage by water, or the means of forwarding by water.

Wa'ter-clock, *n.* Same as CLEPSYDRA, *q. v.*

Wa'ter-closet, (*-klōz'et,*) *n.* A small closet for necessary purposes, supplied with water from a cistern for its cleansing; a privy.

Wa'ter-cock, *n.* A cock through which water is allowed to pass.— A street-plug to supply water from the mains in case of fire.

Wa'ter-color, (*-kŭl'ur,*) *n.* (Generally in the plural.) (*Paint.*) A pigment ground with water and gum, or size, which preserves its consistency in a solid cake when dried, and can easily be mixed with water, by rubbing it on a moistened palette when wanted. (The term is used in contradistinction to *oil-colors*, or *oils*.)

Wa'ter-col'orist, *n.* A painter in water-colors.

Wa'ter-course, *n.* Any natural or artificial stream of water; — especially, a channel or canal cut for the irrigation of lands.

Wa'ter-craft, *n.* A generic term for all kinds of vessels and boats plying on water.

Wa'ter-crane, *n.* (*Hydraul.*) An apparatus for supplying water from an elevated tank to the tender of a locomotive engine.

Wa'ter-cress, *n.* (*Bot.*) See NASTURTIUM.

Wa'ter-crow, *n.* (*Zoöl.*) Same as WATER-OUSEL, *q. v.*

Wa'ter-cure, *n.* (*Med.*) Same as HYDROPATHY, *q. v.*

Wa'ter-doctor, *n.* (*Med.*) An HYDROPATHIST, *q. v.*

Wa'ter-dog, *n.* A dog accustomed to the water. — A small, floating cloud supposed to indicate rain. — A cant colloquialism for a veteran sailor; an old salt; a tar.— A name given to various species of Salamanders. (U. States.)

Wa'ter-drop, *n.* Among jewellers, a rounded pebble of clear and limpid colorless topaz.

Wa'ter-dropwort, (*-wurt,*) *n.* (*Bot.*) See ŒNANTHE.

Wateree', a river of *S. Carolina*. See CATAWBA.

Wa'terer, *n.* One who, or that which, waters.

Wa'terfall, *n.* A perpendicular, or nearly perpendicular descent of a body of water; a cascade; a cataract.— A collection of false curls depending from the back of a lady's coiffure.

Wa'ter-feather, *n.* (*Bot.*) See HOTTONIA.

Wa'ter-flee, *n.* (*Zoöl.*) See GYRINIDÆ.

Wa'ter-flood, *n.* An inundation; a flood of water.

Wa'terford, a city and seaport of Ireland, and the chief town of a co. of the same name in the province of Munster, on the river Suir, which joins the Barrow, and forms a bay called Waterford Harbor, 62 miles N.E. of Cork. Its principal public buildings are the cathedral, court-house, exchange, and custom-house; besides various literary and scientific institutions, a public library and museum, &c. The harbor is deep and spacious, and has a fixed light on Hook Tower, 139 feet above the sea. *Manuf.* White glass, starch and blue; also, ship building.

Wa'terford, in *Connecticut*, a post-village and township of New London co., 3 miles S.W. of New London.

Wa'terford, in *Illinois*, a village and twp. of Fulton co., 50 m. N.W. of Springfield.

Waterford, in the State of *Iowa*, a twp. of Clinton county.

Waterford, in *Maine*, a post-township of Oxford co., 54 m. S.W. of Augusta.

Waterford, in *Michigan*, a post-village and township of Oakland co.

Waterford, in *Minnesota*, a post-village and township of Dakota county, about 16 miles N.E. of Faribault.

Waterford, in *New Jersey*, a post-twp. of Camden county.

Waterford, in *New York*, a post-village and township of Saratoga co., on the Hudson, 10 miles above Albany.

Waterford, in *Ohio*, a p. t. of Washington co.

Waterford, in *Pa.*, a post-borough and twp. of Erie co., 15 m. S.S.E. of Erie.—A v. of Juniata co., 60 m. W. of Harrisburg.—A v. of Westmoreland co., 55 m. S. E. of Pittsburgh.

—in *Vt.*, a p. twp. of Caledonia co., 45 m. E.N.E. of Montp'l'r

Wa'terfordville, in *N. J.*, a village of Camden co.

Wa'ter-fowl, *n.* An aquatic fowl.

Wa'ter-furrow, *n.* (*Agric.*) A drain cut in land for receiving and carrying off surplus water.

—*v. a.* To cut or open water furrows.

Wa'ter-gage, *n.* A side-wall or bank for restraining a current or stream of water.

Wa'ter-gall, *n.* A fissure made in the earth by a downfall of water.

Wa'ter-gas, illuminating gas, obtained by the decomposition of water. (See SEC. II.) Steam is passed over red-hot coke, the oxygen being thus absorbed. The remaining hydrogen and carbonic oxide are passed through a retort, in which carbonaceous matter is undergoing decomposition. Carbon is thereby absorbed, rendering the gas suitable for illumination. It is claimed by Prof. Lowe, who has great experience with this gas, that it can be produced to furnish to consumers at 30 cts. per 1,000 ft.

Wa'ter-gauge, Wa'ter-gage, (*-gāj,*) *n.*, [*water* and *gauge*.] A contrivance for ascertaining the height of the water within a steam boiler.

Water-gavel, *n.* (*O. Law.*) A gavel or rent paid for the right of fishing in, or other use of, certain waters or rivers.

Wa'ter-germander, *n.* (*Bot.*) A labiate plant of the genus TENCRIUM, *q. v.*

Wa'ter-gilder, *n.* One who gilds metallic surfaces by thinly coating them with an amalgam of gold, which volatilizes the mercury.

Wa'ter-gilding, Wash'-guilding, *n.* Act or process performed by a WATER-GILDER, *q. v.*

Wa'ter-gruel, *n.* A liquid panada for the sick, consisting of meal boiled in water to a thinnish consistency.

Water-guard, *n.* One of a body of river or harbor police; a custom-house preventive-officer.

Wa'ter-hairgrass, *n.* (*Bot.*) A species of grass growing in moist places.

Wa'ter-hammer, *n.* A vessel partly filled with water, exhausted of air, and hermetically sealed. When reversed or shaken, the water, being unimpeded by air, strikes the side with a sound like that of a metal striking against glass.

Wa'ter-hemlock, *n.* (*Bot.*) See CICUTA.

Wa'ter-hen, *n.* (*Zoöl.*) See RALLIDÆ.

Wa'ter-horehound, *n.* (*Bot.*) See LYCOPUS.

Wa'teriness, *n.* State or quality of being watery; — state of abounding with water; moisture; humidity.

Wa'tering, *n.* Act of supplying, or of sprinkling or overflowing, with water; act of furnishing with water for drink. — Act or process of irrigating land. — The process to which silk and other textile fabrics are subjected, in order to make them exhibit a wavy lustre and different plays of light.

Wa'tering-place, *n.* A place where water may be obtained, as for a ship, for cattle, &c. — A sea-side resort; a spa; a place which people frequent for seabathing, the drinking of mineral waters, &c.

Wa'terish, *a.* [A. S. *waterisc*.] Thin; watery; resembling or having the qualities of water; as, *waterish* matter.—Moist; boggy; somewhat fenny; as, *waterish* land.

Wa'terishness, *n.* State or quality of being waterish.

Wa'ter-leaf, *n.* (*Bot.*) See HYDROPHYLLACEÆ.

Wa'ter-leg, *n.* In steam-boilers, a water space that forms the side of a fire-box.

Wa'ter-lemon, *n.* (*Bot.*) See PASSIFLORA.

Wa'terless, *a.* Destitute of water.

Wa'ter-level, *n.* The level formed by the surface of water in a quiescent state. — A levelling instrument in which water is employed instead of mercury or spirits of wine.

Wa'ter-lily, *n.* (*Bot.*) See NYMPHÆA.

Wa'ter-line, *n.* (*Shipbuilding.*) The boundary of any section of the bottom of a ship made by a plane parallel to the line of flotation. The uppermost one is called the *load water-line;* the lowest the *light water-line*.

Wa'ter-logged, (*-lŏgd,*) *a.* (*Naut.*) Noting the condition of a ship when a quantity of water having been received into the hold by leaking, &c., she has lost her buoyancy, and yields to the effect of every wave passing over the deck.

Wa'terloo, a village of Belgium, 10 m. from Brussels, near which was fought, June 18, 1815, a memorable bat-

tle between the allied English and German troops under the Duke of Wellington, and the French under Napoleon, resulting in the complete overthrow of the latter.

Waterloo′, in *Illinois*, a city, cap. of Monroe co., 22 m S. of St. Louis. *Pop.* (1897) 2,215.

Waterloo, in *Indiana*, a post-town of De Kalb co., 6 m. N.E. of Auburn.

—A village and township of Fayette co., 7 m. N.E. of Connersville.

Waterloo, in *Iowa*, a township of Allomakee co.

—A thriving city, cap. of Black Hawk co., 93 m. W. of Dubuque. *Pop.* (1895) 8,490.

Waterloo, in *Kansas*, a village and township of Lyon co., about 16 m. N.N.E. of Emporia.

Waterloo, in *Michigan*, a post-village and township of Jackson co., 17 m. E.N.E. of Jackson.

Waterloo, in *Missouri*, a village, former cap. of Clark co., 12 m. N.W. of Alexandria.

Waterloo, in *New York*, a post-village and township, cap. of Seneca co., 20 m. W. of Auburn.

Waterloo, in *Pennsylvania*, a vill. of Franklin co., 58 m. S.W. of Harrisburg.—A post-vill. of Juniata co., 69 m. W. of Harrisburg.—A vill. of Venango co.

Waterloo, in *S. Carolina*, a post-vill. and twp. of Laurens dist., 65 m. W.N.W. of Columbia.

Waterloo, in prov. of Ontario, a W. central co., traversed by Grand River; *area*, 513 sq. m. *Cap.* Berlin. *Pop.* 40,251.—A post-vill. of same co.

Waterloo, in *Ohio*, a twp. of Athens co.

Waterloo, in *Wisconsin*, a township of Grant county. —A post-village and township of Jefferson county, 20 m. N.E. of Madison.

Wa′terman, *n.* A boatman; a ferryman; a man who manages water-craft, or one who plies for hire on rivers.

Water-mark, *n.* The mark or limit of the rise of water, indicating the height of a flood, or the tide.— The letter or ornament adopted by a paper-maker to distinguish his manufacture, which is thinner and more transparent than the rest of the sheet in the place where it occurs.

Wa′ter-melon, *n.* (*Bot.*) See CUCUMIS.

Wa′ter-meter, *n.* An apparatus for measuring the quantity of water which passes through a boiler.—A contrivance for measuring the supply of water to a house or other building, or to works, as from a street main.

Wa′ter-mill, *n.* A mill whose machinery is worked by water-power, and thus distinguished from a *wind-* or *steam-mill*.

Wa′ter-mole, *n.* (*Zoöl.*) The Shrew-mole. See MOLE.

Wa′ter-nymph, (*-nimf,*) *n.* A naiad.

Wa′ter-ousel, (*ōō′zl,*) *n.* (*Zoöl.*) The *Cinclus aquaticus*, a European bird of the Thrush family, generally of a dark-brown color, with throat and upper part of the breast pure white. It frequents clear, pebbly streams and lakes, feeding chiefly on molluscs, and on aquatic insects and their larvæ, which it seeks even under water, diving with great facility, and moving about for a short time at the bottom of the river. It carries its rather short tail elevated after the manner of wrens, which it also resembles in its frequent becks, or dipping of the head, accompanied with an upward jerking of the tail.

Wa′ter-pepper, *n.* (*Bot.*) See ELATINACEÆ.

Wa′ter-pimpernel, *n.* (*Bot.*) See SAMOLUS.

Wa′ter-pitcher, *n.* (*Bot.*) See SARRACENIACEÆ.

Wa′ter-plantain, *n.* (*Bot.*) See ALISMA.

Wa′ter-power, *n.* Water employed as a motive power in machinery.—A source of power from water, as for the driving of machinery. See WATER-WHEEL.

Wa′ter-pox, *n.* (*Med.*) A variety of CHICKEN-POX, *q. v.*

Wa′terproof, *a.* Proof against, or impervious to, water; so firm and compact of texture as not to admit water. See INDIA-RUBBER.

Wa′ter-qualm, (*-kwawm,*) *n.* (*Med.*) See WATER-BRASH.

Wa′ter-ram, *n.* Same as HYDRAULIC RAM, *q. v.*

Wa′ter-rat, *n.* (*Zoöl.*) The Musk-rat. See FIBER.—A river-pirate; a thief on the water;—sometimes, a wrecker.

Wa′ter-rate, *n.* A rate levied as payment for a supply of water.

Wa′ter-rice, *n.* (*Bot.*) See ZIZANIA.

Wa′ter-rot, *v. a.* To rot by steeping in water; as, to *water-rot* hemp.

Wa′ter-sail, *n.* (*Naut.*) A small sail spread occasionally under the lower studding-sail or driving-boom, during a fair wind and smooth sea.

Wa′ter-sapphire, (*-saf′ir,*) *n.* (*Min.*) A very pale-blue kind of Oriental sapphire.

Wa′terscape, *n.* A term sometimes, but rarely, used to denote a sea-view, in contradistinction to a *landscape*.

Wa′ter-screw, *n.* A screw-propeller. (R.)

Wa′tershed, *n.* [Ger. *wasserscheide*, water-parting.] (*Phys. Geog.*) A range of high land intersecting the basins of two rivers, and emptying its waters into them on either side.

Wa′ter-shoot, *n.* A trough or wooden channel for discharging water.

Wa′ter-snake, *n.* (*Zoöl.*) See HYDROPHIDÆ.

Wa′ter-soldier, (*-sōl′jer,*) *n.* (*Bot.*) See STRATIOTES.

Wa′ter Street, in *New Jersey*, a village of Morris co., 45 m. N.N.E. of Trenton.

Water Street, in *Pennsylvania*, a post-village of Huntingdon co., 100 m. W.N.W. of Harrisburg.

Wa′ter-table, *n.* (*Arch.*) A projection or horizontal set-off in a wall, so placed as to throw off the water from the building.

—In steam-boilers, a thin space for water, connecting with the other water-chambers, and inclosed by stayed plates, to form a portion of the heating surface; otherwise known as *water-bridge*.

Wa′ter-tap, *n.* A tap or cock for drawing off water.

Wa′ter-tight, (*-tīt,*) *a.* So tight as to retain, or not to admit, water; not leaky; as, a *water-tight* compartment in a ship.

Wa′terspout, *n.* (*Meteorol.*) A phenomenon which, in its general appearance, may be described as follows: From a dense cloud, a conical pillar, which appears to consist of condensed vapor, is seen to descend, with the apex downward. When over the sea, there are usually two cones: one projecting from the cloud, and the other from the water below it. These sometimes unite, and the junction has been observed to be accompanied with a flash of lightning; but more frequently they disperse before the junction is effected. In calm weather, the column maintains its vertical position while carried along the surface; but when acted on by the wind, it becomes oblique to the horizon. The causes of this meteor are very imperfectly known. By some it is supposed to be formed by a whirlwind of extreme intensity, while others ascribe it to an electric origin. It occurs for the most part at sea, but sometimes also on shore, though generally in the neighborhood of water.

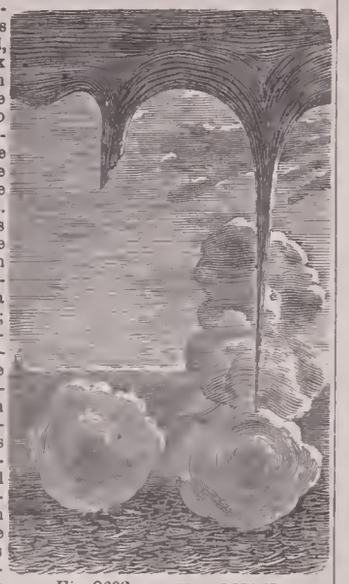


Fig. 2602. — A WATERSPOUT

Wa′ter-thief, *n.* A pirate; a water-rat; a wrecker.

Wa′tertown, in *Connecticut*, a post-village and township of Litchfield county, 30 miles west-south-west of Hartford.

Watertown, in *Massachusetts*, a post-township of Middlesex co., 8 m. N.W. of Boston.

Watertown, in *Michigan*, a twp. of Clinton co.—A post-twp. of Tuscola co.

Watertown, in *Minnesota*, a post-village and twp. of Carver co., abt. 32 m. W. of Minneapolis.

Watertown, in *New York*, a thriving city, cap. of Jefferson co., on the Black river, 86 m. N.W. of Utica, and 182 from Albany. It has an academy, and several newspaper offices and banks. There are, in the city, manufactures of cotton and woollen goods, flour, paper, iron castings, machinery, leather, agricultural implements, lead-pipe, sash and blinds, and furniture. An ice-cave, near Whittlesey's Point, extends under a part of the city. *Pop.* (1897) 17,150.

Watertown, in *Ohio*, a post-township of Washington co.

Watertown, in *Vermont*, a town of Caledonia county.

Watertown, in *Wisconsin*, a township of Jefferson co. —A city of Jefferson co., 40 m. N.E. of Madison. *Pop.* (1895) 9,922.

Wa′ter-trunk, *n.* A deal trough, or cistern lined with lead, to contain water.

Wa′tervale, in *New York*, a post-village of Onondaga co., 13 m. S.E. of Syracuse.

Wa′terville, in *Kansas*, a township of Marshall county.

Waterville, in *Maine*, a thriving manufacturing city of Kennebec co., 18 m. N.E. of Augusta, on the right bank of the Kennebec river, at Ticonic Falls. Around the Falls are clustered saw-mills, plough, axe, hoe, and scythe factories, machine-shops, tanneries, &c. *W.* has a Baptist college, with a library of 15,500 vols., an academy, &c.

Waterville, in *Minnesota*, a post-village and township of Le Sueur co., 17 m. S.W. of Faribault.

Waterville, in *New York*, a post-village of Oneida co., 45 m. E.S.E. of Syracuse.

Waterville, in *Ohio*, a post-village and township of Lucas co.

Waterville, in *Pennsylvania*, a village of Delaware co., 4 m. S.E. of Media.

Waterville, in *Vermont*, a post-vill. and township of Lamoille co., 40 m. N.N.W. of Montpelier.

Waterville, in *Wisconsin*, a township of Pepin county.

Wa′ter-violet, *n.* (*Bot.*) The Water-feather. See HOTTONIA.

Watervliet, (*wa′ter-vle-et,*) in *Michigan*, a post-township of Berrien co.

Wa′tervliet, in *New York*, a post-township of Albany co., containing the city of Cahoes.

Wa′terways, *n. pl.* (*Ship-building.*) Strong pieces of planking which extend around a ship at the junction of the decks with the sides, to prevent the water entering between the edge of the deck and the ship's sides; and also to counteract any tendency in the beams to slip upwards.

Wa′ter-wings, *n. pl.* (*Arch.*) Walls erected on the banks of rivers, next to bridges, to secure the foundations from the action of the current.

Wa′ter-works, (*-wurks,*) *n. pl.* Hydraulic works and machines erected or constructed for the purpose of raising, retaining, conducting, or distributing water; or, contrivances for obtaining motive power from falls or currents of water.

Wa′ter-wheel, *n.* (*Hydraul.*) When water is continuously flowing from a higher to a lower level, it may be used as a motive power. This is effected by means of *water-wheels*; that is, wheels provided with buckets or float-boards at the circumference, on which the water acts either by pressure or by impact.—Water-wheels turn in a vertical plane round an horizontal axis, and are of three principal kinds, *undershot*, *overshot*, and *breast*.— In *undershot* wheels (2, Fig. 2603) the float-boards are at right angles to the circumference of the wheel. The lowest float-boards are immersed in the water, which flows with a velocity depending on the height of the fall. Such wheels are applicable where the quantity of water is great, but the fall inconsiderable. —*Overshot* wheels (1, Fig. 2603) are used with a small quantity of water which has a high fall, as with small mountain streams. On the circumference of the wheel there are buckets of a peculiar shape. The water falls into the buckets on the upper part of the wheel, which is thus moved by the weight of the water, and as each bucket arrives at the lowest point of revolution it discharges all the water, and ascends empty.—In *breast* wheels, (3, Fig. 2603,) water acts both by its weight and its momentum.—A turbine is an horizontal water-wheel with a vertical axis, receiving and discharging water in all directions round that axis. It is driven partly by the weight of water and partly by the impulse, and has a certain velocity of maximum effect, bearing a ratio to the fall of water which depends on the construction of the turbine, and which is, in general, about half the velocity at which the turbine would revolve if unloaded. Turbines have the advantage of being of small bulk for their power, and equally efficient for the highest and the lowest falls.

Fig. 2603. — WATER-WHEELS.

Wa′tery, *a.* [A. S. *waterig.*] Resembling water; having tenuity or transparency, as a liquid.—Hence, full of tasteless fluid; insipid; spiritless; as, *watery* potatoes.—Wet; abounding with water; as, *watery* eyes.— Pertaining to, or consisting of water; as, Ocean's *watery* kingdom.

Wat′ford, a town of England, co. of Herts, 15 m. N.W. of London. *Manuf.* Straw-plait, and matting. *Pop.* 7,418.

Wat′kinsville, in *Georgia*, a post-village, cap. of Clarke co., 64 m. N.W. of Milledgeville.—A village and township of Coffee co.

Wat′ling's Island, in the British W. Indies, one of the Bahamas, 18 m. long, 50 m. E.S.E. of San Salvador; Lat. 23° 56′ 7″ N., Lon. 74° 28′ W.

Wat′onwan, a river of *Minnesota*, rises in Cottonwood co., and flows into Blue Earth River, abt. Lat. 44° N., Lon., 94° 12′ W., after an E. course of 80 m.—A S. co.; *area*, 432 sq. m. *Rivers.* Watonwan and Perch. *Surface*, undulating; *soil*, fertile. *Cap.* St. James. *Pop.* (1895) 10,262.—A village of Blue Earth co., 10 m. S.W. of Mankato.

Watse′ka, or **Wataska,** in *Illinois*, a city, the cap. of Iroquois co. *Pop.* (1897) 2,430.

Wat′sou, in *Michigan*, a township of Allegan county.

Watson, in *New York*, a post-township of Lewis county.

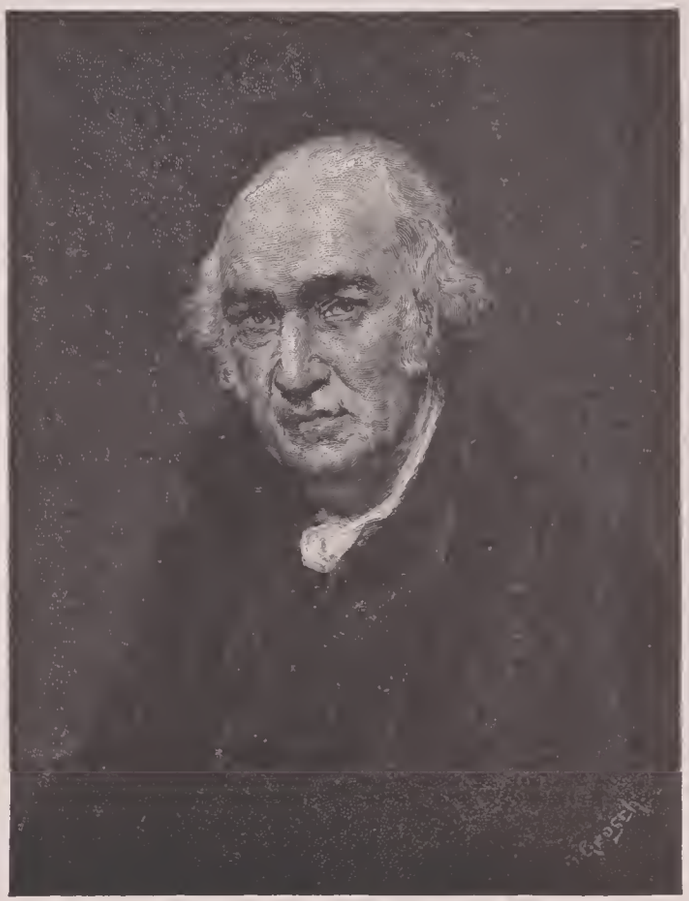
Watson, in *Pennsylvania*, a township of Lycoming co.

Wat′sontown, in *Pa.*, a post-borough of Northumberland co., on the Susquehanna, 18 m. above Sunbury.

Wat′sonville, in *California*, a post-town of Santa Cruz co., 40 m. S. of San José.

Watt, JAMES, (*wot,*) an eminent Scottish engineer, to whose great skill and original genius we owe the improvement of the steam-engine, B. at Greenock, 1736. Under his father he acquired a knowledge of mathematical instrument-making, and at the age of 19 he set out for London to acquire a further insight into his profession; here his progress was so rapid that he soon returned to Scotland, and, under the patronage of the university, settled at Glasgow, where, after twenty years of enlightened activity, he brought to perfection the discovery that has immortalized his name, (see STEAM-ENGINE.) D. 1819. Watt was a member of the Royal Societies of London and Edinburgh, a correspondent of the French Institute, and was enrolled among the associates of the Academy of Sciences at Paris. A statue to his memory was set up in Westminster Abbey in 1824. Statues to his honor have likewise been erected at Manchester, Glasgow, and Greenock.

Watteau, ANTOINE, (*wat-to′,*) a French painter, B. at Valenciennes, 1684. He went to Paris as a journeyman house-painter, and rose to eminence by a painting known as *A Journey to Cytherea*. He left 563 works almost limited to the class of *fêtes champêtres*, representations of an



James Watt

1736–1819

ideal rural life. The fashion which he set long prevailed in French art. D. 1721.

Wattle, (*wŏt'tl,*) *n.* [A. S. *watel*, a hurdle, a covering.] A twig; a wand; a flexible rod; — hence, a fence or hurdle made of such rods.—A rod fixed on a roof to support the thatch.—The barbs, or loose, red, fleshy excrescences, growing under the throat of a cock or turkey, or a like substance on a fish; — generally used in the plural; as, the *wattles* of a barbel. — The astringent bark of an Australian tree of the genus *Acacia* (or *Mimosa*), used by tanners, — called also *wattle-bark;* also, the tree from which it is obtained.

—*v. a.* To bind with twigs.— To twist, plat, or interweave, as twigs, one with another, thus forming a kind of network; as, a *wattled* hedge. — To form of twigs interlaced; as, a *wattled* sheep-pen.

Wat'tle-bird, *n.* (*Zoöl.*) See ANTHOCHÆRA.

Wat'tling, *n.* Act of interweaving or platting with twigs; also, the platting itself; as, a *wattling* of canes.

Watts, ISAAC, (*wŏts,*) an English dissenting divine, b. in Southampton, 1673, became tutor to the son of Sir John Hartopp, and two years later was chosen assistant minister to the Independent congregation in Mark Lane, London. His principal works were, *A Treatise on Logic;* an *Essay on the Improvement of the Mind; Introduction to Astronomy and Geography;* Hymns, and a poetical version of the Psalms, usually sung in dissenting congregations; besides Poems, chiefly religious. D. 1748.

Watts'burg, in *Pennsylvania,* a post-borough of Erie co., 18 m. S.E. of Erie.

Wau'beck, in *Wisconsin,* a post-township of Pepin co., 12 m. N.E. of Pepin.

Waucht, Waught, (*wawt,*) *n.* [Scot.; A. S. *veaht.*] A deep draught or potation of liquor.

Waucon'da, in *Illinois,* a post-village and township of Lake co., abt. 42 m. N.W. of Chicago.

Wau'kau, in *Wisconsin,* a post-village of Winnebago co., 60 m. N.E. of Madison.

Waukee'hon, in *Wisconsin,* a township of Shawanaw co.

Wauke'gan (formerly LITTLEFORT), in *Illinois,* a city and township, cap. of Lake co., on Lake Michigan, 35 m. N.W. of Chicago. *Pop.* (1897) 8,515.

Wau'kesha, in *Wisconsin,* a S.E. co.; *area,* 576 sq. m. *Rivers.* Bark, and Pishtaka or Fox river. *Surface,* undulating; *soil,* fertile. *Cap.* Waukesha. *Pop.* (1895) 36,562.—A fine town and township, cap. of the above co., 60 m. E. of Madison. *Pop.* (1897) 7,600.

Wau'kon, or **Wawkon,** in *Iowa,* a post-town, cap. of Allamakee co., 18 m. E. of Decorah. *Pop.* (1895) 2,916.

Waul, *v. n.* To miaul; to make a shrill cry, resembling that of a cat; as, a *wauling* infant.

Wauman'da, in *Wisconsin,* a post-township of Buffalo co., about 8 m. N.E. of Alma.

Waupac'a, a river of *Wisconsin,* enters Wolf river from Waupaca co.—A N.E. co.; *area,* 756 sq. m. *Rivers.* Wolf, Little Wolf, and Waupaca. *Pop.* (1895) 30,793.—A city and township, cap. of the above co., 50 m. N.N.W. of Fond du Lac. *Pop.* (1895) 2,823.

Waupon'see, in *Illinois,* a post-township of Grundy co.

Wau'pun, in *Wisconsin,* a city of Fond du Lac and Dodge cos., on C., M. & St. P. R.R., 19 m. S.W. of Fond du Lac. *Pop.* (1895) 3,216.

Wau'sau, or **Wassaw,** in *Wisconsin,* a city, cap. of Marathon co., 175 m. N. of Madison. *Pop.* (1895) 11,013.

Wau'seon, in *Ohio,* a post-village, cap. of Fulton co., 30 m. S.W. of Toledo.

Wansha'ra, in *Wisconsin,* a central co.; *area,* 645 sq. m. *Rivers.* Pine and Mecan; also, Willow creek. *Surface,* diversified; *soil,* fertile. *Cap.* Wautoma. *Pop.* (1895) 15,355.

Wanto'ma, in *Wisconsin,* a post-vill. and twp., cap. of Waushara co., 75 m. N. of Madison.

Wanwato'sa, in *Wisconsin,* a post-village and twp. of Milwaukee co., 5 m. W. of Milwaukee.

Wauze'ka, in *Wisconsin,* a post-vill. and twp. of Crawford co., 17 m. E. of Prairie du Chien.

Wave, *n.* [A. S. *wæg.*] The alternate elevation and depression of parts of the surface of a liquid above and below the natural level. When the surface of a liquid is unequally pressed, the columns which sustain the greatest pressure are shortened, and sink below the original level; and the contiguous columns, being affected by the same pressure, will be lengthened and rise above that level. But as the elevation is not sustained by an hydraulic pressure, the lengthened columns again fall, and acquiring in the fall a velocity due to the height, descend below the original level, communicating in their turn a pressure to those which are adjacent to them. In this manner a reciprocating motion is produced, the particles to which the primitive impulse was communicated being alternately the lowest and the highest; the result is a series of ridges and hollows called *waves* or *undulations.* In passing from the columns which are shortened to those which are lengthened, and back again to those to which they originally belonged, the particles of the fluid acquire both a vertical and horizontal motion; but while the depth is sufficient to allow the oscillations to proceed unimpeded, no progressive motion takes place, each column being kept in its place by the pressure of the surrounding columns. If, however, free oscillation be prevented (as by the shelving of the shore, or by the interposition of a rock), the columns in the deep water are not balanced by those in the shallower, and thus they acquire a progressive motion towards the latter, or form *breakers.* For this reason, waves always break against the shore, whatever be the direction of the wind. See TIDE.

—Unevenness; inequality of surface; as, the *waves* of a prism. (*Newton.*)—The line or streak of lustre on cloth watered and calendered. — Any undulating or waving motion; as, a *wave* of the hand.

Earth wave, an undulation of the earth during an earthquake. — *Waves of sound,* undulations propagated to the ear and producing sound.

Wave, *v. n.* [A. S. *wagian.*] To move as a wave, or to move to and fro, or up and down; to undulate; to float; as, a flag *waving* in the wind. — To be moved, as a signal; as, he *waves* his hand. — To be in an unsettled state; to fluctuate; to waver; to vacillate.

—*v. a.* To raise into waves, or inequalities of surface; to give an undulating form of surface to. — To brandish; to waft; to move one way and the other; as, "They *waved* on high their reeking swords." (*Chapman*). — To beckon; to signal or direct by a waft or waving motion.

Wave, *v. a.* Same as WAIVE, *q. v.*

Waved, *p. a.* Variegated in lustre; exhibiting a wave-like form or outline; undulating; as, a *waved* edge, a *waved* ribbon.

(*Her.*) Noting an indented outline representing honors originally acquired at sea.

(*Nat. Hist.*) Alternately convex and concave.

Wave'less, *a.* Free from waves.

Wave'land, in *Indiana,* a post-town of Montgomery co., 15 m. S.W. of Crawfordsville.

Wave'-line, *n.* (*Geol.*) The faint outline left by a wave or wavelet, where it dies out on a beach.

Wa'vellite, *n.* (*Min.*) A hydrated phosphate of alumina, found generally in small crystals forming hemispherical or globular concretions with a radiated structure.

Wave'-loaf, *n.* A loaf of bread used as a wave-offering.

Wave'-offering, *n.* In the Jewish ceremonial worship, an offering (generally a loaf of bread) made by waving it toward the four cardinal points.

Wa'ver, *v. n.* To wave; to play or move to and fro; to move one way and the other; hence, to reel; to totter; to be in danger of falling; as, a *wavering* gait. — To fluctuate; to vacillate; to be unsettled in opinion; to be undetermined; as, to *waver* in one's choice.

Wa'verer, *n.* One who wavers; one who is unsettled or undetermined in doctrine, will, or opinion.

Wa'veringly, *adv.* In a doubtful, fluctuating manner.

Wa'verley Novels, *n. pl.* (*Lit.*) The generic name given to the novels of Sir Walter Scott :—from *Waverley,* the title of the first of the collection.

Waverly, in *Indiana,* a post-vill. and twp. of Morgan co., about 18 m. S.S.W. of Indianapolis.

Waverly, in *Iowa,* a city, cap. of Bremer co., 115 m. W.N.W. of Dubuque. *Pop.* (1895) 2,916.

Waverly, in *Michigan,* a thriving township of Van Buren co.

Waverly, in *Missouri,* a post-town of Lafayette co;— in *New York,* a post-village of Tioga co., 17 m. E.S.E. of Elmira;—in *Ohio,* a post-village, cap. of Pike co., 61 m. S. of Columbus;—in *Penna.,* a village of Bradford co. The revised boundary line between the States of New York and Pennsylvania, completed in 1878, divided the village of *W.* unequally between these two States.—A post-borough of Lackawanna co.

Waverly, in *Tennessee,* a post-village, cap. of Humphreys co., 66 m. W. of Nashville.

Wa'ving, *n.* Act of moving or playing loosely, as a wave.

Wavre, (*vah'vr,*) a town of Belgium, prov. of S. Brabant, 15 m. S.E. of Brussels. *Manuf.* Hats, leather, and cotton yarn. *Pop.* 5,830.

Wav'y, *a.* Full of waves; rising or swelling in waves; as, Ocean's *wavy* breast. (*Dryden.*)—Undulating; playing loosely to and fro; as, "Sheaves of rye grow *wavy* on the tilth."—*Philips.*

(*Bot.*) Waved; undulating on the surface or on the border.

Wawa'ka, in *Indiana,* a post-village of Noble co., 20 m. E.S.E. of Goshen.

Wa'warsing, in *New York,* a post-township of Ulster co.; *pop.* abt. 10,000.

Wax, (*wăks,*) *n.* [A. S. *weax.*] (*Chem.*) A name applied to several substances of very different composition and origin. Thus, we have the true vegetable wax or tallow from the *Stillingia sebifera,* the so-called Chinese vegetable wax, which is the secretion from an insect (a coccus), resembling spermaceti in appearance, and ordinary bees'-wax, a true animal secretion, formed by the common honey-bee. At one time it was supposed that the bee collected the wax ready formed from the plants on which it alighted; but the experiments of Dumas and others fully prove that it can secrete it when fed on sugar alone. Wax has been used as a candle material from the earliest ages. It is, when first collected, of a more or less deep yellow color; it consequently has to be bleached before use. This is effected by first melting the wax with a small portion of sulphuric acid, which facilitates the separation of certain of the impurities which subside in the acidulated water. So soon as by subsidence the wax is bright, it is cut up into ribbons and bleached by exposure to the sun and air for several days; after which it is once more melted, cut into ribbons, and exposed to the sun. Should it still have a yellow tinge, it is subjected to the same process again. The wax is not only whitened in the bleaching process but hardened. Although candle-making has reached such perfection, and we have every reason to be satisfied with the stearic and paraffin and spermaceti candles at present in use, none of them come up to the pure wax-candle in beauty, luminosity, hardness, and high fusing-point. Wax does not mould well; wax-candles are consequently made by dipping and rolling on a smooth marble slab. The true nature of wax was long unknown; but the investigations of Brodie have explained its composition in a most satisfactory manner. By solution in boiling alcohol, a substance known as *ungricin* separates; as the alcohol cools, *ceric* or *cerotic acid* crystallizes out, leaving *cerolein* in solution. Wax is a very interesting material, from the number of valuable substances that may be formed from it. Yellow wax may be bleached by the action of chlorine, but it cannot be used for candles, in consequence of a chlorine compound being formed, which, on burning, gives off fumes of hydrochloric acid. It was in investigating this process that Gay-Lussac discovered the process of substitution. See CEROPLASTIC.

—A thick, sticky substance excreted by the ear. (See CERAMEN.) — A tenacious substance used in sealing letters. (See SEALING-WAX.) — A thick, resinous, wax-like substance used by shoemakers for rubbing their thread.

Mineral-wax. (*Min.*) See OZOCERITE.

—*v. a.* To smear or rub with wax; as, to *wax* a thread, to *wax* a mahogany table.

—*v. n.* [A. S. *waxan.*] To grow; to increase in size; to become larger or fuller; — antithetical to *wane;* as, the *waxing* and *waning* of the moon. (*Hakewill.*) — To become; to pass from one state to another; as, to *wax* strong, to *wax* rich, to *wax* worse and worse, &c.

Waxing kernels. (*Med.*) Small tumors formed by the enlargement of the lymphatic glands, especially in the groins of children;—popularly ao called, because supposed to be connected with the growth of the body.

Waxahach'ie, in *Texas,* a post-village and township, cap. of Ellis co., 190 m. N.E. of Austin.

Wax'-berry, *n.* (*Bot.*) See MYRICACEÆ.

Wax'-candle, *n.* See CANDLE.

Wax'-chandler, *n.* A maker of wax-candles.

Wax'-cloth, Wax'ed-cloth, *n.* Cloth covered with a coating of wax, commonly ornamented with some figured pattern, and used as covers to tables, pianos, side-boards, &c.

Wax'ed-end, Wax'-end, *n.* A thread pointed with a bristle and covered with shoemaker's-wax, used in sewing leather, as for boots, shoes, and the like.

Waxen, (*wăks'n,*) *a.* Made of wax; as, *waxen* wings. —Wax-like; having the characteristic quality of wax; — hence, soft; yielding; ductile; pliant. — Coated or covered with wax; as, a *waxen* thread.

Wax'flower, Clustered. The Madagascar jasmine.

Wax'iness, *n.* State or quality of being waxy.

Wax'-light, (*-līt,*) *n.* A candle or taper of wax.

Wax'-modelling, *n.* Art of forming models and figures in wax.

Wax'-myrtle, (*-mĕr'tl,*) *n.* See MYRICACEÆ.

Wax'-painting, *n.* (*Fine Arts.*) See ENCAUSTIC.

Wax'-palm, *n.* (*Bot.*) See CEROXYLON.

Wax'-paper, *n.* Paper prepared with a coating of white wax and other ingredients.

Wax'-wing, *n.* (*Zoöl.*) See AMPELIDÆ.

Wax'-work, (*-wurk,*) *n.* Preparations in wax of fruits, flowers, &c.; figures formed of wax in imitation of real beings; also, anatomical representations formed in wax.

(*Bot.*) *Celastrus scandens.* See CELASTRACEÆ.

Wax'-worker, (*wurk'er,*) *n.* A worker in wax; a modeller of waxen figures. — A bee that produces wax.

Wax'y, *a.* Soft like wax; resembling wax; viscid; adhesive; hence, yielding; pliable; plastic.

Way, *n.* [A. S. *weg;* Lat. *via,* a way.] That along which anything is carried or conveyed; a highway, road, lane, or path of any kind; a street; any place for the passing of men, cattle, and other animals.—A moving; passage; transit; travel; journey; progression.

"Which *way* shall we go up?" — 2 *Kings* iii. 8.

Length of space; distance; as, he has travelled a long *way.* — Direction of motion or progression; course of travel; tendency of action or advance; as, I did not notice which *way* she took.—Manner or method of doing anything; means of accomplishment; scheme of management or execution; device; as, there are two *ways* of doing a thing — the right *way* and the wrong *way.*— Manner of thinking or behavior; style; mode; method; fashion; as, he has a quaint *way* of expressing himself. —Manner of practice; method or plan of life and conduct; process of things, good or bad; mode of dealing; regular plan or course of action; as, some men are odd and singular in their *ways.*—General scheme of action or conduct; determined course or tendency; as, he is resolved to have his own *way.*

(*Law.*) Either the right which one or more persons have passing over the land of another, or the space over which such right is exercisable. Ways are of various kinds; as a foot-way, for persons passing on foot only; a horse-way, for persons passing on horseback; a drift-way, for driving cattle; a carriage-way, for driving carriages and other vehicles. All these may be either public or private ways, the former open to all, the latter only to particular persons or classes of persons. A private right of way may be grounded on a special permission, as where the owner of the land grants to another the liberty of passing over his land; in which case it is confined to the grantee alone, and cannot be assigned or conveyed to another. It may also be to the grantee, his heirs and assigns, being owners of such a house or close; in which case the right passes with the ownership of such property. The granter may also impose such restrictions upon his grant as he thinks proper. A private right of way may be also constituted by prescription, as where all the owners and occupiers of such a farm, or all the inhabitants of such a hamlet, have from time immemorial used to cross such ground, such usages supposing an original grant. Twenty years' occupation of land, adverse to a right of way and inconsistent therewith, bars the right.

(*Naut.*) The progress or motion of a vessel through the water; — as, the ship makes good *way.*

(*Mech.*) The side of a planer.

By the way, apropos; in passing; aside, as a thing dissociated from, but having a certain relevancy to, the main subject; as, a remark made *by the way.* — *By way*

of, as being; as for the purpose of; as, *by way of* illustration. — *Half-way*, so as to be half finished or arrived at; as, he met my advances *half-way*. — *In the family way*, with child; pregnant. (Colloq.) — *In the way*, so as to meet or fall in with, obstruct, check, hinder, retard, &c.; as, he had a rival *in the way*. — *Out of the way*. (1.) So as not to fall in with, meet, obstruct, hinder, &c. —(2.) Aside; apart; out of the usual or proper course; odd; unusual; singular; wrong; as, an *out of the way* mode of doing business. — *To have way*, or *be under way*. (*Naut.*) A ship in progress is said to *have way* upon her, or *be under way*. See HEADWAY, LEEWAY, STERNWAY. — *To give way*, to yield; to concede in favor of another; to make room for; as, an obstinate man is the last to *give way*. — (*Naut.*) To ply the oars energetically; as, to *give way* with a will. — *To go*, or *come one's way*, to depart or come along; as, he *went his way* rejoicing. — *To go the way of all the earth*, to die; to yield up the breath. — *To make way*, to allow room to pass; also, to make a vacancy; as, he resigned to *make way* for an abler man. — *Ways and means*, resources; methods; facilities; in a legislative sense, when a parliamentary or congressional body goes into committee of the whole house for the purpose of considering the manner in which funds are to be raised for the public expenditure, it is said to go into committee of *ways and means*.

Way of the rounds. (*Fortif.*) A space left for the passage round between a rampart and the wall of a fortified place. (*Crabb.*)—NOTE. *Way* and *ways* are sometimes used in phraseology in the sense of the terminal syllable *wise*; as, he married a woman in no *ways* his equal.

Wayawan'da, or WAWAYANDA, in *New York*, a twp. of Orange co., 5 m. W. of Goshen.

Way'-baggage, (*bāg'gaj*,) *n.* The baggage of a passenger by railroad, &c.

Way'-bill, *n.* A list of passengers travelling by public conveyance, or of the baggage and freightage transported by it.

Way'farer, (*-fair-*,) *n.* A traveller; a passenger; usually, one who journeys on foot.

Way'faring, *n.* Travelling; passing; being on a journey; generally, a travel or journey on foot.

Way'faring-tree, *n.* (*Bot.*) See VIBURNUM.

Waygiou, (*wai'gi-ou*,) an island of the Eastern Archipelago, 80 m. long, and abt. 25 m. broad, separated from New Guinea by Dampier's Strait; Lat. 0° 5′ S., Lon. 130° 15′ E.

Way'-going, *a.* Departing; pertaining or having reference to one who goes away.

Way-going crop. (*Law.*) In Pennsylvania, the right which, by the custom of the country, a tenant for a term certain possesses, after the expiration of his lease, of entering and taking away the crop of grain which he had put into the ground the preceding fall.

Way'land, FRANCIS, minister and educator, was born in the city of New York in 1796. He graduated at Union College in 1813, studied medicine, and was licensed as a practitioner. In 1816, however, he entered the theological seminary at Andover, and became, in 1821, pastor of the First Baptist Church in Boston, where he was ordained, and remained 5 years. One of his published sermons of this period on the *Moral Dignity of the Missionary Enterprise*, had an extraordinary success, passing through many editions in America and England. In 1826 he was chosen president of Brown University, Providence, R. I., and entered upon his duties in 1827. Dr. W. taught by lectures in place of the old text-books, and the public have participated in the benefits of his efforts within the college by the publication of his works on *Moral Science*, *Political Economy*, and *Intellectual Philosophy*. He proposed a change in the working system of the college, by which single studies might be followed and collegiate honors awarded for a partial course. In 1842, he stated his views on this subject in a work entitled *Thoughts upon the Collegiate System of the United States*, which led to much discussion. In 1850, Brown University was reorganized on his plan. He resigned the presidency of the university in 1855, and afterward devoted the most part of his time to religious and humane labors. Died in 1865.

Way'land, in *Massachusetts*, a post-village and twp. of Middlesex co., 16 m. N.W. of Boston.

Wayland, in *Michigan*, a post-village and twp. of Allegan co., abt. 25 m. S. of Grand Rapids; *pop.* abt. 1,200.

Way'land, in *New York*, a twp. of Steuben co., containing the post-vill. of Wayland dept.; *pop.* abt. 3,800.

Way'lay, *v. a.*, (*imp.* and *pp.* WAYLAID.) To lay one's self in the way of; to watch insidiously in the way, with a view to seize, rob, or slay; to lie in wait for; to beset in ambush; as, the party was *waylaid* by brigands.

Way'layer, *n.* One who waylays, or lies in ambush for another.

Way'less, *a.* Without a road or path; trackless.

Way'-mark, *n.* A land-mark; a guide-post.

Way'mart, in *Pennsylvania*, a post-borough of Wayne co., abt. 9 m. N.W. of Honesdale.

Wayne, in *Georgia*, a S.E. co.; *area*, 750 sq. m. *Rivers*. Altamaha and Santilla. *Surface*, undulating, and in part covered with forest; *soil*, sandy. *Cap.* Jesup. *Pop.* (1897) 8,150.

Wayne, in *Illinois*, a S.E. co.; *area*, 720 sq. m. *Rivers*. Little Wabash and Skillet Fork; also, Elm creek. *Surface*, level; *soil*, fertile. *Cap.* Fairfield. *Pop.* (1897) 25,460.

—A post-township of Du Page co., 35 miles northwest of Chicago.

Wayne, in *Indiana*, an eastern county, bordering on Ohio; *area*, 380 sq. m. *Rivers*. The Whitewater and several of its branches. *Surface*, undulating; *soil*, very fertile. *Cap.* Richmond. *Pop.* (1897) 39,330. Also the name of 16 townships, in —Allen co.—Bartholomew county.—Fulton county.—Hamilton county.—Henry county.—Huntingdon county.—Jay county.—Kosciusko county.—Marion county.—Montgomery county.—Noble county.—Owen county.—Randolph county.—Stark county.—Tippecanoe county.—Wayne county.

Wayne, in *Iowa*, a S. county, bordering on Missouri; *area*, 525 sq. m. *Rivers*. The South Fork of Charlton river; also Medicine and Locust creeks. *Surface*, undulating, and diversified with prairies and groves of deciduous trees; *soil*, very fertile. *Products*. Indian corn, wheat, and oats. *Cap.* Corydon. *Pop.* (1895) 16,155.—A post-township of Henry co, about 3 m. S.W. of Muscatine.—A township of Jones co.—A township of Mitchell co.—A township of Monroe co.

Wayne, in *Kansas*, a township of Douiphan co.

Wayne, in *Kentucky*, a S. co., bordering on Tennessee; *area*, 590 sq. m. *Rivers*. South Fork of the Cumberland; also Beaver and Otter creeks. *Surface*, diversified; *soil*, fertile. *Min.* Coal and iron. *Cap.* Monticello. *Pop.* (1897) 14,200.

Wayne, in *Maine*, a post-township of Kennebec co., 12 m. W. of Augusta.

Wayne, in *Michigan*, a S.E. co., bordering on lakes Erie and St. Clair, and Upper Canada; *area*, 565 sq. m. *Rivers*. Detroit, Huron, and Rouge. *Surface*, level; *soil*, fertile. *Cap.* Detroit. *Pop.* (1894) 292,495.

—A township of Cass co.

Wayne, in *Mississippi*, an E.S.E. co., bordering on Alabama; *area*, 775 sq. m. It is traversed by the Chickasawhay river. *Surface*, undulating; *soil*, sandy. *Cap.* Waynesboro. *Pop.* (1897) 10,250.

Wayne, in *Missouri*, a S.E. co.; *area*, 800 sq. m. *Rivers*. Big Black, Castor, and St. Francis. *Surface*, diversified; *soil*, generally fertile. *Cap.* Greenville. *Pop.* (1897) 12,540.

—A township of Buchanan co.

Wayne, in *New Jersey*, a township of Passaic co.

Wayne, in *New York*, a N.W. central co., bordering on Lake Ontario; *area*, 621 sq. m. *Rivers*. Clyde and Canandaigua Outlet. *Surface*, undulating; *soil*, fertile. *Min.* Iron, limestone, and gypsum; also sulphur springs. *Cap.* Lyons. *Pop.* (1897) 51,270.—A village and township of Steuben co., 12 m. N.E. of Bath.

Wayne, in *North Carolina*, an E. central co.; *area*, 615 sq. m. *Rivers*. Neuse; also Contentuy creek. *Surface*, undulating; *soil*, sandy. *Cap.* Goldsborough. *Pop.* (1897) 28,100.

Wayne, in *Ohio*, a N.E. central co.; *area*, 540 sq. m. *Rivers*. Chippewa and Muddy Fork; also Killbuck and Sugar creeks. *Surface*, undulating; *soil*, fertile. *Min.* Mines of bituminous coal have been opened in this county, which has also quarries of limestone. *Products*. Wheat, Indian corn, oats, hay, butter, cattle, wool, and pork are the staple products. In 1896 this county produced 1,210,281 bushels of wheat, 1,019,683 of oats, and 1,238,507 of Indian corn. *Cap.* Wooster. *Pop.* (1897) 41,200.—Also the name of 21 townships in: Adams county.—Ashtabula county.—Auglaize county.—Belmont county.—Butler county.—Champaign county.—Clermont county.—Clinton county.—Columbiana county.—Darke county.—Fayette county.—Jefferson county.—Knox county.—Monroe county.—Montgomery county.—Muskingum county.—Noble county.—Pickaway county.—Scioto county.—Tuscarawas county.—Warren county.

Wayne, in *Pennsylvania*, a N.E. co., borderding on New York; *area*, 738 sq. m. *Rivers*. The Delaware; also Lackawaxen, Dyberry, Starucca, and Equinunck creeks. *Surface*, hilly, and largely covered with forests. *Cap.* Honesdale. *Pop.* (1897) 32,050.—Also the name of 8 townships in: Armstrong county.—Clinton county.—Crawford county.—Erie county. 27 m. S.S.E. of Erie.—Greene county.—Lawrence county.—Mifflin county.—Schuylkill county.

Wayne, in *Tennessee*, a S.S.W. co., bordering on Alabama; *area*, 720 sq. m. *Rivers*. Tennessee; also Cypress and Reinses creeks. *Surface*, hilly; *soil*, fertile. *Min.* Iron. *Cap.* Waynesboro. *Pop.* (1897) 12,400.

Wayne, in *Texas*, a village of Cass co.

Wayne, in *West Virginia*, a S.W. co., bordering on Kentucky; *area*, 445 sq. m. *Rivers*. Ohio and Sandy; also Twelve-pole creek. *Surface*, hilly; *soil*, fertile. *Min.* Stone-coal. *Cap.* Wayne. *Pop.* (1890) 18,652.

Wayne, in *Wisconsin*, a township of Lafayette co.

—A township and post-village of Washington co.

Wayne, ANTHONY, an American general of the revolutionary war, b. at Waynesborough, Pennsylvania, 1745, was the grandson of Anthony Wayne, a native of Yorkshire, Eng., who commanded a squadron of dragoons under King William III. at the battle of the Boyne. *W.* was educated at the Philad. academy, and Franklin procured him the appointment as agent of a Philadelphia association, formed for the purchase and settlement of a large tract of land in Nova Scotia. In 1767, he married a daughter of Bartholomew Penrose, an eminent merchant of Philadelphia, and established himself on a farm in his native county. At the outbreak of the revolutionary war, he raised a regiment of volunteers, of which he was appointed colonel, and sent to Canada, where he covered the retreat of the provincial forces at Three Rivers. He commanded at Ticonderoga until 1777, when he was made Brigadier-general, and joined Washington in New Jersey; commanded the rearguard in the retreat at Braudywine; led the attack at Germantown; captured supplies for the distressed army at Valley Forge; distinguished himself at Monmouth; was defeated at Paoli; but achieved one of the most brilliant victories of the war, in the storming of Stony Point, July 15, 1779. His courage and skill saved Lafayette in Virginia in 1780; and he aided in the siege of Yorktown, and commanded in Georgia. At the close of the war, rewarded by popular enthusiasm, and having by his dash and audacity acquired the sobriquet of "Mad Anthony," he retired to his farm at Waynesborough, and engaged in promoting the construction of roads and canals. In 1792 he commanded a successful expedition against the Indians of the north-western territories, where he remained until 1796, as U. S. Commissioner. D. Dec. 14, 1796, in the garrison at Presque Isle, (New Erie).

Fig. 2604. — GEN. WAYNE.

Wayne Court-House, in *W. Virginia*, a post-village, cap. of Wayne co., 275 m. W. of Richmond.

Waynes'borough, in *Georgia*, a post-village, cap. of Burke co., 30 m. S. of Augusta.

Waynesborough, in *Pennsylvania*, a post-bor. of Franklin co., 57 m. S.W. of Harrisburg.

Waynesborough, in *Tennessee*, a post-village, cap. of Wayne co., 90 m. S.W. of Nashville.

Waynesborough, in *Virginia*, a post-town of Augusta co., 108 m. W.N.W. of Richmond.

Waynes'burg, in *Ohio*, a post-village of Stark co., 12 m. S.E. of Canton.

Waynesburg, in *Pennsylvania*, a village of Chester co., 48 m. N.W. of Philadelphia.

—A post-borough, cap. of Greene co., 45 m. S.W. of Pittsburg.

—A village of Mifflin co.

Waynes'field, in *Ohio*, a township of Lucas co.

Waynes'ville, in *Georgia*, a post-village, former cap. of Wayne co., 176 m. S.E. of Milledgeville.

Waynesville, in *Illinois*, a post-village and township of De Witt co., 12 m. N.W. of Clinton.

Waynesville, in *Indiana*, a post-village of Bartholomew co., 5 m. S. of Columbus.

Waynesville, in *Missouri*, a post-village, cap. of Pulaski co., 80 m. S. of Jefferson City.

Waynesville, in *N. Carolina*, a post-village, cap. of Haywood co., 285 m. W. of Raleigh.

Waynesville, in *Ohio*, a post-village of Warren co., 37 m. N.N.E. of Cincinnati.

Wayne'town, in *Indiana*, a post-town of Montgomery co., 10 m. W.N.W. of Crawfordsville.

Way'-passenger, *n.* A passenger taken up at some way-side station or intermediate stopping-place.

Way'-side, *n.* The side of a public way, road, or path.

Way'-station, (*-stā'shun*,) *n.* An intermediate station on a line of journey, particularly on a railroad.

Way'ward, *a.* Bent on having one's own way; liking one's own way; self-willed; froward; perverse; contrary; fanciful; humorsome; as, a *wayward woman*, a *wayward* mood.

Way'-warden, *n.* The warden, superintendent, or surveyor of a road.

Way'wardly, *adv.* In a wayward or wilful manner.

Way'wardness, *n.* State or quality of being wayward; frowardness; wilfulness; perversity.

Way'-wiser, (*-wīz'er*,) *n.* An odometer or pedometer.

Way'wode, Vai'vode. Same as WAIWODE, *q. v.*

Way'worn, *a.* Wearied or fagged by traveiling.

We, *pron.*; *pl.* of 1. (*poss.* OUR or OURS; *obj.* US.) [A. S.] I and others; — denoting the person speaking and another, or others, with him or her. The word is frequently employed individually, as by authors, editors, &c., when speaking of themselves, in order to avoid the appearance of egotism in the too frequent repetition of the personal pronoun *I*. The plural style is also characteristic of the utterances of kings and other sovereign rulers.

Wea, in *Indiana*, a village and township of Tippecanoe co., 3 m. S. of Lafayette.

Wea, in *Kansas*, a post-town of Miami co.

Weak, *a.* (*comp.* WEAKER; *superl.* WEAKEST.) [A. S. *wac*, *waac*; Dan. *svag*; Icel. *vakr*; Ger. *schwach*.] Wanting in or without physical strength; as: (1.) Feeble; infirm; lacking in vigor or strength of body; frail; sickly; not healthy; as, a *weak* constitution.—(2.) Not able to bear a great weight; as, a house built on a *weak* foundation; a *weak* spar; a *weak* rope, &c. — (3.) Not compact, or firmly united or adhering; not with the parts strongly put together; easily broken or fractured; as, a *weak* ship; a *weak* scaffolding.— (4.) Soft; pliant; flexible; not stiff or sturdy; as, the *weak* stem of a plant.—(5.) Not able to resist a violent or forcible attack or onslaught; easily passed, overpowered, or overcome; as, a *weak* barrier; a *weak* fence; a *weak* place in a line of fortifications, and the like. — (6.) Low; feeble; small; thin; wanting force of utterance or vocal development; as, "A voice *weak*, piping, and womanish." (*Ascham.*) — (7.) Not thoroughly or sufficiently impregnated with ingredients, or with parts that excite action, or with stimulating and nourishing substances; not of the customary or necessary strength; as, *weak* tea; *weak* grog; a *weak* solution of any fluid. — (8.) Lacking power or ability for the discharge of an appropriate function or duty; as, a stomach too *weak* for the digestion of ordinary food.— Not possessing, or exhibiting, moral, intellectual, or political strength or vigor; as: (1.) Lacking spirit; feeble of mind or understanding;

deficient in foresight or discernment; as, a *weak* mind and a captious temper are usually found together.—(2.) Consequent upon, or indicative of, lack of judgment, discernment, or mental force; injudicious; unwise; foolish; as, he is *weak* enough to be ruled by his wife.—(3.) Not possessing full confidence or conviction; undecided; unconfirmed; as, a person *weak* in faith.—(4.) Unfortified; accessible; impressible; vulnerable; not having the power to withstand temptation, importunity, inducement, and the like; as, *weak* resolutions; also, wanting in binding force or authority; infirmity; as, all of us have our *weak* side.—(5.) Not having moral force or power to convince; not well supported or fortified by truth or reason; unsustained; wanting in demonstrative efficacy; as, a *weak* argument.—(6.) Lacking in force, terseness, or aptitude of expression; wanting in point or applicability; as, a *weak* literary style.—(7.) Feeble; ineffective; inoperative; as, *weak* excuses.—(8.) Not politically powerful; not having force of authority or energy; lacking in administrative means or resources; as, a *weak* government; a *weak* state among nations.

(Note. *Weak* is frequently employed in the construction of certain self-explanatory compounds; as, *weak*-eyed, *weak*-handed, *weak*-minded, *weak*-spirited, &c.)

Weaken, (*wēk'n,*) *v. a.* [A. S. *wæccan.*] To cause to become weak, languid, or enfeebled; to lessen or impair the vigor of, or to deprive of strength; to enervate; to debilitate; as, to *weaken* the mind or body; to *weaken* the power of a government; to *weaken* the force of an objection, &c.—To lower or reduce in strength, body, or spirit; as, to *weaken* any liquid solution or decoction; to *weaken* over-proof alcohol, &c.

Weak'ener, *n.* One who, or that which, weakens.

Weak'ening, *a.* Having the quality or property of reducing strength.

Weak'-hearted, *a.* Of weak or feeble spirit; wanting in courage; timorous; easily dispirited.

Weak'ish, *a.* Somewhat weak.

Weak'ishness, *n.* Quality of being weakish or deficient in strength.

Weak'ling, *n.* A creature lacking in strength, vigor, or energy; a feeble person.

Weak'ley, in *Tennessee,* a N.N.W. co., bordering on Kentucky; *area,* 620 sq. m. *Rivers.* The North, Middle, and South Forks of the Obion river. *Surface,* level; *soil,* fertile. *Products.* Corn, wheat, oats, hay, considerable dairy produce, live stock, &c. *Cap.* Dresden. *Pop.* (1897) 30,020.

Weak'ly, *adv.* In a weak manner; feebly; listlessly; with little physical strength; faintly; not forcibly; with little conrage or fortitude; as, a place *weakly* defended.—With want of power or efficacy; as, words *weakly* sustained by actions.—With feebleness of mental or intellectual application; injudiciously; indiscreetly; timorously.

—*a.* Infirm; feeble of constitution; not strong physically; as, a *weakly* child.

Weak'ness, *n.* State or quality of being weak; lack of physical strength; deficiency of natural force or vigor; debility; infirmity; feebleness; as, the *weakness* of a person's constitution; the *weakness* of the foundation of a building; the *weakness* of a rope, &c.—Want of sprightliness or activity; as, soft without *weakness.* (*Pope.*)—Lack of resolution; want of steadiness; as, the *weakness* of impotent anger.—Want of mental force or efficacy; lack of cogency; as, the *weakness* of hearsay testimony.—Deficiency or absence of judgment or the reasoning faculty; feebleness of mind or intellect; ill-timed or foolish act; weak trait or characteristic; as, a woman's excuse is *weakness.*—Defect; failing; fault; as, women and wine have been the *weaknesses* of the world's greatest heroes.

Weal, *n.* [From the root of Well, *q. v.*] Happiness; prosperity; well-being; a sound, healthy, prosperous person or thing;—opposed to *woe;* as, the public *weal.*

Weal, *n.* and *v. a.* Same as Wale, *q. v.*

Weald, *n.* [A. S.] A wood or forest. (o.)

Weald'-clay, *n.* (*Geol.*) The uppermost series of the Wealden formation.

Weald'en Forma'tion, *n.* (*Geol.*) The name given to certain deposits occurring in England in the Weald or Wolds (wooded portions) of Kent, and hence to other contemporaneous rocks elsewhere. The Wealden deposits occur between the oölitic and cretaceous series. In England they are almost entirely of fresh-water origin, and include clays, sandstones, and limestones.

Wealth, (*wĕlth,*) *n.* [A. S. *weleg,* rich, with the termination *te* or *de,* forming Eng. *wealth.*] Riches; large possessions of money, goods, or land; that abundance of worldly estate which exceeds the estate of the greater part of the community; affluence; opulence; property; the means of obtaining the products of labor.

Wealth'ily, *adv.* Characterized by wealth; richly.

Wealth'iness, *n.* State of being wealthy; richness.

Wealth'y, *a.* (*comp.* Wealthier; *superl.* Wealthiest.) Rich; possessing wealth; having worldly means in abundance; with larger possessions in lands, goods, money, or securities, or larger than the generality of men; affluent; opulent; as, a *wealthy* miser; a *wealthy* nation.

Wean, (*wēn,*) *v. a.* [A. S. *wenan;* Ger. *entwöhnen,* to disuse, to wean.] To separate from the breast or udder, or from the mother's milk; to accustom to want or be without, as nourishment derived from the mother; as, to *wean* an infant.—Hence, to reconcile to the want or deprivation of anything; to detach or alienate, as the affections, from an object of attraction or desire; as, to *wean* a youth from vicious company.

—*n.* A weanling; a young or newly weaned child.

Wean'ing, *n.* (*Med.*) The act of taking an infant from the breast, and subjecting him to an artificial diet. The exact time when this change should take place must always be an open question, depending on the strength or weakness of the child, and the health and capability of the mother for the duty of a wet-nurse. When mother and child are both in a fair condition of health, the general time of weaning the infant is between the ninth and twelfth month; should the child, however, be very backward with its teeth, and have only cut one or two by the latter period, the time of weaning should be postponed for a few weeks or months. As a general rule, when nature has placed a sufficient number of teeth in the infant's mouth to enable it to mumble the soft aliment on which it is fed, the time has arrived to make it independent of its nurse. All prudent mothers, however, will gradually accustom their infants to the change by beginning to feed them once, twice, and finally three times a day for some few weeks before absolute weaning, at the same time *reducing* the number of times of daily *suckling;* by this means the process is made easy and gradual, and the children are in a great measure spared the distress consequent on an abrupt change.

Wean'ing-brash, *n.* (*Med.*) A severe form of diarrhœa, which supervenes, at times, on weaning.

Wean'ling, *n.* A child or animal newly weaned from its mother or dam.

—*a.* Freshly weaned; as, a *weanling* kid.

Weapon, (*wĕp'n,*) *n.* [A. S. *wæpen;* Du. *wapen;* Dan. *vaaben;* Icel. *vopn.*] That which kills or is used in offensive action; any instrument of destruction, or of offence or defence; that which is used to fight with; anything used, or designed to be used, in destroying or annoying an enemy; as, *weapons* of war.—Hence, that which serves to attack or defend in any contest; as, an angry woman's deadliest *weapon* is her tongue.

Weaponed, (*wĕp'nd,*) *a.* Equipped or furnished with weapons.

Weap'onless, *a.* Unarmed; without a weapon.

Weap'onry, *n.* Weapons considered collectively. (R.)

Wear, (*wār,*) *v. a.* (*imp.* wore; *pp.* worn.) [Icel. *vergan,* a rendering worse; O. Ger. and O. Sax. *werran.*] To make worse, impair, or waste by use, by time, or gradual diminution; to consume gradually; to affect by degrees; as, to *wear* time in slothful idleness; to *wear* a coat until it becomes seedy; to *wear* one's patience by arguing with a woman.—To use up by carrying or having upon one;—hence, to consume by use or application; as, to *wear* clothes rapidly.—To cause by friction or attrition; as, to *wear* a hole in one's stocking.

—*v. n.* To be impaired, wasted, or diminished; to be wasted by time or use;—often followed by a particle, as *out, off,* or *away;* as, he *wears out* many pairs of boots; the nap is *worn off;* this pencil is *worn away* to the stump.—To be tediously spent; to be consumed by small degrees; as, this diffidence will soon *wear off;* to *wear out* miserable days.—To become exhausted; to tire; to be spent; to be overcome by wasted strength and weakened energies; as, a *worn out* veteran soldier.

—*n.* Act of wearing, or state of being worn; diminution by attrition or friction; state of being worn; as, the *wear* of a hat.—Thing worn; style of costume; mode; fashion; as, knickerbockers have come into *wear.*

Wear and tear, loss or injury sustained by wear or use; damage or deprivation by accident; as, the *wear and tear* of a ship's tackling.

Wear, *v. a.* [A. S. *wearian,* to wear, to put on; O. Ger. *werjan, gewerjan,* to put on, to clothe.] To carry or bear upon the person; to carry appendant to the body, as clothes or weapons; to have on; as, to *wear* a cocked hat and sword; to *wear* crinoline.—To bear; to have or exhibit an appearance of; as, he *wears* an ugly scowl on his face.

(*Naut.*) To put a ship on the other tack, by bringing her round with her stern to the wind.—*To wear the breeches.* See Breeches.

Wear, *n.* Same as Weir, *q. v.*

Wear'able, *a.* That may be worn.

Weare, (*wair,*) in *Michigan,* a post-township of Oceana co.

Weare, in *New Hampshire,* a post-township of Hillsborough co., 14 m. S.W. of Concord.

Wear'er, *n.* One who wears or carries as appendant to the body; as, the *wearer* of a scarlet uniform.—That which impairs, wastes, or diminishes.

Wea'riless, *a.* Proof against weariness.

Wea'rily, *adv.* In a weary or tiresome manner.

Wea'riness, *n.* State of being weary or tired; that lassitude or exhanstion of strength which is induced by labor too long protracted; fatigue; also, uneasiness proceeding from continued waiting, disappointed expectation, or exhausted patience, or from other cause.

Wear'ing, *p. a.* Denoting what is worn, or is adapted for wear; as, *wearing* apparel.

—*n.* Manner in which anything wears; consumption; use; as, English broadcloth makes good *wearing.*

Wea'risome, (*-sum,*) *a.* Causing weariness; tedious; tiresome; irksome; fatiguing; as, a *wearisome* journey; a *wearisome* book.

Wea'risomely, *adv.* In a wearisome manner.

Wea'risomeness, *n.* Quality or state of being wearisome; quality of exhausting strength or patience; tiresomeness; irksomeness; tediousness; as, the *wearisomeness* of a bore's platitudes.

Wear'mouth, (Bishop's,) a town of England. See Sunderland.

Wear'mouth, (Monk,) a town of England. See Sunderland.

Wea'ry, *a.* (*comp.* wearier; *superl.* weariest.) [A. S. *werig.*] Fatigued or subdued by protracted or continued toil; having the strength much exhausted by labor or violent exertion; tired; fatigued; fagged; worn out; as, a *weary* traveller.—Having the patience exhausted, or the mind yielding to discouragement; causing weariness; tiresome; boring;—often preceding *of;* as, one is soon *weary of* a dull, monotonous life.

—*v. a.* To make weary; to reduce or exhaust, as the physical strength of the body, by continued or protracted toil; to overtask the bodily energies; to tire; to fatigue; as, to *weary* one's self with incessant brain-work.—To make impatient of prolongation or continuance; as, she *wearies* one with her voluble inanities.—To tease, harass, or worry by anything irksome or invidious; as, I *wearied* of his importunity.

To weary out, to subdue or exhaust by fatigue; as, book-making *wearies out* both mind and body.

Weasand, (*wē'zand,*) *n.* [A. S. *wæsend.*] The windpipe or trachea; the throttle.

Wea'sel, in *New Jersey,* a village of Essex co., 60 m. N.E. of Trenton.

Weasel, (*wē'zl,*) *n.* [A. S. *wesle.*] (*Zoöl.*) The general name of the carvivorous mammals of the family *Mustelidæ* (q. v.), including many genera approaching the cats in the bloodthirstiness of their disposition. The genus *Putorius,* comprising the true weasels, is characterized by a very slender body, long tail, and thirty-four teeth, the dental formula being: incisors $\frac{3-3}{3-3}$ canines $\frac{1-1}{1-1}$, premolars $\frac{3-3}{3-3}$, molars $\frac{1-1}{2-2}$. The lower sectorial tooth is without an inner tubercle. The Mink, *q. v.,* is the type of this genus.

Wea'sel-faced, (*-fāst,*) *a.* Lank-jawed or hatchet-faced, like a weasel.

Weather, (*wĕth'r,*) *n.* [A. S. *weder, wæder;* Ger. *wetter.*] The state or condition of the atmosphere, with respect to heat, cold, dryness, moisture, wind, rain, snow, fogs, &c. The various causes which determine the state of the atmosphere, and produce those changes which are incessantly taking place in its condition, and which are popularly called the *weather,* form the subjects of Meteorology and Climate. See also Atmosphere; Barometer; Cloud; Dew; Hail; Hygrometry; Rain; Wind, &c.

Stress of weather, tempestuous force of winds and waves; as, the ship put back through *stress of weather.*—*Weather of a wind-mill sail,* the angle which the sail makes with its plane of revolution.

—*v. a.* To air; to season by exposure to the air or atmosphere.—To sustain or endure the trying effect of, without harm or detriment; as, to *weather* the storm of popular prejudice.

(*Naut.*) To pass or sail to the windward of; as, to *weather* a cape.—*To weather a point.* (*Naut.*) To gain a point nearer the wind, as a ship; hence, to gain an end, or accomplish an object, in the face of obstacles or opposition.—*To weather out,* to encounter and pass through safely, though not easily; as, to *weather out* a gale at sea.

—*v. n.* To undergo atmospheric action or influence;—sometimes, to wear away or suffer change by force of meteorological influences.

—*a.* (*Naut.*) On the windward side, or that side which is nearest the quarter whence the wind blows from:—opposed to *lee,* and often used in the composition of sea-terms; as, to have the *weather*-gage.

To carry a weather or *weatherly helm.* (*Naut.*) To tend to come up into the wind, as a ship, so as to require the helm to be put up constantly.

Weath'er-beaten, *a.* Beaten or harassed by the action of the weather; worn by exposure to severe weather; as, a *weather-beaten* sailor.

Weath'er-bit, or **-bitt,** *n.* (*Naut.*) A turn of the cable about the end of the windlass, without the bitts.

—*v. a.* (*Naut.*) To take another turn with; as, to *weather-bit* a cable around a windlass.

Weath'er-bitten, (*-bit'tn,*) *a.* Nipped, defaced, or worn by exposure to the weather.

Weath'er-board, *n.* (*Naut.*) The windward, or weather side of a ship.—Also, a piece of plank placed in the ports of a ship, when laid up in ordinary, and serving as a protection from bad weather.

(*Arch.*) A feather-edged boarding nailed upright, the boards overlapping each other.

—*v. a.* (*Arch.*) To fasten boards by overlapping and nailing them together, to keep out water and the like.

Weath'er-board'ing, *n.* Act of securing boards by nailing them together while in an overlapped position; also, the boards themselves, when so nailed and secured.

Weath'er-bound, *a.* Prevented from proceeding by stress of weather.

Weath'er-breed'er, *n.* A fine day which is supposed to be the precursor of bad weather.

Weath'er-cock, *n.* A weather-vane. See Vane.—Hence, a fickle, inconstant, changeable person; one who is not to be depended upon.

Weathered, (*wĕth'erd,*) *a.* (*Arch.*) Constructed in a sloping form, so as to throw off water;—said of window-sills, cornices, &c.

(*Geol.*) Having the surface altered in color, texture, or composition, or the edges rounded off by exposure to the elements.

Weath'erford, in *Texas,* a city, cap. of Parker co., about 180 m. N. of Austin. *Pop.* (1897) 4,050.

Weath'er-gage, (*-gāj,*) *n.* The position of a ship when lying or sailing to windward of another.—Hence, a position of advantage or superiority; as, a client rarely gets the *weather-gage* of his lawyer.

Weath'er-helm, *n.* (*Naut.*) A tendency, in steering, to come up into the wind, rendering it necessary to put the helm up.

Weath'er-house, *n.* A mechanical contrivance, in the form of a toy-house, to indicate changes of the weather.

Weath'ering, *n.* Exposure to the weather.

(*Geol.*) The destruction or change of form produced on rocks by the action of the weather.

Weath'erly, *a.* (*Naut.*) Making good way to windward; as, a *weatherly* ship.

Weath'erly, in *Pennsylvania*, a post-horough of Carbon co.

Weath'ermost, *a.* Being farthest to the windward; as, the *weathermosl* ship of a squadron.

Weath'er-mould'ing, *n.* (*Arch.*) A lahel, canopy, or drip-stone, over a door or window, intended to keep off water from the parts beneath.

Weath'er-proof, *a.* Proof against wind and water.

Weath'er-roll, *n.* (*Naut.*) The roll of a ship to windward; — in contradistinction to *lee-lurch*.

Weath'ersfield, in *Vermont*, a post-township of Windsor co., 65 ni. S.E. of Montpelier.

Weath'er-shore, *n.* (*Naut.*) The shore lying to windward of a ship; opposed to *lee-shore*.

Weath'er-side, *n.* (*Naut.*) That side of a vessel under sail, upou which the wind blows, or which is to windward; — opposed to *lee-side*.

Weath'er-tide, *n.* [*Weather* and *lide*.] (*Naut.*) The tide which sets against the lee side of a ship, impelling her to the windward.

Weath'er-wise, *a.* Skilled in prognosticating the changes of the weather.

Weave, *v. a.* (*imp.* WOVE; *pp.* WOVEN, WOVE.) [A. S. *wefan*.] To uuite, as threads of any kind, in such a manner as to form a textnre; to form into a web; to nnite, as anything flexible; to cause to cohere by intermixture or close connection; to interpose; to insert; as, to *weave* cloth; words *woven* into song; thoughts *woven* into langnage, &c.

—*v. n.* To work with a loom; to practise weaving.—To become woven or intertwined.

Weav'er, *n.* One who weaves; one who makes weaving his bnsiness.

(*Zoöl.*) See PLOCEUS.

Weav'er's Mill, in *Alabama*, a township of Morgan co.

Weav'ersville, in *Pennsylvania*, a post-village of Northampton co., 100 m. E.N.E. of Harrisburg.

Weav'erville, in *California*, a post-vill., cap. of Trinity co., 180 m N.N.W. of Sacramento.

Weav'ing, *n.* (*Manuf.*) The act, art, or operation of producing cloth by the combination of flexible fibres, performed upon a frame called a *loom*, the invention of which is ascribed to the Egyptians. Among all barbarous nations, *W.* consists of warping and crossing grasses, and snch simple materials as are most easily attaiuable, and is purely darning. The long threads, running from end to end of the piece, are called the *warp;* the cross ones, interlacing from side to side, the *weft*. In the method of *W.* by darning, every alternate tbread of the warp must be lifted by itself to put in the weft-shot, and that process is therefore very tedious; but when a method is employed for lifting up a certain portion of the warp at once, which is called *shedding the web*, to receive the weft-shot, this effects a great saving of time, aud is *W.* in its second stage. *W.* in this state has existed from time immemorial among the Egyptians, Hindoos, Chinese, and others. *Plain W.*, where the weft-threads pass alternately over and under those of the warp, is performed at a loom, of which the essential parts are: 1st, an arrangement for stretching the warp; 2d, a contrivance for raising every alternate thread, or half the threads of the warp, and depressing the other half, so as to open a space or shed for the shuttle which carries the weft; 3d, a contrivance for striking each weft-thread close up to the one previously thrown. In *W.* with the common loom, the warp is wound upon a cylindrical beam or roller. From this the thread passes through a harness composed of movable parts, called the *heddles*, of which there are two or more, consistiug of a series of vertical strings, connected to frames, and having loops through which the warp passes. Each of these heddles receives its portion of the alternate threads of the warp, so that when they are moved reciprocally up and down, the relative position of the alternate threads of the warp is reversed. Each time that the warp is opened by the separating of its alternate threads, a shuttle containing the woof is thrown across it, and the thread of woof is immediately driven into its place by a frame called a *lay*, furnished with thin reeds or wires, placed among the warp like the teeth of a comb. About the latter portion of the 18th century, a loom to go by machinery was eagerly sought after, and was supposed to be an impossibility. Several were constructed and failed, and the cause of their failure, although apparently a trifling one, was, in reality, very important in *W.* by power. It was the want of a means to prevent the breakage of the yarn hy the accidental stoppage of the shuttle in the shed. A Mr. Miller, however, at length invented a means, called a *protector*, by which this difficulty is obviated; and the power-loom is now enahled to perform all the motions of *W.* uninterrupted by accidents of this sort. *Figure-weaving* requires considerable preparation in mounting the loom, and differs from plain-weaving in the number and arrangement of the heddles, and the method of moving them. As the number of heddles was in general too great to be moved by the feet of the weaver, an apparatus called the *draw-loom* was in general use until the introduction of the JACQUARD LOOM, *q. v.* In 1857, Mr. N. B. Carney, of New York, patented a method of weaving fabrics withiu, and upon, a circular frame or loom, the shuttle being carried in a circle round the frame with a continuous movement, the warps, shuttles, and filling being placed at the top of the loom, and a reciprocating movement being continuously given to heddles lying horizontally about the loom, so as to produce the shed properly in front of the shuttle. In the same year, Mr. E. B. Bigelow, of Boston, patented a method of weaving pile fabrics double, by means of transverse intersecting pile wires woven hetween the two fabrics so as to keep them properly apart, with movement at the same time of two shuttles, and an arrangement connecting each shuttle with the shipper, or disconnecting lever of the loom, so that, when the filling fails in either shuttle, the loom is thrown out of gear. Other American inventions in connection with the improvement of the power-loom have been very numerous, bnt comparatively few changes of a radical character have been introduced.

(*Far.*) A peculiar and incessant motion of a horse's head, neck, and body, from side to side, like the shuttle of a weaver passing through the web.

Weazen, (*wē'zn,*) *a.* Thin; sharp; angular; as, a *weazen* visage.

Web, *n.* [A.S. *webb*.] That which is woven; textnre of threads; a sort of tissue or texture formed of threads interwoven with each other; textile fabric; hence, locally, a piece of cloth; as, to spin a *web*. — The filiferous texture spun by a spider. See COBWEB. — A dusky film, or suffusion, that forms over the eye and hinders the sight.— Among block-makers, the thin partition on the inside of the rim and between the spokes of a sheave.

(*Zoöl.*) The membrane which connects the toes of many water-fowls.

(*Mach.*) A thin, vertical, metallic plate connecting an upper and lower table of a girder.— The thin, sharp part of a colter.

—*v. a.* To envelop; to entangle; to insnare or surround with a web, or as if with a web.

Webb, in *Texas*, a S. co., bordering on the Rio Grande, which separates it from Mexico; *area*, 680 sq. m. *Surface*, level; *soil*, fertile. *Cap.* Laredo. *Pop.* (1897) 16,564.

Webbed, (*wĕbd,*) *a.* [From *web*.] With the toes united by a web or membrane, as birds of the order *Natatores*.

Web'bing, *n.* A strong hempen fabric, some two or three inches wide, made for upholding the seats of stuffed chairs, sofas, &c.

Webb's Mill, in *Alabama*, a township of Clarke county.

Web'by, *a.* Pertaining, or having reference, to a web or webs; consisting of, filled, or covered with webs.

Weber, CARL MARIA VON, (*vai'bair,*) a celebrated German musical composer, was B. at Eulin, in Holstein, in 1786. His father was a musician, and had him carefnlly educated. He learnt for a time paiuting and engraving, but music was his passion, aud he began to compose at the age of twelve. He made various musical tours with his father, and about 1803 visited Vienua, where he became acqnainted with the celebrated Haydn and the Abbe Vogler, from whom he received valuable help in his studies. He had now become widely known, and filled successively the offices of Chapel-master at Breslau and Carlsruhe, and director of the opera at Prague, making in the mean time other professional journeys in Germany. At the close of 1816 he settled at Dresden, where he was the founder and director of German Opera. In 1822 he went to Berlin, to bring out his *Der Freischütz*, the most celebrated of his compositions, and which at once gave him rank with the great masters of his art. In 1826 *W.* visited London to superintend the production of his *Oberon*, which he had composed for Covent Garden Theatre, and was brought out, conducted by Weber himself, on the 12th of April, 1826. Soon after, unmistakable symptoms of pulmonary disease presented themselves, and the health of the great composer sank rapidly, and his illustrious career closed on the 5th of June, 1826, when he was found lifeless in his bed. Of his other compositions may be named the operas of *Das Waldmädchen*, recast under the titles of *Sylvana*, *Rübezahl*, and *Euryanthe*.

Web'-eye, *n.* (*Med.*) Obscurity of vision, depeuding on a speck in the cornea.

We'ber, in *Utah*, a river which rises in Summit co., and flowing W., falls into the Great Salt Lake.

—A N. co., bordering on the Great Salt Lake; *area*, 650 sq.m. *Rivers.* Ogden and Weber. *Surface*, mountainous in the center; *soil*, generally fertile. *Cap.* Ogden City. *Pop.* (1895) 25,015.

—A village of Morgan co.

Web'foot, *n.; pl.* WEBFEET. A foot the toes of which are nnited by a membrane.

Web'footed, *a.* [From *web* and *foot*.] Palmiped; having the toes connected by a membrane, as the birds of the order *Natatores*.

Web'ster, DANIEL, one of the greatest statesmen and orators of the United States, B. at Salisbury, in New Hampshire, 1782. He was a child of the wilderness, and but for our system of education, which, even then, pushed the means of instruction into remote solitudes, he would never have been enabled to hring his great faculties to bear in public life. Daniel was the second son of Ebenezer Webster, a small farmer and justice of the county court. He entered Dartmouth College in 1797, and taught school in winter to pay his expenses. He graduated in 1801, and commenced to study law, but was induced, hy an offer of a salary of $350 a year, to become preceptor of an academy at Freburg, Maine, paying his board by copying deeds. In 1804, he went to Boston, and entered the law office of Mr. Gore. In 1805, he was admitted to the Boston bar, passed one year in the practice of his profession at Boscawen, and, on the death of his father, established himself at Portsmouth, N. H., and married in 1808. Having engaged in politics as a member of the Federalist party, he was elected to Congress, where he immediately took rank with the foremost men of the country. He took his seat in the special session of May, 1813, and on June 10, delivered his maiden speech on the repeal of the Berlin and Milan decrees. Thls, and his mastery of the question of currency and finance, secured him a high position. At the close of the session, however, *W.* removed to Boston, where, during a period of 7 years, he devoted himself exclusively to the practice of his profession, and occupied a position as a counsellor and an advocate, above which no one has ever risen in this country. In 1822, he was a member of the Massachusetts Constitutional Convention; and on Dec. 22, 1822, he pronounced at Plymouth, on the anniversary of the landing of the Pilgrims, the first of that remarkable series of discourses,

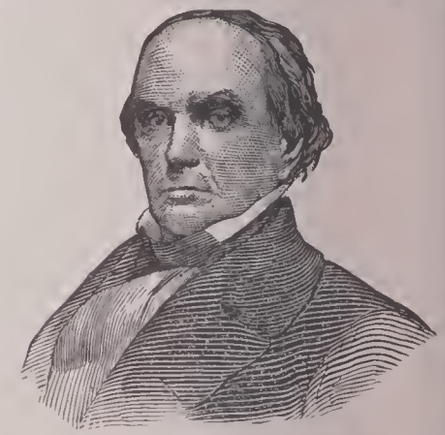


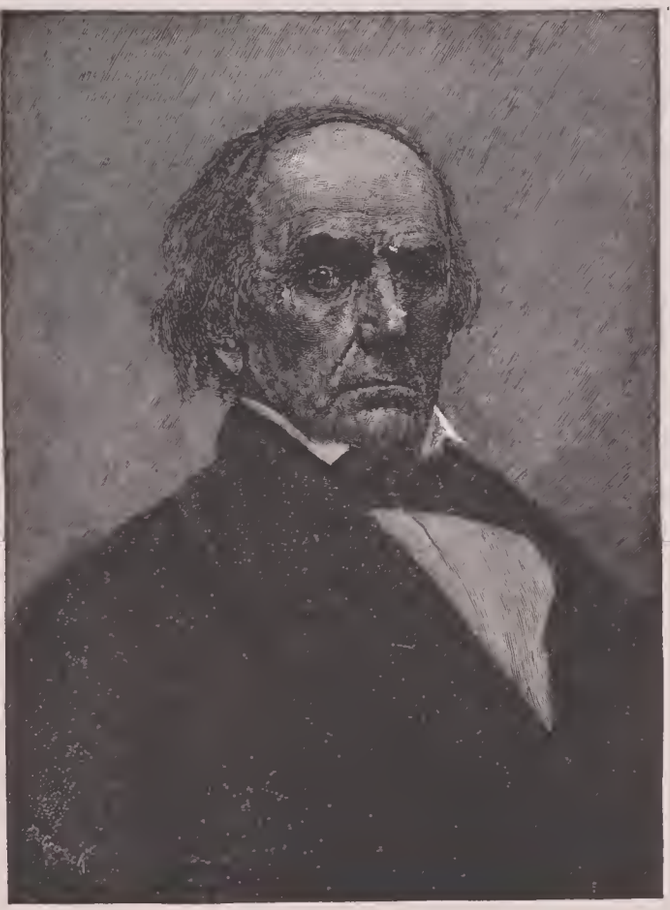
Fig. 2605. — DANIEL WEBSTER.

or orations, which put him in the first rank among American orators. In 1825, he delivered an oration at the laying of the corner-stone of the Bunker Hill Monument; in 1843, one on its completion. In 1826, he pronounced the eulogy of John Adams and Thomas Jefferson, two fathers and Presidents of the American Republic, who died on the same semi-centenary anniversary of the Declaration of Iudependence; and in 1851, a patriotic discourse on the laying of the coruer-stone for the extension of the Capitol at Washington. In 1822, he was elected to Congress from Boston, and distinguished himself by his speeches on the Holy Alliance, and the Greek revolution, and his labors in the revision of the criminal laws of the United States. In 1826, he was chosen senator; and in 1830, rose to the height of his forensic renown, in a speech of two days, in the dehate with Mr. Hayne, of South Carolina, on the right of "nullification." *W.* and Clay were the leaders of the opposition during the administration of Jackson and Van Buren.

Fig. 2606. — BIRTH-PLACE OF DANIEL WEBSTER.

In 1841, he became Secretary of State under President Harrison; remained in the administration of President Tyler until 1843; and was a third time Secretary of State in 1850, in the cabinet of Mr. Fillmore. On various occasions *W.* had been an unsnccessful candidate for the presidency. He aspired again to that position in 1852, but his advocacy of compromises on the slavery question had given offence to tho Abolitionists, and the choice of the convention assembled at Baltimore fell upon Gen. Scott. The great orator died a few months after, Oct. 24, 1852. *W.*'s figure was commanding; his countenance was remarkable even in repose, but when animated by the excitement of debate it "spake no less andibly than his words." His gestures were vehement, without being undignified; and his voice was unrivalled in power, in clearness, and in modulated variety of tone. The most complete edition of his works is that puhlished in 1851, in 6 vols. 8vo.

Web'ster, NOAH, an eminent American lexicographer, B. 1758, in that part of Hartford, Conn., which now forms the town of West Hartford. His ancestor, John Webster, was one of the earliest English settlers in Hartford, and was subsequently governor of Connecticut. Noah, with his father, and 2 other Websters, were in the army on the occasion of Burgoyne's expedition to Canada. Restored to more peaceful pursuits, he continued his studies, and in 1781 was called to the har. He abandoned the law, however, became a schoolmaster and author, and published the *Firsl Part of a Grammatical Institute, Sketches of American Policy*, and other works, and also established and conducted a daily paper in New York. But the work on which his reputation is founded is his elaborate *American Dictionary of the Englísh Language*, a monument of vast ability, industry, and



Daniel Webster

1782–1852

learning, which was published in 1828. This dictionary, revised after Dr. Webster's death, by his son-in-law, Prof. Chauncey A. Goodrich, has been several times since republished in one large 4to volume. Died in 1843.

Web'ster, in *California*, a village of Sacramento co., about 20 m. S. of Sacramento City.

Webster, in *Georgia*, a W.S.W. co.; *area*, 225 sq. m. It is traversed by the Kickafonoo river. *Surface*, level; *soil*, fertile. *Cap.* Preston. *Pop.* (1897) 6,150.

Webster, in *Illinois*, a post-village of Haucock co., about 10 m. N.E. of Carthage.

Webster, in *Indiana*, a township of Harrison co.

—A village of Kosciusko co., about 11 miles N.E. of Warsaw.

Webster, in *Iowa*, a N.W. central co.; *area*, 720 sq. m. *Rivers.* Des Moines, Boone, and Lizard. *Surface*, undulating; *soil*, fertile. *Cap.* Fort Dodge. *Pop.* (1895) 26,945.

—Or WEBSTER CITY, a city, cap. of Hamilton co., on the Illinois Central and Chicago & Northwestern R.Rs., 20 m. E. of Fort Dodge. Has mineral springs and coal mines. *Pop.* (1895) 5,095.

Webster, in *Kansas*, a village of Pottawatomie co., on the Kansas river, opposite Wabaunsee.

Webster, in *Kentucky*, a W. co.; *area*, 340 sq. m. *Rivers.* Green river, and Deep creek. *Surface*, diversified; *soil*, fertile. *Cap.* Dixon. *Pop.* (1897) 17,960.

Webster, in *Maine*, a post-township of Androscoggin co., 20 m. S.W. of Augusta.

Webster, in *Massachusetts*, a post-township of Worcester co., 55 m. W.S.W. of Boston.

Webster, in *Michigan*, a post-township of Washtenaw county.

Webster, in *Minnesota*, a post-township of Rice co.

Webster, in *Missouri*, a S.W. co.; *area*, 630 sq. m. *Rivers.* Niangua, the Osage Fork of the Gasconade, and the James Fork of White river. *Surface*, diversified; *soil*, generally fertile. *Min.* Lead and iron. *Cap.* Marshfield. *Pop.* (1897) 13,010.

—A village of Washington co., 75 m. S.W. of St. Louis.

Webster, in *New Hampshire*, a township of Merrimack county.

Webster, in *New York*, a post-township of Monroe county.

Webster, in *N. Carolina*, a post-village, cap. of Jackson co., about 50 m. W.S.W. of Nashville.

Webster, in *Ohio*, a post-vill. of Darke co., abt. 37 m. N.N.W. of Dayton.—A twp. of Wood co.

Webster, in *Pennsylvania*, a post-village of Westmoreland co.; 20 m. S.W. of Greensburg.

Webster, in *W. Virginia*, an E. central co.; *area*, 400 sq. m. *Rivers.* Elk and Gauley. *Surface*, hilly; *soil*, generally fertile. *Cap.* Addison. *Pop.* (1897) 4,950.

—A post-township of Taylor co.

Webster, in *Wisconsin*, a twp. of Vernonco.

Web'sterite, *n.* (*Min.*) The native subsulphate of alumina, which occurs in several countries in white, or yellowish-white, reniform masses aud botryoidal coucretions.

Web'ster's Mills, in *Penna.*, a post-vill. of Fulton co.

Wed, *v. a.* [A. S. *weddian;* Du. *wedden;* Swed. Goth. *wädja*, to pledge.] To marry; to take for husband or for wife; to espouse; as, the lucky fellow *wedded* a woman worth a pot of money.—To join or unite in wedlock; to give in marriage.—To attach or connect firmly or indissolubly; to unite or intertwine closely in sympathy or affection; as, a patriotic citizen is *wedded* to the interests of his country.

—*v. n.* To marry; to enter into the state of matrimony.

Wed'ded, *a.* Pertaining, or having reference to wedlock or matrimony; as, *wedded* happiness (or misery).

Wed'ding, *n.* Marriage; nuptials; matrimonial rite or ceremony; bridal festivities.

(NOTE. *Wedding* is frequently used in combination with other words, constructing compounds sufficiently self-explaining, as denoting that which belongs to, or is used at, a wedding or weddings; as, *wedding*-cake, *wedding*-cards, *wedding*-day, *wedding*-ring, &c.)

Wedding favor, a knot of white ribbon, &c., worn at weddings.

Wedge, (*wĕj,*) *n.* [A. S. *wæg, wecg;* Du. *wig;* Dan. *wægge;* Ger. *weck.*] (*Mech.*) A body, as of wood or metal, thick at one end and sloping to a thin edge at the other, used in splitting timber, rocks, &c.;—it is one of the five simple engines or mechanical powers, and, as such, performs its office sometimes in raising heavy bodies, but more frequently in dividing or cleaving them;—hence, all those instruments which are used in separating the parts of bodies, such as axes, adzes, knives, swords, colters, chisels, plaues, saws, files, spades, &c., are only different modifications that fall under the general denomination of the *wedge*.

—A solid in the form of a triangle prism, of which the two ends or bases are equal and similar plane triangles, and the three sides rectangular parallelograms; and it is called *rectangular, isosceles*, or *scalene*, according as its equal and similar bases are composed of right angles, isosceles, or scalene triangles.

—Anything in the form of a wedge; as, a *wedge* of silver.—Any thing or body drawn up in wedge-like form, as a division of troops.—In Cambridge University, Eng., a cant term given to the graduate whose name figures the last on the list of the classical tripos.

Spherical wedge. (*Geom.*) The portion of a spherical body included between two planes which intersect a diameter.

—*v. a.* To cleave, rive, or separate with a wedge, or wedges.—To drive as a wedge is driven; to squeeze up closely.

"A crowd where a finger could not be *wedg'd* in more."—*Shaks.*

—To force in, after the manner of a wedge.—To fix in the manner of a wedge; as, a ship *wedged* between rocks.—To fasten with a wedge, or with wedges; as, to *wedge* in a rail.—In potting, to cut, as clay, into wedge-like masses, and worked by dabbing together, to expel air-bubbles, &c.

Wedge'-shaped, *a.* Cuneiform.

(*Bot.*) Broad and truncate at the summit, and tapering down to the base; as, a *wedge-shaped* leaf.

Wedge'-wise, *adv.* In the manner of a wedge.

Wedgwood, (*wĕj'wŭd,*) JOSIAH, the inventor of the well-known ceramic ware that bears his name, B. at Burslem, Eng., 1730. After becoming established in business in 1759, he evinced great skill and taste in the production of altogether new kinds of porcelain and earthenware, and made both reputation and fortune by the fabrication of that beautiful kind of fictile composition known as *Queen's-* or *Wedgwood-ware*. After engaging Flaxman as his designer, *W.* eventually made himself a name throughout Europe for the beautiful works of art which he produced; embracing cameos, medallions, miniature statuary, vases, imitations of majolica, &c., and in 1790, his greatest triumph, a fine imitation of the Portland (Barberini) vase. D. 1795.

Wed'lock, *n.* [A. S. *wedlac*, a pledge.] State of being bound or joined in marriage; matrimony.

Wednesday, (*wĕnz'dĭ.*) *n.* [A. S. *Wodnesdæg*—*dæg*, the day, *Wodnes*, of Woden, the Odin of the Scandinavians, and god of war adored by the Goths, Germans, and Anglo-Saxons.] The fourth day of the week; the day intervening between Tuesday and Thursday.

Wednesbury, (*wenz'ber-e,*) a town of England, co. of Stafford, on the Tame, 8 m. N.W. of Birmingham. *Manuf.* Guns, coach-harness, hardware, &c. *Pop.* 14,300.

Wee, *a.* [Allied to Ger. *wenig.*] Little; very small; sometimes, dwarfed; elfin; as, a *wee* body. (A Scotticism.)

Weed, *n.* [A. S. *weod.*] The general name of any plant that is useless, noxious, or troublesome; as, a garden choked with *weeds*.—Hence, anything which is troublesome, unprofitable, or offensive.—Tobacco; as, he is fond of the *weed;* will you try a *weed* (*i. e.* a cigar)? (Vulg.)

—[A. S. *wæd;* Icel. *vad.*] A garment; especially, an upper or outer robe;—generally in the plural; as, in palmer's *weeds*. (*Milton.*)—Plurally, the mourning garb or apparel of a female; as, a widow's *weeds*.

—*v. a.* [A. S. *weodian.*] To free from weeds or noxious plants; as, to *weed* a garden.—To take away, as noxious plants, to remove, as that which is baneful; as, to *weed* out envy from the mind.—To root out; to free from anything hurtful or offensive.

Weed'er, *n.* One who, or that which, weeds.

Weed'-hook, *n.* A hook used for extirpating weeds.

Weed'ing-chisel, (*-chĭz'l,*) *n.* A tool with a divided chisel point, for cutting the roots of large weeds within the ground.

Weed'ing-forceps, Weed'ing-tongs, *n.* An implement for taking up some sorts of plants in weeding.

Weed'ing-fork, Weed'ing-iron, *n.* A strong, three-pronged fork, used in clearing ground of weeds.

Weeds'port, in *New York*, a post-village of Cayuga co., 24 m. W. of Syracuse.

Weed'y, *a.* (*comp.* WEEDIER; *superl.* WEEDIEST.) Consisting of, or having reference to, weeds; as, *weedy* trophies. (*Shaks.*)—Abounding with weeds; as, a *weedy* flower-bed.

Weed'y, *a.* Dressed in weeds or mourning habiliments; as, a *weedy* woman.

Weedy, *a.* Lank; raw-boned; ill-conditioned; as, a *weedy* horse.

Week, *n.* [A. S. *weoc;* Dan. *week;* Ger. *woche;* Icel. *vika;* Scot. *owk.*] A separate or distinct portion of time, being one-fourth of the lunar month, or a cycle of time consisting of 7 days; the space or period of 7 days, usually reckoned from one Sunday to the next.

Week'-day, *n.* Any day of the week other than the Sabbath or Sunday; a working-day.

Week'ly, *a.* Pertaining or relating to a week, or to week-days.—Hebdomadary; coming, happening, or performed once a week; as, a *weekly* settlement of accounts, *weekly* wages, a *weekly* newspaper, &c.

Weekly tenant, a tenant paying rent by the week.

—*n.* A serial publication appearing once in a week, or issued once in seven days; as, "Harper's *Weekly*."

—*adv.* Once a week; by hebdomadal periods; as, he pays his men *weekly*.

Ween, *v. n.* [A. S. *wenan.*] To think; to imagine; to conceive; to fancy; as, "Well may I *ween* your grief is wondrous great."—*Spenser.* (Principally used in poetry.)

Weep, *v. n.* (*imp.* and *pp.* WEPT.) To cry aloud in anguish, grief, or sorrow; to manifest or express grief by outcry or by shedding tears; to shed or drop tears from sorrow or joy; to cry.—To lament; to complain. (*Num.* xi. 13.)—To flow or run in drops; as, gums *weep* from certain trees.—To drip; to be soaked or very wet; as, *weeping* thatch.—To drop; to be pendent; to have the branches hanging, as if in sorrow; as, a *weeping* ash, a *weeping* willow.

—*v. a.* To bewail; to bemoan; to lament; as, "We . . . *weep* each other's woe." (*Pope.*)—To shed or drop, as tears, or other moisture; as, to *weep* tears of joy.

Weep'er, *n.* One who weeps; a shedder of tears; a mourner.—A sort of white linen cuff on a mourning dress worn as a badge of sorrow.

(*Zoöl.*) A popular name of the genus *Œbus*, comprising Sapajons-Monkeys, so called from their plaintive cry. They are mild in disposition, quick in their movements, and easily tamed. This genus is the richest of all in species, and is most fully represented in Guiana and Brazil. The name *Capuchin* is also given to some species, but most especially to *Œbus capuchinus*, a brownish species, with head, feet, and hands generally black, and front, shoulders, and cheeks whitish.

Weep'ing, *n.* Act of one who weeps; tearful lamentation.

Weep'ing-ash, *n.* (*Bot.*) See FRAXINUS.

Weep'ing-birch, *n.* (*Bot.*) A tree or shrub of the genus *Betula*, with drooping branches.

Weep'ing-rock, *n.* A porous rock from which water trickles.

Weep'ing-spring, *n.* A spring from which water issues by degrees.

Weep'ing Water, in *Nebraska*, a city of Cass co. *Pop.* (1897) 1,650.

Weep'ing-wil'low, *n.* (*Bot.*) A well-known species of ornamental trees, *Salix Babyloniea*, of which the variety *Salix crispata* (Fig. 2607) is the most beautiful, and is in universal cultivation. It has leaves lanceolate, acuminate, serrated, curled or twisted, glabrous, and glaucous beneath; and its long slender branches hang downwards.

Fig. 2607.—WEEPING-WILLOW.

Weert, (*wairt,*) a town of Holland, prov. of Limburg, on the Brey, 10 m. W.N.W. of Roermonde; *pop.* 6,930.

Wee'saw, in *Michigan*, a post-township of Berrien county, about 12 miles west of Niles.

Wee'ver, *n.* (*Zoöl.*) The common name of *Trachinus*, a genus of acanthopterygious fishes, of which one species, the Great *W.*, or Sting-bull (Fig. 2608), about 12 inches long, is common in the Atlantic. Their most distinguished characteristic is the power they have of inflicting wounds by means of their spinous fins; and fishermen almost invariably cut off the first dorsal fin, and both opercular spines, before they bring them to shore.

Fig. 2608.—GREAT WEEVER, (*T. draco.*)

Weevil, (*wē'vl,*) *n.* [A. S. *wifel;* Ger. *wiebel.*] (*Zoöl.*) See CURCULIO.

Weft, *n.* [From *weave.*] The woof of cloth; the threads that cross the warp. See WARP.—A web; something woven.

Wegotism, (*-ĭzm,*) **We'ism,** *n.* Excessive use of the pronoun *we*. (Colloq. or caut.)

We'hawken, or WEEHAWKEN, in *New Jersey*, a post-vill. of Hudson co., 2 m. above Hoboken.

Wehlau, (*vā'lou,*) a town of E. Prussia, at the junction of the Alle and the Pregel, 28 m. E. of Königsberg. It contains numerous steam-engine works and tanneries. *Pop.* 5,400.

Weichselburg, (*vīke'sel-boorg,*) a town of Austrian Illyria, in Carniola, 9 m. S.E. of Laybach. *Manuf.* Woollen goods. *Pop.* 4,450.

Weigh, (*wā,*) *v. a.* [A. S. *wæge, wege;* Ger. *wage.*] To raise; to lift; to swing up; as, to *weigh* anchor.—To ascertain the heaviness of by a pair of scales; to compare in a pair of scales with some fixed standard of weight; to examine by the balance; as, to *weigh* gold, to *weigh* meat.—To be equivalent to in weight; to counterbalance the heaviness of; as, a load of coals *weighing* five tons.—To pay, allot, or take by weight; as, "They *weighed* for my price thirty pieces of silver." (*Zech.* xi. 12.)—To ponder in the mind; to cousider or examine for the purpose of balancing facts or ideas to the forming of an opinion or coming to a conclusion; to estimate with mature thought and by deliberate method; as, to *weigh* the advantages of a propositiou.—To regard; to consider as worthy of notice or estimation; as, "You do not *weigh* me; that is, you care not for me."—*Shaks.*

To weigh down, to overbalance;—also, in a moral sense, to depress; to overburden; as, a mind *weighed down* with remorse.

—*v. n.* To be heavy; to have weight; as, this package *weighs* lighter than the other one.—Hence, to be looked upon as important; to have weight or pouderance in the intellectual balance; as, the same argument which *weighs* with him has *weighed* with thousands before him.—To bear heavily; to press hard; as, crime *weighs* upon the conscience.—To judge; to estimate. (R.)

To weigh down, to sink by its own gravity.

—*n.* See WEY, the more usual orthography.

Weighable, (*wā'a-bl,*) *a.* That may be weighed.

Weighage, (*wā'ej,*) *n.* A duty or toll paid for weighing merchandise, &c.

Weigh-bridge, (*wā'-brĭj,*) *n.* A platform scales; a weighing-machine for loaded wagons, &c.

Weigher, (*wā'er,*) *n.* One who weighs.

Weighing, (*wā'-,*) *n.* Act of ascertaining weight; also, act of balancing or pondering in the mind.

Weighing-machine, (*wā'ing-ma-sheen',*) *n.* Any large machine or apparatus for weighing; particularly,

platform-scales, adapted for the weighing of heavy bodies, as loaded wagons, and the like.

Weight, (*wāt,*) *n.* [Ger. *gewicht;* A. S. *wiht, gewiht.*] Gravity; ponderance; that property of bodies in virtue of which they tend towards the earth's centre of gravity; quality of being heavy. — The heaviness of a body ascertained by the balance; the measure of the force by which any body, or a given quantity of any substance, gravitates to tho earth; quantity of matter expressed numerically with reference to some standard unit; as, a mass of ore having the *weight* of a ton and a half. — Hence, pressure; burden; importance; efficacy; influence; power; impressiveness; consequence; momeut; as, he sinks beneath the *weight* of age; the *weight* of business; a man of *weight* in political affairs. —A scale or graduated standard of heaviness; a mode of arriving at the determination of weight; as, avoirdupois *weight.* —Any heavy or ponderous mass; as, to carry *weights* in one's hands. —A definite mass of metal, to be used for ascertaining the weight of other bodies; as, a pound *weight.* See Weights and Measures.

(*Med.*) A sensation of heaviness or pressure over the whole body, or over a part of it.

(*Mech.*) The resistance to be overcome by a machine or mechanical apparatus, whether in raising, sustaining, or moving any heavy body. The force applied to the machine for this purpose is called the *moving power;* and when equilibrium subsists, the ratio of the weight to the moving power is termed the *mechanical advantage* of the machine. See Momentum.

Weight of observation. (*Astron. and Phys.*) A number indicating the most probable relative value of each observation in demonstrating the result of a series of observations of the same kind.

—*v. a.* To load or incumber with a weight, or weights; to supply deficiency of gravity by attaching weights to; as, to *weight* a horse for a handicap; to *weight* a whip-handle; to *weight* a sash-cord; to *weight* a ship with ballast, &c.

Weights and Measures. By *measure,* in an absolute sense, is understood the unit or standard by which we measure extension. We have, therefore, measures of length, of superficies, and of volume or capacity; but as the two latter may be deduced in all cases from the former, it is only necessary to establish a unit, or standard of length. *Weight* is the measure of the force by which any body, or a given portion of any substance, gravitates to the earth. The process by which this measure is obtained is called *weighing;* and when required, as in many philosophical experiments, to be performed with great accuracy, is a tedious and delicate operation. (See Balance.) The determination of weight, like that of extension, consists in the comparison of the thing to be measured with some conventional standard; and as there is a constant ratio between the values and weights of the same substances when placed in the same physical circumstances, it is obvious that standards of weight may be derived from those of measure. For example, a cubic foot or a cubic inch of distilled water, at the same temperature, and under the same atmospheric pressure, will always have the same weight. Advantage has been taken of this property in bodies to connect weights with measures in the English, as in the other systems of weights and measures.

English system of lineal measures. The unit of measure is the yard. The yard is divided into three feet, and the foot subdivided into 12 inches. The multiples of the yard are the pole or perch, the furlong, and the mile; five and a half yards being a pole, forty poles a furlong, and eight furlongs a mile. But the pole and furlong are now scarcely ever used, itinerary distances being reckoned in miles and yards. The relations of these different denominations are exhibited in the following table:

In.	Feet.	Yards.	Poles.	Furlongs.	Miles.
1	0·083	0·028	0·00500	0·00012626	0·0000157828
12	1	0·333	0·06060	0·00151515	0·00018939
36	3	1	0·1818	0·004545	0·00056818
198	16·5	5·5	1	0·025	0·003125
7920	360	220	40	1	0·125
63360	5280	1760	320	8	1

Measures of superficies.—In square measure the yard is subdivided, as in general measure, into *feet* and *inches;* 144 square inches being equal to a square foot, and nine square feet to a square yard. For land measure the multiples of the yard are the *pole,* the *rood,* and the *acre;* thirty and a quarter (the square of five and a half) square yards being a pole, forty poles a rood, and four roods an acre. Very large surfaces, as of whole countries, are expressed in square miles. The following are the relations of square measure:

Sq. Feet.	Sq. Yards.	Poles.	Roods.	Acres.
1	0·1111	0·00367309	0·000091827	0·000022957
9	1	0·0330579	0·000826448	0·000206612
272·25	30·25	1	0·025	0·00625
10890	1210	40	1	0·25
43560	4840	160	4	1

Measures of volume. — Solids are measured by cubic yards, feet, and inches; 1,728 cubic inches making a cubic foot, and 27 cubic feet a cubic yard. For all sorts of liquids, corn, and other dry goods, the standard measure is declared by the Act of 1824 to be the *imperial gallon,* the capacity of which is determined immediately by weight, and remotely by the standard of length, in the following manner; According to the Act, the imperial standard gallon contains ten pounds avoirdupois weight of distilled water, weighed in air at the temperature of 62° Fahrenheit's thermometer, the barometer being at thirty inches. The pound avoirdupois contains 7,000 troy grains; and it is declared that a cubic inch of distilled water (temperature 62°, barometer thirty inches) weighs 252·458 grains. Hence the contents of the imperial standard gallon are 277·274 cubic inches. The parts of the gallon are *quarts* and *pints;* two pints being a quart, and four quarts a gallon. Its multiples are the *peck,* the *bushel,* and the *quarter;* the peck being two gallons, the bushel four pecks, and the quarter eight bushels. The following are the relations:

Pints.	Quarts.	Gallons.	Pecks.	Bushels.	Quarters.
1	0·5	0·125	0·0625	0·015625	0·001953125
2	1	0·25	0·125	0·03125	0·00390625
8	4	1	0·5	0·125	0·015625
16	8	2	1	0·25	0·03125
64	32	8	4	1	0·125
512	256	64	32	8	1

The gallon of the U. States is the standard or Winchester wine gallon. (See Gallon.)—*English weights.* The avoirdupois pound of 7,000 grains is the standard weight from which the troy pound has been constructed. For philosophical purposes and in delicate weighing, troy weight only is used, and the weight is usually reckoned in grains. By this means fractional numbers are avoided, and no ambiguity can arise, as there are no other grains than troy grains. Dr. Kelly, in his *Universal Cambist,* an elaborate and useful work, states that the drachm avoirdupois, like the drachm of the apothecaries, has sometimes been divided into 3 scruples and 60 grains; but as no such weight as an avoirdupois grain ever existed, the use of the expression is an instance of the confusion inseparable from having different systems of weights, in which the same names are applied to things totally distinct.

TABLES OF BRITISH WEIGHTS.

1. *Imperial troy weight.* — Standard: One cubic inch of distilled water, at 62° Fahrenheit's thermometer, the barometer being 30 inches, weighs 252·458 troy grains.

grs.	dwts.	oz.	lb.
24 =	1	—	—
480 =	20 =	1	—
5760 =	240 =	12 =	1

Troy weight is used in weighing gold, silver, jewels, &c., and in philosophical experiments.

2. *Apothecaries' weight.* — Standard: The same as in troy weight, with the ounce divided into 8 drachms and 24 scruples.

grs.	scrs. (℈)	drs. (ʒ)	oz. (℥)	lb. (℔)
20 =	1	—	—	—
60 =	3 =	1	—	—
480 =	24 =	8 =	1	—
5760 =	288 =	96 =	12 =	1

Medicines are compounded by this weight; but drugs are usually bought and sold by avoirdupois weight.

3. *Imperial avoirdupois weight.*—Standard: The same as in troy weight; and one avoirdupois pound = 7,000 troy grains.

drs.	oz.	lbs.	qrs.	cwts.	ton.
16 =	1	—	—	—	—
256 =	16 =	1	—	—	—
7,168 =	448 =	28 =	1	—	—
28,672 =	1,792 =	112 =	4 =	1	—
573,440 =	35,840 =	2,240 =	80 =	20 =	1

This weight is used for the general purposes of commerce. See Metric System.

Weight'ily, *adv.* In a weighty manner; heavily; ponderously. — With mental force or impressiveness; with moral power or influence.

Weightiness, (*wāt'-,*) *n.* State or quality of being weighty; heaviness; ponderousness; gravity; as, the *weightiness* of a load. — Solidity; force; importance; impressiveness; power of influencing or convincing; as, the *weightiness* of an argument.

Weight'less, *adv.* Wanting weight; light; imponderable; lacking in force or impressiveness.

Weighty, (*wāt'e,*) *a.* (*comp.* WEIGHTIER; *superl.* WEIGHTIEST.) [Ger. *wichtig.*] Having weight or ponderosity; heavy; as, a *weighty* body. — Important; momentous; forcible; adapted to convince or to turn the mental balance; as, *weighty* arguments or reasons. — Severe; rigorous; as, "Our *weightier* judgment." — *Shaks.*

Weimar, (*vī'mar,*) a city of Germany, cap. of the Grand-duchy of Saxe-Weimar, on the Ilm, 52 m. from Leipsic. *W.* has long held the same rank in Germany for literature as Dresden for the fine arts. Some of the best writers of the last and present age have either been educated or residents here. Its opera-house is celebrated, and the theatre was once under the superintendence of Goethe and Schiller. Wieland and Herder resided here, and Goethe and Schiller are buried in the new cemetery. It has a classical school, a seminary for schoolmasters, and an academy for drawing, painting, and sculpture. *Manuf.* Metallic goods, gloves, woven fabrics, and cards.

Weinheim, (*vine'hime,*) a town of Baden, on the Weschnitz, 10 m. N. of Heidelberg. *Manuf.* Woollens. *Pop.* 5,940.

Weir, (*weer,*) **Wear,** *n.* [A. S. *wer,* an inclosure, a fish-pond; Ger. *wehr,* a dam, dike, sluice.] A dam in a river, sometimes formed by driving in rows of piles and weaving wattles between them, filling up the interstices between the rows with stones. — A fence of stakes or twigs set in a stream for taking fish; as, a salmon *weir.*

Weis'esburg, in *Maryland,* a post-village of Baltimore co., 50 m. N.W. of Annapolis.

We'ism, (*-izm,*) *n.* See Wegotism.

Weissenburg, (*vise'sen-boorg,*) a town of Bavaria, circle of Middle Franconia, 51 m. W. of Ratisbon. *Manuf.* Woollens. *Pop.* 4,620.

Weissenfels, (*vise'sen-fels,*) a town of Prussian Saxony, on the Saale, 20 m. W. of Leipsic; *pop.* 4,350.

Weiss'port, in *Pennsylvania,* a post-borough of Carbon co., about 4 m. S. of Mauch Chunk.

We'laka, in *Florida,* a post-village of Putnam county.

Welch, in *Missouri,* a township of Cape Girardeau co.

Welch's Creek, in *N. Carolina,* a township of Columbus co.

Welcome, (*wel'kum,*) *a.* [A. S. *wil-cuma — wil,* well, good, *cuma,* a comer.] Received with gladness, as a good comer; admitted willingly to the habitation, entertainment, and company; as, a *welcome* visitor.—Grateful; pleasing; infusing joy or gladness by its reception or introduction; as, a *welcome* gift; a *welcome* time; *welcome* tidings.—Free to use or enjoy at will gratuitously; as, he is *welcome* to what assistance I can render.

(Note. *Welcome* is employed elliptically for *you are welcome;* as, "*Welcome, welcome,* home!")

To bid welcome, to admit or receive with professions of hospitality or good-will.

—*n.* Salutation, as of a new and good comer. — Kind or hospitable reception accorded to a guest or new comer; as, "Life's warmest *welcome* 's at an inn."—*Shenstone.*

—*v. a.* To receive, as a new comer, with kindness; or, to receive and entertain hospitably, gratuitously, and cheerfully.

Wel'comeness, *n.* State or quality of being welcome.

Wel'comer, *n.* One who welcomes.

Weld, *n.* (*Bot.*) The Dyer's Weed. See Reseda. —The coloring principle of Dyer's Weed. See Luteoleine.

Weld, *v. a.* [Du. and Ger. *wellen.*] To unite or hammer into firm union, as two pieces of iron when heated almost to fusion.

—*n.* State of being welded; also, the joint made by welding.

Weld, in *Colorado,* a N.E. co., bordering on Nebraska; *area,* 4,075 sq. m. *Rivers.* The South Fork of Platte river, and Beaver, Bijou, Pawnee, and Crow creeks. *Cap.* Greeley. *Pop.* (1897) 12,680.

Weld, in *Maine,* a post-township of Franklin co., 44 m. N.W. of Augusta.

Weld'able, *a.* That may be welded.

Weld'er, *n.* One who welds or unites by welding.

Weld'ing, *n.* (*Metall.*) Act or process of uniting together two or more pieces of iron, or iron and steel, when heated to whiteness, by means of pressure or hammering. Platinum is also frequently welded to a white heat; and it is in this way that that valuable metal, when in the granular or pulverulent state, is worked into bars.

Weld'ing-heat, *n.* The degree of heat necessary for welding iron bars.

Wel'don, in *N. Carolina,* a post-village of Halifax co., 95 m. N.E. of Raleigh.

Wel'fare, (*-fair,*) *n.* [*Well,* and *fare,* a good going; Du. *welvaart;* Ger. *wohlfahrt.*] The enjoyment of health and the common blessings of life; exemption from misfortune, sickness, calamity, or evil; happiness; enjoyment of peace and prosperity, or the ordinary blessings of society and civil government; well-being; well-doing.

Wel'kin, *n.* [A. S. *wolcen, wolcn;* Ger. *wolke.*] The vault of heaven; the visible regions of the air or atmosphere; — used chiefly in poetry.

Well, *n.* [A. S.; Dan. *væld,* a spring; Ger. *quelle.*] A spring; a fountain; a source of water issuing from the earth; as, a holy *well.* — Hence, a spring, source, or origin.—A pit or cylindrical hole sunk perpendicularly into the earth to such a depth as to reach a supply of water. — The lower part of a smelting furnace into which the molten metal falls.

(*Ship-building.*) A partition to enclose a ship's pumps, from the bottom to the lower decks, to render them accessible, and also prevent their getting damaged.—In a fishing-smack, a water-tight compartment for the transportation of live fish to market. — In steamers, a vertical passage in the stern, into which an auxiliary screw-propeller may be drawn up out of water.

(*Mil.*) In sapping and mining, an excavation in the earth from which run branches or galleries.

(*Arch.*) See Well-hole.—*Artesian well.* See Artesian Well.

—*v. n.* [A. S. *wellen.*] To boil, bubble, or spring up, as water from the earth; to flow; to issue forth, as water from a spring.

—*v. a.* To pour forth, as from a well.

Well, *a.* [A. S. *wel;* Ger. *wohl.*] Being in a condition to be wished for, desired, or chosen, either in a natural or moral sense; fortunate; happy; convenient; advantageous; as, everything goes *well.* — Being in health; having a sound body, with a regular performance of the natural and proper functions of all the organs; not ailing, diseased, sick, or infirm; as, all your friends are *well.*—Being in favor; under good auspices; acceptable; as, he stands *well* with the government.

(*Naut.*) Safe; as, the ship was reported *well* at St. Helena on the 14th of March.

—*adv.* In a choice or desirable manner; to a degree that gives pleasure; favorably; conveniently; suitably; advantageously; so as one could wish; as, every one speaks *well* of him.—In a just and proper manner; rightly; not ill or wickedly; as, to act *well* one's part in life.—To a sufficient degree; perfectly; thoroughly; fully; adequately; abundantly; suitably to one's need,

or the occasion, or to a proposed end and application; as, this land is *well* cultivated; he is a person *well* worth your knowing.—Far; considerably; not a little; as, he is a man *well* advanced in years.

(NOTE. *Well*, as a prefix to many adjective and participial phrases, forms a kind of loose compound with them, indicating what is right, fit, suitable, relevant, or not defective, and usually sufficiently self-explanatory in their senses; as, for instance, *well*-designed, *well*-formed, *well*-meant, *well*-ordered, *well*-seasoned, &c. The term *well* is also of frequent occurrence in an elliptical form, for *it is well*; also, as expressing content with what has been said or done; and again, it sometimes indicates concession, or is simply expletive; as, *well*, you have come at last; *well*, off with you; *well*, *well*, and it has come to this.)

As well as, together with; not less than.—*Well enough*, well, good, or satisfying in a moderate degree; tolerably; as, this will do *well enough* for my purpose.—*Well off*, *well to do*, in a prosperous state as regards worldly means or circumstances; thriving; in good condition; as, *well to do* people; a man with an income of half a million may consider himself *well off*.

Well'-a-day, *interj.* Alas! alack!

Well'-appointed, *a.* Fully appointed, furnished, or equipped; as, a *well-appointed* dinner-table.

Well'-being, *n.* State or condition of being well; prosperity; happiness; welfare.

Well'-boat, *n.* (*Naut.*) A fishing-smack with a tank or well in the hold to keep fish in, in order to transport them alive to market.

Well'-borer, *n.* One who bores wells.

Well'-born, *a.* Born of a noble or good family; of respectable descent; not of mean or ignoble ancestry; not of servile or parvenu extraction.

Well'-bred, *a.* Polite; urbane; cultivated; refined; bred to genteel deportment and polished manners; not gauche, vulgar, or pretentious; as, a *well-bred* man.

Well'-doer, *n.* One who does well, either to himself or to another; a benefactor.

Well'-doing, *n.* A doing well; performance of duties and obligations; also, worldly prosperity.

Well'-drain, *n.* A drain for discharging the water of wet land; it is built somewhat in the form of a well.—Also, a drain conducting to a well.

Wel'ler, in *Illinois*, a twp. of Henry co.

Weller, in *Ohio*, a twp. of Richland co.

Wel'lersburg, in *Pennsylvania*, a post-borough of Somerset co., 128 m. W.S.W. of Harrisburg.

Well'-favored, *a.* Pleasing in form or feature; attractive to the eye; handsome; as, a *well-favored* lass.

Well'fleet, in *Massachusetts*, a post-village and twp. of Barnstable co., 70 m. S.E. of Boston.

Well'-hole, *n.* A cavity which receives a counterbalancing weight in certain mechanical contrivances, and also for other purposes.

(*Arch.*) The well or open space in the middle of the staircase of a building, beyond the ends of the stairs.

Well'-informed, *a.* Provided with copious or correct information about matters in general; well-supplied with authentic knowledge; intelligent.

Wel'lingborough, a town of England, co. of Northampton, 11 m. E.N.E. of Northampton. *Manuf.* Boots, shoes, and bobbin-lace. *Pop.* 5,830.

Wellington, ARTHUR WELLESLEY, DUKE OF, the 3d son of the 1st Earl of Mornington, B. in Ireland, 1769, was educated at Eton College, and ultimately sent to the military seminary of Angers, France, to be instructed in the art of war, for which he had already evinced a strong predilection. At 17 years of age he was gazetted ensign in the 33d regt. of infantry ("Duke of Wellington's Own"), and in 1793 served in the Flanders campaign under Lord Moira. In 1797, *W.*, now lieut.-col., was sent with his regiment to India, in which country he arrived at a time of crisis for the British power. War had just been declared against Tippoo Saib, Sultan of Mysore, and an army of 80,000 men, British and native troops, was sent out against him. In the siege and capture of Seringapatam, the Sultan's capital, Col. Wellesley led the storming party, and carried off the honors of the occasion. He next engaged in the war which broke out in 1803, between the East India Company and the Mahrattas, and, after carrying by storm the strong fortress of Ahmednugger, Gen. Wellesley, in command of 4,500 men (of whom only 1,700 were British), came up with the Mahratta forces, 30,000 strong, at Assaye, when, after a desperate struggle, in which he himself charged a Mahratta battery at the head of the 74th regt., the enemy were totally defeated, and all their artillery (97 guns) taken. This great victory broke the Mahratta power, and brought about a durable peace. For his services in India, *W.* was made a Knight of the Bath, and returning to England in 1805, was sent in the following year with the expedition to Copenhagen, in command of a division. In the ensuing hostilities, Sir Arthur, at the head of 7,000 British troops, totally defeated a Danish force, 12,000 strong, on the island of Zealand. In 1806, on his return home, *W.* entered Parliament, and, in 1807, was appointed Secretary of State for Ireland, and declared a member of the Privy Council. In 1808 he was created lieutenant-general and sent to Portugal, where he defeated Junot at Vimeira, and obliged him to sign the convention of Cintra, by which the French agreed to evacuate Portugal. He then returned to England, and, Jan., 1809, resumed his seat in Parliament. He had returned but a few months to civil life, when the government, to the intense displeasure of the Whig party, appointed him commander-in-chief of the armies in the Peninsula, and, in April, 1809, he proceeded to Lisbon. The famous passage of the Douro, and the defeat of Marshal Soult which ensued, are among the most masterly exploits of this campaign. On the 28th of July, in the same year, he defeated at Talavera the French troops commanded by Victor and Sebastiani. The slaughter on both sides was terrible; and the English were not only unable to follow their victory, but were compelled soon after to fall back upon Badajoz. For the victory of Talavera, the English government raised *W.* to the peerage as Lord Wellington, besides voting him a pension of $10,000 per annum. In May, 1810, at Busaco, he repulsed with great slaughter two attacks of the French, and retreated to Torres Vedras, to the occupation of which strong line of defence the ultimate success of the Peninsular war may be chiefly attributed. On July 21, 1812, he defeated Marshal Marmont at Salamanca, and entered Madrid a few days after, Aug. 12, 1812. In October of the same year, *W.* failed to take Burgos, and, knowing that King Joseph had been joined by Soult, and was marching towards the Tagus, he had no choice but to retreat into Portugal. In 1813, Napoleon, owing to his disasters in Russia, had been compelled to recall Soult from Spain, together with a part of the army. There were thus left to oppose *W.* about 70,000 men; but there were about 100,000 in different parts of Spain, under Suchet and other commanders. The French emperor could no longer spare large bodies of troops to pour into the Peninsula through the Pyrenees. *W.* being aware of this, resumed the offensive, and, marching rapidly into Spain, completely defeated at Vittoria, Jan. 21, the French commanded by King Joseph and Marshal Jourdan. On hearing of this battle, Napoleon hastily sent Soult to turn the tide of events in the Peninsula. Soult made a desperate effort to drive back the English and their Spanish and Portuguese allies; but after a series of sanguinary conflicts, known as the battles of the Pyrenees, he was forced to retreat into French territory. In November, 1813, *W.* descended into France, pursuing his conquering course to Toulouse, from which, after some desperate fighting, Soult was driven. With this engagement the Peninsular war may be said to have ended; for Soult, being made aware of the fall of Napoleon, gave in his allegiance to the Bourbons. In 1814, after an absence of five years, *W.* landed

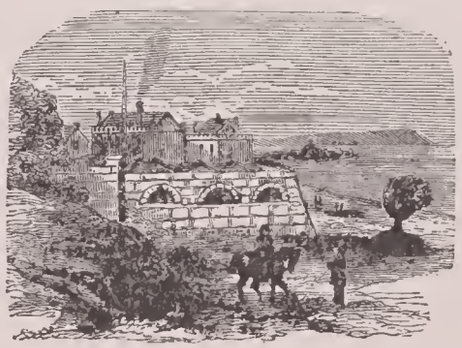


Fig. 2609.—WALMER CASTLE.

in England, where his reception was unprecedentedly brilliant. The victorious general, who had been created field-marshal after the battle of Vittoria, received the highest honors of the peerage as DUKE OF WELLINGTON, in addition to the order of the Garter, and a parliamentary grant of $2,500,000. The Duke was next dispatched to the Congress of Vienna, where he aided in conducting the negotiations entered into for the adjustment of the affairs of Europe; and, on the return of Napoleon from Elba in March, 1815, was appointed to the chief command of the British forces on the continent of Europe, and from Vienna joined the army at Brussels. It appeared probable that Napoleon would make a bold advance into Belgium, and its defence was therefore assigned to an Anglo-allied army under *W.*, and a Prussian force under Blücher. The battles of Ligny and Quatre-bras were succeeded by the great victory of Waterloo, June 18, 1815, which consummated the overthrow of Napoleon; Paris surrendered to the Allies, and Louis XVIII. was at last restored to his throne and capital. The Allies having determined to occupy the frontier fortresses of France with an army of 150,000 men during 5 years, the command of the whole was conferred upon the Duke. This high and onerous position he held for the next three years, during the whole of which time he discharged its arduous duties with the most consummate wisdom, justice, and discretion. Not only did he retain the entire confidence of the allied sovereigns and respect of their soldiers under his command, but he interposed in so efficacious a manner to lighten the enormous burdens laid by the treaty of Paris on the French people, as to earn the gratitude and receive the thanks of all well-informed persons in that country. Mainly owing to his powerful intercession, the period of occupation of the fortresses was shortened from 5 to 3 years, and the amount of contributions paid for its support of course proportionally lessened. After the news of the victory of Waterloo had reached England, Parliament voted an additional grant of $1,000,000 to purchase a mansion and estate for the Duke, who was also created *Prince of Waterloo* by the King of the Netherlands. Resigning his command in France, in 1818, the Duke returned home, and was appointed commander-in-chief of the army, a post which he held—with some brief interruptions—until his death. His after career was devoted to state affairs. In 1827 he became Prime-Minister, a post he held until 1830. During the latter portion of his career his counsels, whether at the head or out of the cabinet, were uniformly directed to one object—the preservation of the peace of Europe, which, mainly owing to his exertions, was preserved unbroken, save by domestic dissensions, for forty years after his victory at Waterloo. Dying, Sept. 18, 1852, at Walmer Castle, Kent, he was honored with the grandest public obsequies ever witnessed in England, and buried in St. Paul's Cathedral, London, by the side of Nelson.—The leading feature of Wellington's intellect was wisdom and sagacity; of his moral character, a conscientious discharge of duty; clearness of discernment, correctness of judgment, and rapidity in execution, were the principal elements of his achievements in war. He was not gifted with oratorical power, and had considerable difficulty in expressing his opinions; but such was the solidity of his judgment, and the strength of his understanding, that what he said never failed to command attention, and, for the last 25 years of his life, he exercised an undisputed ascendancy in the House of Lords. In private life he was simplicity itself, his habits were regular, his life abstemious.

Wel'lington, in *Maine*, a post-township of Piscataquis co., 50 m. N.E. of Augusta.

Wellington, in *Ohio*, a post-village and township of Lorsin co., 36 m. S.W. of Cleveland.

Wellington, in pr. of Ontario, a W. central co.; *area*, 1,237 sq. m. It is drained by Grand River. *Cap.* Guelph.—A post-vill. of Prince Edward co., Ont.

Wellington, in *Wisconsin*, a township of Monroe co., abt. 40 m. E. of La Crosse.

Wellington, a seaport-town and cap. of New Zealand, in a province of same name, Ulster or North Island, on Cook's Strait and to the W. of Port Nicholson. It is beautifully situated, and is rapidly increasing in importance. *Pop.* estimated at 25,000.

Well'-mannered, *a.* Possessing suave or graceful manners; polite; complaisant; well-bred; urbane; affable.

Well'-meaning, *a.* Having a good intention.

Well'-meant, (*-mĕnt,*) *a.* Rightly meant; friendly.

Well'-minded, *a.* Having a good mind or right disposition.

Well'-natured, *a.* Good-natured; kind; generous; friendly.

Well'-nigh, (*-nī,*) *adv.* Nearly; almost; not quite.

Well'-read, (*-rĕd,*) *a.* Of extensive reading; erudite.

Wells, HORACE, an American dentist, practised in Boston and Hartford, one of the claimants to the discovery of *anæsthesia*. B. in Vermont, 1815, he commenced the use of nitrous oxide gas as an anæsthetic in 1840–4. In 1847 he published a history of his discovery. A report upon his claim, by Senator Truman Smith, was issued in 1859. *W.*, worn by controversy, committed suicide in 1848. A monument was erected to his memory in Hartford.

Wells, in England, a city of the county of Somerset, 18 m. S.W. of Bath; *pop.* 5,500.—A seaport-town of Norfolk co., 29 m. N.W. of Norwich; *pop.* 4,000.

Wells, in *Indiana*, an E.N.E. co.; *area*, 357 sq. m. It is drained by the Wabash River. *Surface*, undulating; *soil*, fertile. *Cap.* Bluffton. *Pop.* (1897) 22,160.—In *Maine*, a post-township of York co., 28 m. W.S.W. of Portland.—In *Minnesota*, a township of Rice co., about 3 m. W. of Faribault.—In *New York*, a post-township of Hamilton co., 84 m. N.N.W. of Albany.—In *Ohio*, a township of Jefferson co.—In *Penna.*, a post-village and township of Bradford co.; a township of Fulton co.—In *Vermont*, a post-township of Rutland co., 68 m. S.S.W. of Montpelier.

Wells'borough, in *Pennsylvania*, a post-bor., cap. of Tioga co., 145 miles N.W. of Harrisburg.

Wells'burg, in *N. Y.*, a p.-vill. of Chemung co., 7 m. S.E. of Elmira; in *Penna.*, a vill. of Erie co., 26 m. S. W. of Erie; in *W. Virginia*, a city, cap. of Brooke co., on the Ohio, 16 m. N. of Wheeling. *Pop.* (1897) 2,680.

Well'-set, *a.* Well knit together; having just symmetry or proportion of parts; as, a *well-set* figure.

Well'-sinking, *n.* Act or process of sinking or digging a well, or wells.

Well'-sped, *a.* With good success; fortunate.

Well'-spoken, (*-spō'kn,*) *a.* Expressing one's self with ease, fitness, and grace, or speaking kindly and appropriately; as, a *well-spoken* individual.—Uttered with congruity or propriety; as, *well-spoken* words.

Well'-spring, *n.* Fountain; source; origin.

Well'-staircase, *n.* (*Arch.*) A winding staircase.

Wells'ville, in *Michigan*, a post-village of Lenawee co., 6 m. E. of Adrian.

Wellsville, in *Missouri*, a post-village of Montgomery co., 89 m. W.N.W. of St Louis.

Wellsville, in *New York*, a post-village and township of Alleghany co. The village is situate on Genesee River, 1,480 feet above the sea, 76 m. S. of Rochester. It was incorporated in 1857, possesses two newspaper offices, and is noted for its extensive lumber trade, rapid growth, and also for the enterprise of its inhabitants.

Wellsville, in *Ohio*, a city of Columbiana co., 102 m. S.E. of Cleveland. *Pop.* (1897) 6,150.

Wellsville, in *Pennsylvania*, a post-village of York co., abt. 20 m. S. of Harrisburg.

Well'ville, in *Utah*, a twp. of Cache co.

Wellville, in *Virginia*, a post-village of Nottoway co., 31 m. W. of Petersburg.

Wels, a town of Upper Austria, on the Traun, 16 m. S. W. of Lintz. *Manuf.* Cotton goods; and it has also copper-foundries. *Pop.* 4,950.

Welsh, (sometimes inelegantly written WELCH,) *a.* [A. S. *wenllisc*, from *wealh*, a foreigner; Ger. *wälsch*, foreign, hence *Welsh.*] (*Geog.*) Pertaining or having reference to Wales, or its inhabitants.

Welsh flannel, the finest kind of flannel, made from the fleeces of the flocks of the Welsh mountains, and chiefly manufactured by hand. (*Simmonds.*)—*Welsh*

mutton, a choice and delicate kind of mutton obtained from a small breed of sheep peculiar to N. Wales.

Welsh rabbit, (properly *rare-bit.*) (*Cookery.*) Cheese toasted, and laid over slices of bread previously toasted and well buttered; — when mixed with ale, the viand is termed *swig*.

Welsh wig, a worsted cap.

—*n. sing.* or *pl.* (*sing.*) The language of Wales, or of the Welsh nationality.—*pl.* (*Geog.*) The natives or inhabitants of the principality of Wales; the Cymri or Cymry.

Welsh'pool, a town of England, in Wales, Montgomery co., 19 m. W.S.W. of Shrewsbury. *Manuf.* Flannels. *Pop.* 7,150.

Welt, *n.* [A. S. *wæltan;* Ger. *wältzen.*] A fold or doubling of cloth or leather, as on a garment or piece of cloth, or on a shoe.—A hem, border, fringe, or edging.

(*Mach.*) In steam-boilers, a button riveted over the seam between two plates.

—*v. a.* To fit with a welt; to sew a welt on, as on a shoe or garment.

Wel'ter, *v. n.* [A. S. *wæltan;* Ger. *wälzen.*] To roll or wallow in mire or some foul matter, as is the practice of certain animals. — To roll and tumble over, as billows; as, a *weltering* sea.

—*n.* That in which one welters or wallows; mire; slough.

Wel'ter-weight, *n.* In horse-racing, a light-weight jockey who rides in a handicap.

Wel'ton, in *West Virginia*, a township of Mineral county.

Wem, a town of England, co. of Salop, 10 m. N.N.E. of Shrewsbury. *Manuf.* Leather. *Pop.* 4,400.

Wen, *n.* [A. S. *wenn;* D. *wen.*] (*Med.*) An encysted tumor varying exceedingly in size and character, and commonly situated immediately under the skin; but occurring also in some of the internal viscera. The causes of their formation are unknown, but a strongly marked tendency to such swellings exists in particular individuals, leading to the belief in constitutional causes. At its commencement it is always exceedingly small and perfectly indolent, and it is often many years before it attains any considerable size. It is comprised in a membrane called a cyst, and its contents sometimes resemble fat or suet, at other times it contains serum, or a thin fœtid brown or black fluid. Sometimes the cysts become very bad from the deposition of cartilaginous or even osseous matter. Frequently the cyst, especially when small, may be punctured, and its contents pressed out; but sometimes this gives rise to very severe inflammatory action. The other and safer mode of treatment is to dissect them out with the knife wherever their position will admit of it, care being taken to remove the whole of the cyst.

Wenceslaus, or WENZEL, (*went'sel,*) Emperor of Germany and King of Bohemia, B. 1361, was the son of Charles IV., whom he succeeded in 1378. He was a dissolute and cruel prince. He favored the Hussites, but was unable to save the life of Huss. D. 1409.

Wench, *n.* [A. S. *cwêne, cwyne;* Goth. *qvens, qveins,* a wife.] A vulgar or humorous term for a young woman; as, "Excellent *wench*, . . . I love thee." (*Shaks.*)—A low, coarse, young woman of dubious reputation; a strumpet; as, a rollicking *wench*. — In the U. States, a negress; a colored female domestic: — as opposed to *boy*, or the term formerly applied to colored males.

—*v. n.* To go after wenches; to frequent the society of women of ill fame.

Wench'er, *n.* One who seeks the company of lewd women; a rake.

Wend, *v. n.* [A. S. *wendan;* Ger. *wenden,* to change, to turn.] To go; to pass; to proceed; to betake one's self; as, he *wended* homeward.

—*v. a.* To direct; to betake:—generally used reflexively, or in the phrase, to *wend one's way*.

Wen'dell, in *Massachusetts*, a post-village of Franklin co., 40 m. N.E. of Springfield.

Wen'dell's Depot, in *Massachusetts*, a post-village of Franklin co., 40 m. N.W. of Fitchburg.

Wen'er, a lake of Sweden, Lat. between 58° 22′ and 59° 25′ N., Lon. 12° 20′ and 14° 12′ E. *Ext.* 95 m. long, and from 15 to 50 wide; *area*, 2,120 sq. m. It receives about 30 rivers, and its surplus waters are discharged by the Göta into the Cattegat. It is connected by a canal with Lake Wetter.

Wen'ewoc, or WONEWOC, in *Wisconsin*, a post-township of Juneau co.

Wen'ham, in *Massachusetts*, a post-village and township of Essex co, 20 m. N.E. of Boston.

Wen'lock, in *Vermont*, a township of Essex co.

Weno'na, in *Illinois*, a prosperous city of Marshall co. *Pop.* (1897) 1,280.

Went, *imp.* of WEND; — by modern usage adopted as the preterite of GO, although it does not connect in origin with it.

Wen'tle-trap, *n.* (*Conch.*) See SCALARIA.

Went'worth, in *Illinois*, a post-village of Lake co., 40 m. N.N.W. of Chicago.

Wentworth, in *New Hampshire*, a post-township of Grafton co., 50 m. N.N.W. of Concord.

Wentworth, in *N. Carolina*, a post-village, cap. of Rockingham co., 106 m. N.W. of Raleigh.

Went'worth's Location, in *New Hampshire*, a post-office of Coos co.

Wentz'ville, in *Missouri*, a post-village of St. Charles co., 42 m. W.N.W. of St. Louis.

Wept, *imp.* and *pp.* of WEEP, *q. v.*

Wer'dau, a town of Saxony, on the Pleisse, 6 m. W.N.W. of Zwickau. *Manuf.* Woollens and cottons. *Pop.* 6,930.

Wer'den, a town of Rhenish Prussia, on the Ruhr, 15 m. N.E. of Dusseldorf. *Manuf.* Woollen and linen fabrics, leather, and machinery. *Pop.* 4,840.

Were, (*wair,*) *v. n.* [A. S. *wære;* Ger. *war.*] The plural in all persons of the indicative imperfect of the verb *to be*, and all the persons of the subjunctive imperfect except the second sing., which is *wert*.

Were'gild, *n.* [A. S. *wergild.*] (*O. Eng. Law.*) Among the Anglo-Saxons, and many of the Celtic tribes, the compensation paid by a delinquent to the party injured, or to his relations, for offences committed against the person.

Were'-wolf, *n.* [A. S. *wer-wulf.*] A man-wolf. See LYCANTHROPY.

Werner, ABRAHAM GOTTLIEB, (*vair'ner,*) a distinguished mineralogist and geologist, B. at Wehlau, in Upper Lusatia, 1750. He was educated in the school of mines at Freyberg in Saxony, and eventually became professor of mineralogy and inspector of the mineralogical cabinet there. He has conferred great benefit on the science by introducing a precise, methodical language, well adapted for the description of minerals, and has rendered much the same service to it as Linnæus did by his Terminology to botany. As a geologist, he is the father of the Neptunian theory, and however liable he may be to the charge of very grave errors, he has done vast good to the science by causing it to be studied more systematically than it ever had been before. Few naturalists who have written so little as Werner have enjoyed a higher reputation. D. 1817.

Wer'nerite, *n.* (*Min.*) A silicate of alumina, lime, and oxide of iron, found in Norway and Switzerland.

Wernigero'de, a town of Prussian Saxony, 43 m. S.W. of Magdeburg. *Manuf.* Woollens, paper, leather, and chicory. *Pop.* 6,600.

Wer'ra, a river of Germany, rises in the Thuringian forest, and joins the Fulda to form the Weser, after a N.W. course of 150 m.

Werst, *n.* Same as VERST, *q. v.*

Wert. The second person sing. of the subjunctive imperfect tense of the verb *to be*. See WERE.

We'saw, in *Michigan*, a township of Berrien county.

Wesel, (*vai'sel,*) a fortified town of Rhenish Prussia, at the confluence of the Rhine and Lippe, 30 m. N.N.W. of Dusseldorf. *Manuf.* Cotton and woollen stuffs, leather, and tobacco.

We'ser, a river of Germany, formed by the junction of the Werra and Fulda at Minden, in Hanover. After joining the Jahde, it falls into the North Sea by an estuary 24 m. wide at its entrance. It has a N. course of abt. 260 m., and is navigable for boats nearly to its source, but for large vessels only a few miles from its mouth.

Wesley, JOHN, an English divine, who, with Whitefield, founded Methodism, was B. at Epworth, 1703. In 1730, while at Oxford University, he and his brother, with a few other students, formed themselves into a society for the purpose of mutual edification in religious exercises. So singular an association excited considerable notice, and, among other names bestowed upon the members, that of *Methodists* was applied to them. *W.*, with some others, chiefly Moravians, came to Georgia in 1735, but the strictness of discipline which he attempted to introduce proved very distasteful to the colonists, and his refusal to admit a certain lady to communion involved him in a suit for defamation, which, however, was never brought to an issue. After a residence of less than two years in America, he returned to England, "shaking the dust off his feet," to use his own expression, and commenced preaching to open-air meetings, and gathered many followers. The churches being shut against him, he built spacious meeting-houses in London, Bristol, and other places. For some time he was united with George Whitefield; but, differences arising on account of the doctrine of election, which was zealously espoused and preached by the latter, they separated, and the Methodists were denominated according to their respective leaders. *W.* was indefatigable in his labors, and was almost continually engaged in travelling over England, Wales, Scotland, and Ireland. No man ever labored more zealously or continuously in the cause which he had undertaken. Every moment of his life was devoted to the organization of the great sect of Methodists, and he preserved his influence over it to the last. He published hymns, sermons, political tracts, and controversial pieces against the Calvinists and Moravians; but the complete list of the writings of this extraordinary man is too voluminous to be inscribed. Two collected editions of his works have been published, the first in 32 vols., and the second in 16 vols. The best biographies of him are those of Coke and Moore, and that of Southey. His preaching was extemporaneous, but not vehement. He dwelt much upon practical religion, though he taught his followers to seek inspiration of the Holy Spirit, and to aspire to a state of sinless perfection. D. in London 1791. See METHODISTS.

Wes'ley, in *Illinois*, a twp. of Will co.

Wesley, in *Ohio*, a post-village and township of Washington co., 16 m. W. of Marietta.

Wesley, in *Pennsylvania*, a post-village of Venango co., 60 m. N. of Pittsburg.

Wes'leyanism, (*-izm,*) *n.* (*Eccl.*) The system of doctrines and church polity inculcated by John Wesley; Methodism.

Wes'leyville, in *Pa.*, p.-v. of Erie co., 5 m. E. of Erie.

Wesobul'ga, in *Ala.*, a twp. of Clay co.

Wes'sex. See HEPTARCHY; EGBERT; and GREAT BRITAIN.

Wes'sel Islands, a group off N. Australia, lying to the N.W. of the Gulf of Carpentaria, the principal of which is 30 m. long, and abt. 7 m. wide; Lat. of Cape Wessel, 10° 58′ S., Lon. 130° 40′ E.

West, *n.* [A. S., D., and Ger.; Fr. *ouest.*] That point of the horizon where the sun sets at the equinox, and midway between the N. and S. points; the point, quarter, direction, or region opposed to *east*.—A country situated in a region toward the sunsetting with respect to another, or to the westward of another.

West, *a.* Pertaining or relating to the west; being in a line toward the point where the sun sets when in the equator; lying in the direction of the sunsetting; as, the *west* limit of a territory. — Coming or moving from the west or western region; as, a *west* wind.

West End, the name given to the fashionable part of London, the English metropolis, extending from Charing Cross to Kensington, E. to W.; and from Pimlico to St. John's Wood, S. to N.

—*adv.* To, or at, the westward side; more westward; as, St. Louis lies *west* of Cincinnati.

—*v. n.* To turn, move, or veer toward the west.

West, BENJAMIN, a celebrated American painter, B. 1738, near Springfield, in Pennsylvania, of Quaker parents. After exercising his pencil in different parts of America, he went to Italy in 1760, and proceeded to England in 1763, where he took his permanent residence. One of his earliest friends was Dr. Drummond, Archbishop of York, who introduced him to George III., by whose order he executed his picture of *The Departure of Regulus from Rome*, and whose patronage he enjoyed for about 40 years. On the death of Sir Joshua Reynolds, in 1792, *W.*, who had been a member of the Royal Academy from its foundation, was elected president; which chair he enjoyed, with the exception of a short interval, till his death, in 1820. His *Death of General Wolfe* was among the first of his productions that attracted public notice, especially for the rational innovation on which he had ventured in it, of painting historical personages in a modern dress. And, among his last and largest works, were *Death on the Pale Horse*, and *Christ Healing the Sick*. There is in the Pennsylvania Hospital, in Philadelphia, a copy (with some alterations) of *Christ Healing the Sick*, which was presented to it by West. Like the other works of this celebrated artist, it is only remarkable for its academic correctness of design — a quality much appreciated by the age in which he lived.

West, in *Ind.*, a twp. of Marshall co.

West, in *Ohio*, a twp. of Columbiana co.

West, in *Pennsylvania*, a township of Huntingdon co., 8 m. N. of Huntingdon.

West Acton, in *Massachusetts*, a post-village of Middlesex co., 27 m. N.W. of Boston.

West Ad'dison, in *New York*, a village of Steuben co., 230 m. S.W. of Albany.

West Al'bany, in *Minnesota*, a village and township of Wabasha co., about 24 m. N.N.E. of Rochester.

West Al'burg, in *Vermont*, a village of Grand Isle co., 77 m. N.W. of Montpelier.

West Alexan'der, in *Pennsylvania*, a post-borough of Washington co., 12 m. E. of Wheeling.

West Al'mond, in *New York*, a post-township of Allegany co., 78 m. S.W. of Rochester.

West Al'ton, in *New Hampshire*, a post-village of Belknap co., 25 m. N.N.E. of Concord.

West Ames'burg, in *Massachusetts*, a village of Essex co., 41 m. N.N.E. of Boston.

West Am'well, in *New Jersey*, a township of Hunterdon co.

West-An'dover, in *New Hampshire*, a post-village of Merrimack co., 33 m. N.N.W. of Concord.

West-Ar'lington, in *Vermont*, a post-village of Bennington co., 100 m. S.S.W. of Montpelier.

West-Ar'muchee, in *Georgia*, a township of Walker co.

West-Ash'ford, in *Connecticut*, a post-village of Windham co., 30 m. E.N.E. of Hartford.

West Au'burn, in *Maine*, a post-village of Androscoggin co., abt. 4 m. N.W. of Auburn.

West-A'von, in *Connecticut*, a post-village of Hartford co., abt. 13 m. N.W. of Hartford.

West Bal'timore, in *Ohio*, a post-village of Montgomery co., abt. 20 m. N.W. of Dayton.

West Barn'stable, in *Massachusetts*, a post-village of Barnstable co., 65 m. S.E. of Boston.

West Baton Rouge (*bat'on roozh*), in *Louisiana*, a S.E. central parish, bordering on the Mississippi River; *area*, 210 sq. m. *Surface*, level and subject to inundation; *soil*, fertile along the river. *Cap.* Fort Allen. *Pop.* (1897) 8,680.

West Ben'ver, in *Pennsylvania*, a village and township of Snyder co.

West-Beck'et, in *Massachusetts*, a post-village of Berkshire co., 15 m. S.S.E. of Pittsfield.

West Bed'ford, in *Ohio*, a post-village of Coshocton co., 73 m. E.N.E. of Columbus.

West Belle'ville, in *Illinois*, a post-village of Saint Clair co.

West Bend, in *Wisconsin*, a thriving city and township, cap. of Washington co., 35 m. N.N.W. of Milwaukee. *Pop.* (1895) 1,766.

West Ber'gen, in *New York*, a post-village of Genesee co., 22 m. W.S.W. of Rochester.

West Beth'el, in *Maine*, a post-village of Oxford co., 74 m. N.N.W. of Portland.

West Beth'lehem, in *Pennsylvania*, a township of Washington co., 32 m. S.W. of Pittsburg.

West Block'stock, in *S. Carolina*, a township of Chester dist.

West Bloom'field, in *Michigan*, a township of Oakland co., abt. 22 m. N.W. of Detroit.

West Bloomfield, in *New Jersey*, a village of Essex co., 6 m. N.W. of Newark.

West Bloomfield, in *N. York*, a post-vill. and twp. of Ontario co., 16 m. W. of Canandaigua.

West'borough, in *Massachusetts*, a post-vill. and twp. of Worcester co., 32 m. S.W. of Boston.

Westborough, in *Ohio*, a post-village of Clinton co., 44 m. E.N.E. of Cincinnati.

John Wesley

1703–1791

West Boyls'ton, in *Massachusetts*, a post-twp. of Worcester co., 40 m. N.W. of Boston.
West Brad'ford, in *Pennsylvania*, a township of Chester co.
West Branch, in *New York*, a post-village of Oneida co., abt. 10 m. N. of Rome.
West Branch, in *Pennsylvania*, a township of Potter co.
West Bran'dywine, in *Pennsylvania*, a township of Chester co.
West Brat'tleboro', in *Vermont*, a post-village of Windham co., 115 m. S. of Montpelier.
West Bridge'water, in *Massachusetts*, a post-twp. of Plymouth co., 26 m. S. of Boston.
West Brook, in *Connecticut*, a post-vill. and twp. of Middlesex co., 28 m. E. of New Haven.
West Brook, in *Maine*, a township of Cumberland co., 7 m. N.W. of Portland.
West Brook'field, in *Massachusetts*, a post-township of Worcester co., 69 m. S.W. of Boston.
West Brook'ville, in *New York*, a post-village of Sullivan co., 95 m. S.S.W. of Albany.
West Browns'ville, in *Pennsylvania*, a post-borough of Washington co., on the Monongahela River, opposite Brownsville.
West Brunswick, in *Pennsylvania*, a township of Schuylkill co.
West Buffalo, in *Pennsylvania*, a village and twp. of Union co., 24 m. S.W. of Williamsport.
West Bur'lington, in *Pennsylvania*, a post-village and township of Bradford county, about 15 miles west of Towanda.
West'bury, a town of England, co. of Wilts, 5 m. S.S.E. of Trowbridge. *Manuf.* Woollens. *Pop.* 8,030.
Westbury, in *New York*, a post-village of Cayuga co., abt. 25 m. N.N.W. of Auburn.
West Bux'ton, in *Maine*, a post-village of York co., abt. 18 m. W. of Portland.
West Caln, in *Pennsylvania*, a township of Chester co.
West Cam'bridge, in *Massachusetts*, a vill. and twp. of Middlesex co., 6 m. N.W. of Boston.
West Cam'den, in *New York*, a post-village of Oneida co., 25 m. W.N.W. of Rome.
West Camp, in *New York*, a post-village of Ulster co., 42 m. S. of Albany.
West Camp'ton, in *New Hampshire*, a post-village of Grafton co., 45 m. N.W. of Concord.
West Ca'naan, in *New Hampshire*, a post-village of Grafton co., 56 m. N.W. of Concord.
West Canaan, in *Ohio*, a post-village of Madison co., 22 m. N.W. of Columbus.
West Car'lisle, in *Ohio*, a post-village of Coshocton co., 64 m. E.N.E. of Columbus.
West Carl'ton, in *New York*, a post-village of Orleans co., 30 m. N.E. of Lockport.
West Charles'ton, in *Maine*, a post-village of Penobscot co., 70 m. N.N.E. of Augusta.
West Charleston, in *Ohio*, a post-village of Miami co., 11 m. S.E. of Troy.
West Charleston, in *Vermont*, a post-village of Orleans co., 55 m. N.N.E. of Montpelier.
West Charl'ton, in *New York*, a post-village of Saratoga co., 30 m. N.N.W. of Albany.
West Chazy, in *New York*, a post-village of Clinton co., 10 m. N. of Plattsburg.
West Chelms'ford, in *Massachusetts*, a post-village of Middlesex co., 25 m. N.W. of Boston.
West Chesh'ire, in *Connecticut*, a post-village of New Haven co., 15 m. N. of New Haven.
West Ches'ter, in *Connecticut*, a post-village of New London co., 25 m. S.E. of Hartford.
West Chester, in *Indiana*, a township of Jay county.
Westchester, in *New York*, a S.E. co., bordering on Connecticut and Long Island Sound; *area*, 500 sq. m. *Rivers.* Hudson, Harlem, Croton, and Bronx. *Surface*, hilly; *soil*, fertile. *Min.* Copper and marble. *Cap.* White Plains. *Pop.* (1897) 177,250.
—A former post-village and township of the above co., now included in "Greater New York."
West Chester, in *Pennsylvania*, a post-borough, cap. of Chester co., 22 m. W. of Philadelphia.
West Chester, in *S. Carolina*, a township of Chester co.
West Chica'go, in *Illinois*, a township of Cook co., adjoining the city of Chicago.
West Cocal'ico, in *Pennsylvania*, a township of Lancaster co.
West Coles'ville, in *New York*, a post-village of Broome co., 4 m. E.NE. of Binghamton.
West Colum'bia, in *W. Virginia*, a post-village of Mason co., 160 m. S.W. of Wheeling.
West Con'cord, in *New Hampshire*, a post-village of Merrimack co., 3 m. N.W. of Concord.
West Concord, in *Vermont*, a post-village of Essex co., 37 m. N.E. of Montpelier.
West Corin'na, in *Maine*, a post-village of Penobscot co., abt. 40 m. N. of Belfast.
West Corn'wall, in *Connecticut*, a village of Litchfield co., 40 m. N.W. of Hartford.
West Creek, in *Indiana*, a post-township of Lake co.; *pop.* abt. 1,300.
West Dale, in *Pennsylvania*, a village of Delaware co., 10 m. W.S.W. of Philadelphia.
West Dan'ville, in *Maine*, a post-village of Androscoggin co., 28 m. N. of Portland.
West Day, in *New York*, a post-village of Saratoga co., 50 m. N.W. of Albany.
West Ded'ham, in *Massachusetts*, a post-village of Norfolk co., 12 m. S.W. of Boston.
West Deer, in *Pennsylvania*, a township of Alleghany county.
West Del'phi, in *Indiana*, a village of Carroll county.
West Dry'den, in *New York*, a post-village of Tompkins co., 170 m. N.W. of Albany.
West Dub'lin, in *Penna.*, a post-vill. of Fulton co.
West Dur'ham, in *Maine*, a post-village of Androscoggin co., abt. 25 m. N.E. of Portland.
West Dux'bury, in *Massachusetts*, a post-villago of Plymouth co., 40 m. S.E. of Boston.
West Earl, (*-url,*) in *Pennsylvania*, a post-township of Lancaster co., 11 m. N.E. of Lancaster.
Wes'teennk, in *New Jersey*, a village of Ocean co., 50 m. S.E. of Trenton.
West Ed'meston, in *New York*, a post-village of Otsego co., 28 m. S. of Utica.
West Eliz'abeth, in *Pennsylvania*, a post-borough of Allegheny co., 20 m. S. of Pittsburg.
West'erloo, in *New York*, a post-township of Albany co., 20 m. S.W. of Albany
West'erly, *a.* Tending or being toward the west; situated in the western region.—Moving or coming from the westward; as, a *westerly* wind.
—*adv.* Tending, going, or moving toward the west.
West'erly, in *Rhode Island*, a post-village and township of Washington county, 45 miles south-west of Providence.
West'ern, *a.* [*West*, and A. S. *œrn*, place.] Being in the west, or in the region nearly in the direction of west; situated in that quarter where the sun sets; as, the *western* coast of the U. States.—Moving or tending toward the west; as, to sail a *western* course.—Coming from the west; as, a *western* breeze.
Western, in *Illinois*, a twp. of Henry co.; *pop.* abt. 1 400.
Western, in *N. York*, a twp. of Oneida co.
West'ern Austra'lia, a British colony in the W. of Australia, between Lat. 28° 15′ and 35° 10′ S., Lon. 114° 45′ and 119° 35′ E. *Length*, from N.E. to S.W., 1,370 m., and average breadth 650 m. *Area*, 978,000 sq. m. *Surface*, diversified, but traversed in the interior from N. to S. by a mountain range, the principal peak of which, Toolbanop, is 5,000 feet high; *soil*, suitable for grazing. *Rivers.* Swan River is the principal. *Min.* Iron, coal, lead, copper, and zinc. *Climate*, dry, but healthy. *Prod.* Wheat, barley, oats, grapes, figs, olives, &c.; but the raising of sheep is the principal occupation of the inhabitants. *Cap.* Perth.
West'ern Branch, in *Virginia*, a township of Norfolk co.
West'ern Port, in *Maryland*, a post-village of Allegheny co., on the Potomac, 24 m. S.W. of Cumberland.
West'ern Empire, *n.* (*Hist.*) The name given by historians to the western division of the Roman empire, when divided, by the will of Theodosius the Great, between his sons Honorius and Arcadius, A. D. 395.
West'erner, *n.* A native or inhabitant of the west.
West'ernmost, Westmost, *a.* Furthest to the west.
West'ern Port, an inlet of S. Australia, in Victoria, 20 m. long and the same in breadth, separated from Port Philip by the peninsula of Arthur's Seat. It is almost filled by the Grant and French islands.
West'ern Sarato'ga, in *Illinois*, a post-village of Union co., 142 m. S. of Springfield.
West'ernville, in *New York*, a post-village of Oneida co., 8 m. N.N.E. of Rome.
West'erville, in *Ohio*, a post-village of Franklin co., 14 m. N.E. of Columbus.
West'erwyk, a seaport-town of Sweden, province of Smaland, on the Baltic, 75 m. N. of Calmar; *pop.* 4,000.
West Fair'field, in *Pennsylvania*, a post-village of Westmoreland co., 125 m. W. of Harrisburg.
West Fair'lee, in *Vermont*, a post-township of Orange co., 29 m. S.E. of Montpelier.
West Fall, in *Pennsylvania*, a township of Pike co., 68 m. N.E. of Wilkesbarre.
West Fal'lowfield, in *Pennsylvania*, a township of Chester county.—A township of Crawford county.
West Fal'mouth, in *Massachusetts*, a post-township of Barnstable co., 62 m. S.S.E. of Boston.
West Farms, in *New York*, a post-village and township of Westchester county, 11 m. N.N.E. of New York. Now part of New York city.
West Feliciana, in *Louisiana*, a S.E. parish, bordering on the Mississippi River; *area*, 365 sq. m. It is drained by the Bayou Sarah. *Surface*, undulating; *soil*, fertile. *Cap.* St. Francisville. *Pop.* (1897) 15,620.
West'field, in *Illinois*, a post-twp. of Clark co., abt. 22 miles south-east of Mattoon.—A township of Bureau county.
Westfield, in *Indiana*, a post-village and township of Hamilton co., 6 m. W. of Noblesville.
Westfield, in *Iowa*, a township of Fayette county.
Westfield, in *Massachusetts*, a river formed in Hampden county by the junction of the North, Middle, and West branches. It falls into the Connecticut near Springfield.—A post-village and township of Hampden county, 10 miles W.N.W. of Springfield.
Westfield, in *New Jersey*, a post-village and township of Union co., 36 m. N.N.E. of Trenton.
Westfield, in *New York*, a post-village and township of Chautauqua co., 57 m. W. of Buffalo.—A township of Richmond co.
Westfield, in *Ohio*, a twp. of Medina co.—A post-twp. of Morrow co.
Westfield, in *Pennsylvania*, a post-township of Tioga co., 16 m. N.W. of Wellsborough.
Westfield, in *Vermont*, a post-township of Orleans co., 44 m. N. of Montpelier.
Westfield, in *Wisconsin*, a post-village and township of Marquette county, abt. 58 m. W. of Fond du Lac.—A village and township of Sauk county, abt. 45 m. W. N.W. of Madison.
West Find'ley, in *Pennsylvania*, a post-township of Washington co.
West Fitch'burg, in *Massachusetts*, a post-village of Worcester co., 43 m. W.N.W. of Boston.
West'ford, in *Connecticut*, a post-village of Windham co., 30 m. E.N.E. of Hartford.
Westford, in *Massachusetts*, a post-vill. and twp. of Middlesex co., 27 m. W.N.W. of Boston.
Westford, in *New York*, a post-township of Otsego co., 8 m. S.E. of Cooperstown.
Westford, in *Vermont*, a post-township of Chittenden co., 31 m. N.W. of Montpelier.
Westford, in *Wisconsin*, a township of Dodge county.—A township of Richland co.
West Fork, in *Arkansas*, a township of Washington co.
West Fox'borough, in *Massachusetts*, a post-village of Norfolk co., 25 m. S.S.W. of Boston.
West Frank'lin, in *Pennsylvania*, a post-village of Bradford co., abt. 44 m. N.N.E. of Williamsport.
West Gale'na, in *Illinois*, a township of Jo Daviess co., on the Mississippi River.
West Gar'diner, in *Maine*, a post-township of Kennebec co.
West Genesee', in *Michigan*, a township of Genesee co.
West Girard', in *Pennsylvania*, a village of Erie co., 17 m. S.W. of Erie.
West Glouces'ter, in *Rhode Island*, a post-village of Providence co., 22 m. N.W. of Providence.
West Go'shen, in *Pennsylvania*, a township of Chester co.
West Goulds'borough, in *Maine*, a post-village of Hancock co., 95 m. E. of Augusta.
West Gran'by, in *Connecticut*, a post-village of Hartford co., 20 m. N.N.W. of Hartford.
West Gran'ville, in *Massachusetts*, a post-village of Hampden co., 110 m. W.S.W. of Boston.
West Greenfield, in *New York*, a post-village of Saratoga co., 36 m. N.W. of Albany.
West Green'wich, in *Rhode Island*, a post-township of Kent co., 22 m. W.N.W. of Newport.
West Gro'ton, in *Massachusetts*, a post-village of Middlesex co., 39 m. W.N.W. of Boston.
West Groton, in *New York*, a post-village of Tompkins co., 55 m. W. of Albany.
West Hamp'ton, in *Massachusetts*, a post-township of Hampshire co., 95 m. W. of Boston.
Westhamp'ton, in *New Jersey*, a township of Burlington co.
West Han'over, in *Pennsylvania*, a post-township of Dauphin co., 11 m. N.E. of Harrisburg.
West Hart'ford, in *Connecticut*, a post-vill. and twp. of Hartford co., 5 m. W. of Hartford.
West Hartford, in *Vermont*, a post-village of Windsor co., 56 m. S.E. of Montpelier.
West Hart'land, in *Connecticut*, a post-village of Hartford co., 25 m. N.W. of Hartford.
West Har'wich, in *Massachusetts*, a post-village of Barnstable co., 75 m. S.E. of Boston.
West Ha'ven, in *Connecticut*, a post-village of New Haven co., 5 m. S.W. of New Haven.
West Haven, in *Vermont*, a post-township of Rutland co., 60 m. S.S.W. of Montpelier.
West Hem'lock, in *Pennsylvania*, a township of Montour co.
West Hemp'field, in *Pennsylvania*, a township of Lancaster co.
West Hen'nepin, in *Illinois*, a village of Bureau co., on the Illinois, opposite Hennepin.
West Ho'boken, in *New Jersey*, a suburb of Jersey City, in Hudson co. *Pop.* (1895) 18,296.
West In'dies, the most usual denomination for the vast archipelago of about 850 islands (or 1,000 if we give this name to mere rocky and uninhabitable projections from the sea), lying between N. and S. America, and extending in two irregular lines, which unite at Hayti, from the peninsulas of Yucatan and Florida to the mouth of the Orinoco. They lie between Lat. 10° and 28° N., and Lon. 57° and 85° W., enclosing the Caribbean Sea, which they divide from the Gulf of Mexico and from the Atlantic Ocean. They are divided into two principal groups: the BAHAMAS (*q. v.*), and the ANTILLES (*q. v.*). In our article AMERICA (*q. v.*), the larger of the *W. I.* islands are grouped under the names of the nations to which they belong, and are, besides, elsewhere described under their particular names.
West'ing, *n.* Distance toward the west; as, the *westing* and southing of a ship.
(*Navig.*) The distance, reckoned toward the west, between the two meridians passing through the extremities of a course, or portion of a ship's path; the departure of a course which lies to the west of north.
West'ling, *n.* A westerner; one who belongs to a western country. (R.)
West Isles, a group of islands in the Atlantic Ocean, belonging to New Brunswick, and situated on the N.E. of Eastport, Maine. They are noted for their fisheries.
West Jef'ferson, in *Ohio*, a post-village of Madison co., 15 m. W. of Columbus.
West Jer'sey, in *Illinois*, a post-township of Stark co., abt. 28 m. N.W. of Peoria.
West'kill, in *New York*, a post-village of Greene co., 60 m. S.W. of Albany.
West Kil'lingly, in *Connecticut*, a village of Windham co. Now called DANIELSONVILLE.
West Lackawan'nock, in *Pennsylvania*, a former township of Mercer co.

West Kin'derhook, in *Indiana*, a village of Tipton co.
West Lafayette', in *Ohio*, a post-village of Coshocton co., 6 m. E. of Coshocton.
West Lampe'ter, in *Pennsylvania*, a township of Lancaster co.
West'land, in *Ohio*, a township of Guernsey co.
West Lan'rens, in *New York*, a post-village of Otsego co., 84 m. W. of Albany.
West Leb'anon, in *Indiana*, a post-town of Warren co., 29 m. W.S.W. of Lafayetto.
West Lebanon, in *New Hampshire*, a post-village of Grafton co., 69 m. N.W. of Concord.
West Lebanon, in *Ohio*, a post-village of Wayne co., abt. 11 m. S.W. of Massillon.
West Lebanon, in *Pennsylvania*, a post-village of Indiana co., 35 m. N.E. of Pittsburg.
West Levant', in *Maine*, a post-village of Penobscot co., abt. 36 m. N. of Belfast.
West Ley'den, in *New York*, a post-village of Lewis co., 35 m. N.W. of Utica.
West Lib'erty, in *Indiana*, a village of Jay co., abt. 7 m. N. of Portland.
West Liberty, in *Kentucky*, a post-vill. and twp., cap. of Morgan co., 107 m. S.E. of Frankfort.
West Liberty, in *Ohio*, a post-village of Logan co., 48 m. N.N.E of Dayton.
West Lin'coln, in *Illinois*, a towushlp of Logan county.
West Low'ville, In *New York*, a post-vllage of Lewis co., 140 m. N.W. of Albany.
West Maho'ning, in *Pennsylvania*, a township of Indiana co.
West Man'chester, In *Pennsylvania*, a township of York co.
West Man'heim, In *Pennsylvania*, a township of York co., abt. 24 m. S.S.W. of York.
West Marl'borough, In *Pennsylvania*, a twp. of Chester co., 11 m. S.W. of West Chester.
West Mar'tinsburg, in *New York*, a post-village of Lewis co., 60 m. E.N.E. of Oswego.
West'meath, a co. of Ireland, prov. of Leinster, having N. Cavan, E. Meath, S. King's co., and W. Roscommon; *area*, 708 sq. m. *Surface*, undulating, and interspersed with woods, lakes, and bogs; *soil*, fertile. *Rivers*. Shannon, Inny, and Brosna. *Prod*. Oats, wheat, and potatoes; but grazing and dairy farming are the principal occupations. *Cap*. Mullingar.
West Med'ford, in *Massachusetts*, a post-village of Middlesex co., 5 m. N.N.W. of Boston.
West Med'way, in *Massachusetts*, a post-village of Norfolk co., 28 m. W.S.W. of Boston.
West Men'don, in *New York*, a village of Monroe co., 15 m. S. of Rochester.
West Mer'edith, in *New York*, a post-village of Delaware co., 75 m. S.W. of Albany.
West Mer'iden, in *Connecticut*, a post-vllage of New Haven co., 17 m. N.E. of New Haven. Now MERIDEN.
West Mid'dletown, in *Pennsylvania*, a post-borough of Washington co., 13 m. N.W. of Washington.
West Mil'ford, in *New Jersey*, a post-township of Passaic co., 40 m. N.W. of Jersey City.
West Mil'ton, in *New York*, a post-village of Saratoga co., 31 m. N. of Albany.
West Milton, or MILTON, in *Ohio*, a post-village of Miami co., 78 m. W. of Columbus.
West Milton, in *Pennsylvania*, a post-vill. of Union co.
West Milton, in *Vermont*, a post-vill. of Chittenden co.
West Min'ot, in *Maine*, a post-village of Androscoggin co., 40 m. N. of Portland.
West'minster, a city and borough of England, co. Middlesex, forming the W. portion of London, the British metropolis. It is bounded E. by the city of London proper, N. by Marylebone, W. by Kensington and Bayswater, and S. by the river Thames, dividing it from the co. of Surrey. Its limits comprise the fashionable districts of Belgravia, Mayfair, Tyburnia, &c., otherwise called the *West End*. Westminster Abbey (see SECTION II.), Hyde, St. James', and Green parks, the Houses of Parliament, and government offices, &c., are also situated within its liberties. *Pop*. Included in that of LONDON, *q.v.*
Westminster, in *Connecticut*, a post-village of Windham co., 40 m. S.W. of Hartford.
Westminster, in *Maryland*, a post-villago. cap. of Carroll co., 58 m. N N W. of Annapolis.
Westminster, in *Massachusetts*, a post-vill. and twp. of Worcester co., 48 m. N.W. of Boston.
Westminster, in *Vermont*, a post-vill. and twp. of Windham co., 82 m. S.E. of Montpelier.
Westminster West, in *Vermont*, a post-village of Windham co., 95 m. S.E. of Montpelier.
West Monroe', in *New York*, a post-twp. of Oswego co., 20 m. N.E. of Syracuse.
West'more, in *Vermont*, a township of Orleans co., 40 m. N.E. of Montpelier.
West'moreland, a co. of England, having N. the cos. of Durham and Cumberland, E. York and Durham, S. Lancaster and York, and W. Cumberland and Lancaster; *area*, 763 sq. m. Much of the land is mountainous, in some places attaining a height of 3,000 ft.; and though the rivers are small, the lakes are the most beautiful in England; of these the most noted are Windermere and Ullswater. *Min*. Copper, lead, coal, and slate. *Cap*. Appleby.
Westmoreland, in *New Hampshire*, a post-twp. of Chesbire co., 52 m. W.S.W. of Concord.
Westmoreland, in *New York*, a post-twp. of Oneida co., 12 m. W. of Utica.
Westmoreland, in *Pennsylvania*, a S.W. co.; *area*, 1,000 sq. m. *Rivers*. Alleghany and Youghiogheny. *Surface*, hilly, and mountainous in the E.; *soil*, generally fertile. *Min*. Stone-coal, iron, limestone, and slate. *Cap*. Greensburg. *Pop*. (1897) 121,980.
Westmore'land, in *Virginia*, an E. co., bordering on Maryland; *area*, 170 sq. m. *Rivers*. Potomac, and the Rappahannock; also Pope's and Monroe creeks, and Nomini Bay. *Surface*, diversified; *soil*, generally fertile. *Cap*. Montross. *Pop*. (1897) 8,860.
—A post-village, cap. of the above co.
West Nantmeal, (*-naut'mill,*) in *Pennsylvania*, a twp. of Chester co.
West Need'ham, in *Massachusetts*, a post-village of Norfolk co., 15 m. W.S.W. of Boston.
West New'bury, in *Massachusetts*, a post-township of Essex co., 34 m. N.E. of Boston.
West New'ton, in *Massachusetts*, a post-village of Middlesex co., 9 m. W. of Boston.
West Newton, in *Minnesota*, a post-twp. of Nicollet co.
West Newton, in *Pennsylvania*, a post-bor. of Westmoreland co., 32 m. S.E. of Pittsburg.
West Nor'folk, in *Connecticut*, a post-village of Litchfield co., 35 m. W.N.W. of Hartford.
West Not'tingham, in *Pennsylvania*, a township of Chester co.
Wes'ton-super-Mare, a seaport-town of England, co. of Somerset, 9 m. N.W. of Axbridge; *pop*. 4,510.
West Or'ange, in *New Jersey*, a township of Essex county.
West Ossipee', in *New Hampshire*, a post-village of Carroll co., 42 m. N.E. of Concord.
West Ox'eter, in *New York*, a post-village of Otsego co., abt. 25 m. S. of Utica.
Wes'ton, In *Connecticut*, a post-vill. and twp. of Fairfield co., 55 m. S.W. of Hartford.
Weston, in *Maine*, a post-township of Aroostook co., 135 m. N.E. of Augusta.
Weston, in *Massachusetts*, a post-village and township of Middlesex co., 13 m. W. of Boston.
Weston, in *Missouri*, a post-town and river-port of Platte co., on the Missouri, 200 m. W.N.W. of Jefferson City.
Weston, in *Nebraska*, a post-village of Saunders co.
Weston, in *New Jersey*, a post-village of Somerset co., 22 m. N.N.E. of Trenton.
Weston, in *Ohio*, a post-village and township of Wood co., 26 m. S.S.W. of Toledo.
Weston, in *Vermont*, a post-village and township of Windsor co., 68 m. S. of Montpelier.
Weston, in *West Virginia*, a post-town, cap. of Lewis co., on the Monongahela river and the West Virginia & Pittsburg R.R., 88 m. S. of Wheeling; seat of State Hospital for the Insane. *Pop*. (1897) 2,650.
Weston, in *Wisconsin*, a township of Marathon co.
West Penn, in *Pennsylvania*, a post-township of Schuylkill co.
West Penns'borough, in *Pennsylvania*, a post-town of Cumberland co.
West Per'ry, in *Pennsylvania*, a township of Snyder co.
Westpha'lia, a prov. of Prussia, comprising the N.W. portion of its territory N. of Rhenish Prussia, E. of the Netherlands, S. of Hanover, and W. of the Weser; *area*, 7,820 sq. m. *Surface*, hilly in the S.W., elsewhere level; *soil*, generally fertile. *Rivers*. Ems, Lippe, Weser, and Werra. *Prod*. Corn, flax, tobacco, and hops; horses, cattle, sheep, and swine are numerous. *Min*. Iron, lead, copper, coal, and salt. *Manuf*. Cottons, hardwaro, paper, spirits, tobacco, cutlery, flax-spinning. *Cap*. Münster. *Pop*. (1897) 2,543,250.—The ancient duchy of Westphalia was separated from western Saxony by Frederick I. in 1180. In 1613 Prussia obtained possession of part of the country, and in 1801 it was ceded to the Duke of Hesse-Darmstadt. Napoleon I. erected Westphalia into a kingdom, under his brother Jerome, Aug. 18, 1806. Brunswick-Wolfenbüttel, Hesse-Cassel, and Magdeburg were annexed by the treaty of Tilsit, July 9, 1807; and Hanover, March 16, 1810. This kingdom came to an end after the battle of Leipsic, Oct. 16, 18, and 19, 1813; and the different provinces were restored to their former possessors in 1813–14.—The name *Peace of Westphalia* was given to two treaties terminating the Thirty Years' War; the first between the Emperor and Sweden, signed at Osnaburg, Aug. 6, 1648; and the second between the Emperor and France, signed at Münster, Oct. 24, 1648. The negotiations for this peace commenced at Münster, where the Congress held its first meeting in July, 1643, and settled the preliminaries in Jan., 1647. France was confirmed in the possession of Alsace, and other territory. Sweden obtained Pomerania, Rügen, Bremen, and Verden; and the independence of the United Provinces and of Switzerland was recognized. Spain continued the war against France, until it was brought to a close by the *Peace of the Pyrenees*, Nov. 7, 1659.
Westpha'lia, in *Michigan*, a post-township of Clinton co.
West Pike'land, in *Pennsylvania*, a twp. of Chester co.
West Pike Run, in *Pennsylvania*, a township of Washington co.
West Pitts'burg, in *Pennsylvania*, a village of Allegheny co.
West Pitts'field, in *Massachusetts*, a post-village of Berkshire co., 50 m. N.W. of Springfield.
West Pitts'ton, in *Pennsylvania*, a post-borough of Luzerne co.
West Plains, in *Missouri*, a city, cap. of Howell co., 90 m. S. of Rolla. *Pop*. (1897) 2,500.
West Plym'outh, in *New Hampshire*, a post-village of Grafton co., 40 m. N.W. of Concord.
West Point, in *California*, a post-town of Calaveras co., 17 m. N.E. of Mokelumne Hill.
West Point, in *Georgia*, a city of Troup co., 87 m. S.W. of Atlanta. *Pop*. (1897) 1,620.
West Point, in *Illinois*, a village and twp. of Stephenson co., 135 m. W.N.W. of Chicago.
West Point, in *Indiana*, a post-village of Tippecanoe county, 10 miles S.W. of Lafayette.—A townsbip of White co.
West Point, in *Iowo*, a township of Butler county.—A post-village of Lee county, 24 miles north of Keokuk.
West Point, in *Mississippi*, a post-town of Lowndes co., about 17 m. N.W. of Columbus.
West Point, in *New York*, the site of the U. States Military Academy, in Orange co., on the Hudson, 52 m. N. of New York city. Owing to its natural strength, it was selected in the early days of the Revolution as a fortress, and Fort Putnam was erected 598 feet above the river, commanding an extensive and picturesque view. It is inclosed on the N.W., W., and S.W. by mountains ranging from 600 to 1,600 feet high, while the approach

Fig. 2610.—VIEW ON THE HUDSON—WEST POINT.

from the river on the E. is interrupted by a perpendicular bank or wall (Fig. 2610). The Academy, established in 1794, is built on a plateau 188 feet above the river. It has an area of 1 m. in circuit, with ample conveniences for military evolutions and the practice of gunnery. See WEST POINT, in SECTION II.
West Point, in *Virginia*, a post-village of King William co., 30 m. E. of Richmond.
West Point, in *Wisconsin*, a post-twp. of Columbia co., abt. 22 m. N.W. of Madison.
West'port, a town of Ireland, co. of Mayo, 10 m. S.W. of Castlebar; *pop*. 5,200.
Westport, in *Connecticut*, a post-vill. and township of Fairfield co., 28 m. S.W. of New Haven.
Westport, in *Maine*, a post-township of Lincoln co., 28 m. S.E. of Augusta.
Westport, in *Massachusetts*, a river which flows into the Atlantic from Bristol co., a short distance E. of the boundary of Rhode Island.—A post-village and township of Bristol co., 55 m. S. of Boston.
Westport, in *Missouri*, a post-town and twp. of Jackson co., 175 m. N.W. of Jefferson City.
Westport, in *New York*, a post-village and township of Essex co., 110 m. N.E. of Albany.
Westport, in *Pennsylvania*, a post-village of Clinton co., abt. 34 m. N.W. of Lock Haven.
Westport, in *Wiscousin*, a post-township of Dane co., abt. 4 m. N. of Madison.
West Prov'idence, in *Pennsylvania*, a township of Bedford co.
West Quod'dy Head, in *Maine*, a headland at the W. entrance of Passamaquoddy Bay.
Westra'lia, in *Kansas*, a former village and township of Montgomery co.
West River, in *Indiana*, a township of Randolph co.
West Rox'bury, in *Massachusetts*, a former post-village and township of Norfolk co.; now a suburb of Boston.
West Rum'ney, in *New Hampshire*, a post-village of Grafton co., 59 m. W.N.W. of Concord.
West Rush, in *New York*, a post-village of Monroe co., 31 m. E. of Batavia.
West Rush'ville, in *Ohio*, a post-village of Fairfield co., 142 m. E.N.E. of Cincinnati.
West Rut'land, in *Massachusetts*, a post-village of Worcester co., 50 m. W. of Boston.
West Rut'land, In *Vermont*, a post-town of Rutland co., 4 m. W.N.W. of Rutland.
West St. Paul, in *Minnesota*, a city and township of Dakota co., on the Mississippi, opposite the city of St. Paul. *Pop*. (1895) 1,763.
West Sa'lem, in *Pennsylvania*, a township of Mercer county.
West Sand Lake, in *New York*, a post-village of Rensselaer co., 10 m. E. of Albany.
West Sand'wich, in *Massachusetts*, a village of Barnstable co., 55 m. S.E. of Boston.
West Scit'nate, In *Massachusetts*, a village of Plymouth co., 22 m. S.E. of Boston.
West Sen'eca, in *New York*, a post-township of Erie co., abt. 3 m. S.E. of Buffalo.
West Spar'ta, in *New York*, a township of Livingston co., abt. 12 m. S. of Genesee.
West Spring'field, in *Massachusetts*, a post-village and township of Hampden county, 100 miles southwest of Boston.
West Springfield, In *Pennsylvania*, a post-village of Erie co., 26 m. S.W. of Erie.
West Staf'ford, In *Connecticut*, a post-village of Tolland co., 25 m. N.E. of Hartford.

West Stock'bridge, in *Massachusetts*, a post-village and township of Berkshire county, 160 miles west of Boston.

West Stock'holm, in *New York*, a post-village of St. Lawrence co., 30 m. E. of Ogdensburg.

West Sut'ton, in *Massachusetts*, a post-village of Worcester co., 45 m. W.S.W. of Boston.

West'town, in *New York*, a post-village of Orange co., 60 m. N.W. of New York.

West'town, in *Pennsylvania*, a township of Chester co., 23 m. W. of Philadelphia.

West Town'send, in *Massachusetts*, a post-village of Middlesex co., 47 m. N.W. of Boston.

West Troy, in *New York*, a post-village of Albany co. See TROY.

West Tu'rin, in *New York*, a township of Lewis co.; *pop.* abt. 3,500.

West U'nion, in *Iowa*, a city and township, cap. of Fayette co., 85 m. N.W. of Dubuque. *Pop.* (1895) 1,801.

West Union, in *Minnesota*, a post-township of Todd co.

West Union, in *New York*, a post-town of Steuben co., abt. 50 m. W. of Elmira.

West Union, in *Ohio*, a post-village, cap. of Adams co., 84 m. S.S.W. of Columbus.

West Union, in *W. Virginia*, a post-village, cap. of Doddridge co., 54 m. E. of Parkersburg.

West Van Bu'ren, in *Indiana*, a township of La Grange co.

West'ville, in *Alabama*, a post-village of Dale county.

Westville, in *Connecticut*, a post-vill. of New Haven co., nbt 2 m. N.W. of New Haven.

Westville, in *Mississippi*, a post-village, cap. of Simpson co., 40 m. S.S.E. of Jackson.

Westville, in *New Jersey*, a post-vill. of Gloucester co.

Westville, in *New York*, a twp. of Franklin co.—A post-vill. of Otsego co., 65 m. W. of Albany.

Westville, in *Ohio*, a post-village of Champaign co., 51 m. W.N.W. of Columbus.

Westville, in *Virginia*, a township of Mathews county.

West Vin'cent, in *Pennsylvania*, a township of Chester co., 12 m. N. of West Chester.

West Virgin'ia, a State of the American Union, situated between N. Lat. 37° 36′ and 40° 38′, and W. Lon. 77° 45′ and 82° 30′ from Greenwich, is bounded N. by Pennsylvania and Ohio, N.W. by the latter State, S.W. by Kentucky, S. and E. by Virginia, and N.E. by Maryland. *Area*, 24,780 sq. miles, or 15,859,200 acres. *Gen. Desc.* With the exception of the cos. of Hardy, Hampshire, Morgan, Berkeley, Jefferson, and Pendleton, which are drained by the Potomac river and branches, the whole of W. Virginia geographically belongs to the Great Mississippi Valley—the greater number of her streams being tributaries of the Ohio river, which forms the W. boundary of the State to an extent of 300 m. Through these channels *W. V.* is placed in direct communication with the markets of the far West and the Gulf of Mexico, and, in fact, with the trade of the whole Mississippi Valley. The Alleghany ridge forms in this State the watershed between the Atlantic Ocean and the Mississippi Valley. The principal rivers are the Sandy, the Guyandotte, and the Great and Little Kanawha, all affluents of the Ohio; and the Monongahela with its tributaries, the Youghiogheny and Cheat. W. of the Alleghany range and that of the Shenandoah on the E., and the Greenbrier and Laurel mountains on the W., are numerous short parallel ridges, of which the most considerable are Potts'a or Middle, Warm Spring, and Jackson's River mountains. The westernmost of these continuous chains is the Laurel ridge, with its prolongations, the Greenbrier and Flat Top mountains. Near the line of Randolph co., the Greenbrier Mountains throw off a spur E. to the Alleghany range, and from this run half-a-dozen parallel ridges, following the usual course of the mountain chains of the State, and known as Rich, Middle, Shaver's, Cheat, and Valley Mountains. The Great Flat Top Mountains, as the S.W. portion of this fourth ridge is called, also throws out spurs N. and N.W., called the White Oak Mountain and Barkor's ridge.—*Soil.* The prevailing ingredients of the soils are silica, alumina, or pure clay, marl, lime, magnesia, and iron, which the very unevenness of the surface tends to amalgamate to the greatest practical advantage. Thus, the alluvial or bottomlands, composed of the diluvium from adjacent and distant hills, combine mechanically and chemically every kind of mineral and vegetable decomposition in the country. This soil, which varies in depth from 2 to 30 or 40 ft., produces the largest timber and the heaviest crops, and resting upon a substantial basis of dark loam and fertile clay, exceeds in reliability and endurance the black, rich, but thirsty and chaffy soils of the western prairies. The second bottom is generally representative of the rocks prevailing upon this level, with a strong admixture of the strata above, brought down by the gradual land-slips and the wash of rains, and accumulated probably to a great extent before the present vegetation took possession of the surface. On ascending, the soil is found gradually less mixed in substance and color; the timber is less varied, and on steeper planes less thrifty. When the top of the ridge is sharp and narrow, the bare rock is found but a few inches below, and not seldom protruding above the surface; but when flat or but gently inclined, as in a majority of cases, there is found a deep, arable soil, heavily coated with humus, and producing, with few exceptions, the identical kinds of timber and crops found in the alluvial valley below. Some of the most comfortable rural homesteads, surrounded by orchards, gardens, and meadows, and supplied with never-failing springs, are found upon the tops of hills some 150 to 300 feet above the valleys. In those regions of the State where table-lands are exceptionally met with, the surface presents undulating plains,—which, but for their majestic timber, would recall to mind an Illinois prairie,—reaching along the mountain summits for miles in length and breadth, with scarcely a swell here and there sufficiently bold to divide the waters. *W. V.* is richly invested with timber, comprising many varieties of the oak and fir, the hemlock, cedar, laurel, tulip-tree, the black and white walnuts, hickory, beech, sycamore, elm, maple, birch, white and mountain ash, besides the wild-fruit and berry-bearing varieties peculiar to the surrounding States. It has been estimated that 11,300,000 acres, or nearly ¾ of the superficial area of the State, are as yet unimproved, and of these a considerable proportion are still in the vigor and juvenescence of original growth. *Min. &c.* The coal measures are known to embrace the entire State, with the exception of the Lower Potomac cos.; and the strata, with few exceptions, running nearly horizontally, or with but slight undulations, through the whole of this territory, there is scarcely a county within its bounds that does not contain one or more seams, at some distance above or below the water-level. *W. V.*, in fact, contains 1-13th of the coal area of the whole U. States, by surface measure only, no account being taken of her greater aggregate thickness of workable seams. In Ritchie co., 14 m. S. of Cairo Station, is found a vein of asphaltum, or solidified petroleum, which, from its geological position, and probable origin, constitutes one of the wonders of the State. The asphaltum produces upwards of 150 galls. per ton of superior oil, 30° gravity, and large returns are anticipated from this remarkable deposit. Salt is another mineral in large yield, salt springs being found in the valleys of the Kanawha and the Ohio. These formerly produced largely, but their yield has been retarded by Michigan competition. The mineral of industrial value next abundant in the State is iron, which is almost coextensive with coal, though not present in seams quite as thick or as numerous. Iron ore is so generally prevalent in various forms throughout *W. V.*, that it would be probably more difficult to surmise where it is not than where it may be found. Petroleum occurs in great quantities in many parts of the State, but is chiefly obtained in a belt from 1 to 2 m. wide, extending from the Little Kanawha to the Ohio River. Perhaps no State in the Union is richer in mineral wealth than West Virginia, although, as yet, the development has not been as rapid as in its sister State of Pennsylvania. The remaining mineral deposits known to exist are antimony, alum, limestone, and fire and plastic clays, of superior quality. The mineral waters located within the limits of the State are many and well-known, particularly the Sulphur Springs, occurring under different names. *Clim.* Alike free from extremes of cold and heat, of rain and drought, and at an elevation inaccessible to malaria, *W. V.* enjoys, on the whole, a climate unsurpassed by that of any other State. The distribution of rain throughout the whole State is remarkably favorable to seasonable vegetation. Total failure of crops from excess or insufficiency of humidity are unknown; and droughts are out of the question under so genial an atmosphere.—*Agric.* Of the cereal crops Indian corn stands first, there being in 1900 688,545 acres devoted to its growth, with a yield of 16,610,730 bushels. The wheat crop was 4,326,150, and that of oats 1,833,840 bushels. The other important crops are those of rye, buckwheat, potatoes, and tobacco. Garden vegetables and fruit are also of some importance, while the raising of live-stock on farms is a leading agricultural interest, cattle being kept in large numbers, and horses, sheep, and swine in considerable abundance. The value of live stock on farms in the census year 1900 was 30,571,259, while the value of farm products was estimated at 25,000,000.—*Mining.* The mining interests of the State are largely in the production of coal, the total yield of this valuable product in 1901 being 24,068,402 short tons, a yield only surpassed by those of Pennsylvania, Illinois, and Ohio. In coke production it was second in rank. No less than 16,000 sq. miles, or two-thirds the entire area of the State, are underlaid by workable beds of coal, the supply being almost inexhaustible, and the coal of every variety except anthracite, and excellently adapted for steam and gas purposes and for domestic fuel.—*Manuf.* The manufactures of *W. V.* are not extensive, and are concentrated principally at Wheeling, the largest city. The production of pig-iron and steel is on the increase, and the State has attained a high rank in the manufacture of iron and steel rails. The other important articles of manufacture are glass, lumber, leather, and flour and grist mill products. The value of the total product in 1890 was $38,702,125. There were, in 1897, about 2,450 industrial establishments, having a combined capital of over $30,000,000, and employing 22,300 operators, whose wages aggregated about $9,000,000. The manufacture of cut-nails was reported as decreasing, and that of wire nails increasing.—*Polit. Div.* The State is divided into 55 counties, as follows:

Barbour,	Hancock,	Mineral,	Ritchie,
Berkeley,	Hardy,	Mingo,	Roane,
Boone,	Harrison,	Monongalia,	Summers,
Braxton,	Jackson,	Monroe,	Taylor,
Brooke,	Jefferson,	Morgan,	Tucker,
Cabell,	Kanawha,	Nicholas,	Tyler,
Calhoun,	Lewis,	Ohio,	Upshur,
Clay,	Lincoln,	Pendleton,	Wayne,
Doddridge,	Logan,	Pleasants,	Webster,
Fayette,	McDowell,	Pocahontas,	Wetzel,
Gilmer,	Marion,	Preston,	Wirt,
Grant,	Marshall,	Putnam,	Wood,
Greenbrier,	Mason,	Raleigh,	Wyoming.
Hampshire,	Mercer,	Randolph,	

Cities. Wheeling (Fig. 2612), Charleston (State cap), Parkersburg, Huntington, Martinsburg, Grafton, &c.—*Govt.* The executive department consists of a Governor, Secretary of State, Superintendent of Public Schools, Auditor, Treasurer, and Attorney-general, all elected by the people for four years. The Legislature, which meets biennially, consists of senators and delegates, the former elected for four years, the latter for two years. The judiciary is vested in a Supreme Court of Appeals, consisting of four judges, elected by the people for twelve years; in Circuit Courts, Corporation Courts, and justices of the peace, all elected by the people. A State Constitution was adopted March 26, 1863, and a new one in 1872. Wheeling was substituted for Charleston as capital of the State in 1875, but in 1885 the State capital was again removed to Charleston. The latest apportionment gives *W. V.* 4 representatives in the U. S. Congress and 6 votes in the college of electors.—*Finances.* The assessed valuation of real and personal property in *W. V.* for the year 1[illegible] 991,688; for 1890, $186,964,770; for 1900, $228,408,725. The growth of population and continued development

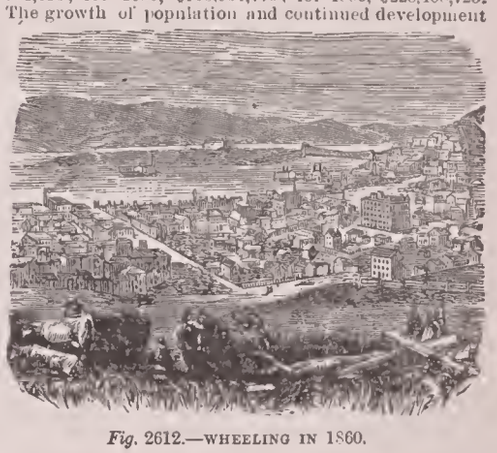


Fig. 2612.—WHEELING IN 1860.

of the natural sources of wealth have considerably increased the wealth of the State since the latter date. The total net indebtedness of the State and its divisions was, in 1890, $2,532,460, of which the proportion credited to the State was only $184,511. In 1900 it had become free from debt, though it holds itself accountable for a portion of the State debt of Virginia, as yet undetermined. The county debt was $1,197,462; city debt, $1,132,188; school district debt, $18,299. The State is well supplied with railroads, it being crossed by the Baltimore and Ohio line, while numerous branch lines and local roads traverse it, railroad construction having been very active.—*Educ. W. V.* possesses an efficient system of free public and normal schools, a liberal system of public education being adopted early in its history. The system is that known as the township or district system, the control of the school interests of each district being in the hands of a board of education elected by the people, while each county has its superintendent and there is a general State superintendent. Of the approximately 300,000 children of school age in the State about 230,000 are enrolled in the public schools, while the remainder are largely absorbed in the numerous private schools and institutes of higher education. Chief among the latter is the West Virginia State University, at Morgantown. This has a productive endowment of $114,750, and receives annual appropriations from the State. It has a library of 14,500 volumes, 30 instructors, and about 400 pupils, and possesses a museum, and mineralogical, geological and conchological cabinets, chemical laboratory, &c. The State possesses several other collegiate institutions. The other State institutions include a hospital for the insane at Weston and a branch asylum at Spencer, a deaf-mute and blind asylum at Romney and a penitentiary at Moundsville. A high-license system prevails, under whose operation and in virtue of local sentiment the sale of liquor is virtually prohibited in many counties of the State.—*Hist.* The history of the State prior to 1861 is identified with that of Virginia proper, of which State it formed an integral part until after the outbreak of the Civil War. The Alleghany Mountains, however, formed a natural line of demarcation between the two sections of this State, and conditions favoring separation had long existed. These reached a climax on the passage by Virginia of an ordinance of secession, the popular vote in the section west of the mountains being strongly opposed to it. A convention of loyalists met at Wheeling in June, 1861, and in Aug. adopted an ordinance providing for the for-

Fig. 2611. — SEAL OF THE STATE.

matlon of a new State to be called Kanawha. In November a Constitution was adopted and the name West Virginia chosen. This Coustitution was adopted by the people by a very large majority in April, 1862. In May the legislature of the "reorganized governmeut" of Virginia passed a bill to authorize the formation of the new State, and lt was formally admitted to the Union hy Act of Congress aud the approval of President Lincoln, Juue 19, 1863. At that time it was sparsely peopled, and its great resources undeveloped, but great and encouraging progress has since been made. *Pop.* (1870) 442,074; (1880) 618,457; (1890) 762,794; (1900) 958,800.

West Wheel'ing, in *Ohio*, a post-town of Belmont co., on the Ohio, opposite Wheeling, Virginia.

West White'land, in *Pennsylvania*, a post-township of Chester co., 5 m. N. of West Chester.

West Wind'ham, in *Pennsylvania*, a village of Bradford co., 152 m. N.E. of Harrisburg.

West Wind'sor, in *New Jersey*, a township of Mercer county.

West Windsor, in *Vermont*, a township of Windsor county.

West Win'field, in *New York*, a post-village of Herkimer co., 15 m. S.E. of Utica.

West Win'sted, in *Connecticut*, a post-village of Litchfield co., 30 m. N. of Waterbury.

West Yar'mouth, in *Massachusetts*, a post-village of Barnstable co., 60 m. S.E. of Boston.

Wet, *a.* (*comp.* WETTER; *superl.* WETTEST.) [A. S. *wæt;* Lat. *udos*, akin to Gr. *hucτos*, rain.] Containing water; surcharged with moistnre; as, a *wet* napkin.—Having water or other liquid upon the surface; as, a *wet* pavement.—Rainy; very damp or humid; as, a *wet* seasou, a *wet* day.

Wet blanket, figuratively and colloqnially, that which has the effect of damping or checking ardor or aspirations; as, a lady's "No" tbrows a *wet blanket* over a wooer.

—*n.* [A. S. *wæta.*] Water or wetness; moisture, humidity, or dampness in considerable degree.—Rainy, foggy, or humid weather; as, it has been very *wet* of late.—A cant term for alcohol drink; as, he is fond of his *wet;* heavy *wet;* l. e., spirituous liquors.

—*v. a.* (*imp.* and *pp.* WET; sometimes, hut rarely, WETTED.) [A. S. *wætan.*] To fill or moisten with water or other liquid: to sprinkie; to damp; to cause to have water or other flnid adherent to the snrface; to dip or soak in liquor; as, *to wet* one's feet; to *wet* cloth, &c.

To wet one's whistle, to indulge in eomforting drink; to rinse the dnst from one's mouth with something moist and cordial; as, "Old wine is good stuff to *wet one's whistle* with."—*Dickens.*

Weth'er, *n.* [A. S. *weddcr;* Ger. *widder.*] A castrated ram.—*Wether mutton*, a choice kind of mutton, obtained from a well-kept wether sheep.

Weth'erfield Springs, in *New York*, a post-village of Wyoming co., 250 m. W. of Albany.

Weth'ersfield, in *Connecticut*, a post-village and township of Hartford co., on the Connecticut River, abt. 3 m. S. of Hartford.

Wethersfield, in *New York*, a post-township of Wyoming co., 8 m. S.W. of Warsaw.

Wet'ness, *n.* State of being wet; moisture; humidity; dampness; as, the *wetness* of marshy land; the *wetness* of a dish-clout.—A state of being rainy, foggy, or misty; as, the *wetness* of the weather.

Wet'-nurse, *n.* A woman who suckles the child of another woman;—as distinguished from *dry-nurse.*

Wet'-shod, *a.* Having the feet wet with the shoes or boots on.

Wet'ta, an island of the Eastern Archipelago, 30 m. N. of Timor, 60 m. long and 30 broad; Lat. 8° 5′ S., Lon. 126° 12′ E.

Wet'ter, a lake of Sweden, hetween Lat. 57° 50′ and 58° 55′ N., Lon. 14° and 15° E., 25 m. S.E. of Lake Wener, with which it is connected by a canal. *Ext.* 80 m. long and 10 broad.

Wet'teren, a town of Belgium, prov. of E. Flanders, on the Scheldt, 7 m. E.S.E. of Gheut. *Manuf.* Woollens and cottons. *Pop.* 9,350.

Wet'terhorn, ("the peak of tempests,") one of the Alpine mountaius of the Beruese Oberland, Switzerlaud, 12,162 ft. above the sea.

Wet'tish, *a.* Somewhat wet, moist, damp, or humid.

Wetump'ka, in *Alabama*, a post-town and township, cap. of Elmore co., on the Coosa River, 14 m. N. of Montgomery.

Wet'zel, iu *W. Virginia*, a N co., bordering on Pennsylvania; *area*, 550 sq. m. *Rivers.* The Ohio river and Fishing crcek. *Surface*, hilly; *soil*, generally fertile. *Min.* Stone-coal. *Cap.* New Martinsville. *Pop.* (1897) 18,410.

Wetzlar (*vets'lar*), a town of Rhenish Prussia, on the Lahn, 40 m. E.N.E. of Cobleutz. *Pop.* 6,050.

Wevelghem (*vev'el-gaim*), a town of Belgium, province of W. Flanders, 2 m. E.N.E. of Menin. *Pop.* 4,500.

We'verton, in *Maryland*, a post-village of Frederick co., on the Potomac, 80 m. W. of Baltimore.

We'vil, *n.* Same as WEEVIL (*q. v.*).

Wex'ford, a seaport town of Ireland, cap. of a co. of same name, at the moutb of the river Staney in St. George's Channel, 25 m. N.N.E. of Waterford. It is irregularly built, with narrow streets, but contains some handsome buildings. *Manuf.* Woollens.

Wexford, in *Michigan*, a N.W. co.; *area*, 580 sq. m. It is drained by the Manistee river. *Surface*, level; *soil*, fertile. *Cap.* Cadillac. *Pop.* (1894) 14,047.

Wey, *n.* In England, a measure of weight, being, variously, of wool, 6½ tods of 28 lbs.; of wheat, a load or 5 quarters; of salt, 40 bushels of 56 lbs. each; of cheese, 32 cloves of 8 lbs. each; of oats and barley, 48 bushels; of butter, from 2 to 3 cwt.

Weyauwe'go, in *Wisconsin*, a post-village and twp. of Waupaca co., 35 m. N.W. of Oshkosh.

Wey'bridge, in *Vermont*, a post-townshlp of Addison co., 35 m. W.S.W. of Montpelier.

Weymouth with **Melcombe-Regis,** a seaport and market-towu of England, in Dorsetshire, comprising the towu and chapelry of Weymouth and the town and parish of Melcombe, the former on the S. and the latter on the N. side of the Wey, 8 miles from Dorchester. Weymouth is old and ill-built. It communicates with Melcombe, to which it is united by a handsome bridge. It became a place of fashionable resort, iu eousequence of its being frequented by George III., and is now greatly enlarged by the addition of many new and elegant buildings; Lat. 50° 36′ 6″ N., Lon. 2° 26′ W. *Pop.* of Weymouth 4,000; of Melcombe, 7,000.

Wey'mouth, in *Massachusetts*, a post-township of Norfolk co., 12 m. S S.E. of Boston.

Weymouth, iu *New Jersey*, a post-village and township of Atlantic co., 55 m. S. of Trenton.

Weymouth, in Nova Scotia, a seaport-town of Digby co., at the entrance of Sisseboo River in St. Mary's Bay.

Whack, (*hwăk,*) *v. a.* [From *thwack.*] To beat; to strike; to euff; to thrash; to give a smart blow or blows to. (Colloq.)

—*v. n.* To strike anything wlth a smart, heavy hlow or blows.—*To whack away*, to keep hitting with a succession of heavy blows; as, to *whack away* at a mule. (Col.)

—*n.* A smart, heavy resounding blow. (Vulgar.)

Whale, (*hwāl,*) *n.* [A. S. *hwal, hwæl;* Lat. *balæna;* Gr. *phalaina.*] (*Zoöl.*) A name comuon to all the species comprising the family *Balænidæ*, q. v., but more especially applied to the genus *Balæna*, comprising the Right Whale, which is the object of this article. The respiratory apparatus of the *W.* is peculiar in the extreme; the larynx has the form of a cone, and when the creature is breathing, projects into the cavity of the posterior nares, where it is met and embraced by the muscles of the palate, and thus a free passage is opened through the nostrils from the lungs direct to the external air, although at the same time the whole head and mouth may be under water. In order to get rid of the water which is taken into the mouth, the *W.* performs the act of deglutition, but at the same time closes the pharyux to preveut the passage of the water beyond the necessary point. By these means it is forced up the nasal passages, and by a sudden contraction of the muscles abt. these parts, is finally expelled in a jet of water, which rises to some height. The head of the *W.* is disproportionately large in comparison with the size of the body, generally being one-third, and often one-half, the size of the latter. The skull is generally unsymmetrical. The arrangement of the baleen or whalebone in most of the Greenland *W.* (*Balæna mysticetus*) (Fig. 2614) is very peculiar. A strong bony keel (Fig 2613) runs along the centre of the palate, on each side of which is a very broad depression, along which the plates of baleen are attached. These are long and flat, and are attached to the palate hy their bases hanging dowu into the mouth. From these being placed transversely, their sides are parallel and at a very small distance from each other, the base of each, as well as the outer edge, being composed of solid whalebone, while the inner edge terminates in a filament of fibres which fill up the whole interior of the mouth like a curtaiu across it. The object of this is entirely owing to the arrangement of the stomach of the *W.*, which is so small in comparison with his great bulk that his food consists only of the smallest of the swimming mollusca, a herring being the largest fish he can swallow. To procnre his prey he is thus obliged to engulf a whole shoal in his mouth at once, where they become entangled in the fibres of the balæna. The water is theu strained off, and poured through the blowholes, while the animal can pass his diminutive prey into the œsophagus as he requires. It may be thus seen that the balæna serves the purpose of a sort of sieve, and separates the food which the *W.* feeds on from the water which he cannot but take in at the same time that he selzes his prey. The baleen plates are generally from eight to ten feet long, and number about 600. The subject of which they are composed is a well-known and valuable article of commerce, termed *whalebone*, and the produce from a single *W.* often sells for from between $1,000 and $1,500. The Greenland *W.* is one of the best-known species, and is a native of the northern seas. It is about 60 feet in length and 40 in circumference, and its average weight has been estimated to he about 500,000 pounds. The back and sides arecoveredwitb fat, of an exceedingly unctuous character, termed *blubber;* and so oily is this substance, that 100 barrels of bluhber will produce nearly 96 barrels of oil; so that the refuse and waste is but very slight. The whole body of a *W.* of this species, of the full size, will yield from 50 to 60 puncheons of oil, each puncheon containing 74 gallons; the whole value of such a fish is therefore about $5,000. The young ones produce about 50 barrels of oil when they are only a year old; but at that time they are particularly fat. The female produces her young alive, after a gestation of about nine or ten months, and is even more attached thau the generality of auimals to her youug, many instances of her being known to sacrifice her life rather than leave them. The Right *W.* is confined to the frigid regions, and is common to the N. Atlantic and N. Pacific; but it is specially hunted by American and English whalers about Baffin's Bay, where the vessels arrive about the end of April, and continually keep a sharp lookout. *B. australis* is a species confined to the Antarctic regions, and is smaller than

Fig. 2614.—COMMON WHALE (*Balæna mysticetus*).

the Arctic species. The *W. fishery* is twofold: that of the northern seas, in which the common *W.* is hunted; and that of the southern, in which the chief object of pursuit is the Spermaceti *W.* or CACHALOT (*q. v.*). The *W.*, while belonging to the class of mammalia, has become completely adapted to a marine life. There are numerous other species in additiou to those named, and the order of *Cetacea* comprises several forms not known as whales, as the dolphin and porpoise. These, with the cachalot, possess teeth—in which the Right *W.* is deficient—and live on the larger ocean animals. The Narwhal is remarkable for its enormous single tusk. Whales have grown scarce from persistent fishing, and the fishery has been largely abandoned.

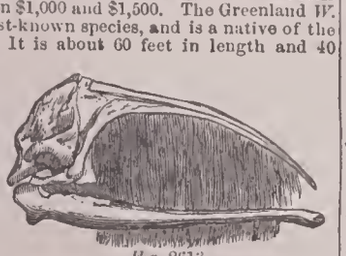


Fig. 2613.
SKULL OF WHALE, WITH THE BALEEN.

Whale, *v. a.* [See WALE.] To wale; to weal; to **mark** with stripes, as by a lash. (Vulgar.)

Whale'bone, *n.* See WHALE.

Whale'-fin, *n.* A commercial term for whalebone.

Whale'-fishery, *n.* See WHALE.

Whale'man, *n.* A man employed in the whale-fishery.

Whal'er, *n.* A persou or ship employed in the whale-fishery.

Whal'ing, *a.* Pertaining or having referenee to the taking of whales; as, a *whaling* voyage.

—*n.* The business of taking whales.

Whale's Back, an island of *New Hampshire*, on the E. of the entrance to Portsmouth harbor, contains a lighthouse 68 ft. high, with two fixed lights, one 10 ft. above the other; Lat. 43° 2′ 30″ N., Lon. 70° 42′ 45″ W.

Whap, Whop, (*hwŏp,*) *v. n.* To throw one's self quickly or abruptly; to turn suddenly. (Vulgar.)

—*n.* [A. S. *hweop*, a whip.] A blow; a quick, heavy stroke; a lash or cut, as with a whip. (Vulgar.)

Whapper, Whopper, (*hwŏp'per,*) *n.* A lie of gigantic dimensions; or, in other words, a lie as broad as it is long. (Colloq. and vulgar.)

Whap'ping, Whop'ping, *a.* Very large; monstrous; almost incredible; as, a *whapping* story. (Colloq. and vulgar.)

Wharf, (*hworf,*) *n.*; *pl.* WHARVES, and frequently WHARFS. [A.S. *hwarf, hweorf*, from *hweorfan*, to turn, to depart.] A sort of quay on the margins of a dock, harbor, river, canal, &c., alongside which ships or barges are brought for the purpose of being loaded or lightened; or, a levelled surface, terrace, or causeway, formed on a river or canal bank, or sea-coast, to facilitate the landing aud embarkation of passengers and goods, and protected by an artificial frontage or structure of masonry or other materials.

—*v. a.* To furnish with a wharf or wharves; to secure by means of a wharf or river-wall of masonry, &c.—To place on, or bring to, a wharf: as, to *wharf* merchandise.

Wharfage, (*hworf'aj,*) *n.* Fees or duties paid for the privilege of using a wharf for loading or discharging goods and other contents of ships' cargoes.

Wharf-boat, *n.* In the U. States, a kind of boat moored at the side of a river, &c., and used for a wharf, In places where the height of the water is so variable that a fixed wharf would be useless.

Wharfing, *n.* Wharfs considered collectively.

Wharfinger, (*-jer,*) *n.* One who has charge of a wharf.

Whar'ton, iu *Pennsylvania*, a township of Fayette co.:—A post-township of Potter co., 40 m. N.W. of Lock Haven.

Wharton, in *Texas*, a S.E. co.; *area*, 1080 sq. m. *Rivers.* Colorado and San Bernard; also, Mustang and Sandy creeks.—A post-village, cap. of the above co., 50 m. N. of Matagorda.

Whar'tonsburg, in *Ohio*, a post-village of Wyandott co., 40 m. S.W. of Sandusky.

Whate'ly, in *Massachusetts*, a post-townshlp of Franklin co., 88 m. N.W. of Boston.

What, (*hwŏt,*) *pron.* [A. S. *hwæt*, nomin. neut. of *hwá* who.] A pronoun nsed Interrogatively in relation to things, inanimate objects, or creatures other than man; employed both snbstantively and adjectively;—as, *what* did you say? *what* is that?—Hence, in an ejaculatory sense, tantamount to *how great; how wonderful;* as, *what* patience! *what* bravery!—Sometimes attached as an adverbial prefix to adjectives, as nearly approachiug in equivalence to *how;* as, *what* a lucky fellow! i. e., how lucky a fellow!—also, with a general independent sig-

WEST VIRGINIA

SCALE OF MILES

0 10 20 30 40

State Capitals ⊛ County Seats ⊙

Places of 10,000 and over	CHARLESTON
" " 5,000 to 10,000	Martinsburg
" " 2,000 to 5,000	Bluefield
" " 1,000 to 2,000	Keystone

NORTHERN PORTION OF WEST VIRGINIA
Same scale as main map.

Hammond's 8 x 11 Map of West Virginia
Copyright, 1904, by C.S. Hammond & Co., N.Y.

A 82 30′ B 82 C 81 30′ D 81 E Longitude 80 30′ West F from 80 Greenwich G 79 30′ H 79 J 78 30′ K 78 L

W. VIRGINIA.

Land surface, Sq. m...24,645
Water surface, Sq. m. 135
Pop. 1900..958,800
White ...915,233
African... 43,199
Indian 12
Chinese 56
Native-born, 936,349
Foreign-born, 22,451
Males ...499,242
Females..459,558

COUNTIES.

Barbour.....F 2
Berkeley ..... K 2
Boone. ... ..C 4
Braxton ..... E 3
Brooke.....K 5
Cabell..... ....B 4
Calhoun. .....D 3
Clay .....D 4
Doddridge ... E 2
Fayette. .....D 5
Gilmer.....E 3
Grant.....H 2
Greenbrier....F 5
Hampshire....J 2
Hancock.....K 4
Hardy .... . J 3
Harrison .....F 2
Jackson. .....C 3
Jefferson .....L 2
Kanawha.....C 4
Lewis.....E 3
Lincoln .....B 4
Logan.....C 5
McDowell.....C 6
Marion.....F 1
Marshall.....K 6
Mason.....C 3
Mercer.....D 6
Mineral.. .....J 2
Mingo. ... ...B 5
Monongalia ..F 1
Monroe.....E 5
Morgan.....K 1
Nicholas.....E 4
Ohio .....K 5
Pendleton....H 3
Pleasants.....D 2
Pocahontas...F 4
Preston.....G 1
Putnam.....C 3
Raleigh.....D 5
Randolph..... G 3
Ritchie.....D 2
Roane.....D 3
Summers. ....E 5
Taylor.....F 2
Tucker.....G 2
Tyler.....E 2
Upshur.....F 3
Wayne .....B 4
Webster.....F 4
Wetzel .....E 1
Wirt. ....D 2
Wood..... .C 2
Wyoming.....C 5

CITIES-TOWNS

Pop.	Thousands.
38	Wheeling...K 5
11	Huntington B 4
11	Parkersburg C 2
11	Charleston C 4
7	Martiushurg K 2
5	Fairmont...F 2
5	Grafton. ...G 2
5	Moundsville K 6
4	Bluefield....D 6
4	Benwood....K 5
4	Clarksburg..F 2
3	Hinton.....E 5
2	Sisterville...D 1
2	Buckhannon F 3
2	Wellsburg...K 5
2	Weston.....E 2
2	Keyser..... J 2
2	Charleston..L 2
2	Davis.....H 2
2	New Cumberland..K 4
2	Thomas. ...H 2
2	Piedmont....J 1
2	Elkins .....G 3
1	Pt. Pleasant B 3
1	MorgantownG 1
1	Monongah.. F 2
1	Mannington.F 2
1	MontgomeryD 4
1	Central City.B 4
1	McMechen...K 6
1	Guyandotte B 4
1	Ceredo .....A 4
1	Shepherdstown L 2
1	Ansted .....D 4
1	New Martinsville..E 1
1	Keystone ...D 6
1	Ravenswood C 3

Pop.	Hundreds.
9	Ronceverte..F 5
9	Cameron ....K 6
9	Middlebourne E 1
9	Mason.....B 2
8	Harpers Ferry L 2
8	Lewisburg ..F 5
8	Sutton.....E 3
8	Kenova ....A 4
8	St. Marys....D 2
8	Bramwell ...D 6
8	St. Albans...C 4
7	Fetterman..F 2
7	BerkleySprs.K 1
7	Bolivar.....L 2
7	Elmgrove...K 5
7	Newburg .. .G 2
7	Salem.....E 2
7	Pennsboro...D 2
7	Spencer ... .D 3
7	Kingwood...G 1
6	Pawpaw.....K 1
6	Philippi.....F 2
6	Elizabeth ...D 2
6	Cairo.....D 2
6	Rowlesburg.G 2
6	Clay.....D 4
6	W. Union...E 2
6	Parsons.....G 2
6	Terra Alta. G 2
5	Milton.. ....B 4
5	Elk Garden.H 2
5	Romney .....J 2
5	Ripley..... .C 3
5	Bayard .....H 2
5	Shinnston...F 2
5	Alderson....E 5
5	Hartford....C 2
5	Littleton....E 1
5	Powellton ..D 4
4	Tunnelton ..G 2
4	Harrisville. D 2
4	Eastbank ...D 4
4	Middleway ..L 2
4	Bridgeport .F 2
4	Beverly .... .G 3
4	Moorefield ..J 2
4	Welch.....C 6
4	Belington .. F 2
4	Barboursville B 4
4	Clifton .....B 3
4	Fayetteville.D 4
3	Glenville....E 3
3	Buffalo.... .C 3
3	Mt. Hope....D 5
3	WebsterSprs.F4
3	Wayne .....B 4
3	Petersburg..H 2
3	Williamson B 5
3	Princeton...D 6
3	Hamlin.....B 4
3	Logan.....C 5
3	Hedgesville.L 1
3	Beckley.....D 5
3	Winfield.....C 4
3	Junior.....G 3
3	Hendricks ..G 2
3	Henderson..B 3
3	Reedy .....D 3
2	Austen .....G 2
2	Triadelphia.K 5
2	Hill Top ....D 5
2	Hundred ... F 1
2	Cowen.....E 4
2	Union .....E 5
2	Leon .....C 3
2	Bethany.... B 4
2	Hurricane...B 3
2	Grantsville..D 3
2	SummervilleE 4
2	South Elkins G 8
2	Independence G 2
2	Franklin....H 3
2	W. Columbia B 3
2	Madison.....C 4
1	Oceana..... C 5
1	W. Milford ..F 2
1	Blacksville..F 1
1	Pleasant Valley K 5
1	Marlington..F 4
1	Peterstown .E 6
1	St. George ..G 2
1	WardensvilleJ 2
1	Troy..... ...E 2
1	Springfield..J 2
1	Frankford ..F 5
1	Leatherwood K 5
1	Hawksnest..D 4
1	Bruceton....G 1
1	Brandonville G 1

nification, pointing to the singularity or strangeness of a person or thing; as, "*What* partial judges are our love and hate?" (*Dryden.*)—A compound relative, equivalent, in force and substance, to *that which;* adjectively, to *the* cause *which; the* class or order of thing *which;* and infrequently to *the* ship *on* or *at which;* having application also in a corresponding adverbial sense; as, "*What* time the morn mysterious visions brings." (*Pope.*)—Whatever; what thing soever; — employed indefinitely; as, whether it was his wish or his obligation, or *what* it was.—Partly; in part; — used adverbially, with a following proposition, as *by* or *with*, and with reiteration; as, *what with* this, *what with* that, I have more than I can properly attend to.

(NOTE. In the phrase *I tell you what, what* forms an elliptical equivalent for *how it is; what it is*, &c.; *what not* is an expression frequently employed as an abbreviated clause ending an enumeration of several or sundry things or particulars, the verb of which, being either the same as that of the principal, or a general word, is omitted; as, "Humhugs, bores, and *what not;*"—hence, the words are commonly understood as having the force of a substantive, equivalent to *any thing you please, et-cetera*, &c.—*What ho!* an ejaculation of hailing or calling; as, "*What ho!* thou genius of the clime, *what ho!*" (*Dryden.*)—*What if*, what will happen or come to pass if; as, "*What if* I should strike you?"—*What though*, even supposing or allowing that it be so; as, "*What though* none live my innocence to tell? I know it." (*Dryden.*)—*What's what*, the real or identical thing;—used colloquially and vulgarly; as, leave him to judge for himself, he knows *what's what.*)

Whatev'er, *pron.* Being this or that; being of one nature or another; being one thing or another; anything that may be; all that; the whole that; all particulars that; as, in *whatever* manner you choose.

What'-not, *n.* See ETAGÈRE.

Whatsoev'er, *a.* Whatever. (R.)

Wheal, (*hwēl*), *n.* [A. S. *hwēle*, putrefied flesh.] A weal; a wale; a mark raised by a stroke, as of a whip.

Wheat, (*hwēt,*) *n.* [A. S. *hwœti;* Ger. *weitzen.*] (*Agric.*) A well-known species of grass (*Triticum sativum* and its varieties), belonging to the genus *Triticum*. It is, after Indian corn, the most important of our farm crops. It may be raised on all sorts of soils, but heavy, stiff lands are the most suitable for it. The varieties of wheat are perpetually changing, in consequence of variations of culture, climate, and soil, those most in use being distinguished by different local terms. They may be divided into the two great classes of *red* and *white* — the latter being superior as respects quality and produce, and the former as respects productiveness and hardiness. As this grain is frequently cultivated on very inferior soils, and after very imperfect preparation, the produce per acre varies materially in different counties and districts. It is also very liable to injury from bad seed time, a wet winter, or a blight during the period of its flowering (which last is the most common cause of the failure or deficiency of the wheat crops); so that its produce varies as much in different seasons on the same farms, and under the same management, as it does during the same season on different farms. The lowest quantity of produce, except where an absolute deficiency from blight occurs, may, perhaps, be rated at from 10 to 12 bushels an acre, and the highest at from 48 to 56 or 64 bushels. The mean product for all the U. States is about 24 bushels per acre. The geographical range over which wheat can be grown is peculiar. It is not produced in tropical climates. Here its place is taken by rice. There is a northern limit to its growth, beyond which oats can be cultivated. Here, however, wheat is not seen, only because there is not sufficient heat to ripen it. It is, on the whole, the hardiest of the cereals, and it is said that its quality is always best when it grows on that margin beyond which it will not ripen at all. Wheat is the most costly of the cereals. The seed sown on any given area is not more than half the amount which can be sown of other kinds of corn. The crop is scantier, and as it sends its principal roots deeply into the earth, it is more exhausting to the soil; but the meal or flour of wheat is better adapted to sustain the various vital functions than that of any other kind of grain. The wheat product of the U. S. increased from 100,485,800 bushels in 1850 to 260,146,900 in 1870; 459,479,505 in 1880; 490,000,000 in 1889, and 467,102,947 in 1895. The chief wheat-growing States, were in 1895, in order of yield, Minnesota, North Dakota, California, Ohio, South Dakota, Kansas, Pennsylvania, Indiana, Illinois, Missouri and Nebraska. The acreage devoted to wheat-growth in the U. S. exceeds that of any other country in the world. The exports of wheat in the fiscal year of 1896 were 60,650,080 bushels; wheat flour, 14,620,864 barrels. In 1897, owing to failure of crops elsewhere, they were still higher.

Wheat'-ear, *n.* (*Zoöl.*) The *Saxacola œnanthe*, a European bird, about 5½ inches long, belonging to the family *Sylvicolidæ*, q. v.

Wheaten, (*hwēt'n.*) *a.* [A. S. *hwœten.*] Made of wheat.

Wheat'field, in *Michigan*, a flourishing township of Ingham co.

Wheatfield, in *New York*, a township of Niagara co., 12 m. N. of Buffalo.

Wheatfield, in *Pennsylvania*, a township of Perry co., 6 m. E. of Bloomfield.

Wheat'-fly, *n.* (*Zoöl.*) See CECIDOMYA.

Wheat'-grass, *n.* (*Bot.*) Another name of the Dog's Cough-grass. See TRITICUM.

Wheat'land, in *Illinois*, a township of Bureau co. —A township of Fayette co.—A township of Macon co. —A township of Will co.

Wheatland, in *Iowa*, a post-town of Clinton co.

Wheat'land, in *Michigan*, a post-township of Hillsdale co.

Wheatland, in *Minnesota*, a post-village and township of Rice co., about 20 m. N.W. of Faribault.

Wheatland, in *New York*, a township of Monroe co., 15 m. W.S.W. of Rochester.

Wheatland, in *Pennsylvania*, a post-borough in the S.W. part of Mercer co. It contains blast furnaces, rolling-mill, and graduated schools.

Wheatland, in *Wisconsin*, a post-village and twp. of Kenosha co., 70 m. S.E. of Madison.—A township of Vernon co.

Wheat'-moth, or ANGOUMOIS GRAIN-MOTH, *n.* (*Zoöl.*) The *Anacampsis cerealella*, a moth of the family *Tineidæ*, which expands half an inch, and is pale cinnamon-brown above, with a satin lustre; hind wings lead color; the antennæ are thread-like, and consist of numerous beaded joints, and two tapering feelers are turned over the head. It lays from 60 to 90 eggs in clusters of about 20 on a single kernel of grain. In 4 to 6 days these eggs produce little worm-like caterpillars not thicker than a hair. Each burrows in a single kernel, and devours the mealy substance, and the work of destruction goes on so unseen, that it is only detected by the softness of the grain or the loss of its weight. When fully grown, the Angoumois caterpillar is not more than one-fifth of an inch long, white, with brownish head, six small jointed legs, and ten extremely small prop-legs. It goes into the chrysalis state within the kernel. Before this it has gnawed a hole nearly through by which to escape when it has finished its transformations. The insects of the summer brood come to the full larva growth in about 3 weeks, remain for a time in the chrysalis state, and in autumn they appear in the winged form, and may be found in the evening in great numbers laying their eggs upon stored grain. The moth-worms of the second brood remain in the grain through the winter, change into winged moths in the summer, and lay their eggs on the ears of the growing grain.

Wheaton, HENRY, a distinguished American publicist and diplomatist, was B. in Rhode Island in 1785. He studied at Brown University, adopted the profession of the law, and was called to the bar. After a visit to Europe he settled at New York, where he became, in 1815, a judge in the Marine Court, and soon after reporter to the Supreme Court of the United States. In addition to his heavy professional duties he found time also for much miscellaneous literary labor, contributing to several periodical publications, and lecturing before several learned societies. After being employed for some years in the revision of the constitution and laws of the State of New York, he was sent, in 1827, as a chargé d'affaires to Copenhagen. He held a similar post at Berlin from 1834 to 1837, when he was named minister plenipotentiary. In this important position he remained till 1846, enjoying the highest esteem and confidence not only of his countrymen, but of the governments and statesmen of Europe. W.'s great work, *The Elements of International Law*, appeared in 1836, has passed through several editions, and is generally regarded as an authority. Among his other works are, a *History of the Law of the Nations in Europe and America from the Earliest Times of the Treaty of Washington; Reports of Cases argued and determined in the Supreme Court of the U. S.; History of the Northmen*, &c. D. 1848.

Wheaton, in *Illinois*, a post-village, cap. of Du Page co., 25 m. W. of Chicago.

Wheaton, in *Wisconsin*, a township of Chippewa county.

Wheat'stone, CHARLES, F.R.S., an eminent English natural philosopher, B. at Gloucester, 1802, chiefly known as having introduced and given a practical application to the electric telegraph in England, and the discoverer of the electro-magnetic alarum.

Wheedle, (*hwē'dl,*) *v. a.* [A. S. *adwelian*, to seduce.] To beguile; to flatter; to entice by soft words; to coax; to cajole; to get the better of by gentle and soothing ways; as, a *wheedling* woman.

—*v. n.* To coax; to flatter; to blarney.

Wheed'ler, *n.* One who wheedles.

Wheed'ling, *n.* Act of flattering, enticing, coaxing, or cajoling.

Wheel, (*hwēl,*) *n.* [A. S. *hweohl, hweol.*] (*Mech.*) A contrivance by means of which the intermittent and limited action of the lever is extended to any distance, and made to act continuously and uniformly. Wheels are either of the kind known as *carriage-W., friction-W.*, or *toothed-W.;* including, under the second division, *band-W.*, and under the third the various kinds of *cog, trundle, spur, crown*, and *bevelled W.* The efficiency of a carriage-*W.* consists in the length of the lever it offers (or, in other words, upon its diameter); upon the direction in which the power is applied to it; and upon the small extent of surface producing friction, provided that the surface be sufficient to prevent the load from forcing the *W.* into the material on which they run. *Friction-W.* are introduced into mill-work for the purpose of facilitating the horizontal or vertical movement of traversing heds, of guide-rods, &c.; and the conditions they are required to fulfil are, that they should revolve freely on their own axles, and present smooth surfaces (able to retain a lubricating fluid) to the bodies moving over them, or over which they may move. *Driving-band-W.*, on the contrary, are fixed on their bearing-shafts, and have their surfaces formed in such a manner as to cause the bands, or straps, to adhere to them by their mere friction upon the asperities, and thus to produce motion in the secondary band-*W.* of the machinery to which they are applied by the rotation of the first *W.* In *toothed-W.*, a series of projections, or teeth, are formed on the outer rim of one *W.*, which work into corresponding projections upon the outer rim of the *W.* connected with it, in such a manner as to allow the former to communicate their motion by the sliding or rubbing of their surfaces upon the surfaces of the teeth of the second *W. Cog-W.* are those in which the teeth are made of a different material to the *W.* itself; but the cogs are nevertheless of the same outline in principle as ordinary teeth. See PADDLE-WHEEL, SPINNING-WHEEL, WATER-WHEEL, &c.

(*Naut.*) See STEERING-WHEEL.

(*Pottery.*) A round, wooden disc revolving horizontally at the top of a vertical shaft or spindle, on which the clay is shaped by the potter's hand.

(*Pyro.*) A revolving fire-work; as, a Catherine-*wheel.*

—An apparatus by which criminals in some countries were formerly tortured. — A rolling or revolving body; a disc; an orb.—Rotation; compass; revolution.

Measuring-wheel. (*Mech.*) A PEDOMETER, *q. v.*—*Wheel and axle.* (*Mech.*) One of the simple mechanical powers, or machines, consisting of a wheel having a cylindrical axis passing through its centre, resting on pivots at its extremities, or supported in gudgeons, and capable of revolving. The power is applied to the circumference of the wheel, and the weight or force to be overcome to the circumference of the axle; equilibrium takes place when the power and weight are to each other inversely as the radii of the circles to which they are applied.

—*v. a.* To convey on wheels, or in a wheelbarrow; as, to *wheel* a load of bricks. — To whirl; to cause to gyrate, turn, or revolve; to put into a rotary motion; as, a bird *wheels* in the air.

—*v. n.* To move, as on wheels; to have a rotary motion; to turn on an axis, or as on an axis; to move about. — To turn; to move round or change direction, as if revolving upon a pivot; as, troops *wheeling* to the left. — To fetch a compass; to describe a circuit; as, "*Wheeling* down the steep . . . he flies." (*Pope.*)—To roll forward; as, a chair *wheeled* on castors.

Wheel'-animalcule, *n.* (*Zoöl.*) See ROTIFERA.

Wheel'-barometer, *n.* See BAROMETER.

Wheel'barrow, *n.* A light wooden frame-work with a cavity for conveying articles, having two shafts or handles and one wheel, and rolled or trundled by a single person.

Wheeled, *a.* Having wheels; — used in composition; as, a four-*wheeled* drag.

Wheel'er, *n.* One who, or that which, wheels, turns, or gyrates. — A wheel-horse, or one of those which are next the wheels of a carriage; — as opposed to the *leaders*, or forward horses.

Wheel'er, in *Indiana*, a post-village of Porter co., 37 m. S.E. of Chicago.

Wheeler, in *New York*, a post-township of Steuben co., 5 m. N. of Bath.

Wheel'ersburg, in *Ohio*, a post-village of Scioto co., 9 m. E. of Portsmouth.

Wheel'ing, in *Illinois*, a post-village and township of Cook co., abt. 25 m. N.W. of Chicago.

Wheeling, in *Minnesota*, a township of Rice co., 5 m. E. of Faribault.

Wheeling, in *Ohio*, a township of Belmont county.— A township of Guernsey county.

Wheeling, in *W. Va.*, a city and port of entry, former cap. of the State and of Ohio co., on the Ohio River, 92 m. below Pittsburg; Lat. 40° 7′ N., Lon. 80° 42′ W. It is one of the most important places on the Ohio, which is here crossed by a wire suspension bridge, the span of which measures 1,010 ft.; and the towers 153 ft. above low-water mark, and 60 ft. above the abutments. It is the terminus of the Baltimore and Ohio, the Hempfield, and the Cleveland and Pittsburg railroads, and contains numerous iron-foundries, forges, manufactories of nails, glassware, woollen, cotton, and silk goods, paper, leather, steam-engines, &c. *Pop.* (1897) 38,350.

Wheeling Creek, in *Pennsylvania*, rises by two branches, the N. and S. Forks, in Washington and Greene cos., and flowing W. enters the Ohio River at Wheeling, W. Virginia.

Wheel'-house, *n.* (*Naut.*) A small house or covered apartment on deck which contains the steering-wheel; also, one of the paddle-boxes of a steamer.

Wheel'ing, *n.* Act of conveying or transporting on wheels; especially, the act of conveying materials, as earth, stones, &c., on a wheelbarrow.—Convenience for transit on wheels; as, the roads are in bad *wheeling.* — A turning, rotary, or circular movement; as, the *wheeling* of a column of infantry.

Whee'lock, in *Vermont*, a post-township of Caledonia co., 29 m. N.E. of Montpelier.

Wheel'-ore, *n.* (*Min.*) Same as BOURNONITE.

Wheel Purchase, *n.* A simple contrivance for moving a wheeled carriage with increased power. It is formed by hooking a drag-rope to the tire of a wheel as near the ground as possible, carrying the running end up over the tire, and stretching it out so as to form a tangent to the wheel; when the rope is hauled on, the carriage advances. The power gained is in proportion to the diameter of the wheel.

Wheel'-plough, (*-plow,*) *n.* (*Agric.*) A plough with a wheel or wheels added to it, for the purpose of regulating the depth of the furrow, and rendering the implement more steady to hold.

Wheel'-race, *n.* The place in which a water-wheel is fixed.

Wheel'-shaped, (*-shāpt,*) *a.* Having the form of a wheel. (*Bot.*) Enlarging into a flat border at top, with but little tube; as, a *wheel-shaped* corolla.

Wheel'-work, (*-wurk,*) *n.* (*Mach.*) A combination of wheels imparting motion to one another

Wheel'wright, (*-rīt,*) *n.* One whose occupation is

to make wheels and wheeled carriages, especially carts, wagons, &c.

Wheeze, (*hweez,*) *v. n.* [A. S. *hweosan;* formed from the sound, and allied to *whiz.*] To breathe hard and with an audible sound, as asthmatic persons.

Wheez'ing, *n.* A noisy respiration, produced by obstruction of the air-passages.

Wheez'y, *a.* Wheezing; breathing with difficulty and with a noisy sound; as, *wheezy* lungs.

Whelk, *n.* (*Zoöl.*) The common name of the genus *Buccinum,* containing gasteropods which have the shell notched in front, or the canal abruptly reflected. There are about 1,000 living, and 350 fossil species. They are marine and carnivorous.

Whelm, (*hwĕlm,*) *v. a.* [A. S. *ahwylfan — a,* intensive, *hwealfian,* to cover.] To overwhelm; to cover with water or by immersion in something that envelops on all sides; as, the *whelming* billow. (*Gay.*) — To overburden; to immerse deeply; as, to *whelm* one in pain.

Whelp, (*hwĕlp,*) *n.* [A. S. *hwelp.*] A cub; a puppy; the young of the canine species, and also of beasts of prey; as, a lion's *whelps.* — A youth; a young man; — used in contempt; as, that *whelp,* that unlicked cub of a vulgar breed.

—*v. n.* To bring forth whelps, as the females of the canine species, and some other beasts of prey.

—*v. a.* To give birth to, as cubs or young; as, a foul mind *whelps* foul ideas.

When, (*hwĕn,*) *adv.* [A. S. *hwænne, hwenne;* Ger. *wann;* Lat. *quando;* from the pronominal root *hva.*] At what time; — employed in an interrogative sense; as, *when,* and where, did you see him? — At that time; at or just after the moment that; — used relatively; you may do it *when* and how you like. — Which time; after the time that; — elliptically and unauthorizedly employed as a substantive; as, on Tuesday last I met him, since *when* I have not seen him. — While; whereas; — used with a conjunctional application to introduce an adversative clause, and tantamount to *though at the same time;* as, he persisted in marrying her *when* he might have done better.

Whence, (*hwenz,*) *adv.* [A. S. *hwanen.*] From what place, source, premises, principles, facts, antecedents, and the like; how; — in an interrogative sense; as, *whence* come you? *whence* got you your information? — By what way or means; in general, from which person, cause, place, principle, or circumstance; — in a relative sense; as, we have stated *whence* our knowledge is derived. (Note. All the words of this class, as *whence, where, whether,* &c., are occasionally employed pronominally by a harsh and inelegant construction; as, from *whence* did you sail?)

Whencesoev'er, *rel. adv.* From what place, cause, or source soever.

Whenev'er, *rel. adv.* At whatever time; as, *whenever* you like to go.

Whensoev'er, *rel. adj.* [*when, so,* and *ever.*] Whenever; at whatever time; at what time soever.

Where, (*hwair,*) *adv.* [A. S. *hwar.*] At or in what place; in what position, situation, or circumstances; — employed interrogatively; as, *where* have you been? — At which place or places; at the place in which; — used relatively; as, the country *where* I was born. — Whither; to what or which place; — applied both interrogatively and relatively; as, *where* are you going?

Whereabout', Whereabouts', *adv.* Near what or which place; about where; — employed interrogatively and relatively, and generally in the form *whereabouts;* as, *whereabouts* do you reside? — Concerning or having reference to which; as, the thing *whereabout* we are perplexed. (Note. *Whereabout,* or *whereabouts,* is very frequently used colloquially as a substantive; as, I had a difficulty in finding his *whereabouts.*)

Whereas, (*hwĕr-az',*) *conj.* Considering that things are so; the thing being so that; since; — employed in the introduction of a preamble.

—When in fact or truth; — implying opposition to something gone before; or, implying an admission of facts, sometimes preceding a different statement or version, and sometimes by inferential or consequential issues; as, "The aliment of plants is nearly one uniform juice; *whereas,* animals live upon very different sorts of substances." — *Arbuthnot.*

Whereat', *adv.* At what; — of relative application; as, *whereat* he despaired of success. — At what: — employed interrogatively; as, *whereat* have you taken offence?

Whereby', *adv.* By which; by means of which: — applied relatively.

"Prevent those evils *whereby* the souls of men are lost." *Hooker.*

—By what: — used interrogatively; as, *whereby* shall I know that he is the man?

Where'fore, *adv.* For which reason; — employed relatively.

"*Wherefore* by their fruits ye shall know them." — *Matt.* vii. 20.

—For what reason; why; — used interrogatively; as, *wherefore* did you disappoint me?

Wherein', *adv.* In which: in which thing, time, respect, circumstance, &c.; — used relatively; as, Shakspeare was the book *wherein* I found the passage. — In what: — employed interrogatively; as, *wherein* has he been amerced?

Whereof, (*hwĕr-ŏf',* or *hwĕr-ŏv',*) *adv.* Of which; — employed relatively; as, a matter *whereof* you have reaped advantage. — Of what: — used indefinitely; as, intelligence when and *whereof* derived. — Of what: — in the sense of interrogation; as, *whereof* was the pie made?

Whereon', *adv.* On which; — employed relatively; as, the ground *whereon* we tread.

Wheresoev'er, *adv.* In what place soever; in whatever place, or in any place indefinitely; — *wherever* is preferably used.

Whereto, Whereunto, (*-too',*) *adv.* To which: — employed in a relative sense; as, that age *whereto* you have arrived. — To what; to what end; — used interrogatively; as, *whereto* this expense?

Whereupon', *adv.* Upon which; following which.

Wherev'er, *adv.* At whatever place.

Wherewith', Wherewithal', *adv.* With which: — used in a relative sense; as, the gifts *wherewith* a person is endued. — With what: — employed interrogatively; as, *wherewith* shall I do it?

Wherewithal', *n.* The means wherewith to carry out any object. (Colloq.)

Wherry, (*hwĕr'rĭ,*) *n.* [A corruption of *ferry.*] A boat with bow and stern nearly alike, and both making a very large angle with the keel; a flat-boat; a kind of barge; also, a decked fishing-smack. — A kind of cider made from crab-apples. (Prov. Eng.)

Whet, (*hwĕt,*) *v. a.* (*imp.* and *pp.* WHETTED or WHET.) [A. S. *hwettan;* Ger. *wetzen.*] To rub for the purpose of sharpening, as an edge-tool; to sharpen, or give an edge to, by attrition; as, to *whet* a scythe or sword-blade. — To excite; to stimulate; to spur; to make keen, quick, sharp, or eager; as, olives *whet* the palate for the deglutition of claret. — To provoke; to enrage; to make angry or acrimonious; as, jealousy *whets* the worst feelings of man's nature.

To whet on, or *whet forward,* to instigate; to hestir; to urge on.

—*n.* Act of sharpening by attrition or friction. — A thing which serves to stimulate and stir the appetite.

Wheth'er, *conj.* [A. S. *hwæthre — hwa,* and *ægther,* either, each.] Which of two alternatives expressed by a sentence, or the clause of a sentence; — often preceding *or;* as, *whether* you feel disposed to go *or* not.

Wheth'ering, *n.* The retention of the after-birth in cows.

Whet'-slate, *n.* (*Min.*) Same as NOVACULITE.

Whet'stone, *n.* A smooth flat stone used for sharpening edged instruments by friction; a hone.

Whetstone, in *Ohio,* a township of Crawford county.

Whet'ter, *n.* One who, or that which, wets or sharpens.

Whew, (*hwū,*) *interj.* A sound like that of a half-formed whistle, expressing amazement, derision, or antipathy.

Whewell, WILLIAM, (*hew'el,*) an English philosopher, B. at Lancaster, 1795, was the son of a carpenter, and was himself intended for the same trade; but having distinguished himself while a scholar of the free grammar school of Lancaster, the head-master of that establishment procured him the means of proceeding to the University of Cambridge, where he was nominated, in succession, fellow, professor of mineralogy, professor of moral theology, vice-chancellor, and, in 1841, master of Trinity College. A man of multifarious knowledge and powerful intellect, he contributed greatly to the advancement of science. His principal works were — *History of the Inductive Sciences; The Elements of Morality, including Polity;* and *The Philosophy of the Inductive Sciences.* A remarkable work upon *The Plurality of Worlds* was likewise attributed to him. D. 1866.

Whewellite, (*hū'et-īt,*) *n.* (*Min.*) A native oxalate of lime from Hungary.

Whey, (*hwā,*) *n.* [A. S. *hwæg.*] The watery part or serum of milk; that portion which remains after making curds, chiefly consisting of water holding between 3 or 4 per cent. of sugar of milk in solution. As a diluent and beverage, both in sickness and in health, whey forms one of the best and most wholesome drinks that can be taken.

Which, *pron.* [A.S. *hwylc;* Goth. *hvileīks — hwa,* who, what, and *leiks,* like.] A relative, employed generally in a substantive sense, but sometimes adjectively, in all numbers and genders, with respect to things, excluding persons; as, that *which* you have done. — An interrogative, of both substantive and adjective application, in the asking for an individual person or thing among a series of such, being more expressive than *who* or *what,* — in this use conveying the sense of *who,* or *what one* of a number, species, sort, &c.; as, *which* is the man? *which* is the house? — That which; those which; — a compound relative; as, you may take *which* you like.

Whichev'er, Whichsoev'er, *pron.* Which; whether one or the other; as, *whichever* way looked at, it comes to the same thing.

Whiff, (*hwĭf.*) *n.* [W. *chwiff,* a whiff, or puff, a hiss; formed from the sound.] A puff; a sudden expulsion of air from the mouth; a slight gust of air; as, a *whiff* of tobacco-smoke. — View or look. (Prov. Eng.)

—*v. a.* To puff; to throw out in whiffs or slight gusts; to consume in whiffs; as, to *whiff* a cigarette. — To blow away; to carry off by a puff.

—*v. n.* To puff; to smoke.

Whiff'ing, *n.* Act of one who, or that which, whiffs. — A mode of hand-line fishing for mackerel, pollack, and the like.

Whiffle, (*whĭf'fl,*) *v. n.* [A. S. *waeflan.*] To abandon one set of opinions suddenly and groundlessly for another; to be fickle and unsteady in mind or actions; to prevaricate; to use evasions; to start, shift, and turn; as, a *whiffling* politician; a *whiffling* breeze.

Whiff'ler, *n.* A smoker of tobacco. — Hence, a person of no consequence; a trifler; an idler; a dangler; as, a *whiffler* in a laced coat.

Whiff'ler, *n.* [A. S. *wæflere.*] One who whiffles, or frequently changes his opinion or course; a prevaricator; one who uses shifts or evasions in argument; one of a slippery turn of mind. — Formerly, a fifer going before a public procession.

Whif'fle-tree, Whip'ple-tree, *n.* The bar to which the traces of a carriage are attached.

Whif'fling, *n.* Prevarication; evasion.

Whig, (*hwig,*) *n.* [Etymol. doubtful; probably from Scot. *whig;* A. S. *whæg,* whey, a mixed drink, composed of water and sour milk, which the Scots Covenanters drank in their wanderings; or, from the initial letters of the motto "*We hope in God;*" assumed by a political party in Scotland, 1648, opposed to the court faction.] (*Eng. Hist.*) The designation of a well-known political party, first assumed by that body of public men who brought about the Revolution of 1688, and the establishment of William III. on the English throne. Since that time the name has been borne by successive generations of men of liberal political principles, in contradistinction to TORY, *q. v.*

(*Amer. Hist.*) An upholder of American liberties during the revolutionary war; — opposed to *royalist, loyalist,* and *tory.* — Again, one of a political party in the U. States, flourishing 1829–1853; — opposed to the so-called *democrats* of that period. Henry Clay (*q. v.*) was for a long time the recognized leader of the Whigs.

—*a.* Pertaining or relating to the Whigs; composed of Whigs; Whiggish; as, a *Whig* administration; the *Whig* party.

Whig'gery, Whig'gism, (*-gĭzm,*) *n.* The principles of the Whigs.

While, (*hwīl,*) *n.* [A. S. *hwīle.*] Time; space of time, or continued duration; as, one *while* I thought him a good fellow.

Worth while, worth the time and pains; hence, worth the expense; as, it is not *worth while* wrangling about such a trifle.

—*adv.* During the time that; at the same time that; as long as; — write me *while* you are away. — Hence, in which case; though; under such circumstances.

—*v. a.* To spend to little use or advantage, as time; to cause to pass away without irksomeness; — generally before *away;* as, to *while away* an hour or two.

Whim, (*hwĭm,*) *n.* [Icel. *hvim,* a quick motion; W. *churiniaw,* to move round briskly.] A sudden and light turn of the fancy; an irregular and evanescent desire; a freak; a fancy; a humor; a capricious notion; as, an idle *whim.*

(*Mining.*) A large capstan or machine used for raising ores, &c., worked by horses, steam, or water; — called also *whim-gin* and *whimsey.*

—*v. n.* To be whimsical, capricious, or fanciful; to be subject to whims.

Whim'brel, *n.* (*Zoöl.*) The *Numenius phæopus,* a species of European bird, family *Scolopacidæ,* closely allied to the curlew, but considerably smaller in size, being not above 18 inches long.

Whim'ling, *n.* One given to whims; a weak, childish person.

Whim'my, *a.* Full of whims; fanciful; humorsome.

Whim'per, *v. n.* [A. S. *geomerian.*] To snivel; to express grief with a low, whining, broken voice; as, a *whimpering* child.

—*v. a.* To utter in a low, whining, broken tone of voice.

Whim'perer, *n.* One who whimpers, whines, or snivels.

Whim'pering, *n.* Act of whining; a low muttering cry of lamentation.

Whimple, (*hwĭm'pl,*) *v. a.* Same as WIMPLE, the preferable spelling.

Whimsey, (*hwĭm'zĭ,*) *n.* A whim; a freak; a humor; a capricious notion.

(*Mining.*) See WHIM.

Whim'-shaft, *n.* (*Min.*) The shaft by which the stuff is drawn out of the mine by the horse or steam whim.

Whimsical, (*hwĭm'zi-kăl,*) *a.* Full of whims; freakish; capricious; fanciful; having odd notions; as, a *whimsical* man. — Hence, fantastic; odd; curious; singular; as, a *whimsical* piece of carving.

Whimsical'ity, Whim'sicalness, *n.* State or quality of being whimsical.

Whim'sically, *adv.* In a whimsical manner.

Whim'wham, *n.* [From *whim* reduplicated.] A gimcrack; a trifle; an article of bric-a-brac; any curious or whimsical thing. — A whim or whimsey; a caprice; a humorsome trick.

Whin, *n.* (*Bot.*) See ULEX.

Whin'chat, *n.* (*Zoöl.*) A species of Stonechat (*Saxicola rubetra*), distinguished from other birds of the same genus by its small size. See STONECHAT.

Whine, (*hwīn,*) *v. n.* [A. S. *cwanian.*] To express grief, whether real or affected, by a plaintive drawling cry; to moan with a puerile noise; to murmur meanly; to whimper; to snivel; as, to speak with a *whining* accent.

—*v. a.* To complain of in a drawling and undignified way; as, to *whine* at a grievance.

—*n.* A drawling plaintive tone of voice meant to express grief, whether real or assumed; the nasal puerile utterance of mean or unmanly complaint; as, the sniffling *whine* of a psalm-singing ranter.

Whin'er, *n.* One who whines.

Whin'ny, *v. n.* [Lat. *hinnio;* from the root of *whine.*] To neigh; to utter the sound of a horse; to hinny.

—*n.* A gentle neigh uttered by a horse.

Whin'ny, *a.* Abounding in whins.

Whin'ock, *n.* [From Scot. *quhene,* a small number.] The smallest pig of a litter. (Local Amer.)

Whin'-stone, *n.* (*Geol.*) See TRAP.

Whip, (*hwĭp,*) *v. a.* (*imp.* and *pp.* WHIPPED, (*hwĭpt.*) To strike with a lash, thong, or sweeping cord, or with anything tough and flexible; to switch; to beat; as, to *whip* a horse. — To cause to rotate by lashing with a cord or thong; as, to *whip* a top. — To flog; to punish with beating; to correct with lashes; as, to *whip* a boy, to *whip* a hardened criminal. — To lash, as with banter, sarcasm,

scornful words, &c.; as, he is one easily *whipped* by ridicule.—To strike; to thrash; to beat out by belaboring; as, to *whip* grain.—To form into gathers by overcasting a rolled edge and drawing up the thread: to baste; as, to *whip* a muslin frill.—To beat into a froth; as, to *whip* eggs, or cream.

—To wrap or inwrap; to overlay, as a rope, cord, &c., with other cords lashed round and round it; —frequently with *about, around, over;* as, to *whip* a fish-hook. —To jerk; to snatch; to take, move, or lift by a sudden or impetuous movement; —with *into, out, up,* &c.; as, he *whipped up* his hat, and away he went; to *whip out* a revolver.

(*Naut.*) To hoist a purchase by means of a whip; to secure the end of from untwisting by overcasting it with yarn.—*Totten.*

To whip a stream, in fly-fishing, to angle along its course by throwing the fly and hook over and into the water at frequent intervals; as, to *whip a stream* for trout.

To whip in, to bring into a collected body, as hounds in a fox-hunt; —hence, to bring together, or keep from scattering, as members of a legislative body, political party, &c.; as, to *whip in* for a division of the house.

To whip the cat, to practise extreme stinginess. (Prov. Eng.)

Whip, *v. n.* To move nimbly; to start suddenly and run; or, to turn and run; as, a boy *whips* up a tree; he *whipped* round the corner, out of sight.

—*n.* [A.S. *hweop;* W. *chwip*, a sudden turn or start.] An instrument for flagellation or correction, or for driving horses, &c., consisting of two parts — the *lash*, or striking part, usually formed of plaited leather; and the *handle*, commonly made of whalebone or elastic wood; —as, a ridiug- or hunting-*whip*; a driving-*whip*. — A coachman; one who drives a carriage; as, Sir Henry Peytou was the best *whip* of his day. — One who collects the members of a party together; as, a government *whip;* — an abbreviation of *whipper-in*, q. v.

(*Mach.*) One of the four sail-arms of a wind-mill; also, the length of such arm reckoned from the shaft.

(*Naut.*) A small single tackle used for hoisting light bodies.

Whip and spur, post-haste; with express speed; as, to ride *whip and spur*.

Whip'-cord, *n.* Cord of which the end of whip-lashes are made.

Whip'-graft, *v. a.* See GRAFTING.

Whip'-hand, *n.* The hand that holds the whip in driving; — hence, advantage; superiority of position; as, a wife has the *whip-hand* of a husband who is uxorious.

Whip'-lash, *n.* The lash, thong, or striking part of a whip, usually of twisted cords, leather, or raw-hide.

Whip'pany, or WHIP'PONONG, in *New Jersey*, a post-vill. of Morris co., 52 m. N.E. of Trenton.

Whip'per, *n.* One who whips or flagellates; particularly, one who inflicts the legal penalty of the lash. — One who raises coal with a tackle from a ship's hold; a coal-whipper.

(*Spinning.*) A simple kind of willy.

Whip'per-in, *n.* In fox-hunting, one who keeps the hounds from wandering, and *whips* them *in*, if necessary, to the line of scent. (Eng.) — One who enforces party discipline among the supporters of the government or opposition, and urges their attendance in the event of any question of importance being likely to come under discussion, and the house divided thereupon; one who compels to obedience or order; one who subjects to the principles or measures of a party.

Whip'per-snap'per, *n.* A mean-looking, diminutivo, contemptible person. (Colloq.)

Whip'ple-tree. *n.* Same as WHIFFLE-TREE, *q. v.*

Whip'poorwill, *n.* (*Zoöl.*) See GOAT-SUCKER.

Whip'-saw, *n.* A frame-saw for cutting through timber lengthwise, and generally worked by two persons.

Whip'-shaped, *a.* (*Bot.*) Same as FLAGELLIFORM.

Whip'-staff, *n.* (*Naut.*) An old name for TILLER, *q. v.*

Whip'-stalk, Whip'-stock, Whip'-stick, *n.* The rod, staff, stock, or handle, to which a whip-lash is fastened.

Whip'ster, *n.* An agile little fellow.

Whip'-stitch, (*-stich,*) *n.* A contemptuous nickname for a tailor. — Anything hastily or slovenly put together

Whipt, *imp.* and *pp.* of WHIP, for *whipped*.

Whir, (*hwêr,*) *v. n.* [Formed from the sound.] To whirl round with noise; to whiz; to hurry away; to fly off with such a noise as is made by a partridge or woodcock when it springs from the ground.

—*n.* A buzzing or whizzing sound produced by the rapid or whirling motion of anything; as, the *whir* of a ptarmigan; the *whir* of a spinning-jenny.

Whirl, (*hwêrl,*) *v. a.* [A.S. *hwyrfan, hweorfan*, to turn round quickly.] To turn round rapidly, or with velocity; to cause to rotate with swift motion; as, to *whirl* a top round. — To snatch; to move quickly with a rotary motion; as, *whirled* up by wheels.

—*v. n.* To gyrate; to be turned round rapidly; to revolve or rotate with velocity; as, *whirling* wheels. — To move hastily; as, to be *whirled* away.

—*n.* [Dan. *hoirvel;* Ger. *wirbel.*] A turning with rapidity or velocity; rapid rotation or circumvolution; quick gyration; as, the *whirl* of a top. — Anything that moves or is turned with velocity, particularly on an axis or pivot, or as if on an axis or pivot; as, the *whirl* of a waltz. — In rope-making, the revolving hooked spindle of a twisting machine.

(*Bot.* and *Conch.*) Same as WHORL, *q. v.*

Whirl'-about, *n.* A whirligig; a teetotum.

Whirl'-bone, *n.* The patella or knee-pan.

Whirl'er, *n.* The person who, or thing which, whirls.

Whirl'igig, *n.* [From *whirl* and *gig.*] A children's toy to spin round on a pivot after the manner of a top; a teetotum.

(*Zoöl.*) See GYRINIDÆ.

—*a.* Fickle; giddy; inconstant; capricious; mutable; as, *whirligig* humors.

Whirl'pool, *n.* (*Meteor.*) When two opposite currents of almost equal force meet, they sometimes, especially in narrow channels, turn upon a centre and assume a spiral form, giving rise to eddies or *W.* The most celebrated

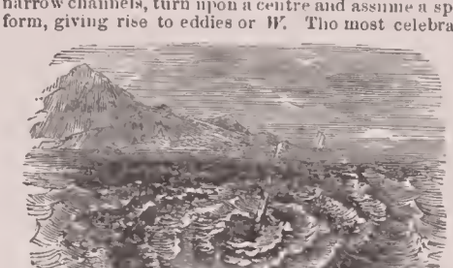


Fig. 2615. — WHIRLPOOL.

W. are the Euripus, near the island of Eubœa, in the Grecian Archipelago; Charybdis, in Italy, on the Strait of Messina; and the Mælstrom, off the coast of Norway.

Whirl'wind, *n.* (*Meteor.*) A revolving column or mass of air, supposed with most probability to be produced by the meeting of two currents of air blowing in opposite directions. It is analogous to the *whirlpool*. When the opposite currents have the same velocity, the circulation will be maintained at the same spot; but if the motion of one of them is more rapid than that of the other, it will transport the whirling motion with its excess of celerity, and a progressive and rotatory motion are thus maintained at the same time. Whirlwinds generally occur in summer, and are most violent in tropical countries, where they frequently produce most destructive effects.

Whisk, (*hwisk,*) *n.* [Icel. *risk;* Ger. and Du. *wisch*, a wisp.] Act of whisking; a quick violent motion, as of wind. — A small bunch or wisp of grass, straw, hair, or the like, used for a brush; — hence, a brush or small besom. — A bundle of peeled twigs used by cooks, for rapidly agitating or whisking certain articles, as cream, eggs, &c. — A kind of tippet, forming part of female dress. — A kind of plano used by coopers.

—*v. a.* To sweep, brush, or agitate with a light, quick motion; as, to *whisk* the dust from a piece of furniture. — To sweep along; to move nimbly over the ground; as, she *whisked* out of the room in a huff.

—*v. n.* To move with speed and agility.

Whisk'er, *n.* The person who, or the thing which whisks, or moves with a rapid, sweeping motion. — That portion of the human beard which grows upon the sides of the face (generally in the plural); — as distinguished from the *moustache, imperial, goatee*, and *beard proper*. — Hence, the bristly hairs on the upper lip of a cat.

Whisk'ered, *a.* Furnished with whiskers.

Whisk'et, *n.* A wicker-basket in which provender is served to cattle.

Whis'key, Whis'ky, *n.* [Of same etymology as USQUEBAUGH, *q. v.*] An ardent spirit distilled from barley, corn, wheat, rye, molasses, &c. It is the cheapest and most common form of intoxicating liquor made in the U. States, where its production is very large. The *W.* of Pennsylvania and Kentucky, and the better qualities of that manufactured in N. York, are largely distilled from rye; most of that produced in Ohio, Indiana, Illinois, Missouri, &c., is from Indian corn, which contains a large quantity of fusel-oil. The best quality of rye *W.* from Pennsylvania, known as *Monongahela*, and from Bourbon co., Ky., brings a high price. In England the *W.* is distilled from barley.

—A kind of light one-horse chaise; — sometimes called *tim-whiskey*.

Whis'key Run, in *Indiana*, a township of Crawford co.

Whis'per, *v. n.* [A.S. *hwisprian;* Ger. *wispern.*] To speak softly in the ear; to utter words in a murmuring or slightly sibilant tone of voice; to speak under the breath; to articulate words with a low, hissing sound; as, *whispered* confidences. — To make a low, sibilant noise or sound; as, *whispering* trees. — To speak suspiciously or with timorous circumspection. — To undermine; to devise mischief privily; to practise underhand treachery; — preceding *against*.

"All that hate me *whisper* together *against* me." — *Psalms* xli. 7.

—*v. a.* To speak in the ear of in a low, murmuring tone; to address under the breath; as, to *whisper* a secret. — To address in a low voice; as, they might buzz and *whisper* it one to another.

—*n.* A low, soft, sibilant voice, spoken in the ear; a sibilant or faint utterance; as, it was told him in a *whisper*. — A cautious or timorously circumspect speech or address.

Whis'perer, *n.* One who whispers. — A tattler; a busybody; a teller of secrets; — hence, a backbiter; a secret slanderer or mischief-maker.

Whis'pering, *n.* Act of speaking in the ear with a low sibilant voice; also, the telling of tales, and exciting of suspicions; — hence, backbiting; slandering in secret.

Whis'peringly, *adv.* In a low sibilant voice.

Whist, (*hwist,*) *a.* [*Hist* and *hush* are the same word, with a little variation in sound.] Silent; mute; still; speechless; not making any sound or noise; as the wind is *whist*.

—*interj.* Hush! be silent! peace! — properly the imperative action of the verb.

(*Games.*) [So called from whist, *be silent*, as requiring close attention.] A game at cards played by four persons, in a double combination, two of them being *partners* against a partnership of the other two. A full pack of fifty-two cards is used, and they rank in their natural order, except that the ace of each suit, instead of being the lowest, is made the highest. The cards are dealt round, thirteen to each player, the last or bottom one, belonging to the dealer, being *turned up* or shown; the suit to which this belongs is called the *trump* suit, and takes precedence of all the others. — The player to the left of the dealer then plays a card, to which the other players in succession must *follow suit*, i. e. play cards of the same suit, if they have them. These four cards constitute a *trick*, which is won by the person who plays the highest card, and is picked up by the winner or his partner. The winner of this then *leads*, or commences, a new trick, and so on till the whole thirteen are played. —When a player cannot follow suit, *i. e.* has no card of the suit left, he may either play a trump which wins the trick by the precedence of the suit, or may *discard* a card of some other suit. — The score is made in two ways, by *tricks* and *honors*. — The partners who, together, gain the majority of tricks in the hand, score one for every trick made above six. — The ace, king, queen, and knave of the trump suit are called *honors*, and score one each for whoever holds them. Thus, if one partnership hold two between them, the other partnership also holding two, they cancel each other, and no one scores. If one partnership hold three honors, and the other one, the former score the difference — two, and are said to count *two by honors*. If all four honors are in the hands of one partnership, they count *four by honors*. — The points thus scored by tricks and honors are called *game points*. In the old-fashioned or *long* whist, ten of these make a game; in the modern or *short* whist, the number has been reduced to five. — Two games, won by the same party, constitute a *rubber*, and the games have different values, depending on the state of the score of the losing party. These details, as well as other laws affecting the conduct of the game, may be found in books on the subject. — Although, as will be seen, the construction of the game is so exceedingly simple that a child may learn it in an hour, yet the option which each player has as to the card he shall play, leaves so much scope for voluntary action as to give whist an exceedingly high character in an intellectual point of view. A good player must, in the first place, be master of a somewhat recondite and elaborate *system* of play, which has been deduced by a long series of observations and reasonings as the best to be followed; he must then *observe* and *remember* very carefully the cards played, which furnish the data on which he proceeds; from these data he must next draw rapid *inferences*, as to the distribution in the various hands of the cards yet unseen; and finally he must act on the whole of the information thus gained, with judgment and skill, for which there is the widest possible scope.

Duplicate Whist. A form of the game in which, some time after a game is played, the players reverse the same hands and play them again. It is an excellent test of skill.

Whistle, (*hwis'sl,*) *v. n.* [A.S. *hwistlan;* Swed *hwissla;* Lat. *fistula*, a whistle.] To emit a kind of musical sound, by pressing or drawing the breath through a small orifice formed by a contraction of the lips; as, "He *whistled* as he went for want of thought." (*Dryden.*) — To make a shrill, acute sound with a small wind instrument resembling a fife. — To sound shrill, or like a pipe or fife; as, the wild winds *whistle*.

—*v. a.* To form, intonate, or modulate by whistling; as, to *whistle* a tune. — To call by whistling or a whistle; as, to *whistle* a dog. — *To whistle off*, originally, in hawking, to allow to depart by a whistle; — hence, to let loose; to discard.

—*n.* [A. S. *hwistle.*] A shrill, acute sound made by expelling or drawing the breath through the orifice made by a contraction of the lips, or through a wind-instrument which, blown through, yields a like sound; as, the *whistle* of a boatman's call, *i. e.* a small pipe used by a boatman to summon the sailors to their duty; the shrill note of a bird; as, the *whistle* of a blackbird; the shrill sound made by the passage of winds among trees or through crevices, &c.; as, the gale's rising *whistle;* also, the sharp, piercing sound occasioned by the escape of steam or gas through a particular vent, and frequently used as a signal; as, the *whistle* of a railroad-train. — An instrument producing, when blown through with the breath, a sound resembling that made by the passage of breath through the contracted or compressed lips; as, a steam *whistle*, a sportsman's *whistle*. — The mouth, as the organ engaged in whistling; as, to wet the *whistle*. (Vulgar.)

Whistler, (*hwis'lêr,*) *n.* One who whistles; also that which produces a whistling sound.

(*Zoöl.*) A familiar name given to the green plover.

Whis'tler, in *Alabama*, a post-village of Mobile co.

Whit, (*hwit,*) *n.* [A. S. *wuht*, a creature, animal, thing.] A jot; a bit; an iota; a little; the smallest part or particle imaginable; — employed adverbially, and generally in a sentence expressing negation; as, he is not a *whit* better than the other.

Whit'by, a seaport and market-town of England, in the North Riding of Yorkshire, on the river Esk, which forms the harbor, and is crossed by a swing iron bridge, 16 m. from Scarborough. It has dock-yards for the building of ships, and commodious dry docks. Jet is collected here. *Manuf.* Sail-cloth and cordage.

Whitby, in *Virginia*, a village of Mecklenburg co., abt. 60 m. S.W. of Petersburg.

White, (*hwīt,*) *a.* (*comp.* WHITER; *superl.* WHITEST.) [A. S. *hwit, hwite.*] Bright; being without color, or, in a popular sense, being of the color of pure snow, or of light; not tinted with any of the proper colors or their compounds; not dark; as, a *white* skin, a *white* hat.—Pale; destitute of color in the checks, or of the tinge of blood color; pallid; as, she was *white* with fear; he turned *white* with rage.—Hence, pure; clean; free from spot, stain, or blemish; presenting the hue of immaculateness; as, "No *whiter* page than Addison's remains." (*Pope.*)—Gray or colorless from the effect of age, disease, or sorrow; as, the *white* hair of venerable years.—Sanctified; purified from sin and grossness; as, a *white* soul.—Indicating exemption from debasing or disturbing influences; hence, happy; fortunate; prosperous; favorable; as, a *white* day in one's calendar of life.

—*n.* The color of pure snow; a negative color, whose opposite is *black*, produced by the combination of all the prismatic colors mixed in the same proportions as they exist in the solar rays; whiteness; absence of all stain or superficial obscurity; as, a person dressed in *white.*—That which reflects to the sight the rays of light unseparated.—Specifically, the centre of an archery butt, or other mark, at which a missile is aimed and sent; as, her arrow hit the *white.*—One of the white or Caucasian race of mankind.

White of a seed. (*Bot.*) Same as ALBUMEN, *q. v.*

White of an egg. See ALBUMEN.—*White of the eye.* (*Anat.*) That part of the eye-ball which surrounds the iris.

—*v. a.* To whiten; to make white; to whitewash; as, *whited* sepulchres.

White, in *Arkansas*, a N.E. central co.; *area*, 1,137 sq. m. *Rivers.* White, Little Red river, and Bayou des Arc. *Surface*, diversified; *soil*, generally fertile. *Cap.* Searcy. *Pop.* (1897) 23,460.

—A township of Newton co.

—A township of Polk co.

White, in *Georgia*, a N. co.; *area*, 170 sq. m. *Rivers.* Chattahoochee and Chestatee. *Surface*, mountainous in the N., elsewhere undulating; *soil*, generally fertile. *Cap.* Cleveland. *Pop.* (1897) 6,860.

White, in *Illinois*, a S.E. co., bordering on Indiana; *area*, 500 sq. m. *Rivers.* Wabash, Little Wabash, and Skillet Fork. *Surface*, level; *soil*, productive. *Cap.* Carmi. *Pop.* (1897) 27,550.

White, in *Indiana*, a N.W. co.; *area*, 500 sq. m. It is drained by Tippecanoe river. *Surface*, undulating; *soil*, fertile. *Cap.* Monticello. *Pop.* (1897) 17,160.

White, in *Missouri*, a township of Benton co.

White, in *Pennsylvania*, a township of Cambria co.

—A township of Indiana co.

White, in *Tennessee*, an E. central co.; *area*, 390 sq. m. *Rivers.* The Caney Fork of Cumberland river, and Falling Water creek. *Surface*, undulating; *soil*, fertile. *Cap.* Sparta. *Pop.* (1897) 13,430.

White Ant, *n.* (*Zoöl.*) See TERMITIDÆ.

White Arsenic, *n.* (*Min.*) Oxide of arsenic, or arsenious acid.

White'-bait, *n.* (*Zoöl.*) The name of a small and delicate fish of the genus *Clupea* (*C. alba*), highly esteemed by epicures.

White Bear, in *Minnesota*, a post-township of Ramsey co.

White'-blaze, *n.* Same as WHITE-FACE, *q. v.*

White'boy, *n.* One of a secret band of levellers or insurgents who created alarm in the S. of Ireland, during the close of the last, and the beginning of the present, century;—so named from the color of their garments; otherwise called *Peep-o'-day Boys.*

White Brethren, *n. pl.* (*Eccl. Hist.*) A sect of the 15th century, whose members were arrayed in white, and carried around large crucifixes from which a bloody sweat appeared to issue. The *W. B.* originated in the Italian Alps, and were headed by a priest who gave himself for the prophet Elias, and claimed that it was his mission to announce the speedy destruction of the world by an earthquake. He entered Genoa at the head of 5,000 followers, but his success was soon stopped by the discovery of the impostnre. Boniface IX. put an end to the movement of the sect, by ordering the leader to be apprehended and burned, 1349.

White Brant, *n.* (*Zoöl.*) See ANSERINÆ.

White Campion, *n.* (*Bot.*) See SILENE.

White Cedar, *n.* (*Bot.*) See CUPRESSUS.

White'clay Creek, in *Penna.*, rises in Chester co., and joins Christiana Creek 6 m. W. of Wilmington, Del.

White Cloud, in *Iowa*, a post-village and township of Mills co., abt. 14 m. E.S E. of Glenwood.

White Cloud, in *Kansas*, a post-village of Doniphan county, on the Missouri River, 35 miles above St. Joseph.

White Clover, *n.* (*Bot.*) See TRIFOLIUM.

White Copper, *n.* (*Chem.*) Same as GERMAN SILVER.

White Copperas, *n.* (*Min.*) Same as COQUIMBITE, *q.v.*

White Creek, in *N. York*, a post-vill. and twp. of Washington co., 33 m. N.N.E. of Albany.

White Creek, in *Wisconsin*, a township of Adams co.

White Crops, *n. pl.* (*Agric.*) Grain and seed crops, as distinguished from green crops, or those cultivated for their roots or herbage.

White'deer, in *Pennsylvania*, a former post-village of Lycoming co., 78 m. N. of Harrisburg.

—A post-township of Union co.

White Earth River, in *North Dakota*, a small stream flowing into the Missouri, 60 m. E. of the month of the Yellowstone.

White Eyes, in *Ohio*, a flourishing township of Coshocton co.

White'-face, White'-blaze, *n.* A white mark, or blaze, on the forehead of a horse.

White'-film, *n.* Among sheep, an eye-disease productive of blindness.

White'field, GEORGE, the founder of the Calvinistic Methodists, b. at Gloucester, England, where his father kept the Bell Inn. While at Pembroke College, Oxford, he joined the Wesleys and their associates, and on being ordained deacon, he soon became a popular preacher. In 1738 he went to the American settlement of Georgia, where his conduct gave great satisfaction to the colonists, and he returned to England to procure subscriptions for building an orphan house in the settlement. On obtaining priest's orders, and repairing to London, the churches in which he preached were incapable of holding the assembled crowds; he therefore adopted the plan of preaching in the open air, which he did to vast assemblages of people, who came from all parts to hear him. In 1739 he set out on another visit to America, and made a tour through several of the provinces, where he preached to immense audiences, and returned to England in 1741. About this time, the difference of view between Whitefield and Wesley respecting the doctrine of election appeared, and it led to their separation without utterly destroying their friendship. In 1748 Whitefield was introduced to the celebrated Countess of Huntingdon, and was appointed her chaplain. Like his friend Wesley he married a widow, and his married life is said to have been unhappy. After visiting many parts of England, Wales, Scotland, and Ireland, and displaying a degree of intrepidity and zeal that overcame all difficulties, he made a seventh voyage to America, and died at Newburyport, Mass., 1770. The journeys and voyages of this indefatigable minister amount to a number almost incredible. He has stated in his memorandum book, that "from the time of his ordination to a period embracing 34 years, he preached upwards of 18,000 sermons, crossed the Atlantic 7 times, travelled thousands of miles both in Britain and America;" and when his strength was failing, he put himself on what he termed "short allowance," viz., preaching only once in every day of the week, and three times on the Sabbath. Whitefield was no common preacher. Parties of the most opposite character and principles, such as Franklin, Hume, and John Newton, have united in hearing testimony to the beauty and effectiveness of Whitefield's pulpit oratory.

Whitefield, in *Illinois*, a township of Marshall co., abt. 7 m. N. of Lacon.

Whitefield, in *Maine*, a village and township of Lincoln co., 12 m. S.E. of Augusta.

Whitefield, in *New Hampshire*, a post-township of Coos co., 88 m. N. of Concord.

White'-fish, *n.* (*Zoöl.*) A fish of the family *Salmonidæ* (*Coregonus albus*), which inhabits the lakes and large rivers of N. America. It is from 15 to 20 inches long, bluish-gray above and white below.

White'-foot, *n.* (*Far.*) A white blaze on a horse's foot, between the coffin and the fetlock.

White'ford, in *Michigan*, a post-township of Monroe co.

White Grampus, *n.* (*Zoöl.*) See DELPHINIDÆ.

White Gourd, *n.* (*Bot.*) See CUCURBITA.

White Gum, *n.* (*Med.*) A rash of small white pimples, to which very young and teething infants are liable.

White'hall, in *Illinois*, a city of Greene co., 24 m. S.S.W. of Jacksonville. *Pop.* (1897) 2,250.

Whitehall, in *New York*, a post-vill. and twp. of Washington co., 77 m. N.E. of Albany.

Whitehall, in *Pennsylvania*, a post-village of Bucks co., abt. 4 m. W. of Doylestown.—A vill. of Columbia co.—A vill. of Lancaster co.—A post-vill. of Montour co., 12 m. N. of Danville.

Whitehaven, a seaport-town of England, co. of Cumberland, on the Irish Sea, and near the Solway Frith, 35 m. S.W. of Carlisle. It is regularly laid out and its harbor is commodious. *Manuf.* Sail-cloth, cordage, tobacco-pipes, and soap; besides, extensive iron and brass foundries.

White Haven, in *Pennsylvania*, a post-borough of Luzerne co., 25 m. N. of Manch Chunk.

White'head, in *Maine*, an island on the S.W. of the W. entrance to Penobscot Bay, has a fixed light 58 feet high, with a bell attached weighing 1,000 pounds, which is rung in foggy weather; Lat. 42° 52′ N., Lon. 69° 2′ W.

White Heat, *n.* (*Physics.*) The temperature which gives incandescence to bodies, and at which they emit a bright light.

White Hellebore, *n.* (*Bot.*) See VERATRUM.

White Herring, *n.* A fresh, uncured herring, in distinction from a red or dried herring.

White Hill, in *New Jersey*, a village of Burlington co.

White House, in *New Jersey*, a post-village of Hunterdon co., 30 m. N.E. of Trenton.

White House, in *Virginia*, a village of Kent co., 24 m. E. of Richmond.

White Iron, *n.* (*Metall.*) Tinned iron plate.

White Iron Pyrite, *n.* (*Min.*) Same as MARCASITE.

White Lake, in *Michigan*, a post-vill. and twp. of Oakland co., abt. 11 m. W. of Pontiac.

White'-land, *n.* (*Agric.*) In England, the term applied to a tough, clayey soil, whitish in look when dry, but blackish after rain.

White'ley, in *Pennsylvania*, a post-vill. and twp. of Greene co., 7 m. S.E. of Waynesburg.

White Lead, *n.* (*Chem.*) See LEAD (CARBONATE OF).

White Lead Ore, *n.* (*Min.*) Native carbonate of lead.

White Leaf, *n.* Leaf metal made of tin.

White Leather, *n.* Buff or alumed leather.

White-light, *n.* (*Physics.*) Sun-light non-decomposed by prismatic refraction.

White'-limed, *a.* Whitewashed with lime.

White'-livered, *a.* Having a pallid look; feeble;—hence, cowardly; craven; dastardly; as, a *white-livered* traitor.

White Marsh, in *Pennsylvania*, a post-township of Montgomery co., 6 m. S.E. of Norristown.

White'-meat, *n.* Spoon-meat.—Young or delicate flesh or food, as veal, poultry, rabbits, and the like.

White Money, *n.* Coin made of silver or nickel, or a compound of both.

White Mulberry, *n.* (*Bot.*) See MORACEÆ.

White Mountains, a mountain-chain of New England, U. S., regarded as an outlier of the Appalachian Range, commences at the headwaters of the Aroostook River, in Maine, where its first summit is Mount Katahdin, and extends in a broad plateau, from 1,600 to 1,800 feet high, W. by S. nearly across New Hampshire, where it has 20 bold peaks, with deep, narrow gorges, wild valleys, beautiful lakes, lofty cascades and torrents, forming the "Switzerland of America," and a favorite resort of summer tourists. Mount Washington, the highest summit in New England, 6,285 feet, has a rail- and carriage-road and a small hotel on its summit; Mount Pleasant, the second of the group, is 4,712 feet; the lesser are named Franklin, Monroe, Jefferson, Adams, Madison. In the Franconia group are Lafayette, 5,500 feet, and Mooshillock, 4,636. These mountains furnish the chief sources of the Connecticut, Merrimack, and Androscoggin rivers. The rocks are ancient metamorphic, with naked granite and gneiss. The Ammonnoosuck River falls 5,000 feet in 30 m., the Androscoggin 200 in a m. Five narrow and precipitous notches seem to have been rent in the mountains, and give passage to as many rivers.

Whiten, (*hwīt'n,*) *v. a.* To make white; to bleach; to blanch; as, to *whiten* linen.

—*v. n.* To grow, turn, or become white; as, the face *whitens* with fear; spring vegetation *whitens* with blossoms.

Whit'ener, *n.* One who, or that which, bleaches or blanches.

White'ness, *n.* State or quality of being white; white hue or color, or absence of any darkness or obscurity on the surface; as, the *whiteness* of paper.—Pallor; destitution of a sanguineous tinge; as the *whiteness* of complexion superinduced by terror or disease.—Purity; cleanness; freedom from stain, blot, or blemish; as, the *whiteness* of a good conscience.

Whit'ening, *n.* Same as WHITING, *q. v.*

Whit'ening-stone, *n.* A sharpening and polishing stone used by cutlers;—applied also to a finishing grindstone of finer texture than those commonly employed.

White Oak, *n.* (*Bot.*) See QUERCUS.

White Oak, in *Arkansas*, a township of Franklin county.

White Oak, in *Arkansas*, a township of Van Buren county.

White Oak, in *California*, a township of El Dorado county.

White Oak, in *Iowa*, a post-township of Mahaska co.—A township of Warren co.

White Oak, in *Michigan*, a post-twp. of Ingham county.

White Oak, in *Missouri*, a township of Henry co.

White Oak, in *North Carolina*, a township of Carteret county.—A village of Polk county.—A township of Wake county.

White Oak, in *Ohio*, a creek which rises in Highland county, and flows into the Ohio river in Browne county, 8 miles W. of Ripley.—A township of Highland county.

White Oak Springs, in *Wisconsin*, a township of Lafayette co.

White Pigeon, in *Michigan*, a post-village and township of St. Joseph co., 120 m. E. of Chicago.

White Pine, in *Nevada*, an E. co.; *area*, 7,892 sq. m. *Cap.* Hamilton. *Pop.* (1897) 1,960.

White Plains, in *New York*, a post-vill. and twp., cap. of West Chester co., 26 m. N.N.E. of New York. It was the scene of several important events during the revolutionary war, the most prominent of which was the action usually known as the *battle of White Plains*, though it actually occurred in the town of Greenburg, on the opposite side of the Bronx river, Oct. 28, 1776. After a warm contest, the commanding eminence of Chatterton Hill, on which the Americans under Washington were intrenched, was carried by the British under Gen. Howe, the Americans retreating in good order and without being pursued. The loss on each side was abt. 300 killed, wounded, and prisoners.

White Plains, in *S. Carolina*, a vill. of Anderson dist.—A twp. of Spartanburg dist.

White Poplar, *n.* (*Bot.*) See LIRIODENDRON.

White Poppy, *n.* See PAPAVER.

White Post, in the State of *Indiana*, a twp. of Pulaski county.

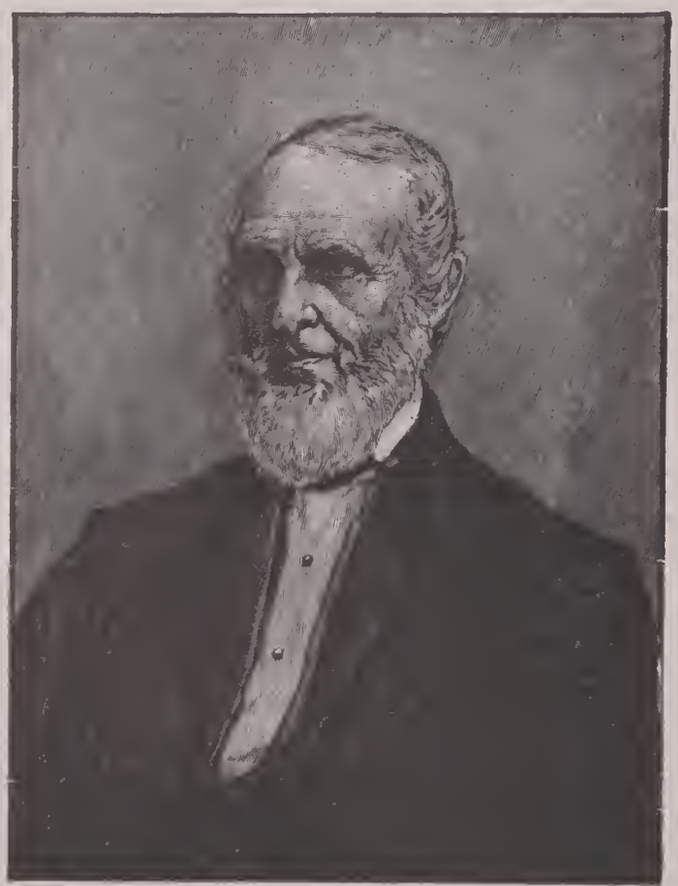
White'-pot, *n.* A kind of baked butter-pudding.

White Precipitate, *n.* (*Chem.*) The white powder which falls in adding ammonia to a solution of corrosive sublimate; it is a compound of peroxide and bichloride of mercury with ammonia; it is virulently poisonous, and is chiefly used in ointments and for killing vermin. It has been regarded as an *amido-chloride* of mercury, and represented as $HgN_2H_3Cl_2$.

White River, in *Arkansas* and *Missouri*, a river formed by 3 branches which rise in the Ozark Mountains, Madison co., and unite near Fayetteville in Washington co. It flows N.E. into Missouri, then S.E., and enters the Mississippi 15 m. N. of the mouth of the Arkansas, after a course of 800 m., of which it is navigable for steamboats 350 m. to the mouth of the Black

Eli Whitney

1765–1825



John G. Whittier

1807–1892

River, at all stages of water, and to Batesville 50 m. higher, during two-thirds of the year.

White River, in the State of *Arkansas*, a township of Benton county.—A township of Marion county.—A township of Prairie county.—A township of Washington county.

White River, in *Indiana*, a river formed by the junction of the E. and W. Forks, in Daviess co., 5 m. N.E. of Petersburg. It falls into the Wabash in Gibson co., opposite Mount Carmel, Illinois, after a S.W. course of abt. 50 m. The W. Fork rises in Randolph co., and has a S.W. course of 300 m. The E. Fork rises in Henry co., and has a S.W. course of 250 m.—A twp. of Gibson county.—A township of Hamilton county.—A township of Johnson county.—A township of Randolph county.

White River, in *Michigan*, rises in Newaygo co., and flows S.W. into Lake Michigan from Oceana co.

White River, in *Michigan*, a village and township of Muskegon co., about 15 m. N.W. of Muskegon.

White River, in *Missouri*, a township of Barry county.

White River, in *Vermont*, rises in Addison co., and flowing S.E. enters the Connecticut river in Windsor co., about 5 m. S. of Norwich.

White Rock, in *Arkansas*, a post-township of Franklin co. *Pop.* (1897) 750.

White Rock, in *Illinois*, a post-vill. and twp. of Ogle co., abt. 15 m. S. of Rockford.

White Rock, in *Michigan*, a post-village and twp. of Huron co., abt. 36 m. N. of Lexington.

Whites, *n. pl.* (*Med.*) Same as FLUOR-ALBUS, *q. v.*

—The finest brand of flour made from white wheat.

Whites, in *Alabama*, a township of Blount county.—A township of Tuscaloosa county.

Whites, in *North Carolina*, a township of Bertie county.

Whites'borough, in *New York*, a post-village of Oneida co., 4 m. N.W. of Utica.

Whites'burg, in *Alabama*, a vill. and township of Madison co., 11 m. S. of Huntsville.

Whites'burg, in *Kentucky*, a post-village, cap. of Letcher co., 150 m. S.E. of Frankfort.

White School-House, in *Alabama*, a village of Lee co.

White Sea, (Russ. *Beloi-More.*) A large gulf or branch of the Arctic Ocean, which, between Cape Kanin on the Kaninskaia Peninsula, and Cape Sviatoi on the Kola Peninsula, penetrates the Russian government of Archangel southwards to Lat. 64° N. At its entrance between Capes Kanin and Sviatoi it is 100 m. broad; after penetrating the land 150 m. in a S.E. direction, it narrows to a width of 35 m.; but, after sweeping south for 200 m., it again considerably widens, forming on the N.W. the Gulf of Kandalak, and in the S. and S.E. the great Gulfs of Onega, and Archangel or Dwina. The White Sea covers an area estimated at 47,000 sq. m., and the length of its coast line is over 1,000 m. The coasts in the N. and E. are mountainous, in other places they are mostly low, and abound in lakes, which communicate with the sea by rivers. The greatest depth of the White Sea is 1,133 feet. From the middle of August ice forms on the coasts sometimes to the width of 30 m., and is not melted till the following July.

White'sides, in *Illinois*, a W.N.W. co.; *area*, 700 sq. m. *Rivers.* Mississippi and Rock; also, Elkhorn and Rock creeks. *Surface*, level; *soil*, very fertile. *Cap.* Morrison.

White'-smith, *n.* A worker in tinned iron.—A finisher or polisher of iron-work, as distiugnished from a *forge-man.*

White'-stone, *n.* The name given by lapidaries to limpid colorless rock-crystal when cut for jewelry.

Whites'town, in *New York*, a post-township of Oneida co., 4 m. N.W. of Utica.

Whitestown, in *Wisconsin*, a township of Vernon county.

White Sulphur, in *Kentucky*, a twp. of Bath co.—A twp. of Scott co.

White Sulphur Springs, in *Georgia*, a post-vill. of Meriwether co., 118 m. S.W. of Milledgeville.

White Sulphur Springs, in *Louisiana*, a post-vill. of Catahoula parish, 200 m. N.W. of Batou Rouge.

White Sulphur Springs, in *W. Virginia*, a post-village of Groenbrier co., 205 m. W. of Richmond. It is much resorted to as a watering-place, and has hotel accommodation for 1,500 guests. The spring is in the lowest part of a beautiful valley, and is covered by a dome supported by 12 Ionic columns, and surmounted by a statue of Hygiea; it is 2,000 feet above tide-water; yields 30 gallons per minute of lime, soda, magnesia, carbonate of lime, chlorides of calcium and sodium, iron, iodine, sulphur, carbonic acid, sulphurettod hydrogen, oxygen, nitrogen. It is considered efficacious in dyspepsia, liver diseases, gout, rheumatism, and diseases of the skin and kidneys.—The Red, Salt, and Blue Sulphur Springs, at a distance of 22 to 24 m. from the above, are also much resorted to.

Whitesville, in *Florida*, a village of Duval co., 155 m. E.S.E. of Tallahassee.

Whitesville, in *Georgia*, a village of Effingham co., 30 m. N.W. of Savannah.—A post-village of Harris co., 27 m. N. of Columbus.

Whites'ville, in *New York*, a post-village of Allegany co., 25 m. S.S.E. of Angelica.

Whites'ville, in *N. Carolina*, a post-vill. and twp., cap. of Columbus co., 100 m. S.W. of Raleigh.

White Swell'ing, *n.* (*Surg.*) A disease of the joints, so called from being unattended by any discoloration of the skin; and it occurs most frequently in scrofulous constitutions. The knee-joint is the one most subject to its attack. It is the result of chronic inflammation in the legs, cartilages, or membranes constituting the joint, and is always attended with swelling, the part being sometimes hard, at other times soft and yielding. In some cases there is little or no pain, and the motions of the joints are but little impeded; in others the pain is considerable, and motion entirely destroyed. After a time the joint becomes of very great size, while the skin appears of a pale shining color, with a number of large veins running over it. The limb, above and below the knee, is much wasted, and the general health impaired, but not seriously. At length collections of matter form round the joint, and gradually make their way outwards by various openings. The constitution is now seriously disturbed; the health fails, the appetite and sleep are bad, the pulse small and frequent, with obstinate diarrhœa and profuse night sweats, till, unless speedy relief is obtained, the patient is carried off. In the treatment of this disease, counter irritants and leeches should be applied to the joint, and splints placed behind it so as to prevent all motion. Particular attention should be paid to the state of the stomach and bowels, the patient being allowed a generous diet and a free use of good air. These measures, however, are chiefly useful in the inflammatory stage of the disease; when it has reached an advanced stage, there is nothing left for it but amputation.

White'thorn, *n.* (*Bot.*) See CRATÆGUS.

White'throat, *n.* (*Zoöl.*) The common name of *Curruca cinerea* and *Curruca sylviella*, two European birds of the family *Sylviadæ*. The whole length is 5 to 6 inches, and their plumage is brown, of various shades. *C. cinerea* is very lively and amusing as a cage-bird, and easily tamed.

White-vitriol, *n.* (*Chem.*) The old name of sulphate of zinc. See ZINC.

Whiteville, in *Arkansas*, a township of Jefferson county.

White'wash, (*hwīt'wŏsh,*) *n.* A cosmetic for whitening the skin.—A composition of lime and water, or of whiting, size, and water, used for whitening the plaster of walls, ceilings, &c.

—*v. a.* To cover with a white liquid composition, as with lime, water, &c.; as, to *whitewash* a wall.—To make white; to give a fair external appearance to;—hence, to clear an insolvent or bankrupt of the debts he owes by a judicial process.

White'washer, *n.* One who whitewashes.

White'-water, *n.* An ovine disease of a dangerous character.

White'water, in *Georgia*, a creek which flows into Flint River from Pike county.—A township of Oconee county.

Whitewater, in *Indiana*, a river formed by the junction of the E. and W. Forks at Brookville, in Franklin co. It flows into the Miami River, in Ohio, 6 m. from its mouth, after a S.E. course of 100 m., including the longest branch.—A twp. of Franklin co.

Whitewater, in *Michigan*, a post-township of Grand Traverse co.

White Water, in *Minnesota*, a post-township of Winona co.

Whitewater, in *Missouri*, rises in Cape Girardeau co., and flowing S.E., and then S., divides into two branches called E. and W. Whitewater; then mingling with the waters of Lake St. Mary, it receives the Castor River, and is the outlet of Lake Pemisco, and falls into Big Lake, communicating with the St. Francis River by Little river. *Length*, 250 m.

—A post-township of Cape Girardeau co.

Whitewater, in *Wisconsin*, an important city and trade center, and township of Walworth co., 50 m. W. S. W. of Milwaukee. *Pop.* (1895) 3,799.

White Water Falls, in *Minnesota*, a post-village of Winona co., abt. 22 m. N.W. of Winona.

White'-weed, *n.* (*Bot.*) See LEUCANTHEMUM.

White Whale, *n.* (*Zoöl.*) See DELPHINIDÆ.

White Wine, *n.* Any wine of a clear transparent, whitish color; as, Madeira, Sherry, Hock, Constantia, &c., as distinguished from *red wine*, such as Port, Burgundy, &c.

White'-wood, *n.* See LIRIODENDRON, and TILIA.

Whit'field, or WHITEFIELD, in *Georgia*, a N.W. co., drained by Connasauga River. *Surface*, mountainous; *soil*, fertile in the valleys. *Cap.* Dalton.

Whit'ford, in *Michigan*, a township of Monroe co.; *pop.* abt. 1,500.

Whither, (*hwith'er,*) *adv.* [A. S. *hwyder*; Goth. *hvadre.*] To what place;—used interrogatively; as, *whither* are you bound?—To what place;—employed absolutely; as, I strayed I know not *whither.* (*Milton.*)—To which place;—having relative application; as, he went to New York, *whither* I joined him.—To what point or degree.

"*Whither* at length wilt thou abuse our patience?"—*Ben Jonson.*

(NOTE. This term has to a great extent become superseded by *where*, except in poetry, or in compositions of a grave and stately character.)

Whithersoev'er, *adv.* To whatever place.

Whith'erward, *adv.* In what course or direction; toward what place.

Whit'ing, *n.* [From *white.*] (*Zoöl.*) See MERLUCIUS.

(*Paint.*) Chalk cleared of all impurities, ground with water, made into cakes, and dried. It is used for wall-painting, and as a ground for gilding, distemper, and scene-painting, &c.

Whiting, in *Vermont*, a post-township of Addison co., 44 m. S.W. of Montpelier.

Whiting, in *Maine*, a post-township of Washington co., 130 m. N.E. of Augusta.

Whit'ingham, in *Vermont*, a post-township of Windham co., 112 m. S.W. of Montpelier.

Whit'insville, in *Massachusetts*, a post-village of Worcester co., 40 m. W. of Boston.

Whit'ish, *a.* [From *white.*] Somewhat white; white in a moderate degree.

(*Bot.*) Having a dingy-white color; also, coated with an opaque-white powder.

Whit'ishness, *n.* Quality of being somewhat white.

Whitleather, (*hwīt'lether,*) *n.* Alumed or salted leather, dressed to a marked degree of pliancy and toughness.—A strong, stiff cartilage running along the sides of a large quadruped to the middle of the back, as in an ox or horse, and apparently aiding in supporting the head in an horizontal position.

Whit'ley, in *Indiana*, a N.E. co.; *area*, 326 sq. m. It is drained by Eel River. *Surface*, undulating; *soil*, sandy and fertile. *Cap.* Columbia.

Whitley, in *Kentucky*, a S.E. co., bordering on Tennessee; *area*, 500 sq. m. It is drained by the Cumberland River. *Surface*, hilly; *soil*, generally fertile. *Min.* Coal and iron. *Cap.* Williamsburg.

Whit'low, *n.* [A. S. *hwit*, white; *low*, a flame.] (*Med.*) A very painful inflammation of one of the fingers, or sometimes, though very rarely, of the toes, and usually proceeding to suppuration. It is divided into four kinds, according to the depth of the inflammation, the most superficial taking place immediately under the skin, the deepest lying underneath the periosteum. In the more superficial cases the application of leeches and warm fomentations to the part will in general give relief, and sometimes cause the resolution of the inflammation. Where any matter is formed, as is generally the case, it requires to be discharged with the point of the lancet, when the disease usually subsides. When seated in the sheath of the tendons, the symptoms are much more urgent, and the pain most excruciating, and of a throbbing character, extending up the arm even to the shoulders. It is much aggravated by the finger being in a dependent position, and usually there is a considerable degree of fever, and the patient suffers from want of rest. With all this pain there is but little redness or swelling, and even when matter is formed, it may not be perceptible from being deep-seated. Leeches, warm fomentations, and poultices should be used in the early stages; but should this prove ineffectual, a free incision should be made down through the sheaths of the tendons, which usually affords relief, a small quantity of pus being discharged, and the disease subsiding in a few days by the use of warm fomentations and poultices. Sometimes the inflammation will extend into the palm of the hand and fore-arm, forming abscesses and sloughing, in which case free incisions will require to be made into the different inflamed parts to give exit to the matter and sloughs, and poultices afterwards applied. Occasionally the use of the forearm and hand may be lost, and not unfrequently amputation may be required. The remarks also apply to those cases in which the periosteum, or membrane covering the bone, is affected. Frequently, as the disease advances, the bone itself becomes affected with caries, and early and deep incisions are required quite down to the bone.

Whit'low-grass, *n.* (*Bot.*) See DRABA.

Whit'more, in *Illinois*, a township of Macon county.

Whit'ney, ELI, B. at Westborough, Mass., 1765, is the inventor of the *cotton gin*, for which see COTTON. He went to Connecticut in 1793, and formed a partnership with one Miller, for the fabrication of his machine, but the lawsuits in defence of his rights took all his profits and the $50,000 voted him by the State of S. Carolina. Finally, in 1798, he got a government contract for the manufacture of fire-arms, and was the first to effect the division of labor, by which each part was made separately. He made a fortune by this manufacture, carried out with ingenious machinery at Whitneyville, Conn.; while he had but barren honor from the gin, one of the most important of the whole series of inventions connected with the cotton manufacture. D. 1825.

Whitney's Valley, in *New York*, a village of Allegany co., 78 m. E.S.E. of Buffalo.

Whit'neyville, in *Connecticut*, a village of New Haven co., 3 m. N. of New Haven.

Whitneyville, in *Maine*, a post-township of Washington co.

Whit'palne, in *Pennsylvania*, a township of Montgomery co., 5 m. E.N.E. of Norristown.

Whit'sun, *a.* Pertaining or relating to, or observed at, Whitsuntide; as, *Whitsun* ale; a *Whitsun* feast.

Whit-Sunday, *n.* (*Eccl.*) See PENTECOST.

Whit'suntide, *n.* [A corruption of *White-Sunday-tide.*] (*Eccl.*) The English name of the season of Pentecost, *q. v.*, so called from the white garments anciently worn by the newly-baptized catechumens, to whom that sacrament was usually administered on the vigil of Pentecost. The name *Whitsunday* comprehends the entire octave or the week which follows Pentecost Sunday; but the word is more strictly applied to the Sunday, Monday, and Tuesday of that week.

Whit'sunday Island, a coral island in the South Pacific Ocean; Lat. 19° 24′ S., Lon. 138° 36′ W.

Whitte'more, in *Iowa*, a post-village and township of Kossuth co.

Whit'ten, in *Arkansas*, a prosperous township of Mississippi co. A considerable quantity of cotton is produced in the township, besides other staple crops.

Whittockville, in *New York*, a village of Westchester county, 44 miles north-north-east of New York.

Whit'tier, JOHN GREENLEAF, an American writer, B. at Haverhill, Mass., 1807. He worked on a farm and at shoemaking in his boyhood, but at the age of 18, having a strong desire for learning, he studied for two years at

a local academy. In 1830 he became editor of the *New England Review* at Hartford, Conn., where he wrote a *Life of Brainard*, and *Legends of New England*. The subjects of these legends he afterwards worked out in his poems, as *Mogg Megone*, *Bridal of Pennacook*, *Cassandra Southwick*, and *Mary Garvin*. Returning from his literary labors to his farm, he was, in 1835, elected to the Massachusetts legislature; and, in 1836, became editor of the *Pennsylvania Freemon* in Philadelphia, published in the interest of the Anti-Slavery Society, again removing to Amesbury, Mass., in 1840. He wrote during this period many poems that were afterward collected and published, in 1849 under the title, *Voices of Freedom*. During the Civil War he continued to write poems breathing the same liberty-loving spirit, the terrific arraignment of slavery gradually growing into a song of thanksgiving after the issue of the emancipation proclamation. His later poems were chiefly poems of the heart and home memories, the longest and most popular one being *Snow Bound*. Successive editions of his works have been issued since 1869. His *Life and Letters*, edited by S. T. Pickard, appeared in 1895. Died Sept. 7, 1892.

Whittle, (*hwit'tl,*) *n.* [A. S. *hwitel*, *hwitle*, from *hwettan*, to sharpen, and *tol*, a tool.] A pocket, sheath, or clasp-knife. — In the W. of England, a kind of coarse blanket, worn by fish-women after the manner of a shawl.

—*v. a.* To pare, dress, or cut off, as the surface of wood, with a clasp-knife; to cut, hack, or shape into form, as a stick or piece of wood held in the hand, with a pocket-knife.

—*v. n.* To cut or shape into form, as a piece of wood with a clasp-knife; as, "Americans must and will *whittle*." *Willis.*

Whit'tle-shawl, *n.* A kind of fine, fringed kerseymere shawl.

Whitworth Rifle and **Gun.** [So called from their inventor, Joseph W., an English engineer, b. in 1803, d. in 1887. (*Mil.*) The *W. Rifle* has an hexagonal bore, with the corners rounded, and the bullet may be made of the same shape, just fitting the bore, in which case it may be of any hard metal, even of steel, or a cylindrical bullet of lead may be employed, which, by expanding, will immediately fill out the corners of the hexagon. The hold upon the bullet is so strong in this form, that a much greater obliquity can be given to the twist, and that adopted is a full turn in 20 inches. This, by causing a more rapid revolution of the projectile, admits its being made much longer, without risk of turning over after it leaves the barrel. Its length is 1⅜ in. The length of the barrel is 39 in.; the smaller diameter of the bore is 0·45 inch, and the larger diameter half an inch. By using projectiles of a hard alloy, as of 9 parts of lead and 1 part of tin, or of still harder material, a remarkable power of penetration is developed, as was shown by sending the bullet through 33 half-inch elm boards and into solid timber behind with the ordinary English service charge of powder. The effective range of the *W. rifle* is given at 2,000 yards or about 1 1-7 miles, a distance more than equal to the ordinary capacity of the eye to distinguish objects no larger than the body of a man. The *W. gun* is formed on the same principle as his smaller arm already described.

Whit'y-brown, *a.* Of a dirty or brownish-white; as, *whity-brown* paper

Whiz, (*hwiz,*) *v. n.* [Allied to *hiss.*] To make a humming or sibilant sound, like an arrow or ball hurling through the air.

—*n.* A hissing or humming sound; as, the *whiz* of a boomerang.

Whiz'zingly, *adv.* With a whizzing or humming sound.

Who, (*hōō,*) *pron.* (*poss.* WHOSE; *obj.* WHOM.) [A. S. *hwa*; Goth *hwa*; Lat. *qui.*] A pronoun relative, always referring to persons, and used substantively, whether as singular or plural.—Which of two or of many;—used interrogatively, and also indefinitely. The possessive *whose* is also the possessive case of *which*, as a relative pronoun. — *As who should say*, an elliptical form of *as one who should say.*

(NOTE. *Who* and *whom*, as relative pronouns, apply to persons only, in consonance to *which*, as used in reference to things.—*Who*, *whose*, *whom*, relatives in a compound sense, are also employed with respect to persons only, and indicate the one that; the person, or persons, that; as, you speak of one *who* is a stranger to me, and *whose* acquaintance I care not to make.)

Whoa, (*hwō,*) *interj.* See Ho.

Whoev'er, *pron.* He or she who; any one without exception; any person whatever; as, *whoever* told you so, spoke falsely.

Whole, (*hōl,*) *a.* [A. S. *hál*; Gr. *holos*, whole, entire.] All; total; undivided; without diminution or deficiency; containing the entire amount, sum, number, quantity, &c.; as, the *whole* world, the *whole* nation.—Integral; entire; complete; not imperfect or defective; as, a *whole* loaf of bread.—Sound; unbroken; uninjured; unimpaired; as, he escaped with his body *whole* for a wonder.—Well; in good health, not unsound, sick, or ailing.

"They that are *whole* need not a physician." — *Matt.* ix. 12.

Whole blood. (*Law.*) See BLOOD.—*Whole note.* (*Mus.*) Same as SEMIBREVE, *q. v.*

—*n.* The all; the entire or total assemblage of parts; totality.

—A system, or regular combination of parts; as, to form a *whole.*

Upon the whole, considering all things; taking everything into view or question; under all the circumstances; as, he is a good fellow, *upon the whole.*

Whole-hoofed, (*-hōōft,*) *a.* Having the hoof entire, and not cloven or divided.

Whole'-length, *a.* Same as FULL-LENGTH, *q. v.*

—*n.* A portrait or statue representing the entire figure.

Wholeness, (*hōl'nes,*) *n.* State of being whole, sound, complete, or entire; totality.

Whole'sale, *n.* Sale of goods by the piece, parcel, or large quantity, as distinguished from retail.

By the wholesale, in the mass or lump; without distinction or selection; as, his criticism cut up the book *by the wholesale.*

—*a.* Buying and selling by the piece, parcel, or large quantity: as, a *wholesale* grocer. — Pertaining, or having reference to, the traffic by the piece, parcel, or quantity; as, you shall have this article at the *wholesale* price.

Wholesome, (*hōl'sum,*) *a.* (*comp.* WHOLESOMER; *superl.* WHOLESOMEST.) [Ger. *heilsam.*] Tending to promote health and a sanitary condition of body; salubrious; as, *wholesome* food; *wholesome* air. — Sound; salutary; conducing to the moral and mental health, happiness, and prosperity: contributing to public happiness, virtue, or peace: useful or favorable to the well-being of society; kindly; pleasing; propitious; as, *wholesome* counsel; *wholesome* regulations; *wholesome* doctrines, &c.

Whole'somely, *adv.* In a wholesome or salutary manner; soundly; salubriously.

Whole'someness, *n.* Quality of conducing to health or bodily well-being; salubrity; as, the *wholesomeness* of regular habits of life. — Conduciveness to the health and welfare of the mind or of the body politic; salutariness; as, the *wholesomeness* of wise laws justly administered.

Wholly, (*hōl'y,*) *adv.* Entirely; completely; perfectly; in a whole or thorough manner; as, you are *wholly* mistaken; I am *wholly* exhausted. — To the setting aside or exclusion of other things; absorbingly; as, he is *wholly* devoted to business.

Whom, (*hōōm,*) *pron. sing. and pl.* The objective case of WHO, *q. v.*

Whomsoev'er, *pron.* The objective case of WHOSOEVER, *q. v.*

Whoop, (*hōōp,*) *n.* [A. S. *wepan*, to lament, to bewail; Fries. *wop*, a cry, a shout.] A shout of chase or of war: a cry or yell of defiance; a cry of enthusiasm or of satisfaction; a halloo; a hoot. See WAR-WHOOP.

(*Zoöl.*) Same as HOOPEE, *q. v.*

—*v. n.* To utter a loud cry, as of enthusiasm, alacrity, enjoyment, and the like; to shout; to halloo; to hoot, as an owl; as, *whooping* school-boys.

—*v. a.* To pursue with derisive shouts; to insult with yells of defiance.

Whooping-cough, (*hōōp'ing-kawf,*) *n.* (*Med.*) Another, and, perhaps, the more correct orthography of HOOPING-COUGH, *q. v.*

Whoop'ing-crane, *n.* (*Zoöl.*) See GRUIDÆ.

Whore, (*hōr,*) *n.* [A. S. and Ger. *hure.*] A woman who prostitutes herself for hire; a harlot; a strumpet; in polite society, a demirep.

—*v. n.* To practise prostitution or harlotry.

Whoredom, (*hōr'dum,*) *n.* Fornication; lewdness; practice of unlawful connection with the other sex: — applied to either sex, and to any kind of illicit commerce.

(*Script.*) Idolatry; heathenism.

Whore'master, Whore'monger, *n.* A lecher; a patron of prostitution. — A pimp.

Whoreson, (*hōr'sŭn,*) *n.* A bastard; — used in contempt.

Whorish, (*hōr'-*) *a.* Lewd; unchaste; incontinent; addicted to unlawful venery.

Whor'ishly, *adv.* In a lewd or lecherous manner.

Whor'ishness, *n.* Quality of being lewd or whorish; practice of illicit venery.

Whorl, (*hworl,*) *n.* [Allied to *whirl.*] (*Bot.*) Any set of organs or appendages, as leaves, arranged in a circle round an axis, and in a plane perpendicular to it, or very nearly so.

(*Conchol.*) A wreath, convolution, or turn of the spire of a univalve.

Whorled, *a.* Furnished with whorls.

Whorler, (*hwurl'er,*) *n.* A potter's wheel.

Whort, (*hwurt,*) *n.* The fruit and shrub of the whortleberry.

Whortle, (*hwur'tl,*) *n.* A whortleberry.

Whortleberry, (*hwur'tl-,*) *n.* [From A. S. *wyrt*, root, herb, and *berry.*] (*Bot.*) See VACCINIUM.

Whose, (*hōōz.*) *pron.* The possessive or genitive case of WHO or WHICH, *q. v.*

Whosesoever, (*hoōz'so-ĕv'r,*) *pron.* The possessive of WHOSOEVER, *q. v.*

Whoso, (*hōō'sō,*) *pron.* Whosoever. (o.)

Whosoev'er, *pron.* Any one; any person whatever.

Whur, (*hwur,*) *v. a.* To make a rough or growling sound, like that caused by the rattling of the letter *r.*

—*n.* Same as WHIR, *q. v.*

Why, (*hwī,*) *adv.* [A. S. and Swed. Goth. *hwi.*] On what ground or account; for what cause, reason, or purpose; wherefore; — employed interrogatively: as, you say you are aggrieved; *why?* — For which or what cause or reason; for what; on account of what or which; used in a relative sense; as, he could not tell *why* he did it. — That on account of which; reason, cause, or ground for which; — used as a compound relative; as, I know not *why* they should shun me.

(NOTE. *Why* is sometimes applied by way of emphasis or expletive; as, You have not been there then? *Why*, no.)

For why, why; for what cause or reason; — used as a colloquialism; — as, *for why* does he refuse me?

Whydah, (*whi'da,*) a seaport-town of W. Africa, cap. of a prov. of Dahomey, on the Atlantic, 100 m. W. of Lagos; Lat. 6° 18′ 9″ N., Lon. 2° 5′ E. *W.* is the principal port of the kingdom, and has a trade in palm-oil, ivory, and gold-dust. *Pop.* estimated at 15,000.

Why'dah-bird, or WIDOW-BIRD, *n.* (*Zoöl.*) The common name of the genus *Vidua*, family *Icteridæ*, comprising beautiful birds, inhabiting W. Africa, and particularly abundant in the country of Whydah, whence their name, of which *widow* is a mere corruption. The body of the *W.* is generally about the size of a canary bird, but the male is remarkable for an astonishing development of plumage during the breeding season, after which its splendid tail drops off, and the sexes are then barely distinguishable. There are several species, one of which, *Vidua paradisea* (Fig. 2616), will be sufficient to describe. The upper part of the plumage is of a faded or deep brownish-black; but this color becomes of a paler hue on the wings and lateral tail-feathers. The head, chin, and throat are of this faded black, which extends downwards, narrowing as it descends, to the middle of the breast. A broad, rich, orange, rufous color proceeds from the upper part of the back of the neck, and unites with a tinge of the same color on the sides of the neck and breast; this last hue passes into the pale buff of the body, but leaves the under tail-covers black, like the upper ones.

Fig. 2616.
WHYDAH BIRD, (*Vidua paradisea.*)

Why'-not, *n.* A sudden and absolute course of conduct without any assigned cause or reason; as, "And snapped their canons with a *why-not*."—*Hudibras.*

Wi'burg, or WIBOAG, a seaport of Finland, cap. of a dist. of the same name, on the Gulf of Finland, 75 m. N.W. of St. Petersburg; *pop.* 4,426.

Wich, Wick, *n.* [A.S. *wic.*] An old English termination of certain proper names, signifying a street, a hamlet, a village, and sometimes a castle; as, *Greenwich*, *Berwick.*

Wick, *n.* [A.S. *weoc;* Swed. *veke;* Ir. *buaic.*] A number of threads of cotton or other spongy substance loosely twisted into a string, plaited or parallel, which by capillary action draws up the oil in lamps, or the melted tallow or wax in candles, in small successive portions, to be burned.

Wick, a seaport-town and borough of Scotland, cap. of the co. of Caithness, at the mouth of the Wick, 20 m. E.S.E. of Thurso. It has two suburbs — Louisburg on the N., and Pulteneytown on the S., — and two harbors, which have been for nearly half a century the headquarters of the herring fishery of Scotland.

Wick'ed, *a.* [A. S. *werig*, *wereg*, wicked.] Deviating from, or repugnant to morality; evil in principle or practice; contrary to the divine law; addicted to vicious or immoral courses; sinful; — expressed of persons and things; as, a *wicked* man, *wicked* actions.—Addicted to sportive mischief; roguish; — colloquially used; as, that girl has *wicked* eyes.

The wicked. (*Script.*) Sinful or ungodly people.

Wick'edly, *adv.* In a manner, or with motives and designs contrary to the tenor of the moral and divine law; viciously; evilly; corruptly; as, to act *wickedly.*

Wick'edness, *n.* State or quality of being wicked; divergence or departure from the tenor or rules of the divine law; evil principles or practices; immorality; sinfulness; corrupt disposition or manners. — A wicked thing or deed; sin; iniquity; crime. — Sportive mischief; roguishness, in a make-believe sense; — used colloquially or ludicrously; as, what *wickedness* are you up to now?

Wick'en, Wick'en-tree, *n.* (*Bot.*) The Rowan-tree. See PYRUS.

Wick'er, *n.* [Sw. Goth. *wika*, to bend.] Made of twigs or osiers, or covered with the same; as, a *wicker* basket.

—*n.* A small, quick-grown, pliable twig or osier.

Wickered, (*wik'erd,*) *a.* Made of, covered or secured with, wickers, twigs, or osier-work; as, a *wickered* jar.

Wick'et, *n.* [Fr. *guichet;* W. *gwiced*, a little door.] A small door or gate within a larger one; also, a hole in a door, through which to communicate without opening the door, or through which to view what passes outside. — A small gate or sluice by which the chamber of canal-locks is emptied. — A sort of light framework resembling a gate, set up to be bowled at in the game of cricket; as, to play single *wicket.* — In some parts of the U. States, a place of shelter made of the boughs of trees, &c., for the use of lumbermen, &c.— *Wicket-keeper*, in the game of cricket, the player who protects the wicket from the ball with his bat.

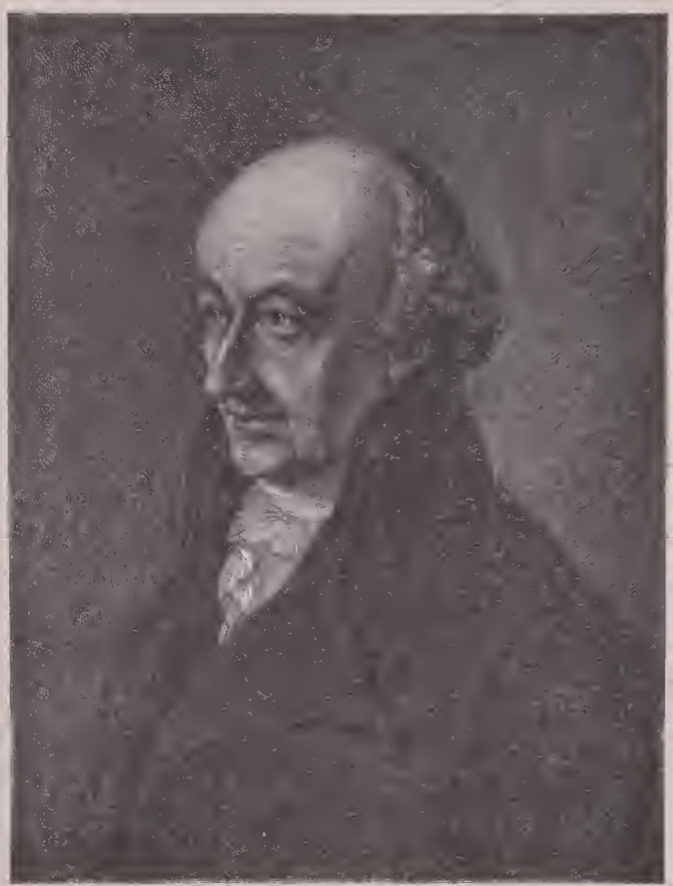
Wick'ing, *n.* The material used in the making of wicks.

Wick'liffite, Wyc'liffite, *n.* A Lollard; a follower of WICKLIFF, or WYCLIFFE, *q. v.*

Wick'low, a seaport-town of Ireland, cap. of a co. of same name, in the prov. of Leinster, at the head of Vartrey River, in the Irish Sea, 26 m. S.E. of Dublin; *pop.* 3,792. — *Wicklow Head*, abt. 2½ m. S.E. of the town, has two lighthouses, respectively 250 and 540 feet high; Lat. 52° 57′ N., Lon. 6° W.

Wicom'ico, in *Maryland*, a river rising in Sussex co., Delaware, and flowing S.W., enters Fishing Bay, an arm of the Chesapeake.

—A S. E. co., bordering on Chesapeake Bay; *area*, 369 sq. m. *Rivers.* Wicomico river, and Quantico creek. *Cap.* Salisbury. *Pop.* (1897) 21,250.



Christoph M. Wieland

1733–1813

Wicomico, in *Virginia*, a post-township of Northumberland co.

Wicomis'co, in *Pennsylvania*, a creek which flows into the Susquehanna from Dauphin co.—A post-vill. and twp. of Dauphin co., 33 m. N. of Harrisburg.

Wide, *a.* [A.S. *wid, wyd;* Du. *wijd;* Ger. *weit;* Icel. *vidr.*] Broad; spacious; extended in area; vast; immense; having a great extent on all sides; as, the *wide* ocean. — Having a great or considerable distance or extent between the sides; — opposed to *narrow;* as, a *wide* road, a *wide* bed, a *wide* entry, *wide* cloth, &c.—Measuring in a direction at right angles to that of length; as, a room sixteen feet *wide.* — Distant; remote; not near; as, his supposition is *wide* from the truth; he speaks *wide* of the mark.

(*Archery.*) Far from the mark, toward one side or the other; as, to shoot *wide.*

(NOTE. *Wide* occurs frequently in the construction of self-explaining compounds; as, *wide*-branching, *wide*-mouthed, *wide*-spreading, &c.)

—*adv.* At or to a distance; far; with great extent; as, the news has circulated *wide.*

Wide-awake', *a.* On the alert or qui-vive; ready; prompt; shrewd; astute; as, a *wide-awake* person; men are *wide-awake* to their own interests.

—*n.* A broad-brimmed, low-crowned, felt hat.

Wide'ly, *adv.* In a wide manner; with width or great extent each way, or in every direction.—To a great or important degree; very much; as, they are *widely* opposed to each other in politics.

Widen, (*wid'n,*) *v. a.* To extend in breadth; to make wide or wider; as, to *widen* a road, to *widen* the body of a dress, to *widen* a difference or quarrel.

—*v. n.* To grow or become wide or wider; to enlarge; to extend itself; as, the landscape *widens* to one's view.

Wid'ener, in *Indiana*, a township of Knox county.

Wide'ness, *n.* State or quality of being wide; width; breadth; great compass or extent from side to side; as, the *wideness* of a room, the *wideness* of cloth.—Extended area in all directions; as, the *wideness* of the ocean; the *wideness* of a prairie; the *wideness* of popular intelligence.

Widgeon, (*wid'jun,*) or VIG'EON, *n.* (*Zoöl.*) See ANAS.

Widin, or WIDIN, a fortified town of European Turkey, in Bulgaria, on the Danube, 45 m. S. of Gladova; *pop.* 27,500.

Widow, (*wid'ō,*) *n.* [A. S. *wuduwe, widewe;* Ger. *wittwe;* Lat. *vidua;* Russ. *vdovā.*] A living woman bereft of her husband; a woman who has lost her husband by death, and has not taken another.

Grass widow, a colloquialism for a woman who has lived for a considerable time apart from her husband, or who has been deserted by him.

—*v. a.* To bereave of a husband; — rarely used except participially.

—To deprive or strip of any loved person or thing; to make bare or desolate: as, a *widowed* heart.

Widow-bench, *n.* (*Eng. Law.*) In the county of Sussex, Eng., the term applied to that share assigned to a widow out of her husband's estate, irrespective of her jointure.

Widow-bird, *n.* (*Zoöl.*) See WHYDAW.

Widower, *n.* A man who has lost his wife by death, and has not married again.

Widowerhood, *n.* State or condition of a widower.

Widowhood, *n.* State or condition of being a widow. — Estate settled on a widow. (R.)

Widow-hunter, *n.* One who seeks a widow matrimonially, for the sake of her fortune.

Widowly, *a.* Like, or becoming a widow.

Width, *n.* [From *wide;* Ger. *weite;* D. *wydte.*] Quality of being wide; breadth; wideness; extent of a thing from side to side; as, the *width* of a passage or doorway.

Wieland, CHRISTOPH MARTIN, (*ve'land,*) a German poet, novelist, and translator, B. near Biberach, in Suabia, 1733. He was the son of a Pietist clergyman, and commenced the study of law at the university of Tübingen. In 1752 he went to Zurich, where after a short residence with Bodmer, during which he made the acquaintance of many eminent men, he was engaged as tutor in several families. In 1760 he settled at Biberach; married in 1765; and in 1769 was appointed professor of philosophy, at Erfurt. Three years later he removed to Weimar, as tutor to the sons of the Duchess Amelia. Here, on Gœthe's subsequent settlement, he became his friend. *W.* retired to a beautiful country seat in the neighborhood in 1798, but after the loss of his wife and his favorite grand-daughter, he returned to Weimar, and there spent his last years. He found a new friend in Schiller. The worke of *W.* are very numerous, and very diversified in kind and character. His principal poem is the epic romance, entitled *Oberon,* published in 1780. His most admired novel is *Agathon,* 1766. Among his other works are the poem entitled *Die Grazien, Musarion, Die Abderiten,* and *Erzählungen und Mährchen. W.* made the first German translation of Shakspeare. It appeared between 1762 and 1766. In his latter years he made translations from Horace and Lucian; wrote several pieces in imitation of the latter, and translated Cicero's Letters; founded and edited the *Deutscher Mercur;* and edited alone, or with others, two other literary journals. In 1808 he was presented to Napoleon at Erfurt, and accepted from him the decoration of the Legion of Honor. The same year he made the acquaintance of Madame de Stael. *W.* was a foreign member of the French Institute. D. 1813.

Wield, (*weeld*) *v. a.* [A. S. *wealdan.*] To use or employ with the hand; to control; to manage; as, to *wield* an axe. — To handle; to use with full command or power, as a thing not too heavy for the holder; as, to *wield* the sceptre, to *wield* a baton; figuratively, to *wield* the destinies of a nation.—To handle; — used ironically; as, he *wields* his knife and fork vigorously at table.

To wield the sceptre, to rule or govern with supreme or absolute power.

Wield'able, *a.* That may be wielded.

Wield'y, *a.* That may be wielded; wieldable; manageable. (R.)

Wieliczka, (*ve-lich'ka,*) a town of Austrian Poland, in Galicia, 7 m. E.S.E. of Cracow. It is celebrated for its rock-salt. *Pop.* 4,950.

Wiener Neustadt, (*ve'ner-noi'stalt,*) a fortified town of Lower Austria. See NEUSTADT.

Wiesbaden, (*vees'ba-den,*) a city of Prussia, formerly cap. of the Duchy of Nassau, 6 m. N.N.W. of Mayence. It is noted for its saline springs, and is one of the most popular watering-places of Germany. There are 14 hot springs, all of a high temperature, but the principal is the *Kochbrunnen* (boiling-spring), the temperature of which is 156° F.

Wife, *n.*; *pl.* WIVES. [A.S. *wif.*] A woman; an adult female; — used only in certain compound phrases; as, ale-*wife,* fish-*wife,* house-*wife.*—A woman who is united to a man in the lawful bonds of wedlock; the lawful consort of a man; — correlative to *husband.*

(*Law.*) See HUSBAND AND WIFE.

Wife'hood, *n.* State, character, or condition of a wife.

Wife'less, *a.* Unmarried or widowed.

Wife'ly, *a.* Pertaining or relating to, or becoming or resembling, a wife; as, *wifely* duty.

Wig, *n.* [Contracted from *periwig.*] A covering for the head, usually to conceal baldness, and generally made of false hair. Among the various kinds of wigs made are, horse-hair wigs for judges and barristers, mohair wigs for coachmen, gentlemen'e and ladies' wigs of human hair, play-actors' wigs, &c. (Eng.)

—An epithet given, by fishermen, to a young seal.

Wig'an, a town and borough of England, co. of Lancaster, on the Douglas River, 16 m. S.S.E. of Preston. *Manuf.* Woollen and cotton goods, iron-works, iron and brass wares, machinery, and agricultural implements. *Pop.* 41,423.

Wigged, (*wigd,*) *a.* Furnished with, or wearing, a wig.

Wight, (*wit.*) *n.* [A.S. *wuht, wiht;* Ger. *wicht;* O. Ger. *wiht.*] A being; a person; — rarely used except in irony or burlesque; as, "A most inglorious *wight.*" — *Young.*

Wight, (*wit,*) **(Isle of,)** an island in the English Channel off the coast of Hampshire, to which co. it appertains, and from which it is separated by the waters of the Solent. This island is called for its fertility and beauty the garden of England; is 22 m. long by 13 broad, has an area of 136 sq. m., and is intersected in its whole length by a range of chalk hills. The chief rivers are Medina, Yar, and the Wooten. The minerals consist of freestone, ochres, alum, pipe-clay, some sulphur, and chalybeate springs. The Isle of Wight is greatly resorted to in the summer months by invalids as well as for sea-bathing. West Cowes is the principal seaport, and near to this is the Queen's marine residence, Osborne House. *Pop.* 57,200.

Wig'ton, a town and parish of England, co. of Cumberland, 11 m. S.W. of Carlisle. *Manuf.* Printed cottons, ginghams, checks, and calicoes. *Pop.* 4,412.

Wigtown, (*wig'ton,*) a co. of the S.W. of Scotland, bordering on the Irish Sea, having N. the co. of Ayr, and E. Kirkcudbright; *area,* 510 sq. m. *Surface,* diversified; *soil,* fertile along the coasts and rivers. *Rivers.* Cree, Bladenoch, Luce, and Tarff. *Clim.* Mild and humid. *Prod.* Oats, barley, wheat, potatoes, and turnips; the breeds of cattle are superior. *Pop.* 46,214.

—A seaport town, cap. of the above co., near the mouth of Bladenoch River in Wigtown Bay, 10 m. N. of Whithorn; *pop.* 3,350.

Wigtown Bay, an inlet of the Irish Sea, between Wigtown co. and the Stewartry of Kirkcudbright, 15 m. long, and 12 m. broad.

Wig'wam, *n.* [Ind.] The hut or cabin of an American Indian.

Wilbraham, in *Massachusetts,* a post-vill. and twp. of Hampden co., 10 m. E. of Springfield.

Wil'brod, or **Willibrod, (St.,)** B. in the Saxon kingdom of Northumbria, abt. 657, is generally called "The apostle of the Friesians." He was a monk of Wilfred's monastery, at Ripon, and about 677 he proceeded to Ireland to preach Christianity. In 690 he went to Utrecht, and having, after great exertions, converted large numbers of the Friesians to Christianity, he was rewarded with the bishopric of Utrecht by Pope Sergius I. He also preached to the Danes, and established the monastery of Epternach, near Treves. D. 738. He is commemorated in the Roman Catholic church on Nov. 7.

Wil'cox, in *Alabama,* a S.W. central co.; *area,* 940 sq. m. *Rivers.* The Alabama River, and Pine Barren Creek. *Surface,* undulating; *soil,* generally fertile. *Cap.* Camden.

Wil'cox, in *Georgia,* a S. central co.; *area,* 500 sq. m. *Rivers.* Ocmulgee and Allapaha. *Surface,* undulating; *soil,* fertile. *Cap.* Abbeville.

Wil'cox, in *Illinois,* a twp. of Hancock co.

Wild, *a.* [A. S.; connected with *wald, weald,* a forest.] Inhabiting the forest or open field; living in a state of nature; hence, not tamed or domesticated; as, *wild* animals. — Growing spontaneously, or produced without culture; native; indigenous; brought forth by the unassisted action and development of nature; as, *wild* herbs, plants, or vegetables; produced by animals not domesticated; as, *wild* honey. — Desert; without inhabitant; as, a *wild* waste of country.—Savage; barbarous; uncivilized; rude; not refined by culture; as, the *wild* aborigines of Polynesia. — Unsheltered; exposed to the waves and weather; as, a *wild* offing. — Turbulent; irregular; tempestuous; disorderly; licentious; ungoverned; inconstant; mutable; fickle; loose; uncouth; done without plan, method, or order; not well digested; not framed according to the ordinary rules of reason; imaginary; fanciful; visionary; not being within the limits of probable practicability; as, a *wild* idea; a *wild* scheme; *wild* weather; *wild* passions; *wild* riot or tumult, &c.

(NOTE. *Wild* forms a prefix to the names of numerous plants, for the sake of distinguishing them from their cultivated congeners; as, *wild* apples, *wild* carrot, *wild* thyme, *wild* grape, *wild* rice, &c.)

Wild, *n.* A forest or sandy desert; an uninhabited or uncultivated tract or region; as, the *wilds* of Africa.

Wild'basil, *n.* (*Bot.*) A plant of the genus *Melissa,* (*M. clinopodium,*) 1–2 feet high, stem square; leaves petiolate; flowers purplish; peduncles cymosely branched. It is common in low woods, in the N. and W. States.

Wild Bean, *n.* (*Bot.*) The Ground-nut. See APIOS.

Wild Bergamot, *n.* (*Bot.*) See MONARDA.

Wild Boar, *n.* (*Zoöl.*) See HOG.

Wild Bugloss, *n.* (*Bot.*) See LYCOPSIS.

Wild Cat, *n.* (*Zoöl.*) See CAT.

Wild Cat, in *Georgia,* a township of Coffee county.

Wild Cat, in *Indiana,* a creek which rises in Howard county, and enters the Wabash, 7 miles N. of Lafayette, after a W. course of 75 miles.—A township of Tipton county.

Wild Cherry, *n.* (*Bot.*) See CERASUS.

Wil'der, *v. a.* Same as BEWILDER, *q. v.*

Wil'derment, *n.* Same as BEWILDERMENT, *q. v.*

Wil'derness, *n.* [From A. S. *wild,* wild — *deor,* beast, and termination *ness.*] A desert; a wild; a jungle; a tract of land or region uncultivated and unpeopled by human beings, whether a forest or a wide barren plain; as, he was lost in the *wilderness.* — A bosky maze in a garden, resembling a forest.

Wilderness, in *Virginia,* a location of Spottsylvania co., 16 m. W. of Fredericksburg. During the late Civil War, a sanguinary battle was fought here, May 5th and 6th, 1864, between the Nationals under Gen. Grant, and the Confederates commanded by Gen. Lee, which, after a terrific struggle, and unprecedented slaughter, particularly on the side of the Nationals, resulted in both sides claiming the victory, Gen. Lee, nevertheless, gradually retiring upon Spottsylvania. The National loss amounted to 18,000 men; that of the Confederates to abt. 11,000.

Wild-fire, *n.* Same as GREEK FIRE, *q. v.*

(*Med.*) An eruptive affection of the skin.

(*Farriery.*) A kind of erysipelas to which sheep are subject.

Wild-fowl, *n.* Wild birds, especially such as are hunted for game.

Wild'grave, *n.* [Ger. *waldgraf.*] (*Hist.*) A title assumed in the Middle Ages, like those of *rangrave* and *rhingrave,* by certain small German potentates in the neighborhood of the Rhine; as, the *Wildgrave* of Salm.

Wild Goose, *n.* (*Zoöl.*) See ANSERINÆ.

Wild-goose-chase, *n.* A term used proverbially to express the unlikelihood of pursuing a certain idea or object; — derived from the simile afforded by the hunt of the wild goose.

Wild Indigo, *n.* (*Bot.*) See BAPTISIA.

Wild'ing, *n.* A wild crab-apple. — A young tree growing without cultivation.

Wild'ish, *a.* Somewhat wild.

Wild Land, *n.* Land uncultivated, and which has never been settled. (U.S.)

Wild'ly, *adv.* In a wild, untamed, or uncultivated manner; as, plants growing *wildly.* — Disorderly; without decorum; with excitement, perturbation, or distraction; as, to look, speak, or gesticulate *wildly.* — Inattentively; capriciously; extravagantly; irrationally; as, to be *wildly* sceptical or jealous.

Wild'ness, *n.* State or quality of being wild; rudeness; roughness; uncultivated state; as, the *wildness* of a primeval forest. — Irregularity of manners; ebullition of the passions and animal spirits; inordinate disposition to rove; addictedness to follies and dissipation; as, the *wildness* of youth. — Savageness; viciousness; brutality; animal propensity. — Alienation, aberration, or irregularity of mind or temper; as, the *wildness* of fanaticism. — Quality of being undisciplined, or not subjected or amenable to method, rule, or order; as, the *wildness* of poetic fancy.

Wild'-oat, *n.* (*Bot.*) See AVENA.

To sow one's wild-oats, to pass through the season of wild and thoughtless dissipation incidental to youth.

Wild'-rice, *n.* (*Bot.*) See ZIZANIA.

Wild Rice River, in *Minnesota,* rises abt. Lat. 45° 53′ N., Lon. 97° 7′ W., and flows into the Red River of the North, after a N.N.E. course of 100 m.

Wild Rosemary, *n.* (*Bot.*) See ANDROMEDA.

Wild Service, *n.* See CRATÆGUS.

Wile, *n.* [A. S.; Sw. Goth. *wel,* an artifice, a stratagem; allied to *guile.*] A sly, insidious artifice, trick, or stratagem practised for entanglement, inearing, or deception.

—*v. a.* To beguile; to inenare or lead astray by insidious artifice; as, her grace and beauty *wiles* all hearts.

Wile'ful, *a.* Full of wiles or artifices; insidious; trickish.

Wil'fnl, (sometimes written WILLFUL,) *a.* Under the influence of egotism or self-will; governed by the will without regard to reason; stubborn; contumacious; obstinate; perverse; inflexible or tenacious of purpose; as, a *wilful* woman will have her way.—Premeditated; done by design; as, *wilful* murder.

Wil'fully, *adv.* Obstinately; stubbornly; perversely.

Wil'fulness, *n.* State or quality of being wilful; obstinacy; perverseness; stubbornness.

Wi'lily, *adv.* In a wily, insidious, or underhand manner; by trick or stratagem; with crafty design.

Wi'liness, *n.* State or quality of being wily; guile; cunning; insidious craftiness.

Wilkes, CHARLES, an American naval officer and explorer, b. in New York city in 1801. Entering the navy as midshipman in 1816, he served first with Com. McDonough in the Mediterranean, in 1819–20, and afterwards in the Pacific with Com. Stewart, where he became distinguished for his nautical skill, and in 1830 was promoted to the rank of lieutenant, and given a separate command. He was the first in the United States to take observations from fixed astronomical instruments. Being sent to survey George's Bank, he accomplished the undertaking with so much success, that he was entrusted with the exploration of the South Sea, for which he set out with 5 vessels in 1838, and during four years made numerous discoveries, being the first who sighted the antarctic continent hitherto unknown. He afterwards explored the W. coast of N. America, and on his return to New York in 1842, was promoted to be commander. He now devoted his time to preparing for publication the results of the expedition. At the outbreak of the late Civil War, he acquired considerable notoriety for the forcible seizure of the Confederate commissioners, Mason and Slidell, from the British mail-steamer Trent, in the Bahama Channel, Nov. 8, 1861, for which act he received the thanks of Congress. The commissioners were subsequently released by gov't. He was promoted to the rank of Commodore in 1862, and assigned to the command of the flotilla in the James' River, and on Aug. 28, shelled and destroyed City Point. He was afterwards appointed rear-admiral, and assigned to the command of the W. Indies squadron. He is the author of a history of his 4 years' cruise, entitled a *Narrative of the U. S. Exploring Expedition, during the years* 1838, 1839, 1840, *and* 1842; *Western America; Theory of the Winds*, and other works. He was awarded the Gold Medal of the Geographical Society of London in 1848. D. 1877.

Wilkes, in *Georgia*, a N.E. co.; *area*, 464 sq m. *Rivers*, Broad and Little rivers, and Dry Forks and Fishing creeks. *Surface*, undulating. *Min.* Iron, granite, and quartz. *Cap.* Washington. *Pop.* (1897) 18,980.

Wilkes, in *North Carolina*, a N.W. co.; *area*, 680 sq. m. It is drained by the Yadkin river. *Surface*, mountainous in the N. *Min.* Iron. *Cap.* Wilkesboro. *Pop.* (1897) 23,330.

Wilkes'barre, in *Pennsylvania*, a thriving city and township, cap. of Luzerne co., on the north branch of the Susquehanna, 110 m. N.E. of Harrisburg. It is one of the principal shipping points for anthracite coal, immense beds of which surround the town. *Pop.* (1897) 46,300.

Wilkesborough, in *N. Carolina*, a post-village, cap. of Wilkes co., 170 m. N.W. of Raleigh.

Wilkesville, in *Ohio*, a post-village and township of Vinton co., 75 m. S.S.E. of Columbus.

Wilkie, SIR DAVID, a Scotch painter, b. at Cults, Fifeshire, 1785. About his 20th year he repaired to London, where, in 1806, he painted and exhibited his *Village Politicians*, whose great success brought *W.* into notice. Among other fine works which he painted about this time, were *The Rent-Day*, *The Cut Finger*, and the *Village Festival*. In 1809 he became associate, and, in 1811, member of the Royal Academy. Up to the year 1822 he continued to produce masterpieces of art in the style in which the *Village Politicians* had been painted. At this latter date he executed his finest work, *The Chelsea Pensioners*. After this picture, he changed his style, and adopted one in which he was less successful. He changed his subjects also, and now painted such pictures as *The Entrance of George IV. into Holyrood*, *Defence of Saragossa*, and *Portrait of the King in Scotch Dress*. In 1830 he was nominated painter to the king. Among his best works are, *Mary, Queen of Scots, escaping from Lochleven*, and *The Cotter's Saturday Night*. In 1840 he set out upon a tour to the East, and, after visiting Constantinople, Beyrout, Jerusalem, and Alexandria, embarked at the latter place for England, but died before reaching Gibraltar, 1841.

Wil'kins, in *Pennsylvania*, a post-township of Allegheny co., 9 m. E. of Pittsburg.

Wil'kinsburg, in *Pennsylvania*, a post-borough of Allegheny co., on Penna. R. R., 7 m. E. of Pittsburg.

Wil'kinson, in *Arkansas*, a township of Desha county.

Wilkinson, in *Georgia*, a central co.; *area*, 435 sq. m. *Rivers*, Oconee River, and Commissioner's, Big Sandy, Cedar, and Turkey creeks. *Surface*, undulating; *soil*, sandy. *Cap.* Irwinton.

Wilkinson, in *Mississippi*, a S.W. co., bordering on Louisiana; *area*, 592 sq. m. *Rivers*. Mississippi and Homochitto. *Surface*, undulating; *soil*, fertile. *Cap.* Woodville. *Pop.* (1897) 18,520.

Wilkinson's Landing, in *Missouri*, a village of Perry co., on the Mississippi, 12 m. N.E. of Perryville.

Will, *n.* [A. S. *willa*; Sw. Goth. *vilja*.] (*Phil.*) That innate intellectual energy of the human mind, "which, unfolding itself from all the other forces of the mind, like a flower from its petals, radiates through the whole sphere of our activity,—a faculty which we are better able to feel than to define, and which we might perhaps most appropriately designate as the purely practical faculty of man." (*Feuchtersleben.*) Though a distinct power or energy of the mind, it blends itself with every other power, associating itself with our intellectual decisions on the one hand, and our emotional attachments on the other, but containing an important element which cannot be resolved into either or into both combined. The other powers, such as reason, conscience, sensibility, may influence the will, but they cannot constitute it nor yield its peculiar workings. See FREE-WILL.—Act of willing; volition; choice, determination, or preference superinduced by the act or exercise of the power of choice.—A discretionary act; a behest; a command; authoritative expression of choice, decree, or determination; as, it is my *will* that this thing be done.—Strong wish, disposition, desire, or inclination; as, where there 's a *will* there 's a way.—Object of ruling wish, desire, or inclination; as, let him have his *will*.—Arbitrary power of disposition or control; as, the country was subjected to the *will* of the conqueror.

(*Law.*) The declaration, in proper form, of what a man wills to be performed after his death. Testaments are of very high antiquity, being in use at least as early as the time of the patriarchs; for we are told that Jacob bequeathed to his son Joseph a portion of his inheritance doubly that of his brethren. Solon is said to have been the first legislator that introduced wills into Athens. In England the power of bequeathing is coeval with the first rudiments of the law, for we have no traces or memorials of a time when it did not exist. But this power of bequeathing did not originally extend to the whole of a man's personal estate, for we are told that by the common law, as it stood in the reign of Henry II., a man's goods were to be divided into three equal parts, of which one went to his heirs or lineal descendants, another to his wife, and the third was at his own disposal. If he died without a wife or without children, then the half was at his own disposal—the other half going to them; if neither wife nor issue, then he might dispose of the whole. This continued to be the law of the land down to the reign of Charles I.; but since that time it has changed by imperceptible degrees, until now the deceased, by will, may bequeath the whole of his goods and chattels. Formerly, in England, a will might be either written or verbal, but by statute 1 Vict. c. 26, verbal wills have been rendered altogether invalid, except as to "any soldier in actual military service, or any mariner or seaman, being at sea," who may dispose of personal estate the same as before the Act. The statutes of most of the American States have either placed nuncupative wills under special restrictions, or else reduced them within the same narrow limits as the English statutes. In many of the States they still exist much as they did in England before the above-quoted statute, being limited to a small amount of personal estate. Leaving aside this unimportant exception, it may be said that all wills, whether of real or personal estate, must be in writing, and signed at the foot or end thereof by the testator or by some person in his presence, and by his direction, in the presence of two witnesses at least, who must subscribe and attest the will in his presence. The signature must be so placed at, after, following, under, or beside or opposite the end of the will, that it shall be apparent on the face of the will that the testator intended to give effect by such his signature to the writing signed as his will. In general, all persons who have sufficient understanding are capable of disposing by will of both real and personal estate; but no will made by any person under the age of twenty-one is valid; neither can a married woman make a will except of the property settled to her separate use. Lunatics, idiots, persons under undue influence, or under duress, are incapable to execute a will. A will is a revocable instrument, and is revoked by marriage either in the case of a man or woman, but it is not revoked by any other change of circumstances. It may, however, be revoked by another will or codicil subsequently executed, or by a writing declaring the intention to revoke, or by burning, tearing, or otherwise destroying the will with the intention to revoke it. A revoked will may be revived by re-execution, or by a codicil showing an intention to revive it. No obliteration, interlineation, or any other alteration in a will, is valid, except so far as the words or effect of the will before the alteration shall not be apparent unless with such alteration. But if the signature of the testator and subscribing witnesses be made in the margin opposite or near the alteration, or at the foot or end, referring to the alteration, it will be valid. A will takes effect as if executed immediately before the testator's death, unless the contrary intention be shown by the will; and lapsed and void devices fall into the residue unless the will shows a contrary intention.

At will, at pleasure.—*Good-will.* See GOOD-WILL.—*Ill-will.* See ILL-WILL.—*To have one's will*, to obtain one's own way, wish, or object.—*Will-o'-the-wisp*, or *Will-with-the-wisp.* See IGNIS-FATUUS.

—*v. a.* [A. S. *willan*; Ger. *wollen*; Icel. and Swed. *vilja*; Lat. *volo*. This verb is employed in both an irregular and regular form.] IRREGULAR. (*I will*, thou *will*, he *will*; imp. *would*.) (1.) To desire; to wish: to have inclination for; as, what *wilt* thou?—(2.) In an auxiliary sense, expressing futurity contingent on the subject of the verb; as, for instance, in the first person, "I *will*," indicates consent, assurance, readiness; and, when emphasized, *will* imports resolve or fixity of purpose; as, I *will* take it, if you desire me; I *will* take it whether or not. In the remaining persons, individuality of volition is scarcely perceptible, while simple certainty finds appropriate expression; as, "you *will* see," or "he *will* see," denotes a future event as a fact only. When emphatically rendered, *will* indicates, agreeably to the context, fixed determination or absolute certainty.—REGULAR. (*I will*, thou *willest*, he *wills*; imp. and *pp. willed*.) (1.) To ordain; to decree; to determine by an act of choice or distinct volition; as, "What she *will* do or say." (*Milton.*) (R.)—(2.) To order; to direct; to enjoin; to express or make known, as the substance of a volitional act; as, "They *willed* me to say so." (*Shaks.*) (R.)—(3.) To bequeath; to devise; to dispose of by will or testament; as, to *will* one's property to a distant relation.

(NOTE. *Would*, as the preterite of *will*, is mainly used in conditional, optative, or subjunctive senses; as, he *would* do it if he could; he could do it if he *would*; I *would* that I were at home again; and similar phrases. In the last form of application, the first personal pronoun is often eliminated; as, *would* to Heaven that he were here. In conditional prepositions, *would* is employed for both present and future time; and *would have* for past time; as, I *would* do it now, if everything were ready; he *would have* come, had he known of it in time. *Will not*, as well as *would not*, expresses refusal; as, I *would not* go. *Would* is never a past participle.)

—*v. n.* To exercise a volitional act; as, he *wills* it so.—To signify choice, desire, inclination, or disposition; to be pleased; as, he does as he *wills* or likes.—To determine; to decree; to come to a decision or conclusion; as, can do it if I *will*.—To devise; to convey one's wish by testamentary disposition; as, he *willed* that his scapegrace son should be cut off with a shilling.

Will, in *Illinois*, an E.N.E. co., bordering on Indiana; *area*, 850 sq. m. *Rivers*. Kankakee and Des Plaines. *Surface*, level; *soil*, fertile. *Cap.* Joliet. *Pop.* (1897) 71,150.

Will, in *Illinois*, a township of Will co.

Wil'lamette River, in *Oregon*, rises in Lane co., and flows into Columbia River, 8 m. below Fort Vancouver, after a N.N.W course of 200 m., of which it is navigable for large vessels 15 m. to Portland, and above the Falls for small steamboats about 60 m.—The valley of the *W.* is very fertile and picturesque, and is usually styled *the garden of Oregon*.

Wil'lemite, or **Wil'helmite,** *n.* (*Min.*) A native anhydrous silicate of zinc, found crystallized, granular, and massive, at Vieille Montagne, near Aix-la-Chapelle.

Willemstad, in the *W. Indies*, a seaport-town, cap. of the island of Curacoa; Lat. 12° 6′ 3″ N., Lon. 68° 54′ W. *Pop.* abt. 8,000.

Will'er, *n.* One who wills.

Wil'let, *n.* (*Zoöl.*) A bird (*Symphemia Semipalmata*) of temperate N. and S. America, belonging to the family *Scolopacidæ*. It is 15 inches long, and the wing about 8; upper parts dark ashy; rump, upper tail-coverts, and under parts, white.

Willet, in *New York*, a post-township of Cortland county.

Wil'liam I., the CONQUEROR, king of England, was the natural son of Robert, duke of Normandy, and was b. at Falaise, in 1027. He was brought up at the court of the king of France, and succeeded to the duchy at the age of eight. But during his minority there were frequent revolts of the nobles, and his authority was not fully established for many years. On the death of Edward the Confessor, king of England, *W.* made a formal claim to the crown, alleging a bequest in his favor by Edward, and a promise which he had extorted from Harold. His claim being denied, he at once prepared for an invasion of England; effected a landing at Pevencey, September 28, 1066, while Harold was engaged in opposing the Norwegians in the north, and fortified a camp near Hastings. The decisive battle of Hastings was fought on Saturday, October 14, 1066; Harold was defeated and slain, and the *Norman Conquest* was commenced. His rival, Edgar Atheling, was supported by some of the leading men for a short time; but they all made submission to *W.* at Berkhamstead, and on the following Christmas day he was crowned at Westminster by Aldred, Archbishop of York. He reigned with great tyranny; in consequence of which several insurrections took place, and were not quelled until the conqueror had depopulated different districts by fire and sword. He then divided the lands of most of the nobility and gentry among his followers. He also introduced the language of the North of France (called in England the Norman language), and ordered that all law-pleadings and statutes should be in that tongue. To prevent nightly meetings and conspiracies, he instituted the curfew, or "cover-fire bell," at the sound of which every night, at eight o'clock, all fires and candles were to be put out. A survey was made of all the lands in the kingdom, the account or register of which was called the Domesday Book. In 1078 he finished the Tower of London; in 1087 he attacked and destroyed the city of Mantes. He was about to march towards Paris, but died at Rouen, 1087, in consequence of an injury received.

WILLIAM II., usually called *Rufus*, b. in Normandy, 1056, was the son of the Conqueror, and crowned on the news of his father's death reaching England, in 1087. He made a conquest of a part of Wales, and obtained the duchy of Normandy from his brother Robert, in 1095. He was a great persecutor of the clergy, and banished Lanfranc, archbishop of Canterbury, from the kingdom. William was, according to the monkish chronicles, accidentally slain by an arrow, shot by Sir Walter Tyrrel, as he was hunting in the New Forest, Hampshire, 1100.

WILLIAM III., of Nassau, Prince of Orange, and king of England, b. at the Hague, 1650, was the son of William, prince of Orange, and Mary, daughter of Charles I. He married the Princess Mary, daughter of James II., then duke of York, and became stadtholder of Holland in 1672. He was also nominated general of the troops of Holland against Louis XIV., and made a vigorous resistance to the French armies under Luxembourg, whom he defeated in 1674; but was repulsed in his turn by the Prince de Condé. In 1688, the arbitrary measures, both against the established religion and the constitution, of James II., induced many nobles and others to invite the prince of Orange to take possession of the English crown. He embraced the occasion, and landed without opposition at Torbay, the same year. James, finding himself unsupported, withdrew to France, and William took possession of his throne, in conjunction with his wife, the daughter of that unfortunate monarch. His

coronation as king of England took place in 1689. The year following, William went to Ireland, where he defeated James at the battle of the Boyne. In 1691 he

Fig. 2617. — COSTUMES, (end of the 17th century.)

headed the confederated army in the Netherlands, took Namur in 1692, and in 1697 was acknowledged king of England by the treaty of Ryswick. On the death of Mary in 1694, the parliament confirmed to him the royal title. His death was owing to a fall from his horse, by which he broke his collar-bone, 1702.

William IV., b. in London, 1765, was the third son of George III. In his 15th year he entered the royal navy, and in 1780 was with Admiral Rodney when the latter defeated a Spanish squadron off Cadiz, and afterwards proceeded to the relief of Gibraltar. Prince William subsequently held the command of a vessel of war in various parts of the world, but retired from active service in 1790. Upon the death of his brother, George IV., in 1830, he became king of England, and ruled until 1837. At his death, the Princess Victoria, daughter of his brother, the Duke of Kent, became queen of England. D. 1837.

William I., EMPEROR OF GERMANY, and KING OF PRUSSIA, son of Frederick William III., by Princess Louise of Mecklenburg-Strelitz, and brother of Frederick William IV., b. Mar. 22, 1797, received a military education, and took part in the campaigns of 1813 and 1815 against France. In 1840 he was appointed governor of Pomerania, which post he held till the revolution of 1848, when he sought refuge in England. He was elected a member of the Constituent Assembly in May of the same year, when he returned to Berlin. In 1849, as commander-in-chief of the Prussian army, he acted against the revolutionary Badeners; and in 1858, on the lunacy of his brother, the king, becoming manifested, Prince William was appointed regent. This position he occupied until Frederick William's death, in 1861, when he succeeded to the throne, crowning himself with his own hands, at Königsberg, on which occasion he emphatically asserted the doctrine of the "divine right of kings." Actuated by this spirit, and selecting as his ministers men of well-known reactionary principles, of whom the chief was Count Bismarck (*q. v.*), *W.* speedily embroiled himself and government with the liberal parliamentary body of that day; and this to so critical a degree, after the accession of Bismarck to the premiership in 1862, that the ruptnre threatened to end in revolution or civil war. A diversion from this state of things was, however, happily effected by the war which Prussia, conjointly with Austria, declared against Denmark. In 1866, war was next declared by Prussia against her old ally, Austria; and after a short campaign, in which the king and the royal princes took part, Austria was compelled to make a humiliating peace. The terrible effect of the needle-gun created quite a

Fig. 2618. — WILLIAM I., EMPEROR OF GERMANY.

panic in the Austrian army, and her generals found it would be useless to prolong the struggle. By this war Prussia obtained supremacy in Germany. In July, 1870, the Emperor Napoleon III., taking umbrage at Prussian interference with the succession to the vacant Spanish throne, or prompted by other motives that we have not space to enter into, rashly declared war against Prussia, a power long prepared for such a contingency. Upon this, *W.*, forming an alliance with the S. German States, and constituting himself commander-in-chief of the united German armies, crossed the Rhine, and in a short but brilliant campaign, defeated the French in a series of battles, took Napoleon and his principal commanders prisoners, and received the capitulation of Paris, February, 1871. Peace was finally declared by a treaty entered into at Versailles, by which Prussia acquired the prov. of Alsace, part of that of Lorraine, including the city of Metz, along with a war-indemnity of $1,000,000,000. His success in the war with France led to an offer from the German States of the imperial crown of Germany, which he accepted. He was crowned Emperor of Germany at Versailles, Jan. 18, 1871. His 90th birthday was celebrated throughout Germany, Mar. 22, 1887, and he died Mar. 9, 1888. He was succeeded by his son Frederick, who was succeeded in the same year by his son William, as William II. (*q. v.*, SECTION II.).

William I., OF NASSAU, PRINCE OF ORANGE, the first leader in the Dutch war of independence, b. in 1533, of Lutheran parents, but descended from the ancient counts of that principality. Being trained to political employments at the court of Charles V., he conformed outwardly to Catholicism, and had become governor of the provs. of Holland, Zealand, and Utrecht, while the reformed doctrines were spreading, and events were ripening for the revolt of the Netherlands. Philip II., king of Spain, having appointed Margaret of Parma, a natural daughter of his father, Charles V., stadtholderess, with the Cardinal of Granville for her adviser, the latter began his career by persecuting the Protestants, and was preparing to introduce the inquisition, when, 1566, the nobles went in procession, and petitioned Margaret against this measure; and as they were treated with contempt, their remonstrances were followed by popular commotions. On this, Alva was sent, at whose approach a hundred thousand of the most industrious Flemings took refuge in foreign countries. This was the crisis at which *W.* came forward, and raised the standard of independence. Though the cruel Alva was recalled at the end of six years, 1574, and replaced by a milder ruler, the Dutch continued the war, and Holland was liberated by the relief of Leyden, which *W.* effected by laying the whole country under water, 1575. He was now elected stadtholder, and Calvinism became the established religion, to the exclusion of Lutheranism as well as the Roman Catholic faith. By the "Pacification of Ghent," in 1576, *W.* united all the provinces in one confederation, but he found it impossible to heal these internal causes of disunion, and the Spaniards, taking advantage of them, were able to repossess themselves of the S. provinces, under the Duke of Parma, whence arose the present distinction between Holland and Belgium. Philip had now set a price on *W.*'s head, and in 1582, an attempt was made to assassinate him, but he recovered from the wound. A second attempt, in 1584, was but too successful. One Balthaser Gerard, being introduced to the stadtholder on the plea of business, he suddenly drew a pistol loaded with three balls, and shot him in the body. He was succeeded, and the war carried on successfully, by his second son, MAURICE OF NASSAU, *q. v.*

William I., FREDERICK, king of Holland, grand-duke of Luxembourg, prince of Orange and duke of Nassau, was b. at the Hague in 1772. He distinguished himself in the wars with the French republic, and became an exile with his father, the hereditary stadtholder of the Dutch republic, in 1795; after his father's death, he succeeded first to the duchy of Nassau, and joined the Prussian army against Napoleon. He became king of Holland by the settlement of affairs which followed the fall of Napoleon in 1814, the countries united under his rule by the Congress of Vienna being the old united provs. of Holland, the bishopric of Liège, and Belgium; the latter, however, was separated by the revolution of 1830. He abdicated in 1840, and D. 1843.

WILLIAM II., *Frederick George Lewis*, son and successor of the preceding, b. 1792, distinguished himself in the peninsular war under Lord Wellington; he also commanded the army of the Netherlands at the battle of Waterloo. His reign commenced from his father's abdication in 1840. D. March, 1849.

WILLIAM III., *Alexander Paul Frederick*, son and successor of the preceding, b. 1817; succeeding to the throne in 1849. His reign was chiefly distinguished by undertakings of internal improvement; and under his rule the kingdom enjoyed uninterupted peace, material prosperity increasing. By his first wife, the Princess Sophia, daughter of the King of Wurtemburg, married in 1839 he had two sons, both of whom died before him. His wife dying in 1877, he married a second wife, daughter of the Prince of Waldeck. His daughter Wilhelmina, born in 1880, succeeded to the throne on his death, Nov. 23, 1890.

Williams, ROGER, the founder of the State of Rhode Island, and nobly distinguished as the first asserter in modern Christendom of the sanctity and perfect freedom of conscience, was a native of Wales. B. in 1599, he studied at Oxford, entered the Church, and naturally joined the Puritan party. To escape the persecutions to which the Puritans were subject in England, he, like so many others, fled to this country to find what was denied them there — freedom to worship God. He arrived at Boston, New England, in 1631, and holding already in perfect clearness the grand truth of which he was the first modern apostle soon found himself in collision with the churches already existing there; for they still acted on the very principles of which they had been the victims at home. At length, in 1636, he was ordered to embark for England. To avoid this he left Salem in midwinter, wandered houseless and half-fed for fourteen weeks, then found friends and hospitality among the Indians, whose language he had learnt. He preached to them, won their love, and was their friend and peacemaker till his death. He had resolved on founding a new settlement, and after beginning to build and plant at Seekonk, had to abandon the spot, and selected Rhode Island, on which he landed from an Indian canoe, with 5 comrades, in June, 1636. He called the place "Providence," and commenced building. In the course of 2 years he was joined by others, and founded a commonwealth in the form of a pure democracy, and his system has had its influence on the whole political history of the State. He showed no spirit of revenge towards those who had persecuted him; and when the colonies were threatened with a general rising of the Indian tribes, he nobly risked his own life, and undertook the mission to the Narragansetts to dissolve the conspiracy; in which he succeeded. To secure the permanent existence of Rhode Island as a separate State, *W.* was chosen to visit England in 1643, to obtain a charter. He was received with the greatest favor by the Long Parliament, and took back with him the desired charter. *W.* refused the office of governor, to which the colony wished to appoint him; labored on for its good, rewarding himself in doing it; had a warm controversy with George Fox; and D. at Providence in 1683. Bancroft, in his *History of the United States*, writes of *W.* with the highest admiration and genuine eloquence.

Williams, in *Michigan*, a township of Bay co., 11 m. W. of Bay City.

Williams, in *Missouri*, a township of Benton co.

Williams, in *North Carolina*, a township of Columbus county.

Williams, in *Ohio*, a N.W. co., bordering on Indiana and Michigan; *area*, 415 sq. m. *Rivers.* St. Joseph's and Tiffin. *Surface*, undulating; *soil*, fertile. *Cap.* Bryan. *Pop.* (1897) 26,260.

Williams, in *Pennsylvania*, a township of Northampton county.

Williamsburg, in *Indiana*, a post-village of Wayne co., 72 m. N.E. of Indianapolis.

Williamsburg, in *Kentucky*, a post-town, cap. of Whitley co., 125 m. S.S.E. of Frankfort.

Williamsburg, in *Maine*, a township of Piscataquis co., 80 m. N.N.E. of Augusta.

Williamsburg, in *Massachusetts*, a post-village and township of Hampshire co., 95 m. N.W. of Boston.

Williamsburg, in *Mississippi*, a post-village, cap. of Covington co., 60 m. S.E. of Jackson.

Williamsburg, or PENN'S NECK, in *New Jersey*, a village of Middlesex co.

Williamsburg, in *New York*. See BROOKLYN.

Williamsburg, in *Ohio*, a post-village and township of Clermont co., 28 m. E. of Cincinnati.

Williamsburg, in *Pennsylvania*, a village of Armstrong co., on the Allegheny river, opposite Kittanning. —A post-village of Blair co., 157 m. E. of Pittsburg. —A village of Northampton co., 70 m. N. of Philadelphia.

Williamsburg, in *South Carolina*, a S.E. co.; *area*, 948 sq. m. *Rivers.* Santee, Great Pedee, and Black rivers, and Lynch's creek. *Surface*, level; *soil*, sandy. *Cap.* Kingstree. *Pop.* (1897) 28,480.

Williamsburg, in *Virginia*, a city and township, cap. of James City co., between James and York rivers, 60 m. E. of Richmond. *Pop.* (1897) 2,020. On May 5, 1862, the rear-guard of the Confederates under General Johnston, strongly fortified near *W.* to cover the retreat of the main body from Yorktown, was attacked by a portion of McClellan's army, commanded by General Hooker. For several hours, each side alternately gained considerable advantages, but reinforcements arriving, the fight assumed the proportions of a general battle, which continued till night, the Nationals being the victors. The National loss amounted to 2,228; that of the Confederates was estimated at 1,000.

Williamsfield, in *Ohio*, a post-township of Ashtabula co.

Williamsite, *n.* (*Min.*) A variety of serpentine, of a pale-green color.

Williamson, in *Illinois*, a S. co.; *area*, 440 sq. m. *Rivers.* Big Muddy and the South Fork of Saline river. *Surface*, level; *soil*, fertile. *Min.* Steue-coal. *Cap.* Marion. *Pop.* (1897) 24,010.

Williamson, in *New York*, a post-village and township of Wayne co., 26 m. N.E. of Rochester.

Williamson, in *Tennessee*, a central co.; *area*, 550 sq. m. It is drained by Harpeth river. *Surface*, undulating; *soil*, very fertile. *Cap.* Franklin. *Pop.* (1897) 27,210.

Williamson, in *Texas*, a central co.; *area*, 1,070 sq. m. *Rivers.* San Gabriel river, and Brushy creek. *Surface*, diversified; *soil*, fertile. *Cap.* Georgetown. *Pop.* (1897) 26,420.

Williamsport, in *Indiana*, a post-village, cap. of Warren co., 75 m. N.W. of Indianapolis.

Williamsport, in *Kansas*, a village and township of Shawnee co., 12 m. S. of Topeka.

Williamsport, in *Maryland*, a post-town of Washington co., on Potomac river, 9 m. S.W. of Hagerstown.

Williamsport, in *Ohio*, a post-village of Pickaway county.

Williamsport, in *Pennsylvania*, a city, cap. of Lycoming co., on the Susquehanna river, and the Pennsylvania and Philadelphia & Reading R. Rs., 200 m. N. W. of Philadelphia. Has a very large trade in lumber. *Pop.* (1897) 35,150.

Williamsport, in *West Virginia*, a village, former capital of Taylor co., 100 m. S.S.E. of Wheeling.
Williamsport, in *Tennessee*, a post-vill. of Maury co., 40 m. S.W. of Nashville.
Wil'liams River, in *Vermont*, rises in Windsor co., and falls into the Connecticut 3 m. N. of Bellows Falls.
Wil'liamston, in *N. Carolina*, a post-village, cap. of Martin co., 100 m. E. of Raleigh.
Williamston, in *S. Carolina*, a post-vill. and twp. of Anderson dist., 19 m. S. of Greenville.
Williamston, in *Wisconsin*, a township of Dodge county.
Williamstown, in *Kentucky*, a post-vill. and twp., cap. of Grant co., 37 m. S. of Cincinnati.
Williamstown, in *Massachusetts*, a post-village and township of Berkshire co., 120 m. W.N.W. of Boston. It is the site of *Williams College*, a renowned institution of learning, which was incorporated as a college in 1793, and first conferred the degree of B. A. on 4 students in Sept. 1795. It has 12 instructors, abt. 250 students, and a library of 20,000 vols.
Williamstown, in *Michigan*, a post-village of Ingham co., 20 m. E. of Lansing.
Williamstown, in *New Jersey*, a post-village of Camden co., 11 m. S.E. of Woodbury.
Williamstown, in *New York*, a post-vill. and twp. of Oswego co., 28 m. N.W. of Rome.
Williamstown, in *Penna.*, a vill. of Lancaster co.
Williamstown, in *Vermont*, a post-twp. of Orange co., 11 m. S. E. of Montpelier
Williamstown, in *West Virginia*, a village of Wood co., on the Ohio, opposite Marietta Ohio
Williamsville, in *Delaware*, a village of Kent co., 22 m. S.W. of Dover.
Williamsville, in *Illinois*, a post-village and township of Sangamon co., 11 m. N N.E. of Springfield.
Williamsville, in *Michigan*, a post-village of Cass co., 12 m. N.W. of Constantine.
Williamsville, in *New Jersey*, a village of Essex co., 5 m. N.W. of Newark.
Williamsville, in *New York*, a post-village of Erie co., 8 m. N.E. of Buffalo.
Williamsville, in *Virginia*, a post-township of Bath co.
Willimansett, in *Massachusetts*, a post-village of Hampden co., 75 m. S.W. of Boston.
Willimantic, in *Connecticut*, a river which rises in Tolland co., and unites with Shetucket River in Windham co.—A post-borough of Windham co., 32 m. S.E. of Hartford.
Will'ing, *a.* [Dan. and Swed *villig.*] Inclined to anything; free to do or grant; evincing assentive disposition of mind; prompt to comply; not averse or opposed to; not electing to refuse; fain; ready; wishful; as, he is both able and *willing* to work.—Spontaneous; voluntary; as, money comes not *willing* from a miser.—Chosen; received voluntarily, or without reluctance; as, "Love's *willing* chains and sweet captivity." *Milton.*
Will'ing, in *New York*, a twp. of Alleghany co., 12 m. S.S.E. of Belmont.
Willingborough, in *New Jersey*, a twp. of Burlington co.
Will'ingly, *adv.* In a willing or consenting manner; without reluctance; by one's own will or choice; cheerfully; compliantly; as, he accompanied me *willingly.*
Will'ingness, *n.* State or quality of being willing; readiness of the mind to do or forbear; free choice or consent of the will; freedom from disinclination or reluctance.
Willington, in *Connecticut*, a post-vill. and twp. of Tolland co., 24 m. N.E. of Hartford.
Willink, in *New York*, a creek which falls into Lake Ontario from Niagara co.—A post-village of Erie co.
Wil'lis, NATHANIEL PARKER, an American author, B. at Portland, Me., 1807. He was graduated at Yale College, 1827; and, after editing several American periodicals, he became secretary of legation at Paris; after which he travelled in France, Italy, Grocce, and Turkey. An account of these wanderings was given to the public in a volume entitled *Pencillings by the Way.* The great success of this work encouraged him to produce a number of similar light sketchy books, the most popular of which were, *Inklings of Adventure, Loiterings of Travel,* and *Letters from under a Bridge.* After editing the "New York Mirror" and "Home Journal," he, in 1852, made a trip to the West Indies, publishing his travelling impressions in a work called *A Health Trip to the Tropics.* In additiou to the works mentioned, he wrote a great number of others; as *Hurry-graphs, or Sketches of Scenery, Celebrities, and Society*; *Dashes at Life with a free Pencil*; and *People I have met.* D. 1870.
Willis River, in *Virginia*, rises in Buckingham co., and flowing E.N.E., falls into James River, near Cartersville.
Williston, in *S. Carolina*, a post-vill. and twp. of Barnwell dist., 99 m. W.N.W. of Charleston.
Williston, in *Vermont*, a post-vill. and twp. of Chittenden co., 30 m. W.N.W. of Montpelier.
Willistown, in *Pennsylvania*, a post-township of Chester co.
Willoughby Lake, in *Vermont*, a body of water in Orleans co., 5 m. long.
—A post-village of Orleans co., on the above lake, 35 m. N.N.E. of Montpelier.
Willow, (*wil'lō,*) *n.* [A. S. *welig.*] (*Bot.*) See SALIX, and WEEPING-WILLOW.
—A willowing machiue. See COTTON, § *Manufacture.*
—*v. a.* To open and cleanse, as cotton, by means of a willowing-machine.
Willow, in the State of *Wisconsin*, a twp. of Richland county.
Willow Branch, in *Illinois*, a township of Piatt county.
Willow Creek, in *Illinois*, a post-village and township of Lee co., 80 m. S.W. of Chicago.
Willowed, (*wil'lōd,*) *a.* Abounding with, containing, or overhung by, willows; as, a *willowed* brook.
Willow Grove, in *Pennsylvania*, a post-village of Montgomery co., 13 m. N. of Philadelphia.
Willow Hill, in *Illinois*, a post-township of Jasper co., abt. 5 m. E. of Newton.
Willow-herb, *n.* (*Bot.*) See EPILOBIUM.
Wil'lowish, *a.* Resembling, or having the color of, the willow; willowy; hence, slender,; flexible; as, a *willowish* figure.
Wil'lowy, *a.* Abounding with willows; as, a *willowy* copse.—Presentiug the characteristic aspect of a willow; pliant; flexile; droopiug; lithe; pendent; slender; graceful; as, a *willowy* form.
Willow Springs, in *Kansas*, a post-vill. and twp. of Douglas co., abt. 12 m. S.W. of Lawrence.
Willow Springs, in *Missouri*, a city and township of Howell co. *Pop.* (1897) 1,620.
Willow Springs, in *Wisconsin*, a village and township of Lafayette co.
Wills, in *Indiana*, a twp. of Laporte co.
Wills, in *Ohio*, a twp. of Guernsey co.
Willsborough, in *New York*, a post-village and twp. of Essex co., 140 m. N.E. of Albany.
Willshire, in *Ohio*, a post-village and township of Van Wert co., 133 m. W.N.W. of Columbus.
Wills Mountain, in *Pennsylvania*, a ridge extending from the S.W. of Bedford co., into Alleghany co., Md.
Wilmington, in *Arkansas*, a post-village and twp. of Union co., 100 m. S. of Little Rock.
Will'ly, *n.* A machine for opening and cleansing wool.
Will'lying, *n.* Act or process of opening and cleansing wool with a willy.
Will'lying-machine, *n.* Same as WILLY, *q. v.*
Wil'mington, in *California*, a post-village of Los Angeles co., 20 m. S. of Los Angeles.
Wilmington, in *Delaware*, a city, port of entry, cap. of New Castle co., at the junction of the Brandywine River and Christina Creek, abt. 2 m. from the Delaware River, and 28 m. S.W. of Philadelphia; Lat. 39° 44′ N., Lon. 75° 28′ W. It is regularly laid out, with wide streets and well built houses. Among the noticeable public buildings are the town-hall, custom-house, the Institute, and city-hospital. It is the see of a Roman Catholic bishop. Its manufactures are important, among which are machinery for steamboats, railroad cars, locomotives, mill-machinery, powder, carriages, flour, leather, shoes, cotton and woollen goods, farming implements, &c. *Pop.* (1897) 73,550.
Wilmington, in *Illinois*, a former twp. of Greene co.—A city and township of Will co., 16 m. S.S.W. of Joliet. *Pop.* (1897) 1,710.
Wilmington, in *Indiana*, a post-village of Dearborn county, 6 miles S.W. of Lawrenceburg.—A township of De Kalb co.
Wilmington, in *Kansas*, a post-vill. and twp. of Wabaunsee co., 16 m. N.W. of Topeka.
Wilmington, in *Massachusetts*, a post-township of Middlesex co., 16 m. N.N.W. of Boston.
Wilmington, in *Minnesota*, a post-twp. of Honston co., 22 m. S.W. of La Crosse, Wisconsiu.
Wilmington, in *New York*, a post-vill. and twp. of Essex co., 30 m. S.W. of Plattsburg.
Wilmington, in *N. Carolina*, a city, port of entry, and cap. of New Hanover co., on Cape Fear River, 34 m. from the Atlantic, and 135 m. S.E. of Raleigh; Lat. 34° 11′ N., Lon. 78° 10′ W. It is the largest and most commercial place in N. Carolina, and its business and population has greatly increased since the close of the late Civil War. It was taken by the Union forces in Feb., 1865, shortly after the surrender of Fort Fisher which defended the port. *Pop.* (1897) 23,460.
Wilmington, in *Ohio*, a city, cap. of Clinton co., 72 m. S.W. of Columbus. *Pop.* (1897) 3,650.
Wilmington, in *Pennsylvania*, a twp. of Lawrence co.—A twp. of Mercer co.
Wilmington, in *Vermont*, a post-township of Windham co., 110 m. S.W. of Montpelier.
Wilmington, in *Virginia*, a post-village of Fluvanna co., 55 m. N.W. of Richmond.
Wilmington Island, in *Georgia*, belonging to Chatham co., at the mouth of the Savannah River, 5 m. long and abt. 4 broad.
Wil'more, in *Pennsylvania*, a post-borough of Cambria co., on the Penna. R.R., 25 m. S.W. of Altoona.
Wilmot, in *Georgia*, a township of Banks co.
Wilmot, in *New Hampshire*, a post-township of Merrimack co., 30 m. N.W. of Concord.
Wilmot, in *Pennsylvania*, a post-township of Bradford co.
Wilmot Proviso. (*Am. Hist.*) On August 8, 1846, pendiug the consideration in Congress of a bill placing $2,000,000 at the disposal of Pres. Polk to negotiate a peace with Mexico, Mr. David Wilmot, a representative from Pennsylvania, offered the following amendment: "Provided, that, as an express and fundamental condition to the acquisition of any territory from the republic of Mexico by the U. States, by virtue of any treaty which may be negotiated between them, and to the use hy the Executive of the moneys therein appropriated, neither slavery nor involuntary servitude shall ever exist in any part of said territory, except for crime, whereof the party shall first be duly convicted." This was the famous *Wilmot Proviso*, which became the source of great agitation throughout the country. It was adopted in the House by a vote of 94 to 78, and was under debate in the Senate when the hour arrived previously fixed for the adjournment of the session. At the next session, Mr. Wilmot again introduced it, and a fierce and angry contest commenced. The House remained firm in favor of the Amendment, and it was passed hy a decided majority, but not acted upon by the Senate.
Wil'murt, in *New York*, a post-township of Herkimer co., 90 m. N.W. of Albany.
Wil'na, or VILNA, a city of European Russia, cap. of a govt. of the same name, at the confluence of the Vileika and Vilia, 90 m. N.E. of Grodno. It is built chiefly of wood, and very dirty, exhibiting a great contrast of wretchedness in some buildings and tawdry magnificence in others. The inhabitants are a mixture of Catholics, Jews, and followers of the Greek Church. Its principal public buildings are a cathedral of the 14th century, which has some good paintings, and the tomb of St. Casimir; a mosque, town-hall, theatre, magazines, hospitals, barracks, an exchange, arsenal, and a governor's palace. It is the residence of civil and military governors, and the see of a Rom. Cath. bishop.—*Manuf.* Unimportant, but the trade is large.
Wilna, in *New York*, a post-township of Jefferson co., 150 m. N.W. of Albany.
Wil'seyville, in *New York*, a village of Tioga co., 14 m. N. of Oswego.
Wilson, ALEXANDER, an American ornithologist, B. at Paisley, Scotland, 1766. He was brought up as a weaver, but his poetical disposition, and relish for quiet beauties of nature, made him long for an opportunity to escape from the bondage of trade. After having been imprisoned for libelling the master-weavers of Paisley, during a violent dispute between them and the journeymen, *W.* emigrated to America, where he landed in July, 1794, with his fowling-piece in his hand, and only a few shillings in his pocket, without a friend or letter of introduction, or any definite idea in what manner he was to earn his livelihood. In the varied occupations of a weaver, pedlar, and schoolmaster he toiled on for upwards of 8 years, during which time he tasked his powers to the utmost in his efforts at self-improvement; and among the acquirements he made were the arts of drawing, coloring, and etching, which afterwards proved of incalculable use to him. He made especially rapid progress in the delineation of birds, and his success seems to have first suggested the idea of his *American Ornithology.* To accomplish this work he undertook many journeys through various parts of America, sleeping for weeks in the wilderness, alone with his gun and his pistols in his bosom, performing solitary voyages on the great rivers in a frail canoe, and collecting all the birds of the districts through which he travelled. He drew, etched, and colored all the plates himself, and after many delays and disappointments, he at last prevailed upon Mr. Bradford, a Philadelphia publisher, to furnish the funds for the publication of an *American Ornithology* on an adequate scale, and produced the first volume of his celebrated work. It far exceeded the expectations of the public, and eight volumes successively made their appearance, and procured him great and deserved reputation. Before he could finish his great undertaking, he was seized with a sudden and severe illness, and D. 1813. *W.*'s great wish was, to use his own words, "to raise some beacon to show that such a man had lived;" and though his death was immature, he lived long enough to accomplish the object of his ambition. The work was afterwards continued by Charles Lucien Bonaparte (4 vols. 4to., Philadelphia, 1825–33).
Wilson, RICHARD, an English painter, B. at Pinegas, Montgomeryshire, 1713. He commenced his career as a portrait-painter, and took to landscape first in Italy in 1749, by the advice of Zuccarelli and Vernet. Wilson returned to London in 1755, after an absence of six years, and acquired a great name in 1760 by his picture of *Niobe.* He was one of the original thirty-six members of the Royal Academy, and succeeded Hayman as librarian in 1776. D. 1782. His principal works are views in Italy; many of them have been admirably engraved by Woollett.
Wilson, in *Arkansas*, a twp. of Pope co.
Wilson, in *Georgia*, a twp. of Walker co.
Wilson, in *Illinois*, a twp. of De Witt co.
Wilson, in *Kansas*, a S.S.E. co.; *area*, 576 sq. m. *Rivers.* Fall and Verdigris. *Surface*, level; *soil*, fertile. *Products.* Corn, wheat, oats, live stock, &c. *Cap.* Fredonia. *Pop.* (1895) 14,393.
Wilson, in *Missouri*, a township of Greene co.
Wilson, in *New York*, a post-village, shipping-port, and township of Niagara co., on Lake Ontario, 15 m. N.N.W. of Lockport.
Wilson, in *North Carolina*, an E. central co.; *area*, 355 sq. m. It is drained by Contentnea and Moccasin creeks. *Surface*, undulating; *soil*, generally fertile. *Cap.* Wilson. *Pop.* (1897) 22,500.
—A post-village, cap. of the above co., 45 m. E. of Raleigh.
Wilson, in *Ohio*, a township of Clinton co.
Wilson, in *Tennessee*, a N. central co., bordering on the Cumberland river; *area*, 536 sq. m. *Surface*, diversified; *soil*, very fertile. *Cap.* Lebanon. *Pop.* (1897) 29,480.
Wilson, in the State of *Wisconsin*, a twp. of Sheboygan co.
Wil'son's Creek, in *Missouri*, enters James Fork from Green co.
BATTLE OF. See SPRINGFIELD.
Wil'sonburg, in *W. Virginia*, a post-village of Harrison co., 4 m. W. of Clarksburg.
Wil'sonville, in *Alabama*, a post-village of Shelby co., 80 m. N.N.W. of Montgomery.
Wilsonville, in *Kentucky*, a post-village of Spencer co., 35 m. W.S.W. of Frankfort.
Wilsonville, in *Virginia*, a post-village of Highland co., 135 m. W.N.W. of Richmond.

Wilsonville, in *Pennsylvania*, a village of Pike co.
Wilt, *v.* The second person singular of WILL, *q. v.*
Wilt, *v. n.* To droop; to begin to fade or wither. (Am.)
—*v. a.* To make drooping or flaccid; to cause to begin to fade or wither, as a young plant, —hence, to make languid; to vitiate, depress, or extinguish the force, vigor, energy, or efficacy of; as, a *wilted* being. (American.)
Wil'ton, a town and borough of England, co. Wilts, at the junction of the Nadder and Willy, 3 m. W.N.W. of Salisbury. The principal industry of the town is the manufacture of carpets, especially Axminsters, and those called Saxony, made of short staple wool. *Pop.* 9,570.
Wil'ton, in *Connecticut*, a post-village and twp. of Fairfield co., 30 m. W.S.W. of New Haven.
Wilton, in *Illinois*, a twp. of Will co.
Wilton, in *Iowa*, a post-village and township of Muscatine co., 12 m. N. of Muscatine.
Wilton, in *Maine*, a post-township of Franklin co., 30 m. N.W. of Augusta.
Wilton, in *Minnesota*, a village and township, former capital of Waseca co., 28 m. S.S.W. of Faribault.
Wilton, in *New Hampshire*, a post-village and twp. of Hillsborough co., 30 m. S.S.W. of Concord.
Wilton, in *New York*, a post-township of Saratoga co., 38 m. N. of Albany.
Wilton, in *Wisconsin*, a post-township of Monroe county.
Wilts, or WILT'SHIRE, a S.W. co. of England, having N. and N.W. the co. of Gloucester, E. and S. Hants, and S.W. Dorset; *area*, 1,367 sq. m. *Surface*, hilly in the N., and level in the S.; *soil*, fertile. *Climate*, mild in the N., but cold and sharp in the S. *Rivers.* Thames, Upper and Lower Avon, Bourne, Willy, Nadder, and Kennet. *Prod.* Wheat, barley, oats, and potatoes; but cattle-rearing and dairy-farming are the principal occupations of the inhabitants. *Manuf.* Flannels, fancy woollens, cutlery and steel goods, broad-cloths, kerseymeres, cotton goods, silks, carpets, and gloves. *Cap.* Salisbury. *Pop.* (1897) 282,250.
Wily, *a.* (*comp.* WILIER; *superl.* WILIEST.) Using wiles; cunning; sly; insidious; subtle; employing craft or stratagem to effect a purpose; aggressively artful; as, a *wily* savage, a *wily* antagonist.
Wim'ble, *n.* [Icel. *wamla*, to be whirled round.] A kind of auger or gimlet, used by carpenters.
—*v. a.* To bore, as with a wimble.
Wim'borne-Min'ster, a town of England, co. of Dorset, between the rivers Stour and Allen, 5 m. N. of Poole. *Manuf.* Woollens and hosiery. *Pop.* 5,500.
Wimple, (*wĭm'pl,*) *n.* A hood or veil worn by women; —particularly, the linen-plaited cloth which nuns wear about their necks.
—*v. a.* To cover, as with a veil; —hence, to hoodwink.—To cause to ripple or undulate; as, wind-*wimpled* waters.
—*v. n.* To appear as if laid in folds; to undulate; to ripple; as, *wimpling* waves.
Win, *v. a.* (*imp.* and *pp.* WON, (*wun.*) [A. S. and O. Ger. *winnan.*] To gain or obtain by success in contest or competition; to gain by solicitation or courtship; as, to *win* the odd trick at whist, to *win* a prize in a lottery, to *win* a battle, to *win* a lady's hand in marriage. — To allure to kindness or compliance; as, his generosity *won* my gratitude.—To gain by persuasion or influence; to gain over to one's side or party; to render favorable, friendly, or supporting; as, to *win* a voter, to *win* an opponent. —To come to; to arrive at; as, he *won* the summit at last.
—*v. n.* To have success; to gain the victory; as, they *won* the day. — *To win on* or *upon*, to acquire interest, favor, or influence; as, her beauty *won upon* all men's admiration; —also, to progress; to gain ground; as, anarchy *wins upon* misgovernment.
Winamac', or WINNAMEC', in *Indiana*, a post-town, cap. of Pulaski co., 79 m. S.E. of Chicago.
Win'andermere, or WIN'DERMERE, a lake of England, co. of Westmoreland, 15 m. long, and 1 in average breadth, discharges its surplus waters by the Severn into Morecombe Bay.
Winausville, in *New York*, a village of Greeno co., 30 m. S.S.W. of Albany.
Wince, (*wins,*) *v. n.* [W. *gwingan*, to wriggle.] To twist or turn, as in pain or uneasiness; to start back, or shrink, as from a blow or from pain; as, ho *winced* beneath the other's scathing sarcasm.—To kick or flounce when uneasy, or impatient of a rider, as a horse.
Wince'-pit, *n.* A tank where calico is washed during the process of manufacture.
Wincer, (*win'scr,*) *n.* One who, or that which, winces.
Winch, *n.* [A. S. *wince.*] A machine used for many common purposes. It is a particular modification of the wheel and axle, the power being applied by means of a rectangular lever or cranked handle. The arm B C of the winch represents the radius of the wheel; and the power is applied to C D at right angles to B C. This is the simplest form of winch, and is used for drawing water out of wells or foundations, and for other simple purposes. But for lifting heavier weights, wheel-work is introduced into the construction of the winch, and, in many cases, small steam-engines are employed for driving it. Steam-winches are much employed in modern vessels for the removal of cargo from the holds.

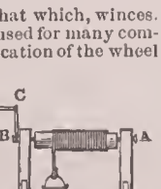


Fig. 2619.— WINCH.

Winch'endon, in *Massachusetts*, a post-township of Worcester co., 54 m. W.N.W. of Boston;
Winch'ester, one of the most ancient cities of England, situated on the River Itchin in Hampshire, and formerly, both under the Saxon and Norman rule, made a royal residence. The entire interest of Winchester may be said to reside in its magnificent cathedral, one of the most superb examples of Gothic architecture in Great Britain, built 1070–1097.— *W.* College, in connection with New College, Oxford, stands without the city. *Pop.* (1897) 20,250.
Winchester, in *Connecticut*, a township of Litchfield co., 30 m. W.N.W. of Hartford.
Winchester, in *Illinois*, a city, cap. of Scott co., 51 m. S.W. of Springfield. *Pop.* (1897) 1,780.
Winchester, in *Indiana*, a post-town, cap. of Randolph co., 75 m. E.N.E. of Indianapolis.
Winchester, in *Kentucky*, a post-village, cap. of Clarke co., 45 m. E.S.E. of Frankfort.
Winchester, in *Massachusetts*, a post-village and township of Middlesex co., 8 m. W.N.W. of Boston.
Winchester, in *Mississippi*, a post-village, former cap. of Wayne co., 15 m. E.S.E. of Jackson.
Winchester, in *New Hampshire*, a post-village and township of Cheshire co., 55 m. S.W. of Concord.
Winchester, in *Ohio*, a post-village and township of Adams co., 80 m. S.S.W. of Columbus.
Winchester, in *Oregon*, a post-office of Douglas co., 5 m. N. of Roseburg.
Winchester, in *Virginia*, a city, cap. of Frederick co., 150 m. N.N.W. of Richmond. *Pop.* (1897) 6,100.
Winchester, in *Wisconsin*, a post-township of Winnebago co.
Winchester Bushel, *n.* See BUSHEL.
Wincing-machine, (*wĭn'sing-,*) *n.* In dyeing, the real by which the operator winds various articles through the dyeing-vat or copper.
Wind Gap, in *Pennsylvania*, a post-village of Northampton co., 15 m. N.N.W. of Easton.
Wind, (*wĭnd,*) *n.* [A.S., Du., and Ger.] (*Meteorol.*) A sensible current of the atmosphere, and as such distinct from that motion of the atmosphere which is the consequence of the diurnal and annual movements of the earth, and is not perceptible. The motions of the atmosphere are subject in some degree to the same laws as those of the denser fluids. If we remove a portion of water in a large reservoir, we see the surrounding water flow in to restore the equilibrium, and if a portion, being rarefied by heat, or condensed by cold, ascends in the one instance and descends in the other, a countercurrent is the visible and natural result; and similar effects are found to follow the same causes in the atmospheric fluid. The immediate effect of the solar radiation, communicating heat to any portion of the earth's surface, is to generate an ascensional movement in the incumbent atmosphere, a bodily overflowing of its material above, and a relief of barometrical pressure below. The air of the cooler surrounding region, not being so relieved, will be driven in by the difference of atmospheric pressure so arising, and thus originate two distinct winds, —an upper one setting outward from the heated region, a lower inwards or towards it. These effects upon the earth, together with the rotary motion of the earth, are the primary causes of all the phenomena of the winds. No wind can arise without a previous derangement of the general equilibrium, and the general causes of this may be stated as follows: — 1. The ascent of the air over certain tracts heated by the sun; 2. evaporation, causing an actual increase in the volume of the atmosphere; 3. rain, snow, &c., causing an actual decrease in its volume, by the destruction of the vapor. Currents thus produced may be permanent and general, extending over a large portion of the globe; periodical, as in the Indian Ocean; or variable and occasional, or, at least, uncertain, as the winds in temperate climates. See TRADE-WINDS. An article on the force of *W.* will be found under WIND, in SECTION II.
—Air put in motion by some artificial means; as, the *wind* of a shot, the *wind* of a bellows.— Breath; power or act of respiration; as, he is sound *wind* and limb, let him have his *wind.*— Breath modulated by the respiratory and vocal organs, or by an instrument. — Flatulence; air generated in the stomach and bowels; as, to break *wind.*— One of the cardinal points of the compass; as, the four *winds.*— Vain or void effort; empty; insignificant; light as wind; mere breath; as, his talk is *wind.* —(In this sense frequently pronounced *wind.*)—A kind of flatulent disease, peculiar to newly-shorn sheep.
Between wind and water. (*Naut.*) In that part of a ship's sides, just immediately under the water-line, and which is frequently exposed by the ship's rolling, or by the fluctuation of the water's surface; as, a shot struck her *between wind and water.*— *Down the wind*, moving along with the wind; also, in a state of decline or decay. —*In the wind's eye.* (*Naut.*) In the direction of the quarter whence the wind blows; as, to sail right *in the wind's eye.*— *Three sheets in the wind*, half-tight; half seas-over; in a state of semi-intoxication from liquor; — used figuratively and colloquially.—*To be in the wind*, to be on the tapis; to be in a state of inchoate preparation; to be suspected or surmised, although not yet announced or acknowledged; as, his silence is ominous, there must *be* something *in the wind.*—*To carry the wind*, to toss the nose as high as the ears, said of a horse.—*To raise the wind*, to collect cash; to procure money, especially implying some degree of strait only to be relieved by ingenuity or artifice; as, he pawned his watch to *raise the wind.* (Colloq.)—*To have* or *take the wind*, to gain or have the upper-hand or advantage.—*To take* or *get wind*, to be divulged or bruited about; to be made public; as, the whole affair *got wind.*
—*v. a.* To winnow; to ventilate; to desiccate by exposure to the air, as grain. — To nose; to follow up the scent; as, hounds *wind* a fox.—(*Man.*) To drive with such speed, as a horse, as to cause him to be blown. — To rest, as a horse, to enable him to recover wind.—*To wind a ship.* (*Naut.*) To turn a ship about, end for end, in order to catch the wind on the opposite side.
Wind, (*wīnd,*) *v. a.* (*imp.* and *pp.* WOUND.) To sound by blowing or inflation; to sound so that the notes shall be prolonged and varied; as, to *wind* a bugle.
Wind, (*wind,*) *v. a.* (*imp.* and *pp.* WOUND, raroly WINDED.) [A. S. *windan*; Du. and Ger. *winden.*] To turn round some fixed object; to form into a ball or coil by turning; to twist; to wreathe; to cause to form convolutions about anything; as, to *wind* thread upon a spool. — To enfold; to encircle; to entwist; as, he *wound* his arms around her. — To govern; to turn and lead at pleasure; to control; to change, alter, or vary at will; as, his wife *winds* him just as she pleases. — To introduce, as one's self by insinuation; as, he *wound* himself into my confidence. — To surround with a coiled material; as, to *wind* the handle of a cricket-bat.—*To wind up.* (1.) To coil completely, or bring to a small compass; as, to *wind up* a skein of thread.—(2.) To bring to an end or conclusive settlement; as, to *wind up* a business.—(3.) To set so as to insure a continued motion, by winding the spring, &c., as a clock, a watch, a chronometer, &c.; — hence, to put in renewed order for action; as, he *wound up* his courage for the occasion.
—*v. n.* To turn around something; to assume a spiral or convolved form; as, a creeper *winds* round a tree. — To crook; to bend; to proceed in flexures; to have a circular direction or course; to have a twist, or an uneven surface, or a surface whose parts do not lie in the same plane; as, a *winding* path; a *winding* river, &c. — To double; to move this way and that, or from one side to the other; as, a fox *winds* when pursued by hounds. — *To wind out*, to escape or be extricated from; as, they *wound out* of the labyrinth.
—*n.* A turn; a bend; a flexure; a winding.
Windage, (*wind'aj.*) *n.* [From *wind*; Sp. *viento*, wind, windage.] (*Gun.*) The space between the ball and the bore in a piece of ordnance, so named because filled with wind or air; or, the difference between the diameter of a gun or other piece of ordnance and that of a ball or shell; or, the difference between the area of a section of a bore at right angles to its axis, and the area of a great circle of the shot.
Wind'bore, *n.* (*Mining.*) The bottom pipe in a lift of pumps.
Wind'bound, *a.* (*Naut.*) Hindered from sailing by a contrary wind.
Wind'-broken, (*brōk'n,*) *a.* Diseased in the respiratory organs; as, *wind-broken* horse.
Wind'-chest, *n.* (*Mus.*) A reservoir of wind in an organ.
Wind'-dropsy, *n.* (*Med.*) See EMPHYSEMA.
Wind'-egg, *n.* An addle-egg.
Wind'er, *n.* One who, or that which, winds; hence, a parasitic or creeping plant.—A reel for winding thread, &c., upon. — One of the steps of a spiral staircase.
Wind'fall, *n.* Fruit blown off a tree by wind; hence, any unexpected gain or advantage; an unlooked-for legacy.
Wind'fallen, (*-fawln,*) *a.* Blown down by the wind.
Wind'-gall, (*-gawl,*) *n.* (*Far.*) A soft tumor on the fetlock joints of a horse.
Wind'-gauge, (*-gāj,*) *n.* Same as ANEMOMETER, *q. v.*
Wind'-gun, *n.* Same as AIR-GUN, *q. v.*
Windham, in *Connecticut*, a N.E. co., bordering on Massachusetts and Rhode Island; *area*, 520 sq. m. *Rivers.* Natchaug, Quinebang, Shetucket, and Willimantic. *Surface*, hilly; *soil*, fertile along the streams. *Caps.* Putnam and Windham. *Pop.* (1897) 46,950.
—A town, one of the caps. of the above co., 30 m. S.E. of Hartford.
Windham, in *Maine*, a post-township of Cumberland co., 48 m. S.W. of Augusta.
Windham, in *New Hampshire*, a post-village and township of Rockingham co.
Windham, in *New York*, a post-township of Greene co.
Windham, in *Ohio*, a post-village and township of Portage co., 41 m. E.S.E. of Cleveland.
Windham, in *Pennsylvania*, a post-village and township of Bradford co., 14 m. E.N.E. of Towanda.—A township of Wyoming co.
Windham, in *Vermont*, a S.E. co., bordering on New Hampshire and Massachusetts; *area*, 765 sq. m. *Rivers.* Connecticut, Deerfield, and West River. *Surface*, mountainous in the W., elsewhere diversified; *soil*, generally fertile. *Cap.* Newfane. *Pop.* (1897) 27,150.
—A post-township of Windham County, 75 m. S. of Montpelier.
Windham Centre, in *New York*, a post-village of Greene co., 35 m. S.W. of Albany.
Wind River Mountains, a range of the Rocky Mountains, on the E. border of Oregon, the highest summit of which is Fremont's Peak, 13,570 ft. above the sea.
Wind'-hatch, *n.* (*Mining.*) The place where the ore is taken out of the earth.
Wind'hover, *n.* (*Zoöl.*) A species of hawk; the *kastrel*, q. v., so called from *hovering* in the air in search of its prey.
Wind'iness, *n.* [From *windy.*] State of being windy or tempestuous; as, the *windiness* of the equinoctial season. — Flatulence of body. — Tendency to generate wind or produce flatulence; as, the *windiness* of green vegetables. — Tumor; puffiness.
Winding, (*wīnd'-,*) *a.* Bending; twisting from a direct line or an even surface.
—*n.* Act of those persons or things that wind; a bend; a turn or turning; flexure; meander; as, the *winding* of a labyrinth. — A blowing; a sounding by inflation, especially, a call by the boatman's whistle.

Wind'ing-engine, (*-in'jin,*) *n.* (*Mining.*) An engine employed for the drawing up of skips, buckets, &c., from a deep shaft.

Wind'ingly, *adv.* In a winding, meandering, or circuitous manner.

Wind'ing-sheet, *n.* A sheet in which a corpse is wound.

Wind'ing-tackle, (*tăk'l* or *tāk'l,*) *n.* (*Naut.*) A tackle consisting of one fixed triple block and one double or triple movable block, used for hoisting heavy articles in and out of a vessel.

Wind'-instrument, *n.* (*Mus.*) An instrument of music sounded by means of the breath, as a flute, a trombone, a clarionet, &c.

Windischgrätz, ALFRED, PRINCE, Austrian field-marshal and commander-in-chief, was the son of Joseph Prince Windischgrätz, and was B. at Brussels, 1787. He took part in the campaign of 1805, 1809, and 1813–14 against the French, and attained the rank of lieutenant-general in 1833. He is chiefly remembered for the part he played in opposing the revolutionary movements of 1848–49. He was governor of Prague at the outbreak of the Slavs insurrection, in June, 1848; the princess, his wife, was shot by the insurgents as she looked from a window; and the prince bombarded the town for 48 hours, and, after a severe conflict, defeated the insurgents and suppressed the movement. In October following he was created field-marshal, and named commander-in-chief of the forces of the empire out of Italy, and marched on Vienna, which was then in the power of the revolutionary party. He proclaimed a state of siege, and after some days' delay commenced the attack, which was supported by the Croats under Jellachich. The conflict was very sharp, and only ended, after four days' fighting, with the capture of the city, November 1st. The execution of the republican leader, Robert Blum, a fortnight later, produced a very painful feeling throughout Europe. In the following year, *W.* was employed against the Hungarians, but after some favorable movements and the occupation of several towns, he was unable to accomplish anything more, and had to quit Buda before the increasing forces of the enemy. He had fought on the side of absolutism all his life, and his last days were embittered by the discovery that it was the losing side. D. 1862.

Wind'lass, *n.* [*wind,* and *lace,* a cord.] (*Mech.*) Any machine consisting of an horizontal roller or barrel turned by use of handspikes upon pivots or gudgeons, entering fixed supports at its extremities, and thus caused, by means of a rope or chain passing round it, to draw toward it or to raise heavy burdens.

Win'die, *n.* A kind of reel or spindle.

Windle-straw, (*win'dl-,*) *n.* A stalk of grass.

Wind'less, *a.* Destitute of wind; out of breath.

Wind'mill, *n.* A building containing machinery for grinding corn, pumping water, sawing wood, or for any purpose depending on wheel-work, to which motion is communicated by the impulse of the wind. (Fig. 1789.) The building is a wall of timber, brickwork, or stone, in the form of a frustum of a cone; and the smaller kind of mill, when formed of timber, is capable, by means of a lever, of being turned round horizontally on an axis, in order that the plane in which the radii, or arms of the sails, revolve, may be placed perpendicularly to the direction of the wind, for the purpose of allowing the latter to act upon the sails in the most advantageous manner.

Window, (*win'dō.*) *n.* [Dan. *vindue;* Sp. *ventana.*] An aperture in a wall for the admission of light and air to the interior. Windows were almost unknown in the religious and other monumental structures of the Egyptians, Greeks, and Romans, but they constitute an essential and distinguishing feature of the Gothic, to which style they stand in the same relation as orders do to the temple architecture of antiquity. The practice of window tracery (see TRACERY) everywhere had its origin in window-*grouping,* placing two or three lancet windows beside each other, and one or more foil or rosette windows above and between their heads, in order to fill out the arched cell of the vaulting, which then necessarily gave the whole group an arched outline: and this was indicated by a general drip-mould or label. It then became desirable to lighten the irregular shaped masses of stone left between the perforations, and this was done by piercing these masses, or spandrils, and reducing the solid frame of each foil or rosette to an equal thickness all round, as if several such frames or rings were packed into one great arched opening, which henceforth was regarded as *one* window instead of several. (See Fig. 2518.) A very elegant style of window (Fig. 2620), not uncommon in cathedrals and large churches in the Middle Ages, is the *Rose Window.* It is circular in form, and the mullions converge towards the centre, somewhat like the spokes of a wheel; hence the name of *Catherine Windows,* (q.v.) or wheel-windows, is sometimes given to them. In classical architecture are usually rectangular openings without any internal splay, with architraves and other ornaments on the exterior, very similar to those of the doorways, but sometimes they have arched heads; and occasionally small circular and semicircular windows are used. In modern buildings, windows called Venetian windows are sometimes introduced; they are of large size, divided by columns, or piers resembling pilasters, into three lights, the middle one of which is usually wider than the others, and is sometimes arched; in the arrangement and character of their ornaments they resemble the windows used in classical architecture. In distributing windows so that there be had a sufficiency of light, it is usual to make the piers or intervals between them never less than the width of the window, and never more than two widths of the same.

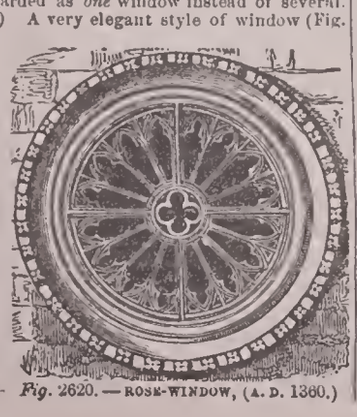


Fig. 2620. — ROSE-WINDOW, (A. D. 1360.)

—*v. a.* To furnish with windows.

Win'dow-blind, *n.* A blind to intercept the light of a window.

—*n.* A short screen for a window, made of perforated zinc or woven wire; also, a screen for a window, made of calico or other material attached to a roller.

Win'dow-frame, *n.* The frame of a window which receives and supports the sashes.

Win'dow-glass, *n.* Panes of glass for fitting in windows.

Win'dowless, *a.* Without a window or windows.

Win'dow-sash, *n.* The sash in which panes of glass are set for windows.

Win'dow-seat, *n.* A seat in or under a window.

Win'dow-shade, *n.* A rolling or a projecting blind or sunshade, either opaque or partially transparent.

Win'dow-shutter, *n.* A frame or shutter used to close windows securely.

Win'dow-sill, *n.* (*Arch.*) The flat board at the bottom of a window-frame.

Wind'pipe, *n.* (*Anat.*) Same as TRACHEA, *q. v.*

Wind'-plant, *n.* A species of ANEMONE, *q. v.*

Wind'-pump, *n.* A pump moved by a windmill.

Wind'-rode, *a.* (*Naut.*) Caused to ride or drive by the wind, in opposition to the course of the tide: — said of a vessel lying at anchor, with wind and tide opposed to each other.

Wind'-rose, *n.* [Ger., the card of the mariner's compass, so named from resembling a rose.] An account of the mean pressure of the air under winds from the different points of the compass.

Windrow, (*win'rō,*) *n.* A row of hay raked together for the purpose of being rolled into cocks. — In England, sheaves of grain set up in a row, one against another, that the wind may blow between them.

—*v. a.* To arrange in lines or rows, as newly-made hay.

Wind'-sail, *n.* The sail or vane of a wind-mill.

(*Naut.*) A tube or funnel of canvas, employed to convey a stream of fresh air down into the lower parts of a ship.

Wind'sor, a borough of England, co. Berks, 22 m. W. of London, on a hill overlooking the Thames. It is

Fig. 2621. — WINDSOR CASTLE.

celebrated for its magnificent castle, for 850 years the principal residence of the English sovereigns, situated to the W. of Windsor Forest, a royal chase 56 m. in circumference, and S. of Windsor Great Park, covering 4,000 acres, and stocked with deer. The castle, originally built by William the Conqueror, was much improved by Edward III., and subsequent monarchs. In St. George's Chapel, within the castle's walls, (Fig. 991), lie the remains of Edward IV., Henry VI., Henry VIII., Charles I., &c. *Pop.* of town abt. 12,000.

Windsor, in *Cal.,* a p.-vill. of Sonoma co., 10 m. N.W. of Santa Rosa; a vill. of Sierra co.; in *Conn.,* a p.-twp. of Hartford co., 6 m. N. of Hartford; in *Ill.,* a city of Shelby co., 12 m. E. of Shelbyville; in *Ind.,* a p.-vill. of Randolph co.; in *Iowa,* a vill. and twp. of Fayette co.; in *Maine,* a p.-twp. of Kennebec co., 9 m. S.E. of Augusta; in *Mass.,* a p.-vill. and twp. of Berkshire co.; in *Mich.,* a p.-twp. of Eaton co.; in *N. Y.,* a p.-vill. and twp. of Broome co.; in *N. C.,* a p.-vill. and twp. of Bertie co.; in *Ohio,* a p.-vill. and twp. of Ashtabula co.; a twp. of Lawrence co.; a vill. and twp. of Morgan co.; in *Penn.,* a twp. of Berks co.; a p.-twp. of York co.; in *S. C.,* a p.-vill. and twp. of Barnwell dist.; in *Vt.,* a S.E. co., bordering on New Hampshire; *area,* 1,040 sq. m. *Rivers,* Connecticut and White. *Surface,* mountainous in the W., elsewhere diversified; *soil,* generally fertile. *Cap.* Woodstock.—A post-village and township of the above county, 77 miles S.S.E. of Montpelier; in *Wis.,* a post-vill. and twp. of Dane co., 10 m. N.E. of Madison; in *Nova Scotia,* a seaport-town, cap. of Hants co., on an arm of Mines Bay, 30 m. N.W. of Halifax.

Wind'sor-soap, *n.* A kind of superior scented soap.

Wind'-tight, *a.* So tight as to exclude the wind.

Wind'ward, *n.* The point or quarter from which the wind blows; as, to sail to the *windward.*

—*a.* Being on the side from which the wind blows.

Wind'ward Islands, those islands in the West Indies which extend from Martinique to Tobago;—so called in opposition to the LEEWARD, *q. v.* See also ANTILLES.

Wind'y, *a.* (*comp.* WINDIER; *superl.* WINDIEST.) [A. S. *windig.*] Consisting of wind.—Windward; as, the *windy* side of a ship.—Boisterous; tempestuous; characterized by the action of wind; as, *windy* weather. — Empty; airy; insubstantial; as, *windy* words; *windy* applause. — Flatulent; serving to generate gas in the stomach or bowels; as, *windy* victuals. — Attended or caused by flatulence; as, a *windy* colic.

Wine, *n.* [A. S. *win;* Ger. *wein;* Lat. *vinum;* It. and Sp. *vino;* Fr. *vin.*] The fermented juice of the Grape Vine, *Vitis vinifera* (see VITIS). The alcoholic strength of wine depends on the amount of glucose or grape-sugar contained in the must; its flavor, on certain essential oils produced in the grape itself when it has reached maturity, or perhaps on some others developed at once in the process of fermentation, or more slowly as the wine ripens by age. The latter is probably the true explanation of what is called the *bouquet* of wine, for common wines, though they may be often kept for an indefinite period, do not improve by age, while the highest class of wines become, within certain limits, much better by keeping. The vine grows best on exposed hills, on a light, calcareous, and especially on a volcanic soil, and with a south-east aspect. The nature of the soil is everything with the wine produced; for while the produce of a particular spot may be of the highest market value, that which is grown a few yards from the mysterious boundary may be almost valueless. No analysis of the soil of the best vineyards has given any clue to this remarkable difference in produce. All that is known is matter of experience, though, as the juice of the grape always contains a notable quantity of cream of tartar in solution, which is deposited as the wine ripens, it is clear that the soil must contain potash. The manufacture of the wine, and the manipulation of the grape harvest, are matters of careful and anxious interest to the vine-grower. A bad vineyard will not, of course, produce good wine, but the produce of the best vineyard may be spoiled by bad management or unskilfulness. The peculiarity of the grape-juice is, that it contains within itself all the elements necessary for vinification, and when left at rest undergoes a spontaneous fermentation, while the juice of all other fruits require a leaven of some sort to induce this process necessary to convert the juice into wine. Wine, as a therapeutic agent, is the least objectionable of all fermented or distilled liquors. Alcoholic liquors of all kinds are, when taken to excess, injurious to the system, seriously affecting both the stomach and the liver; while malt liquors, though seldom affecting either organ, are liable to produce that condition of the blood which results in gout, a disease to which drinkers of large quantities of porter are especially prone. From all these consequences wine is in a great measure free. An account of the various wines will be found under their particular names.

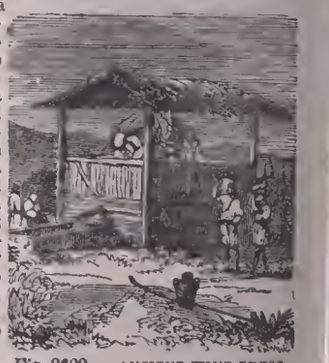


Fig. 2622. — ANCIENT WINE-PRESS.

Wines, American. The first production of wine from native grapes in the U. S. was in Florida, in 1565. But no important attempt to develop wine-making in this country was made until 1828, when Nicholas Longworth, of Cincinnati, engaged in the business. The *W.* produced by him was a white *W.,* made from the Catawba grape, and resembling Rhine wine. The industry was also soon after developed in Missouri, this State, with Ohio, having an annual yield of 3,000,000 gallons. More recently the industry has been largely developed in New York, whose product in 1890 was 2,528,250 gallons. Hammondsport, N. Y., is the center of a large wine-producing region, where large quantities of sparkling *W.* or champagne are produced. Since 1862 an excellent wine has been made, chiefly by Germans, at Egg Harbor and Vineland, N. J., the best being a red wine, some of which resembles Bordeaux, others Burgundy. Several others of the Eastern States produce wine. Native grapes are used, the Catawba and Ives Seedling being favorites in the North, while in the South the Virginia Seedling and the Scuppernong grapes are the favorites. The Scuppernong yields an amber wine of musky flavor and strong bouquet. The wines of the E. part of the country are much more acid than those of the Pacific coast, which have the mild and sweet character of those of Spain. California is far the greatest wine-producing State of the Union, its *W.* being made from the European grape, which was introduced by the Franciscan fathers about 1769. The principal varieties of French, German and Spanish grapes have since been introduced, the result being the production of several descriptions of *W.,* which have a resemblance to the leading European types. The total *W.* product of 1890 was 24,306,905 gallons, to which California contributed 14,626,000 gallons. This was

nearly all consumed in the U. S., with 5,000,000 gallons of foreign wines.

—The fermented juice of many sub-acid fruits, as gooseberry-*wine*, currant-*wine*, &c.—*Spirit of wine.* See ALCOHOL.

Wine'-bag, Wine'-skin, *n.* A bag made of skin for containing wine.

Wine'-bibber, *n.* One who drinks copiously of wine.

Wine'-biscuit, (*bĭs'kĭt,*) *n.* A kind of sweet biscuit intended to be served with wine.

Wine'-cooler, *n.* A vessel of porous earthenware for the cooling of wine by the evaporation of the water which surrounds the bottle or decanter; also, a stand for wine-bottles containing ice.

Wine'-Grower, *n.* The cultivator of a vineyard who also makes wine.

Wine'-Press, *n.* An apparatus for pressing grapes.

Wine'-stone, *n.* Same as ARGAL.

Wine'-whey, (*hwā,*) *n.* A mixture of wine, milk, and water.

Wines'burg, in *Ohio*, a post-village of Holmes co.

Win'field, in *Kan.* a post-vill. and twp., cap. of Cowley co.; in *Ill.*, a p.-vill. and twp. of Du Page co.; in *Ind.*, a p.-twp. of Lake co.; in *Iowa*, a post-town of Henry co.; in *N. Y.*, a p.-vill. and twp. of Herkimer co.; in *Pa.*, a twp. of Butler co.; in *W. Va.*, a twp. of Marion co.; a p.-vill., cap. of Putnam co.; in *Wis.*, a twp. of Sauk co.

Wing, *n.* [Swed. *vinga;* W. *gwing*, a wriggling motion.] The limb of a bird by which it puts itself in a quick reciprocating motion through the air, or which occasionally assists it in running only. See BIRD.—The limb of an insect used for the purpose of flight. See INSECT.—Flight; passage by the wing; as, to take *wing.*—Means of flying, or of rapid motion or acceleration; motive or incitement to flight; as, "Then fiery expedition be my *wing.*" (*Shaks.*)—That which is put in wing-like motion by the action of the air, as a fan for winnowing grain, the vane or sail of a wind-mill, &c.—An ornament worn on the shoulder;—a small imitation of epaulet or shoulder-knot. (*Simmonds.*)—Any side-piece or side-shoot.

—*pl.* (*Mil.*) The flank sections of an army or body of troops, as distinguished from the *centre.* Each regiment is also divided into two portions, called respectively the *right* and *left wing.*

—*pl.* (*Naut.*) Passages along the sides of a ship between the fore and aft cock-pits, to allow the carpenters to gain access to any leaks.—In a fleet, the extremities thereof, when the ships are drawn up in line, or when forming the two sides of a triangle.

(*Bot.*) See ALA.

(*Arch.*) A side-building, branching from, and of less dimensions than, the main edifice; as, one of the *wings* of a palatial mansion.

(*Hort.*) A branch or shoot growing up by the side of another.

(*Fortif.*) The longer side of crown-works, &c., bringing them into connection with the main work.

On the wing, flying; as, to kill a bird *on the wing.*—*On the wings of the wind*, with the utmost degree of velocity.—*Under the wing* or *wings of*, under the care, protection, guardianship, or chaperonage of; as, unmarried daughters *under the* maternal *wing.*—*Wing-and-wing.* (*Naut.*) The situation of a fore-and-aft vessel when she is sailing dead before the wind, with her fore-sail hauled over to one side, and her mainsail on the other.—*Dana.*

—*v. a.* To furnish with wings or wing-like processes; to enable to fly, or to move with rapidity.—To supply with wings or side-bodies; as, a *winged* army.—To transport by flight; as, to *wing* a shaft or shot.—To exert the power of flying; to move or pass with celerity through; as, a sea-gull *wings* its way o'er the waters.—To wound, unaim, or disable in the wing or side-bodies; as, to *wing* a bird; a duellist *wings* his adversary.

Wing'-case, *n.* (*Zoöl.*) Same as ELYTRON, *q. v.*

Winged, (*wingd,*) *p. a.* Having wings or wing-like expansions; as, a *winged* creature.—Soaring with wings, or as if with wings;—hence, lofty; sublime; elevated; as, *winged* enthusiasm.—Swift; rapid; speedy; as, *winged* thoughts; *winged* haste. (*Shaks.*)—Fanned or agitated with wings; alive with birds; as, the *winged* air. (*Milton.*)—Wounded or disabled in the wing; as, a pheasant *winged* by a shot.

(*Bot.*) Same as ALATE, *q. v.*

(*Her.*) Represented with wings, or displaying wings different in color from the body.

Wing'-footed, *a.* Having wings attached to the feet, as Mercury;—hence, fleet; swift; rapid in motion.

Wing'less, *a.* Without wings;—hence, not able to ascend or fly.

Wing'let, *n.* A small wing.

Wing'-sheli, *n.* Same as wing-case. See ELYTRON.

Wing'-stroke, *n.* The stroke or flap of a wing.

Wing'-transom, *n.* (*Naut.*) The uppermost transom of the stern-frame.

Wing'ville, in the State of *Wisconsin*, a twp. of Grant county.

Wing'y, *a.* Possessing wings; hence, swift; rapid.

Win'hall, in *Vermont*, a post-township of Bennington co., 80 m. S.W. of Montpelier.

Wink, (*wingk,*) *v. a.* [A.S. *wincian.*] To shut and open the eyelids alternately and rapidly; to blink; as, eyes *winking* at the sun.—To shut and open the eyelids with a quick motion; as, "they are not blind, but they *wink.*" (*Tillotson.*)—To give a hint, signal, or significant intimation, by a quick opening and closing of the eyelids.—To overlook, as something not perfectly satisfactory or agreeable; to seem not to see or take notice of; to connive at; to tolerate;—usually before *at*; as, men's frailties must sometimes be *winked at.*

—To flicker and burn dim; as, a *winking* flame.

—*n.* Act of shutting and opening the eyelids with quickness; as, I scarcely slept a *wink* last night.—A hint given by shutting the eye with a significant cast; as, to tip one the *wink*; a *wink* to a blind horse is as good as a nod.

Wink'er, *n.* One who winks or blinks.—A blinker; a horse's blinder; as, a pair of *winkers.*

Wink'ingly, *adv.* In a winking manner.

Win'kle, *n.* A colloquial contraction of PERIWINKLE, *q. v.*

Wink'ie-hawk, Wink'ie-hole, *n.* A rectangular rent made in cloth. (Local, U. S.)

Winn, in *Louisiana*, a N. central parish; *area*, 980 sq. m. *Rivers.* Red and Dugdemona rivers, and Saline Creek. *Cap.* Winfield.

Winn, in *Maine*, a post-township of Penobscot co., abt. 50 m. N.N.E. of Bangor.

Winneba'go, in *Illinois*, a N. co., bordering on Wisconsin; *area*, 552 sq. m. *Rivers.* Rock, Pekatonica, and Kishwankee. *Surface*, undulating; *soil*, fertile. *Cap.* Rockford. *Pop.* (1897) 43,890.—A post-village and township of above co., 7 m. W. of Rockford.

Winnebago, in *Iowa*, a N. co., bordering on Minnesota; *area*, 408 sq. m. *Rivers.* Mankato river, and Lime creek. *Surface*, undulating; *soil*, fertile. *Cap.* Forest City. *Pop.* (1895) 10,707.

Winnebago, in *Minnesota*, a post-village and township of Faribault co., 33 m. S.W. of Mankato.

—A township of Houston co.

Winnebago, in *Wisconsin*, a large lake occupied within the cos. of Winnebago, Calumet, and Fond-du-Lac, 28 m. long from N. to S., and 11 m. wide, with a depth sufficient for navigation; *area*, 212 sq. m. On the E. is a ledge of rocks 15 m. long, and hundreds of feet deep below the surface, which resembles a wall made by hand. The Fox River connects it with Green Bay.—A N.E. central co., bordering on the above lake; *area*, 430 sq. m. *Rivers.* Fox and Wolf. *Surface*, undulating; *soil*, fertile. *Cap.* Oshkosh.—A township of the above county.

Winneba'goes, a tribe of N. American Indians who lived around Lake Winnebago in 1639, and were engaged in the war against the English in 1762. They were also engaged in the Black Hawk war in 1831. In 1848, under a treaty with the government, they removed on the S.E. of Otter Tail Lake, in Minnesota, where a distribution of land was made to them in 1859. They numbered then 2,531 souls in 431 families.

Winnecon'na, in *Wisconsin*, a post-village and twp. of Winnebago co., 14 m. N.W. of Oshkosh.

Win'ner, *n.* [From *win.*] One who, or that which, wins or gains by success in competition or contest.

Win'neshiek, in *Iowa*, a N.N.E. co., bordering on Minnesota; *area*, 696 sq. m. *Rivers.* Upper Iowa, and the North Fork of Turkey river. *Surface*, diversified; *soil*, fertile. *Cap.* Decorah. *Pop.* (1895) 22,748.

Win'nicut River, in *New Hampshire*, flows into the Piscataquis River from Rockingham co.

Win'ning, *p. a.* Adapted to secure favor; attaching; charming; ingratiating; as, a person of *winning* manners.

Win'nings, *n. pl.* The sum or sums won or gained by success in a contest or competition;—opposed to *losings*; as, to count one's *winnings.*

Win'ningly, *adv.* In a winning or successful manner.

Win'ning-post, *n.* The post which forms the goal in a horse-race; as, to be first to reach the *winning-post.*

Win'nipeg, a lake of British N. America, between Lat. 50° and 54° N., Lon. 96° and 99° W., 240 m. long, and 55 wide. It receives the Assiniboin, Red, Winnipeg, and Saskatchewan rivers, and the surplus waters of the Manitoba and the Winnipegoos lakes, and discharges its surplus waters by the Nelson River into Hudson Bay.—A river which flows into the above lake, after a N.W. course of 250 m.—A town and dist. of the prov. of Manitoba, *q. v.*

Win'nipegoos, or WINNIPIGOOSE, a lake of British N. America, 50 m. W. of Lake Winnipeg, 125 m. long, and 25 in average breadth.

Win'nipiseogee, in *New Hampshire*, a lake of Belknap and Carroll cos., 23 m. long, and 10 m. in its greatest breadth. It contains a number of islands, and its surroundings are very picturesque. Its waters, which are pure and deep, are about 472 feet above the sea, and its surplus waters are discharged through two smaller lakes into the Winnipiseogee River, which flows into the Merrimack.—A river which forms the outlet of the above lake, and flowing S.W., joins the Merrimack between Belknap and Merrimack cos.

Winns'borough, in *Louisiana*, a post-village, cap. of Franklin parish, 200 m. N.W. of Baton Rouge.

Winns'borough, in *South Carolina*, a city, cap. of Fairfield co., 38 m. N. of Columbia. *Pop.* (1897) 1,950.

Winnow, (*win'nō,*) *v. a.* (*imp.* and *pp.* WINNOWED, (*win'nōd.*) [A.S. *winnian*, to blow away.] To separate and blow off the chaff from, as from grain, by means of a current of wind.—Hence, to sift for the purpose of separating falsehood from truth; to examine; to dissect and place apart, as the bad from the good; as, to *winnow* a polemical disquisition.—To fan; to flap or beat, as with wings.

—*v. n.* To separate chaff from grain.

Win'nower, *n.* One who, or that which winnows;—specifically, a machine employed in winnowing grain.

Win'nowing, *n.* Act of one who, or that which, winnows or sifts.

(*Mining.*) Same as WINCH, *q. v.*

Wino'na, in *Minnesota*, a S.E. co., bordering on Wisconsin; *area*, 630 sq. m. *Rivers.* Mississippi, Minneska, and Whitewater. *Surface*, undulating; *soil*, fertile. *Pop.* (1895) 37,134.—A city, cap. of the above co., on the Mississippi, 105 m. S.E. of St. Paul; Lat. 44° 4′ N., Lon. 91° 20′ W. *Pop.* (1895) 20,649.

Winslow, in *Illinois*, a post-village and township of Stephenson co., 135 m. W.N.W. of Chicago.

Winslow, in *Maine*, a post-vill. and township of Kennebec co., 18 m. N.N.E. of Augusta.

Winslow, in *New Jersey*, a post-village and township of Camden co., 46 m. S.E. of Trenton.

Winslow, in *Pennsylvania*, a township of Jefferson co.

Winsome, (*win'sum,*) *a.* [A. S. *wynsam, wunsum.*] Blithe; joyous; light-hearted; gay; debonair; as, a *winsome* young lass.

Win'sor and Brown's Mills, in *Rhode Island*, a manufacturing village of Providence co., 20 m. N.W. of Providence.

Win'sted, in *Connecticut*, a post-borough of Litchfield co., 62 m. N.E. of Bridgeport.

Winsted, in *Minnesota*, a post-village and township of McLeod co., about 50 m. W. of St. Paul.

Win'ston, in *Alabama*, a N.W. co.; *area*, 630 sq. m. *Cap.* Double Springs. *Pop.* (1897) 7,120.

Winston, in *North Carolina*, a city, cap. of Forsyth co., 120 m. N.W. of Raleigh. *Pop.* (1897) 10,500.

Winston, in *Mississippi*, a N.E. central co.; *area*, 640 sq. m. It is drained by Pearl river. *Surface*, undulating; *soil*, fertile. *Products.* Corn, cotton, &c. *Cap.* Louisville. *Pop.* (1890) 12,089.

Win'ter, *n.* [A. S., O. Fris., Dan., Swed., Belg., Du., and Ger. *winter*; Goth. *vintrus.*] The cold, windy, or stormy season of the year; one of the four seasons into which the year is divided, commonly understood to begin with the shortest day (Dec. 21), and to end when the sun returns to the vernal solstice (about Mar. 21).—A year; as, he has seen many *winters*;—used principally in poetry.—*Winter-solstice.* (*Astron.*) See SOLSTICE.

—*v. n.* To pass the winter; as, to *winter* in Florida.

—*v. a.* To house, feed, or manage during the winter; as, to *winter* young farm-stock.

—*a.* Pertaining or having reference to winter.

Win'ter-apple, *n.* An apple that does not become ripe till winter; or, one that keeps well through the winter.

Win'ter-berry, *n.* (*Bot.*) See PRINOS.

Win'ter-bloom, *n.* (*Bot.*) The Witch-hazel. See HAMAMELIDACEÆ.

Win'ter-cherry, *n.* (*Bot.*) See PHYSALIS.

Win'ter-cress, *n.* (*Bot.*) See BARBAREA.

Win'ter-crop, *n.* (*Agric.*) A crop which bears the winter season, or which may supply fodder during the winter.

Win'ter-fallow, *n.* (*Agric.*) Ground lying fallow during the winter.

Win'ter-green, *n.* (*Bot.*) See GAULTHERIA, and PYROLACEÆ.

Win'ter-ground, *v. a.* To cover over, for protection or shelter, during the winter season; as, to *winter-ground* potatoes.

Win'ter-kill, *v. a.* To kill by exposure to the severities of winter.

Win'tering, *n.* Act of passing the winter; as, they are *wintering* in Italy.—Act of keeping, feeding, or preserving during the winter, as live-stock on farms.

Win'terly, *a.* Wintry; resembling, or adapted for, winter.

Win'ter-pear, (*-pār,*) *n.* A kind of pear adapted for winter-keeping, or one that becomes ripe in winter.

Win'terport, in *Maine*, a post-village and township of Waldo co., 11 m. S. of Bangor.

Win'ter-proud, *a.* Having too forward a growth for winter, as grain.

Win'ter-quarters, (*-kwar-terz,*) *n. pl.* The quarters or cantonments of an army during the winter season; also, a winter residence or station; as, the troops went into *winter-quarters.*

Win'terset, in *Iowa*, a post-village, cap. of Madison co., 30 m. S.W. of Des Moines.

Win'terswik, a town of Holland, on the Prussian frontier, 38 m. from Arnheim; *pop.* 7,162.

Win'terthur, an industrious and beautiful small town of Switzerland, canton of Zurich, 23 m. from Constance. *Manuf.* Cotton fabrics, yarn, &c. *Pop.* 6,214.

Win'ter-wheat, *n.* (*Agric.*) Wheat which, sowed in autumn, ripens in the following summer.

Win'tery, Win'try, *a.* [A.S. *wintrig.*] Pertaining or relating to winter; winterly; suitable to winter; brumal; cold; tempestuous; hyemal; as, *wintry* weather.

Win'throp, in *Maine*, a post-vill. and twp. of Kennebec co., 19 m. W.S.W. of Augusta.

Winthrop, in *Massachusetts*, a post-township of Suffolk co.

Win'ton, in *N. Carolina*, a post-village, cap. of Hertford co., 115 m. N.E. of Raleigh.

Wint'zenheim, a town of Germany, in Alsace, 3 m. from Colmar. *Manuf.* Cottons and woollens. *Pop.* 4,360.

Win'y, *a.* Possessing the taste or characteristic qualities of wine; as, a *winy* flavor.

Win'yaw Bay, of *S. Carolina*, an estuary 14 m. long, and 2 m. wide formed by the junction of the Pedee, Black, and Waccamaw rivers near Georgetown, and enters the Atlantic about Lat. 33° 10′ N.

Winze, *n.* (*Mining.*) A sinking in a lode communicating with one level, for proving the lode or ventilating the drivings.

Wio'ta, in *Wisconsin*, a post-village and township of Lafayette co., 37 m. E.N.E. of Galena.

Wipe, *v. a.* [A. S. *wipian*, to cleanse.] To clean by rubbing; to rub with something soft for cleaning; as, to *wipe* one's hands with a towel.—To remove by rubbing; to dash away or strike off gently; as, she *wiped* the tears from her eyes.—To efface; to obliterate; to remove by erasion;—generally with *away, off*, or *out*; as, to *wipe out* a stain; to *wipe off* an old score.—To cleanse from evil practices or abuses; to overturn and destroy what is foul or obnoxious.

Wipe, *n.* Act of wiping or rubbing for the purpose of cleaning.—A sharp blow, hit, smack, or stroke; as, to deal one a *wipe* across the face.—A cutting retort; a biting sarcasm; a scathing rebuff or rebuke; an acrimonious gibe; as, better the blow of his fist, than the dry *wipe* of his tongue.—A slang term for a pocket-handkerchief.

Wipe, *n.* [Dan. *vibe*, the lapwing.] (*Zoöl.*) The Pewit. See LAPWING.

Wip'er, *n.* One who wipes.—That which serves to wipe, as a towel, cloth, or rag.

(*Mach.*) In oil-mills, powder-mills, fulling-mills, &c., a piece projecting generally from an horizontal axle, for the purpose of raising stampers, pounders, or heavy pistons, in vertical directions, and then leaving them to fall by their own weight. The principal object to be attended to in the construction of wipers is to give them such a form that the weight shall be raised with a motion slow at first and gradually increasing in velocity, like that of gravity; and to this end the outline of the wiper should be a parabola.

Wire, *n.* [Swed. and Icel. *vir.*] A metallic thread, as of iron, copper, silver, gold: any substance of metal drawn to an even thread, or slender cylindrical rod; as, brass *wire.*

—*v. a.* To bind with wire; to apply a wire to; as, to *wire* the corked neck of a bottle of champagne.—To fix or put a wire on; as, to *wire* shells.—To insnare by means of a contrivance formed of wire; as, to *wire* rabbits.

Wire'-bridge, *n.* A bridge suspended on wire cables.

Wire'-cloth, *n.* A coarse cloth made of woven metallic wire, used for straining liquors, and in the construction of window-blinds, &c.

Wire'-draw, *v. a.* (*imp.* WIRE-DREW; *pp.* WIREDRAWN.) To draw a piece of metal into wire by passing through a hole in a plate or disc of steel. See WIRE-DRAWING.—Hence, to draw by finesse or forcible means; also, to spin out into considerable length; to attenuate; as, a *wire-drawn* argument.

(*Mach.*) In steam-engines, to draw off, as steam, through narrow passages, thus causing wastage of some of its mechanical forces.

Wire'-drawer, *n.* One who draws metal into wire; also, one who unduly spins out the substance of a speech or writing.

Wire'-drawing, *n.* The art of extending the ductile metals into wire. The operation is performed by casting or hammering the metal into a bar, which is then successively drawn through holes in a steel plate, each being smaller than the other, until the requisite fineness is attained. The holes through which extremely fine wires of platinum, gold, or silver are occasionally drawn, are sometimes made in a diamond or ruby.

Wire'-edge, (*-ej,*) *n.* The thin, wire-like metallic thread occasionally formed on the edge of a cutting tool by the stone in sharpening it.

Wire'-gauze, *n.* A finely interwoven texture of wire, resembling gauze, and generally used for making lower window-blinds.

Wire'-grass, *n.* (*Bot.*) See ELEUSINE.

Wire'-heel, *n.* (*Far.*) A disease in the feet of horses and other beasts.

Wire'-iron, (*-i'urn,*) *n.* Rod-iron used for drawing out into wire.

Wire'-netting, *n.* A coarse kind of WIRE-GAUZE, *q. v.*

Wire'-puller, *n.* One who pulls the wires to work a puppet; hence, an intriguer; one who acts or manages by artfulness and secrecy; a lobbyist in political affairs.

Wire'-pulling, *n.* Act of pulling the wires, as of a puppet; hence, intrigue; crafty influence exercised in secret.

Wire-rope, *n.* Iron wire twisted into ropes for cordage, &c.

Wire'town, in *New Jersey*, a post-village of Ocean co., 51 m. S.E. of Trenton.

Wire'-worker, *n.* A maker of articles composed of wire.

Wire-worm, *n.* (*Zoöl.*) The Galley-worm. See JULIDÆ.

Wir'iness, *n.* State of being wiry or sinewy.

Wirks'worth, a market-town of Derbyshire, 13 m. from Derby. *Manuf.* Cotton goods, bats, or hosiery. *Pop.* 8,466.

Wirt, in *New York*, a post-township of Alleghany co., 82 m. W.S.W. of Rochester.

Wirt, in *West Virginia*, a W. co.; *area*, 290 sq. m. *Rivers*, Little Kanawha and Hughes; also Reedy and Spring creeks. *Surface*, hilly; *soil*, fertile. *Cap.* Elizabeth. *Pop.* (1897) 10,250.

Wirt Court-House, now ELIZABETH, in *West Virginia*, a post-village, cap. of Wirt co., 24 m. S.S.E. of Parkersburg.

Wiry, (*wīr'y,*) *a.* Made of wire; drawn out like wire. Hence, tough; sinewy; vigorous; capable of enduring much; as, a man of *wiry* frame.

Wis, *v. a.* (*imp.* and *pp.* WIST.) [A.S. *wisian*, to instruct.] To know; to comprehend; to be aware; as, *wist* you not that this cannot be?—To imagine; to deem; to think; to suppose;—seldom used except in poetry.

Wis'beach, a market-town of England, in Cambridgeshire, in the isle of Ely, on the New, 8 m. from Masch. *Manuf.* Rope, twine, and iron goods. *Pop.* 9,276.

Wis'by, a seaport of the Swedish island of Gothland, cap. of the island, 130 m. S. of Stockholm. During the 10th and 11th centuries, it was one of the most important commercial cities in Europe. *Pop.* 6,013.

Wiscas'sett, in *Maine*, a post-town, port of entry, and cap. of Lincoln co., on Sheepscott River, 50 m. E.N.E. of Portland.

Wiscon'sin, a N. State of the American Union, situated between 42° 27′ and 47° N. Lat., and 86° 53′ and 92° 53′ W. Lon., is bounded on the N. by Lake Superior and the State of Michigan, W. by Green Bay and Lake Michigan, S. by Illinois, S.W. by Iowa, and W. by Minnesota. Average length about 260 m., with a breadth of 215 m. —*Area.* Exclusive of water surface, 54,450 sq. m., or 34,848,000 acres.—*Gen. Desc.* The surface of *W.*, nowhere rising into mountains or lofty ranges of hills, may be regarded as one vast undulating plain, in some places broken and picturesque, and in others level. The whole State lies at an altitude of from 600 to 1,800 feet above sea-level. The divides between the different streams generally attain but a slight elevation above the valleys; and the waters of a lake or marsh are frequently drained in opposite directions, reaching the ocean by widely divergent courses, and at very different points. The highest elevation of surface occurs in the N. section of the State, near the head-waters of the Montreal River, where it reaches an altitude of 1,800 ft. above the level of the sea, gradually declining in its W. expansion to 1,100 ft.; at the W. line of the State this elevation forming the divide between the waters flowing into Lake Superior and those emptying into the Mississippi River. The streams S. of this divide flow S., S.E., and S.W. There are other local elevations or *mounds*, as they are called, — among them the Blue Mounds in Iowa and Dane cos., 1,729 ft. above the sea; the Platte Mounds 1,281 ft., and the Sinsinicsco Mound 1,160 ft., in Grant co. The calcareous cliffs along the E. shore of Green Bay and of Lake Winnebago, extend S. through Dodge co., and form, in many places, bold escarpments, some of the higher points rising to an altitude of 1,400 ft. above sea-level. A series of still more prominent bluffs range along the banks of the Mississippi river, forming some of the grandest and most picturesque scenery in the country. In the W. part, the principal rivers are the St. Croix, Black, and Chippewa, and, with the Wisconsin in the centre of the State, have their embouchures in the Mississippi. In the S., Rock river, rising in Lake Horicon, flows in the Illinois line, and, entering that State, also flows into the Mississippi. Fox and Wolf rivers in the interior, flow S. and N. respectively; while the Menomonee, constituting 100 m. of the eastern border, discharges its waters into Green Bay. The other noticeable streams are the St. Louis, Bois Brulé, Bad, and Montreal, all emptying into Lake Superior; the Pishtego, Oconto, and Pensaukee, flowing into Green Bay; and the Sheboygan, Manitowoc, and Milwaukee, into Lake Michigan. The streams falling into Lake Superior have the most rapid descent, the beds of those tributary to Lake Michigan and the Mississippi river having more gradual and uniform slopes. Rapids occur in most of the streams, affording immense supplies of water-power. The heads of different rivers are often situated in close proximity to each other, those of the Fox and Wisconsin approaching so near that they have been connected by a short canal at Portage City, through which vessels may pass at high water, thus uniting the great lakes with the Mississippi. The Wisconsin, Chippewa, Wolf, and Black rivers, are navigable for steamers. Lake Winnebago, S.E. of Green Bay, is the largest sheet of water in the State, being 28 m. in length, and 10 in breadth, covering an area of 212 sq. m.; it is daily navigated between Fond-du-Lac and Menasha, situated respectively on its N. and S. extremities. The other principal lakes are Pepin, St. Croix, Green, Geneva, Pewaugan, Pewaukee, Horicon, the Four Lakes, and Kaskoneong. The whole surface is, in fact, studded with beautiful small lakes, more particularly in the region of the St. Croix and Chippewa rivers. *Meteor.* The climate is conducive to good health and longevity. The winters are cold, but generally uniform; the springs are sometimes backward, the summers short and very warm, the autumns mild and pleasant. Mean annual temp. of the winter 20°, spring and autumn 47°, and summer 72°. In the fall and winter, the prevailing winds are from the W., in summer S.E., and in spring N.E. Snow falls in the N. part of the State before the ground is frozen, protecting the roots of plants from wintery frosts, and accelerating vegetable growth in the spring; while in the S. part, some winters pass almost entirely without any snow-fall; and, in other seasons, snow falls to the depth of from 12 to 18 inches, covering the whole surface, and remaining the greater part of the winter. Average annual rain-fall, 31 inches.—*Geology, Minerals, &c.* The geology of Wisconsin is comparatively simple, the series of rocks extending only from the trappean or primary system, to the Devonian. Its whole surface, with the exception of the plumbiferous regions in the S.W., and the country lying along the Mississippi River, is covered by the remains of the glacial, or drift period, consisting of disintegrated fragments of almost every geological formation. All the geological formations are older than the coal measures, and hence no coal deposits are found in the State. The trappean series, and the metamorphic rocks, prevail over nearly 8,000,000 acres in the N. part of the State, and contain vast deposits of copper and iron ore. At Grand Rapids, on the Wisconsin, are found extensive beds of Kaolin or China clay. The Potsdam sandstone prevails in the N.W., on Lake Superior, and S. of the azoic system, stretching across the State from the Menomonee to the St. Croix, in a belt from 10 to 60 miles wide, its greatest breadth being in the interior of the State in the valley of the Wisconsin. It contains extensive calcareous deposits, embracing fossil remains of animals of the primordial fauna of great geological interest. *Mineral wealth*, consists as follows:—Lead, zinc, iron and copper; brick-clay, kaolin, cement rock, limestone for burning into quicklime, limestone for flux, glass sand, peat and building stone. In *W.*, lead and zinc are found together; the former has been utilized, since 1826, the latter since 1860. The counties of Lafayette, Iowa and Grant—the southwestern counties of the State—are known as the "Lead Region." The lead ore is that known as galena, and has yielded largely, as many as several hundred thousand pounds of metal having been raised from single crevices. The production of zinc and lead has declined, but that of iron has increased. With but a small yield in 1880, *W.* produced 738,868 tons in 1900, ranking 6th among the iron-yielding states. The most extensive iron deposits occur in the Huronian formation in the Menominee region and along the Montreal river. There is a large supply of building stone, the granite and reddish-brown sandstone being most valued, while limestone is largely quarried.—*Agric.* The chief interest of the State is agricultnre, in which the bulk of the population is engaged, the farms being largely devoted to cereal production, though stock-raising and dairy-farming have become important. The surface devoted to farming is in great part gently undulating in character, consisting largely of prairies alternating with oak openings. Wheat, formerly the main dependence of the farmer, has lost much of its prominence in favor of other crops. In 1900 the yield of the leading cereals was as follows: wheat, 9,005,170; Indian corn, 53,309,810; oats, 84,040,800 bushels. In 1885 the wheat crop was 21,000,000 bushels. The tobacco crop, to which 30,000 acres were devoted in 1885 fell to less than half in 1900. On the other hand the product of butter and cheese is on the increase, and the number of animals kept has steadily grown. In 1900 there were 196,795 farms, embracing 19,862,727 acres, of which more than half were improved. These were valued at $530,546,690; their buildings at $155,604,970, and their live stock at $93,521,430. The assessed valuation of real and personal property in the State was $1,436,284,000.—*Lumbering.* The lumbering interests of *W.* are rendered especially important by its proximity to the prairie States, with their deficiency of timber. In 1886, the total forest area of the State was 17,000,000 acres, or nearly half the whole area. This has since been reduced by active lumbering and by forest fires, which have destroyed much valuable timber, but the annual product is still large, *W.* ranking third among the States in lumber yield. The increase of railroads has opened up the northern forests generally, and offered easy channels for marketing their valuable product.—*Manuf.* The State has an abundance of water-power, particularly on the Fox, Wisconsin, and Chippewa rivers, and its manufacturing interests, especially in wood products, are considerably developed. In 1890, the products were valued at $248,546,164, *W.* ranking 9th in this direction among the States. The articles of manufacture included lumber, shingles and laths, wagons, carriages and sleighs, and various other wood products. In addition may be named flour and grist mill products, pig and manufactured iron, leather, paper, woollen and cotton goods. There is a large meat product, while beer is manufactured in great quantity, Milwaukee being the center of its production.—*Fisheries.* Lakes Michigan and Superior offer extensive fisheries of lake-trout and white-fish, while the inland lakes and streams abound in bass, pickerel, pike, brook trout, &c.—*Pol. Div.* The State is divided into 70 counties, as follows:

Adams,	Eau Claire,	Manitowoc,	Sauk,
Ashland,	Florence,	Marathon,	Sawyer,
Barron,	Fond-du-Lac,	Marinette,	Shawano,
Bayfield,	Forest,	Marquette,	Sheboygan,
Brown,	Grant,	Milwaukee,	St. Croix,
Buffalo,	Green,	Monroe,	Taylor,
Burnett,	Green Lake,	Oconto,	Trempealeau,
Calumet,	Iowa,	Oneida,	Vernon,
Chippewa,	Iron,	Outagamie,	Vilas,
Clark,	Jackson,	Ozaukee,	Walworth,
Columbia,	Jefferson,	Pepin,	Washburn,
Crawford,	Juneau,	Pierce,	Washington,
Dane,	Kenosha,	Polk,	Waukesha,
Dodge,	Kewaunee,	Portage,	Waupaca,
Door,	La Crosse,	Price,	Waushara,
Douglas,	La Fayette,	Racine,	Winnebago,
Dunn,	Langlade,	Richland,	Wood.
	Lincoln,	Rock,	

Cities and Towns. Madison (State cap.), Milwaukee, La Crosse, Racine, Kenosha, Fond-du-Lac, Oshkosh, Janesville, Beloit, Green Bay, Ashland, Eau Claire, Watertown, Portage City, Superior, Chippewa Falls, Manitowoc, Grand Rapids, Appleton, Sheboygan, are the principal centres of population and industry.—*Govt.* The constitution formed and ratified in 1848, as amended several times, is still in force. The legislature consists of a Senate whose members are elected biennially, and an Assembly whose members are elected every year. The governor and other State officers are elected for two years. The judiciary comprises a Supreme Court, consisting of a chief justice and four associates; circuit courts, probate courts, and justices of the peace; all judicial officers are elected by the people. The franchise may be exercised by all males who shall have been residents of the State for one year next before the election, who are citizens of the Republic, or foreigners who have declared their intention to become citizens, or persons of Indian blood, once de-

Fig. 2623.—SEAL OF THE STATE.

WISCONSIN

Hammond's 8 x 11 Map of Wisconsin

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Scale of Miles 0 10 20 30 40 50 60

602 feet above mean sea level

State Capital ⊛ County Seats ○

Places of 200,000 and over — Milwaukee

" " 20,000 to 200,000 — Superior

" " 10,000 to 20,000 — Madison

" " 5,000 to 20,000 — Waukesha

14 Mile Point

Lake Superior

Lake Michigan

Mississippi River

Wisconsin River

Rock River

Fox River

Chippewa River

Wolf River

Menominee River

Dubuque

Chicago

Milwaukee

Madison

Superior

Duluth

Oshkosh

Sheboygan

Manitowoc

Kenosha

Racine

Waukesha

Green Bay

La Crosse

Eau Claire

Wausau

Marinette

Menomonee

Ashland

Hurley

Rhinelander

Antigo

Merrill

Wausaukee

Florence

Iron River

Port Wing

Bayfield

Washburn

Shell Lake

Spooner

Hayward

Grantsburg

Superior

Douglas

Burnett

Washburn

Sawyer

Price

Oneida

Vilas

Forest

Marinette

Oconto

Shawano

Langlade

Lincoln

Taylor

Clark

Marathon

Portage

Wood

Juneau

Adams

Monroe

Jackson

Trempealeau

Buffalo

Pepin

Pierce

St. Croix

Polk

Barron

Rusk

Chippewa

Eau Claire

Dunn

Pepin

Crawford

Vernon

La Crosse

Richland

Sauk

Columbia

Dodge

Fond du Lac

Green Lake

Marquette

Waushara

Winnebago

Calumet

Manitowoc

Sheboygan

Ozaukee

Washington

Waukesha

Jefferson

Dane

Iowa

Lafayette

Grant

Green

Rock

Walworth

Kenosha

Racine

Milwaukee

Waukesha

Ashland

Bayfield

Iron

Price

Taylor

Clark

Jackson

Trempealeau

Buffalo

Pepin

Pierce

St. Croix

Polk

Barron

Rusk

Chippewa

Eau Claire

Dunn

Pepin

Crawford

Vernon

La Crosse

Richland

Sauk

Columbia

Dodge

Fond du Lac

Green Lake

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Lafayette

Grant

Green

Rock

Walworth

Kenosha

Racine

Milwaukee

WISCONSIN.

Land surface, Sq. m. 54,450
Water surface, Sq. m. 1,590
Pop. 1900..2,069,042
White ..2,057,911
African.....2.542
Indian.....8,372
Chinese 212
Japanese..... 5
Native-born, 1,553,071
Foreign-born, 515,971
Males...1.067,562
Females 1,001,480

COUNTIES.

Adams..... G 8
Ashland.....E 3
Barron .....C 5
Bayfield..... D 3
Brown.....L 7
Buffalo.....C 7
Buruett..... B 4
Calumet.....K 7
Chippewa .....D 5
Clark .....E 6
Columbia ....H 9
Crawford..... E 9
Dane.....H 9
Dodge.....J 9
Door..... ....M 6
Douglas.....C 3
Dunn.....C 6
Eau Claire.... D 6
Florence.....K 4
Fond du Lac..K 8
Forest.....J 4
Gates..... D 4
Grant.... .....E10
Green G10
Greeu Lake...H 8
Iowa.....F 9
Iron.....F 3
Jackson .....E 7
Jefferson... ..J 9
Juneau.....F 8
Kenosha.....K10
Kewaunee.....L 6
La Crosse .....D 8
La Fayette... F10
Langlade .....H 5
Lincoln .....G 5
Manitowoc....L 7
Marathon.....G 6
Marinette ....K 5
Marquette.....H 8
Milwaukee....L 9
Monroe.....E 8
Ocouto.....K 5
Oneida .....G 4
Outgamie ....K 7
Ozaukee.....L 9
Pepin ... .C 6
Pierce.....B 6
Polk..... ....B 5
Portage ..... H 7
Price .. ..F 4
Racine..... ..K10
Richland .....F 9
Rock H10
St. Croix.....B 5
Sauk.. ..... G 9
Sawyer..... D 4
Sbawano.....J 6
Sbeboygan....L 8
Taylor ..... E 5
Trempealeau..D 7
Vernon.....E 8
Vilas .. ..G 3
Walworth.....J10
Washburn ....C 4
Washington..K 9
Waukesha.....K10
Waupaca..... J 7
Wausbara.... H 7
Winnebago....J 7
Wood.....F 7

CITIES-TOWNS

Pop. Thousands.		
285	Milwaukee	L 9
31	Superior	B 2
29	Raciue	L 10
28	La Crosse	D 8
28	Oshkosb	J 7
22	Sbeboygan	L 8
19	Madison	H 9
18	Greenbay	L 6
17	Eau Claire	D 6
16	Marinette	L 5
15	Fond du Lac	K 8
15	Appleton	K 7
13	Asbland	E 2
13	Janesville	H 10
12	Wausau	G 6
11	Manitowoc	L 7
11	Kenosba	L 10
10	Beloit	H 10
9	StevensPoint	G 6
8	Merrill	G 5
8	Watertown	J 9
8	Chippewa Falls	D 6
7	Waukesha	K 9
5	Neenah	K 7
5	Baraboo	G 9
5	Menominee	C 6
5	Oconto	L 6
5	Menasha	K 7
5	Portage	H 8
5	Marsbfield	F 6
5	Antigo	H 5
5	Beaverdam	J 9
5	Kaukauna	K 7
4	Rhinelander	H 4
4	Grand Rapids	G 7
4	Berlin	J 8
4	Depere	K 7
3	Monroe	G10
3	Ripou	J 8
3	Two Rivers	L 7
3	Sparta	E 8
3	Stoughton	H10
3	Whitewater	J10
3	Soutb Milwaukee	L10
3	Sturgeou Bay	M 6
3	Platteville	F10
3	Hudson	A 6
3	Prairie du Cbien	D 9
3	Waupun	J 8
3	Fort Atkiuson	J10
3	Port Washington	L 9
3	Rice Lake	C 4
2	Mineral Point	F 10
2	Waupaca	H 7
2	Ocouomowoc	K 9
2	Wauwatosa	K 9
2	Tomah	F 8
2	New London	J 7
2	Lake Geneva	K10
2	Jefferson	J10
2	Burlington	K10
2	Lancaster	E10
2	Stanley	E 6
2	Columbus	H 9
2	Richland Center	F 9
2	Tomahawk	G 5
2	Plymoutb	L 8
2	Delevan	J10
2	Reedsburg	F 8
2	Edgarton	H10
2	W. Bend	K 9
2	Neillsville	E 6
2	River Falls	B 6
1	Viroqua	E 8
1	Black River Falls	E 7
1	Dodgeville	F10
1	Evansville	H10
1	Shawano	J 6
1	Pbillips	F 4
1	Darlington	F10
1	Glenwood	B 5
1	Kewaunee	M 7
1	Medford	F 5
1	Algoma	M 6
1	Elkhorn	J10
1	Mauston	F 8
1	Bayfield	E 2
1	Elroy	F 8
1	Clintonville	J 6
1	Boscobel	E 9
1	Hartford	K 9
1	New Richmond	A 5
1	Brodbead	H 10
1	Barron	C 5
1	Chilton	K 7
1	Durand	C 6
1	Lake Mills	J10
1	Horicon	J 9
1	Onalaska	D 8
1	Cudaby	L10
1	Omro	J 7
1	Cumberland	C 4
1	Sbeboygan Falls	L 8
1	Arcadia	D 7
1	Augusta	D 6
1	Sbullsburg	F10
1	Necedab	F 7
1	Mondovi	C 6
1	Princeton	H 8
1	Alma	C 7
1	Waterloo	J 9
1	Kilbourn	G 8
1	Lodi	G 9
1	Ellsworth	B 6
1	North Milwaukee	L 9
1	Winneconne	J 7
1	Fennimore	E10
1	Seymour	K 6
1	Springvalley	B 6

Pop. Hundreds.		
9	Cassville	E10
9	Fairchild	E 6
9	Sbaron	J10
9	Littlechute	K 7
9	Prentice	F 4
9	Sun Prairie	H 9
9	Kiel	K 8
9	Hortonville	J 7
9	Higbland	F 9
9	Weyauwega	J 7
9	Amery	B 5
9	Mazomanie	G 9
8	Juneau	J 9
8	Foxlake	J 8
8	Clinton	J10
3	Mt. Horeb	G10
8	Galesville	D 7
8	Brillion	K 7
8	Cadott	D 6
8	Tborp	E 6
8	Wonewoc	F 8
8	Bloomer	D 5
8	Sauk City	G 9
7	Wittenberg	H 6
7	Albany	H10
7	Pardeeville	H 8
7	Hillsboro	F 8
7	Balsam Lake	B 5
7	Nekoosa	G 7
7	Manawa	J 7
7	Muscoda	F 9
7	Merrillan	E 7
7	Randolph	J 9
7	Plainfield	H 7
7	W. Salem	D 8
7	Tigerton	H 6
7	Altoona	D 6
7	Palmyra	J10
7	Pewaukee	K 9
7	Almena	B 5
7	Greenwood	E 6
7	Markesan	J 8
6	Oregon	H10
6	Milton	J10
6	Soldiers Gr.	E 9
6	Kewaskum	K 8
6	Boyd	D 6
6	Colby	F 6
6	Brandon	J 8
6	Mosinee	G 6
6	Prairie du Sac	G 9
6	Loyal	P 6
6	Cuba	F10
6	Pittsville	F 7
6	Bangor	E 8
6	Povnette	H 9
6	Baldwin	B 6
6	Independence	D 7
6	Hartland	K 9
6	Montfort	F10
6	St. Croix Falls	A 5
6	Grantsburg	A 4
6	Bloomington	E10
6	Trempealeau	D 7
6	Wbiteball	D 7
5	Blanchardville	G10
5	Cambria	H 8
5	New Lisbon	F 8
5	Mouticello	G10
5	Amherst	H 7
5	Iola	H 6
5	Schleisingerville	K 9
5	Benton	F10
5	Hustisford	J 9
5	Cbetek	C 5
5	Marathon	G 6
5	Clearlake	B 5
5	Westby	E 8
5	Uniongrove	K10
5	Deerfield	H 9
5	Wbitefish	L 9
5	Cashton	E 8
5	Belmout	F10
4	Hilbert	K 7
4	Lomira	K 8
4	La Farge	E 8
4	Nortb Freedom	G 9
4	Grafton	L 9
4	Edgar	G 6
4	Birnamwood	H6
4	Osseo..	D 6
4	Wauzeka	E 9
4	Osceola	A 5
4	Elkbart	K 8
4	Kendall	P 8
4	Dartford	J 8
4	Waunakee	H 9
4	Abbotsford	F 6
4	Hazel Green	E10
4	Potosi	E10
4	Viola	E 8
4	Camp Douglas	F 8
4	Reedsville	L 7
4	Wrigbtstown	K 7
4	Pepin	B 7
4	Avoca	F 9
4	Hammond	B 6
4	Readstown	E 9
4	Wilton	E 8

clared by the laws of the U. S. to be citizens, subsequent laws to the contrary notwithstanding, they being required to have dwelt 1 year in the State and county, and 10 days in the town and precinct. The elections are now held annually on the Tuesday next following the first Monday in Nov., and the legislative bodies convene on the second Wednesday of the ensuing January. The apportionment, based on the census of 1900, gave to *W.* 11 representatives in Congress and 13 electoral votes.—*Educ.* The school system of Wisconsin embraces graded schools to be found in all the

Fig. 2624.—MADISON.

cities and larger villages; the district schools, organized in the smaller villages and in the country generally; the University of Wisconsin (located at Madison, the capital of the State), having three departments—the college of letters, the college of arts, and the college of law, and the State Normal Schools, of which there are five. The leading denominational colleges are Beloit, Milton, Ripon, Racine, and Lawrence. Liberal provision is made for the support of the public schools, the State having set aside as a permanent school fund the Federal grant of Sec. 16 in each township, together with 500,000 acres of land and 5 per cent. of the proceeds of sales of the public lands of the State. The amount of the fund at interest is over $3,000,000, with a large extent of land unsold. Attendance at school for 12 weeks annually is compulsory on all children between the ages of 7 and 15. Women are eligible to all school offices, except that of State Superintendent of Instruction. The State Historical Society at Madison has a reference library of 125,000 volumes, being the richest extant upon the history of the Mississippi basin. Milwaukee has a flourishing public library, and there are several others of importance in the State.—*Antiquities.* An interesting characteristic of *W.* is the large number of animal-shaped mounds, the work of the Mound-builders (*q. v.*), which are found along its rivers and lakes. These are from 2 to 6 feet high, and sometimes 200 feet long, rudely representing various animals of the State. Among them is one not unlike the elephant. There are also remains of ancient wells, while this State has yielded the largest collection known of prehistoric copper implements.—*Hist.* The region W. of Lake Michigan was first explored and occupied by French missionaries and traders in 1639, and the country was held thenceforward under French dominion until its surrender to Great Britain in 1763. Canadian law governed the territory, and the English kept possession with a military force at Green Bay till 1796, when it reverted to the Americans, who included it within the extended limits of their government of the North-west territory. In 1809 Wisconsin was annexed to the Territory of Illinois, as then formed, and so continued till the conversion of the latter into a State in 1818, when Wisconsin, which was yet a wilderness, was annexed to Michigan Territory, for such government as was needed. In 1827, lead was discovered in large quantities at Potori, Mineral Point, &c., and there was a great rush of immigrants to that section. The Indians soon became troublesome, and the Black Hawk war ensued in 1832. Treaties were made with the Indians soon after, by which they removed to reservations beyond the Mississippi. In 1836, the population had increased to such an extent that a Territorial government was organized, which at first included a part of the upper peninsula of Michigan, the whole of Minnesota and Iowa, and that part of Dakota lying East of the Missouri and White Earth rivers. On the admission of Michigan into the Union as a State, a part of the Lake Superior region was set off to her, and when the Territory of Iowa was formed, it included all the region West of the Mississippi. The first effort to procure the admission of *W.* to the Union as a State was made in 1846. A constitution drafted during that year was ratified in March 1848, and the State was admitted to the Union by act of Congress May 29, 1848. Under this Constitution, with some amendments, it is still governed. The growth of the State has been rapid and peaceful. It has attracted a large immigration from Europe, the offer of free lands having brought over an unusually large foreign element, mainly Scandinavian and German, but also French and Swiss. Many of these dwell in communities, in which their native language and customs are tenaciously preserved. These include Germans on Lake Michigan, Scandinavians elsewhere, a colony of Swiss at New Glarus, one of Belgians in Door co., &c. *Pop.* (1860) 775,881; (1890) 1,686,880; (1900) 2,069,042.

Wisdom (*wiz'dum*), *n.* [A. S. *wis*, wise, and *dom*, state, condition.] State or quality of being wise; knowledge practically applied to the best ends, or to the true purposes of life; use of the best means to accomplish the best ends; power or act of judging rightly; sagacity; discernment; prudent or judicious conduct; skill.—Acquired knowledge; eruditiou; scientific or practical truth; as, the *wisdom* of the ancients.

(*Script.*) The religious sentiment; knowledge of divine things; godliness; piety; as, "The fear of the Lord, that is *wisdom*."—*Job* xxviii.

Wise, (*wiz,*) *a.* (*comp.* WISER; *superl.* WISEST.) [A. S. *wis;* Du. *wijs;* Ger. *weise.*] Having the power of knowing and distinguishing; knowing; erudito: learned; well-informed; enlightened.— Hence, particularly, having the power of discerning and judging correctly, or of discriminating between what is true and what is false; or, between what is fit and proper and what is unfit and improper; discreet and judicious in the use or application of knowledge; choosing laudable ends, and the best means of their accomplishment; as, *wise* people.—Apt; skilful; dextorous; accomplished in art or science;—specifically, versed in divination or fortune-telling; as, a *wise* gypsy.—Hence, shrewd; artful; subtle; calculating; crafty; prudent; wary; as, his is a *wise* head on young shoulders.—Pious; godly; characterized by religious principles.—Sapient; judicious; dictated or guided by, or containing, wisdom; well adapted to be productive of good effects; as, *wise* policy; a *wise* resolve; grave; discreet; becoming a wise or prudent man; as, a *wise* demeanor.

—*n.* [A. S.; O. Ger. *weiss.*] Manner; stylo; way or mode of being or acting;—antiquated, and nearly obsolete, except in compounds; as, like*wise*, length*wise*, other*wise*, &c.; and in such phrases as, *in no wise*, *in any wise*, and the like.

Wise, HENRY ALEXANDER, an American statesman, b. in Drummondtown, Accomac co., Va., 1806; graduated at Washington College, Penn., and studied law at Winchester, Pa. Elected to Congress in 1833, he was involved in a duel with his opponent, whose arm he fractured. In 1840 he secured the nomination of John Tyler as Vice-President; and on Tyler becoming President, had a powerful influence in his administration, and was nominated minister to Brazil, where he resided until 1847. In 1854 he was elected governor of Virginia, and signed, Dec., 1859, the death-warrant of John Brown. In 1861, as a member of the Virginia Convention, he labored for conciliation; but when his State voted for Secession, he entered heartily into the war, and was appointed brigadier-general, serving in the Kanawha Valley, and later defending Roanoke Island, where his son, Capt. Wise, was killed. From that time he took no prominent part in the war. D. 1876.

Wise, in *Texas*, a N. co.; *area*, 900 sq. m. *Rivers.* Denton Fork, and W. Fork of Trinity River. *Surface*, diversified; *soil*, fertile. *Cap.* Decatur.

Wise, in *Virginia*, a S.W. co., bordering on Kentucky; *area*, 450 sq. m. It is drained by Clinch River. *Surface*, mountainous on the N.W., elsewhere hilly; *soil*, generally fertile. *Cap.* Wise.

Wiseacre, (*wiz-ā'ker,*) *n.* [Ger. *weissager*, a foreteller; the proper English word would be *wise-sayer.*] A would-be wise person; one who makes great pretensions to wisdom;—hence, in contempt or irony, a fool; a dunce; a simpleton; a blockhead.

Wise'-hearted, *a.* Sapient; wise; knowing; erudite.

Wise'-like, *a.* Seemingly wise.

Wise'ly, *adv.* In a wise or prudent manner; judiciously; sapiently; discreetly; characterized by wisdom or knowingness; as, he *wisely* forbore to press the question.

Wiserite, *n.* (*Min.*) A variety of dialogite consisting of hydrated carbonate of manganese.

Wish, *v. n.* [A.S. *wiscan, gewiscan;* Du. *wenschen.*] To long; to hanker; to have a desire, or strong desire, either for what is or is not supposed to be attainable;—often preceding *for;* as, "Some ills we *wish for* when we *wish* to live." (*Young.*)—To be disposed, inclined, or affected; as, I *wish* you well through your troubles.—To entertain or express hope and fear in regard to anything; as, let us *wish* that he may succeed in his undertaking.

—*v. a.* To desire, or desire eagerly or ardently;—to hanker after; to long for; to have a mind, will, or disposition toward; as, I *wish* your society.—To invoke in favor of or against any one, as blessings or curses; to frame or express desires concerning, good or evil; as, "I would not *wish* them to a fairer death."—*Shaks.*

—*n.* Desire;—especially, eager desire; longing; hankering; as, my *wishes* were ultimately gratified.—Request; expressed desire; solicitation; as, a woman'e *wish* is to many men a command.—Thing longed for; object of desire; as, he at last obtained his *wish.*

Wish'able, *a.* That may be wortbily wished for; desirable. (R.)

Wish'-bone, *n.* Same as MERRY-THOUGHT, *q. v.*

Wish'er, *n.* One who expresses a wish or desire; one who feels a wish or longing for.

Wish'ful, *a.* Having or expressing a wish or desire; wistful; as, she looked at him with *wishful* eyes.—Desirous; eager; earnest; as, he is *wishful* to give satisfaction.—Desirable; tending to excite a wish or wishes; as, a *wishful* prize.

Wish'fully, *adv.* In a wishful or desirous manner; with the show of ardent desire.

Wish'fulness, *n.* State or quality of being wishful, or of having or showing desire.

Wish'-wash, Wish'y-wash'y, *n.* Slops; any weak, thin, insipid drink.

Wish'y-wash'y, *a.* Weak, thin, and tasteless;—said of liquor.—Without force, consistence, or substantiality; as, a *wishy-washy* stylo of composition; a *wishy-washy* speech or argument.

Wisingsoe, (*vis'ing-so,*) an island in the S. part of Lake Wetter, Sweden, opposite Grenna. *Ext.* 10 m. long, and 1 broad.

Wis'mar, a fortified seaport of Germany, in the Grand-duchy of Mecklenburg-Schwerin, on the Baltic, 18 m. from Schwerin. *Manuf.* Tobacco, sail-cloth, beer, and spirits.

Wisp, *n.* [Ger. *wisch*, from O. Ger. *wiskjan*, to scour, to wipe.] A small bundle of straw or other like substance; as, a *wisp* of hay.—A whisk, or small broom.

—*v. a.* To brush, dress, or wipe, as with a wisp; as, to *wisp* a horse.

Wissahic'kon (or WISSAHICCON) **Creek,** in *Pennsylvania*, rises in Berks co., and flowing S.E., enters the Schuylkill River 5 m. above Fairmount Waterworks, Phila., and is much celebrated for its romantic scenery.

Wis'sembourg, (Ger. *Weissenburg,*) a fortified town of Germany, on the Lauter, 35 m. from Strasburg. It was taken from the French by the Prussians in 1870. *Pop.* 5,151.

Wis'ta, in *Wisconsin*, a township of Lafayette county.

Wista'ria, *n.* (*Bot.*) A genus of plants, order *Fabaceæ. W. frutescens* is an ornamental, vigorous vine, found in rich alluvion in the Southern and Western States; stem several yards long, climbing over bushes, &c.; lilac flowers, nearly as large as those of the sweet pea, in elegant racemes, and slightly scented.

Wist'ful, *a.* Full of thought; pensive; contemplative.

"He . . . will *wistful* linger on that hallowed spot."—*Byron.*

—Earnestly attentive; sedulous;—hence, sometimes, manifesting desire; wishful; as, she cast a *wistful* look at him.—Curious; inquisitive; as, a *wistful* person. (R.)

Wist'fully, *adv.* In a wistful manner; thoughtfully.

Wist'fulness, *n.* State or quality of being wistful.

Wis'tonwish, *n.* (*Zoöl.*) Same as PRAIRIE-DOG, *q. v.*

Wit, *v. n.* [A.S. *witan.*] To know; to be known; to be informed;—used only in the infinite, *to wit*, when it is an adverbial and legal phrase, signifying namely; that is to say; as, *to wit*, the city of Philadelphia.

Wit, *n.* [A.S. *wit, ge-wit;* Ger. *witz;* Dan. *vid.*] The power or faculty of knowing, perceiving, distinguishing, or understanding; mind; intellect; sense; as, a man of ready *wit* and judgment.—The mental power, collectively or individually;—employed generally in certain phrases; as, he is out of his *wits;* I am at my *wit's* end for money.—The faculty of associating ideas in a new, unexpected, and ingenious manner; or the felicitous combination of ideas or objects, in a manner natural, but unusual and striking, so as to produce a surprise joined with pleasure; as, the Irish possess natural *wit* in a degree superior to any other people.

—A person of sprightly and eminent genius, fancy, or humor; a sayer of good things; one distinguished for power of repartee, and the like; as, a humorist is often mistaken for a *wit.*

Witch, (*wich.*) *n.* [A.S. *wicce*, from O. Ger. *wih*, holy, mystical.] Formerly, a woman supposed to have formed a compact with the Devil, or with evil spirits, and by their means to operate supernaturally; a sorceress; a female wizard; as, she was hurued as a *witch.*—One who exercises more than ordinary powers of fascination or attraction; a charming woman. (Colloq.)

Witch's butter. Same as NOSTOC.

—*v. a.* Same as BEWITCH, *q. v.*

Witch'craft, *n.* [A. S.] A supernatural power which some persons were formerly supposed to obtain possession of by entering into compact with the devil. It is not a little remarkable that this power has been almost always associated with the female character, and has from that circumstance received its name. The belief in the possibility of mortals being endowed with supernatural powers for accomplishing their ends appears to have prevailed in almost every age and country. "Thou shalt not suffer a witch to live," is the language of the law as given by Moses to the children of Israel; and subsequently we have an account of Saul's consultation with the witch of Endor, and of her raising up Samuel. Among the Greeks a general belief prevailed in magical practices and incantations; and Thessaly was the region most celebrated for the pursuit of these arts. The same superstitions were equally prevalent among the Romans. The modern idea of *W.*, however, denoting a regular paction with the Evil One, dates from the rise of Christianity, and obtained its highest development in the Middle Ages. The early Christians regarded the gods of the heathen in the character of demons, and there is no doubt that many of the supposed meetings of witches and devil-worshippers were the secret assemblies of the worshippers of the pagan deities to celebrate their sacred rites. At a later period the Waldenses and other early seceders from the Church of Rome, who were compelled to hold their religious assemblies in secret, were accused of the like practices. St. Augustine speake of magicians as living in society with devils, and having a compact with them. The Church, however, seems for a time not to have attempted to put down the various popular superstitions that were connected with this subject; at least we meet with no general denunciation against *W.* as a crime of itself down to about the end of the 12th century. Trial and persecutions were now introduced, which in the course of two centuries came to assume a regular system, and to be characterized by every feature of cruelty. The famous bull of Innocent VIII. on this subject appeared in 1484, narrating the popular superstitions on the subject, and appointing a commission to examine and punish witches. From that time it became a crime especially recognized by the ecclesiastical authorities in the Roman Church. In the 16th and 17th centuries the persecution of witches was actively carried on all over Europe, and an incredible number of unfortunate crea-

tures lost their lives. Down even to the end of the 17th century, the learned men of Europe generally were believers in *W.* In the beginning of the following cent. a better state of feeling began to prevail, and by degrees the legislative enactments began to be repealed; but even in this century, among the lower classes in Europe, particularly in rural districts, a belief in *W.* still prevails to a very great extent. The ideas that had come to be connected with this subject are not a little remarkable. The witch was believed to have entered into a regular engagement with the Evil One, who delivered over to her an imp or familiar spirit to be always at her call, and to do whatever she desired of it; she, on the other hand, agreeing that she should be his after death. The witch was believed to have the power of transporting herself through the air on a broomstick; of transforming herself into various shapes, particularly those of dogs and cats; of inflicting disease on whom she pleased, and of punishing her enemies in a variety of ways. Objects that were naturally horrid and loathsome were regarded as the chosen instruments of the witches; as dead bodies, toads, frogs, lizards, serpents, scorpions, &c. Cats, from their silent and mysterious movements and midnight wanderings, were regarded as particularly sacred to witches, who often assumed their shape. A power over the elements, of raising storms or producing calms, and of casting malign influences over the fruits of the earth or beasts of the field, were among the gifts most commonly ascribed to them. The suspected persons were put to the most cruel tortures, in the agonies of which confessions were extorted from them which had little foundation in fact. Some confessions were, no doubt, voluntarily made, which were the result of imagination. Among the various kinds of ordeals which were resorted to to discover suspected witches, water was the most common; the suspected person was cast into some water, and if she swam she was regarded as a witch, and if she sank as not one; so that not unfrequently it was death either way.

Witch'ery, *n.* Practices of witches; sorcery; enchantment; — hence, fascination; a powerful or inexplicable influence; as, the *witchery* of a lovely woman's smiles.

Witch'-hazel, Witch'-tree, *n.* (*Bot.*) See HAMAMELIDACEÆ.

Witch'ing, *a.* Bewitching; suitable to enchantment or witchcraft; as, the *witching* time of night.

Witch'-tree, *n.* (*Bot.*) The Witch-hazel. See HAMAMELIDACEÆ.

Wit'enagemote, *n.* [A. S.] (*Hist.*) The great national council of the Anglo-Saxons, prior to the Norman occupation of England.

With, *prep.* [A. S. *widh*; Goth *mith*, the middle.] *With* indicates or expresses — association; connection; intercourse; proximity; dealing; as, he could not live *with* his wife because of her temper. — Among; in the company of; treatment or regard by; estimation among; as, my entreaties availed not *with* him. — On the side of; countenance; support; amity; noting friendship or favor; — in a pregnant sense; as, I am *with* you, whether it be sink or swim. — By; noting cause, instrument, or means; as, he bores one *with* his intermluable small-talk. — Comparison; correspondence; congruity; as, I know not a woman to compare *with* her. — Close or immediate succession; direct subsequence or consequence; as, *with* that I retorted upon him.

(NOTE. *With* and *by* are so closely allied in many of their senses, that their uses are very frequently identified one with the other; so much so that it is somewhat difficult to define a rule of distinction. Johnson, indeed, observes that, *with* seems rather to denote an instrument, and *by* a cause; thus, he kills his enemy *with* a sword, but he died *by* an arrow. This rule if such it may be called) is not, however, conclusive. *With*, in composition, has, sometimes, a privative, combative, or dissociative sense.)

—*n.* Same as WITHE, *q. v.*

(*Arch.*) A partition between different flues in a chimney.

Withal, (*with-awl'*,) *adv.* [*With* and *all.*] Along with all the rest; together with; likewise; at the same time; as, so modest, and *withal* so brave.

—*prep.* With; — employed in combination with a verb, and preceded by the object of the verb; as, "It is to know what God is pleased *withal*." — *Tillotson.*

With'amite, *n.* (*Min.*) A variety of Magnesian Epidote, consisting of ferro-silicate of alumina in minute but brilliant and transparent carmine-red crystals.

With'amsville, in *Ohio*, a post-village of Clermont co., 16 m. E of Cincinnati.

Withdraw', *v. a.* (*imp.* WITHDREW; *pp.* WITHDRAWN.) [A. S. *with*, against, opposite, and *draw.*] To take back or away; to remove; to reverse; to cause to retire or leave; as, to *withdraw* one's favor from a person. — To recall; to take back; to retract; as, to *withdraw* an accusation.

—*v. n.* To retire; to retreat; to quit a company or place; to secede; as, the ladies *withdrew*, leaving the gentlemen to their wine.

Withdraw'al, Withdraw'ment, *n.* Act of withdrawing or taking back; a taking back.

Withdraw'er, *n.* One who withdraws.

Withdraw'ing-room, *n.* Same as DRAWING-ROOM (*q. v.*), its modern abbreviated form.

Withe, *n.* [A. S. *withig.*] A band consisting of a twig or twigs twisted; also, a willow twig.

(*Naut.*) An iron instrument fitted on one end of a mast or boom, with a ring to it, through which another mast or boom is rigged out and secured.

—*v. a.* To bind or fasten with withes or twigs.

With'er, *v. n.* [A. S. *gewithered*, withered, *widern*, dryness.] To fade; to become sapless; to lose native freshness; as, *withered* vegetation. — To waste; to pine away; to droop, through lack or loss of animal moisture; as, a *withered* old woman. — To perish; to pass away; as, a name and fame that shall not *wither*.

—*v. a.* To cause to fade and become dry; as, frosts *wither* tender plants. — To cause to shrink, wrinkle, and decay, for lack of animal moisture; as, a hale constitution which age does not *wither*. — To cause to perish or pass away; as, hopes *withered* by misfortune.

With'er-band, *n.* (*Far.*) A piece of iron attached to a saddle to strengthen its bow, near a horse's withers.

With'eredness, *n.* State of being withered.

With'ering, *p. a.* Tending to wither, or causing to shrink; blighting; as, a *withering* blast; a *withering* rebuke or sarcasm.

With'eringly, *adv.* In a manner tending to wither, or to cause to shrink.

With'erite, *n.* (*Min.*) A native carbonate of baryta. It occurs amorphous and in six-sided crystals resembling the common form of quartz, and generally white, but sometimes of a grayish or greenish color.

With'ernam, *n.* [From A. S. *widher*, against, and *nám*, a seizure.] (*Law.*) A taking or a reprisal of other goods, instead of those that were formerly taken, and withheld.

Withe'rod, *n.* (*Bot.*) See VIBURNUM.

With'ers, *n. pl.* [Goth. *vithan*, to join.] The junction of the shoulder-bones of a horse, at the bottom of the neck and mane, towards the upper part of the shoulders.

With'er-wrung, (*-rŭng,*) *a.* Injured or strained in the withers, as a horse.

Withhold', *v. a.* (*imp.* WITHHELD; *pp.* WITHHELD, or WITHHOLDEN.) To hold back; to restrain; to debar from action; as, *withhold* one man from striking another. — To retain; to keep back; not to grant or bestow; as, her father *withheld* his consent to our marriage.

Withhold'er, *n.* One who withholds.

Withhold'ment, *n.* Act of withholding. (R.)

Within', *prep.* [A. S. *with*, in the midst of, and *innan*, inwardly.] In, as opposed to some person or thing *out*; inside of; as, to keep *within* doors. — In the limits or compass of; not further in length or distance than; as, *within* a mile of one's house; not longer ago or later than; as, *within* the past week; not exceeding or being more than; as, to live *within* one's means. — Hence, metaphorically, not reaching to anything external; not beyond; not overstepping, &c.; as, if it should lie *within* my power, I shall be happy to serve you.

—*adv.* In the inner part or interior; inwardly; as, hemorrhage has commenced *within*. — In doors; in the house; not outside; as, there is nobody *within*.

Withlacoo'chee, a river of Georgia and Florida, rises in Irwin co., Georgia, and flowing S. enters the Suwanee River at the S.W. of Hamilton co. — A river of Florida, flows N.W. into the Gulf of Mexico, between Levy and Hernando cos.

Without', *prep.* [A. S *with*, in the midst of, and *utan*, outwards.] On or at the outside of; not within; as, *without* the house. — Beyond; past the limits of; out of reach of; as, *without* the bounds. — In a state of not having, or of destitution; in a state of deprivation or absence from; supposing the negation or omission of; independent of; not by the use of; with exemption from; as, *without* money; *without* hope; *without* damage or detriment; *without* a wife to try one's patience. — Except; unless; — clausular and conjunctional in effect, but seldom used at the present day by elegant writers or speakers; as, you will not accomplish your object *without* you use dispatch.

Without day. See SINE DIE. — *Without recourse.* See RECOURSE.

—*adv.* Not within; on the outside; out of doors; externally; as, the noise came from *without*.

Withstand', *v. a.* (*imp.* and *pp.* WITHSTOOD.) To stand against or in antagonism to; to oppose; to resist, either with physical or moral force; as, to *withstand* a sortie of troops; to *withstand* temptations.

Withstand'er, *n.* One who opposes, resists, or withstands; an antagonistic influence or power.

Withstood', *pp.* of WITHSTAND, *q. v.*

With'-vine, *n.* (*Bot.*) The Conch-grass. See TRITICUM.

With'wind, *n.* A name given to the wild convolvulus.

With'y, *n.* [A. S. *widhig.*] A large species of willow; a withe; an osier.

—*a.* Made of, or resembling, withes; hence, tough and pliable.

Wit'less, *a.* Destitute of wit, comprehension, or understanding. — Hence, indiscreet; rash; hare-brained.

Wit'lessly, *adv.* In a witless or ill-judged manner.

Wit'lessness, *n.* State or quality of being witless.

Wit'ling, *n.* [dim. of *wit.*] A petty or puerile wit; one who is deficient in wit or understanding; a would-be sayer of good things; a fribble; as, half-learned *witlings*.

Wit'ness, *n.* [A. S. *witnes*, *gewitnes*, from *witan*, to know.] Testimony; attestation of a fact or event; as, to bear *witness*. — That which presents evidence or proof; as, "The sun and day are *witnesses* for me." — *Dryden.*

— One who knows or sees, or is cognizant; as, an eye-*witness*.

"God is *witness* betwixt thee and me." — *Gen.* xxxi. 50.

(*Law.*) One who sees the execution of a legal instrument and subscribes it for the purpose of confirming its authenticity by his testimony. — One who gives evidence or testimony; one who tells what he knows or has seen, as before a judicial tribunal. In civil or in criminal cases, *W.* are compelled to attend by a process of *subpœna*, or by recognizance by the magistrate before whom the information is given. The *W.* is sworn not only to tell the truth, but also the whole truth, and nothing but the truth. All *W.*, of whatever religion or country, that have the use of their reason, are to be received and examined, provided they believe in a God and in a future state of rewards and punishments.

—*v. a.* To have direct or immediate cognizance of; to see or know by personal presence; to observe; as, to *witness* an imposing ceremonial. — To attest; to give testimony to something; as, to *witness* against a wrong-doer. — To see the execution of a legal instrument: and subscribe it in order to establish its authenticity; as, to *witness* the signing of a will or a bond.

—*v. n.* To testify; to give or bear evidence, witness, or testimony.

Wit'nesser, *n.* One who witnesses.

Witney, (*wit'ne,*) a town of England, in Oxfordshire, on the Windrash, 11 m. from Oxford. *Manuf.* Blankets, gloves, and malt. *Pop.* abt. 4,000.

Witt. See DE WITT.

Wit'ted, *a.* Possessing wit or understanding; — used chiefly in composition; as, a sharp-*witted* fellow.

Wit'tenberg, a fortified city of Prussian Saxony, on the Elbe, 45 m. from Merseburg, (Fig. 2625.) It is a place of some antiquity, and its university, founded in 1502 (united to that of Halle in 1817), is memorable as the cradle of the Reformation. Luther and Melancthon

Fig. 2625. — WITTENBERG.

are buried in the university church. In 1821, a monumental colossal statue of Luther was erected in *W.*, with great solemnity. The cell of Luther, in the Augustine convent (Fig. 1789), and the house of Melancthon, are still preserved. *Manuf.* Woollen goods. *Pop.* 13,870.

Wit'ticism, (*-sizm,*) *n.* [From *wit.*] A pungent remark which is affectedly witty; a would-be smart saying, or pointed joke; usually, a low kind of wit.

Wit'tily, *adv.* [From *wit.*] In a witty manner: with wit; with a felicitous turn or pointed phrase, or with an ingenious association or adaptation of ideas; ingeniously; artfully; skilfully; as, words of wisdom *wittily* expressed.

Wit'tiness, *n.* State or quality of being witty.

Wit'tingly, *adv.* [See WIT.] Knowingly; by design.

Wit'tol, *n.* [A. S.] One who wears his horns submissively: a tame cuckold.

Wittstock, (*vit'stok,*) a town of Prussia, on the Dosse, 56 m. from Berlin. *Pop.* 7,186.

Wit'ty, *a.* (*comp.* WITTIER; *superl.* WITTIEST.) [From *wit.*] Full of humor or ingenious terms of thought; possessed of wit or felicitous pleasantry of remark; quick at repartee; facetious; droll; sometimes, sarcastic; satirical; disposed to taunt; as, a *witty* answer, a *witty* address, a *witty* saying, and the like.

Wive, *v. n.* To take a wife; to enter into the state of matrimony, as a man.

—*v. a.* To provide with, or match to, a wife; also, to espouse; to wed; to take for a wife, as a man.

Wives, *n. pl.* of WIFE, *q. v.*

Wiz'ard, *n.* [From O. Ger. *wizagon*, to prophesy.] A practitioner of the black art or diablerie; a necromancer; a sorcerer; an enchanter. — Hence, a term sometimes applied to one who performs, as if with magical effect; as, Scott, the *Wizard* of Romance.

—*a.* Enchanting; charming; alluring; as, *wizard* spells. — Haunted by wizards; as, a *wizard* glade.

Wiz'en-faced, *a.* Weazen-faced.

Woad, *n.* (*Bot.*) See ISATIS.

Woad'-waxen, *n.* (*Bot.*) The Dyer's broom. See GENISTA.

Woahoo, or **Oahoo,** (*o'a-hoo.*) One of the Sandwich islands, in the Pacific Ocean; *area*, 530 sq. m.; Lat. 21° 18′ N., Lon. 157° 55′ W.; *pop.* abt. 30,000.

Woburn, in *Massachusetts*, a manufacturing city of Middlesex co. *Pop.* (1895) 14,178.

Woe, (*wo,*) *n.* [A. S. *wa*; Lat. *væ*; Gr. *ouai*; Ger. *weh*; Du. *wee.*] Grief; sorrow; misery; a heavy calamity; anguish; distress; affliction. — A curse; malediction. — Woe is often used in denunciation, and in exclamations of sorrow.

Woe'-begone, *a.* Overwhelmed with grief or sorrow; very sad.

Woe-shaken, *a.* Shaken by woe.

Wo'ful, Woe'ful, *a.* Full of woe; sorrowful; distressed with grief or calamity. — Bringing calamity, distress, or affliction. — Wretched; paltry; miserable.

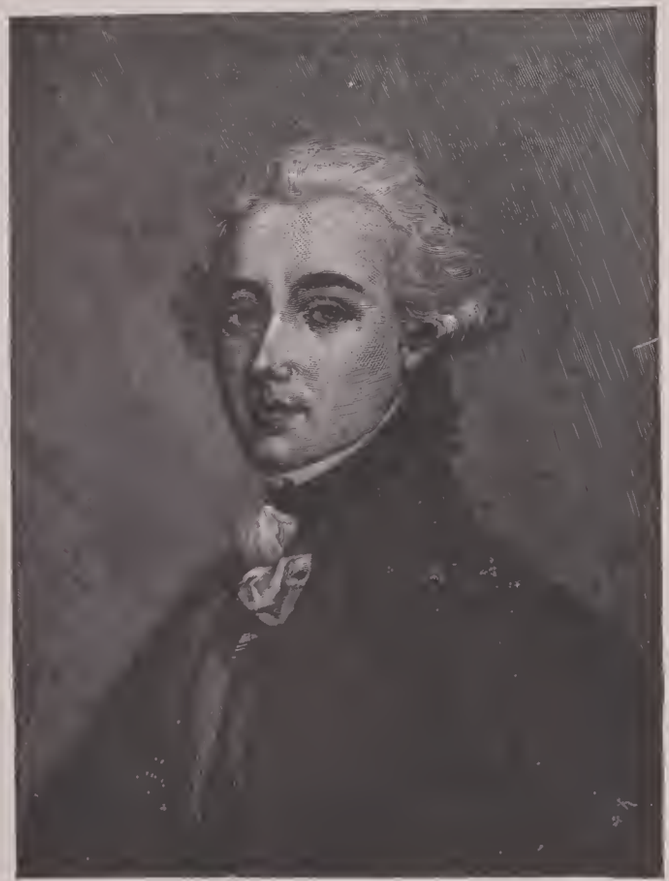
Wo'fully, Woe'fully, *adv.* In a woful manner; sorrowfully; mournfully. — Wretchedly; extremely.

Wo'fulness, Woefulness, *n.* The state of being woful: misery; calamity.

Wolcott, in *Connecticut*, a post-township of New Haven co., 22 m. S.W. of Hartford.

Wolcott, in *New York*, a post-village and township of Wayne co., 160 m. N.W. of Albany.

Wolcott, in *Vermont*, a post-village and township of Lamoille co., 25 m. N.E. of Montpelier



James Wolfe

1726–1759

Wol'cottville, in *Connecticut*, a village of Litchfield co., 25 m. W. of Hartford.

Wold, *n.* [A.S.] A wood; a forest. — An open tract of country, hilly and void of wood; a down.

Wolf, (*wulf*,) *n.* [A.S. *wulf*; Goth. *vulfs*, from *vilvan*, to seize; Ger. *wolf*.] (*Zoöl.*) A carnivorous quadruped belonging to the genus *Canis*. In structure, the Common *W.* of Europe (*Canis lupus*, Linn.) is about the size of a large dog, but it is leaner and more gaunt in appearance, its height being from two feet and a half to three feet, while its length varies between three and four feet. The color of his coat is a mixture of black, brown, and gray, the hair being rough and hard, and mixed at the base with a sort of under-coat of ash colored fur. Its eyes have a most peculiar obliquity, which gives it a very fierce appearance; being directed upwards in a line with the nose, and the color of the eye-balls being a fiery green, the ferocity inherent in the animal appears increased. The breath of the *W.* is very offensive, and his flesh is said to be rejected by all other carnivorous animals, with the exception of those of his own species. The female goes fourteen weeks with young, and produces five or six cubs at a litter, which she tends and trains with the greatest assiduity for the space of some twelve months, after which she leaves them to shift for themselves. In disposition the *W.* is a cruel, cowardly animal, generally attacking such as are unable to resist it; but when pressed by hunger, it will even attack man. The wolves generally hunt and pursue their prey in packs; and in hilly countries, where precipices abound, they often destroy far swifter animals than themselves, by encompassing them in a semi-circle, and driving them over some great declivity, where they are dashed to pieces. The wolves then descend by some path, and feast on their victims. The *W.* was formerly common throughout Europe, but is now confined to the northern portions of that continent and Asia.—The Black Wolf, *C. occidentalis*, var. *Ater*, of Florida and other S. States, is wholly black. — The Red Wolf, *C. occidentalis*, var. *Rufus*, of Texas, is mixed red and black above, lighter beneath.— The Prairie Wolf, or Coyote, *C. latrans*, of the countries west of the Mississippi, is considerably larger than the common fox, dull yellowish-gray on the back and sides, with a clouding of black; under parts dingy-white.

—Anything ravenous or destructive.

To keep the wolf from the door, to avoid starvation.

Wolf, Frederick Augustus, a celebrated German scholar, b. near Nordhausen, 1759. Among his numerous works, the most celebrated is *Prolegomena ad Homerum*, in which he established with the most extraordinary learning that the "Iliad" and "Odyssey" were the works of various rhapsodists.

Wolf, or Wolff, Johann Christian von, a German philosopher and mathematician, b. in Breslau, 1679. In 1707 he became professor of mathematics at Halle, and in 1721 was appointed counsellor to the court of the king of Prussia; but some of his religious and metaphysical opinions giving offence to the faculty of theology, he was banished from Halle; on which he removed to Cassel, became counsellor to the landgrave, and obtained a professorship at Marburg. He was also honored with marks of distinction by the king of Sweden, and was elected a member of the Academies of Sciences of Paris and St. Petersburg, and fellow of the Royal Society of London. In 1741 he was recalled by Frederick the Great, who appointed him privy councillor, vice-chancellor, and professor of international law. He was afterwards made chancellor of the university, and the elector of Bavaria created him a baron. His principal works are, *A Course of Mathematics*; *Philosophia Rationalis*; a *System of Metaphysics*; and a *Dictionary of the Mathematics*. D. 1754.

Wolf, in *Pennsylvania*, a township of Lycoming county.

Wolfborough, in *N. Hampshire*, a post-vill. and twp. of Carroll co., 50 m. E.N.E. of Concord.

Wolf Creek, in *Kentucky*, a township of Mead county

Wolf-dog, *n.* A powerful dog, *Canis Pomeranius*, kept to guard sheep.

Wolfe, James, a British major-general, b. in Kent, 1726. Having entered the service early, he greatly distinguished himself in Flanders and Germany till the year 1748. In 1759 he was appointed to the expedition against Quebec. By his excellent strategic dispositions he gained a position upon the hills which command Quebec. Montcalm, his brave adversary, contested the possession of the city with great skill and determination, but he fell during the battle, and the French were compelled to give way. *W.* also was mortally wounded in the moment of victory, and d. the same day, 1759.

Wolfenbüttel, (*vol'fen-be(r)t'tel*,) a city of Germany, on the Ocker, 37 m. from Hanover. It has a celebrated library which consists of 200 or 220,000 vols. and 5,000 MSS., of which Lessing was sometimes librarian. *Manuf.* Lacquered and Japan wares, leather, tobacco, &c. *Pop.* 9,778.

Wolf-fish, *n.* (*Zoöl.*) The *Asarrhicus lupus*, an acanthoptorygious fish, which inhabits the North Sea, is generally of great size, sometimes attaining the length of 6 or 7 feet, and is furnished with jaws so well armed as to render it a dangerous inhabitant of the deep.

Wolf Creek, in *Pennsylvania*, a post-twp. of Mercer co.

Wolf Creek, in *Virginia*, rises in Tazewell co., and flowing N.E., enters the Kanawha or New River, near Parisburg, in Giles co.

Wolf Creek, in *W. Virginia*, a township of Monroe co.

Wolfe, in *Kentucky*, an E. co.; *area*, 250 sq. m. *Rivers*. Red, and the N. Fork of the Kentucky River. *Surface*, diversified; *soil*, generally fertile. *Cap.* Campton.

Wolfish, *a.* Like a wolf; having the qualities or form of a wolf.

Wolfishly, *adv.* Like a wolf; in a wolfish manner.

Wolf Island, in *Missouri*, a post-township of Mississippi co.

Wolf Islands, in British N. America, a group in Passamaquoddy Bay, New Brunswick, N. of Grand Manan Island; Lat. of the most N., 44° 59′ N., Lon. 66° 41′ W.

Wolfram, *n.* (*Min.*) A native tungstate of protoxide of iron, met with in the primary rocks of Cornwall, Saxony, and other countries, frequently associated with tin-ore. It occurs both massive and crystallized, of a dark-grayish or brownish-black color, with a brilliant (often metallic) lustre, and is sometimes feebly magnetic.

Wolf River, in *Kansas*, a township of Doniphan county.

Wolf River, in *Mississippi*, rises in Marion co., and flowing S.E., enters the Gulf of Mexico, in the S.W. of Harrison co.—Another river of same name, rises in Tippah co., and enters the Mississippi River at Memphis, Tennessee, after a W.N.W. course of 100 m.

Wolf River, in *Wisconsin*, rises in Marathon co., and enters Fox River in Winnebago co., after a S.S.E. course of 150 m.

Wolfs'ville, in *N. Carolina*, a post-village of Union co., 178 m. W S.W. of Raleigh.

Wolhol'ta, in *S. Carolina*, a village of Pickens dist.

Wolfs'bane, *n.* (*Bot.*) Same as Aconite, *q. v.*

Wol'laston, William Hyde, an English physician and experimental philosopher, b. in London, 1766. He studied at Cambridge, and graduated m. d. in 1793. He was soon after admitted to the Royal Society, of which he subsequently became secretary. His want of patronage as a physician induced him to give up his profession in disgust, and devote himself to scientific pursuits, the result of which was, that he became one of the most eminent chemists and experimentalists of modern times. Among his discoveries in mineralogy are the two metals palladium and rhodium, and the method of rendering platinum malleable. He invented a sliding scale of chemical equivalents, a goniometer, and the camera lucida. D. 1828.

Wol'lastonite, *n.* (*Min.*) A silicate of lime which occurs generally in broad prismatic or laminar masses, but sometimes in distinct tabular prisms, from which it has derived the common name of Table or Tabular Spar.

Wol'laston Land, in British N. America, a region in the Arctic Ocean, W. of Victoria Land, the E. extremity of which is in Lat. 68° 45′ N., Lon. 113° 53′ W.

Wol'sey, Thomas, an English prelate and statesman, b. in Ipswich, 1471, was the son of a butcher. After finishing his education at Oxford, he became tutor to the sons of the marquis of Dorset; on going to court, he gained the favor of Henry VII., who sent him on an embassy to the Emperor, and on his return made him dean of Lincoln. Henry VIII., in 1514, made him archbishop of York. Insatiable in the pursuit of emolument, he obtained the administration of the see of Bath and Wells, and the temporalities of the abbey of St. Alban's, soon after which he enjoyed in succession the rich bishoprics of Durham and Winchester. By these means his revenues nearly equalled those of the crown, part of which he expended in pomp and ostentation, and part in laudable munificence for the advancement of learning. He founded the college of Christ Church at Oxford, and built a palace at Hampton Court, which he presented to the king. He was at this time in the zenith of power, and had a complete ascendancy over the mind of Henry, who made him lord chancellor, and obtained for him a cardinalship. He was also nominated the pope's legate; and aspired to the chair of St. Peter. In this he failed, and a few years later he lost all the power and the possessions he had gained. His advice in the matter of the king's divorce from Queen Catherine, the ruinous taxation he had imposed, and the personal enmity of some powerful persons, combined to his overthrow. He was prosecuted, deprived of everything, and sent to live in retirement at Esher. Although the king restored him to some of his offices soon after, and he returned to his see of York, a charge of treason was brought against him. In 1530 he was apprehended at York, but was taken ill, and died at Leicester on his way to London, exclaiming, "Had I but served my God as faithfully as I have served my king, he would not have given me over in my gray hairs."

Wol'singham, or **Wal'singham**, a town of England, co. of Durham, on the Wear, 14 m. from Durham. *Manuf.* Woollens, linens, and hardware. *Pop.* 4,300.

Wol'verhamp'ton, a market-town of England, in Staffordshire, 13 m. from Birmingham. It is a well built and healthy town, notwithstanding its vicinity to numerous coal-mines. *Manuf.* Locks, brass, japanned iron, &c.

Wol'verine, *n.* (*Zoöl.*) See Gulo.

Woman, (*wum'an*,) *n.*; *pl.* Women, (*wim'en.*) [A. S. *wiman, wimman*; Lat. *femina*, kindred with *fui*, I was; Gr. *phuō*, to come into being; Slav. *byti*, to be; Ir. *fuilim*, I am; Sans. *bhū*, to be.] The female of the human race; — particularly applied to an adult or grown-up female, as distinguished from a child or girl, &c.—A female attendant or servant.

(*Hist.*) From the circumstance that the chapters of the Bible which treat of the incidents immediately after the Fall contain scarcely any allusion to woman, it has been inferred that the female character was then held in very low estimation. Among the pastoral nations of the Primitive Ages, women tended the flocks and herds, drew water, and performed other menial offices. The Egyptians treated women with considerable kindness, and employed them in weaving and spinning; and the Jewish law, though severe in the case of female offences, afforded them ample protection, and assigned them an important position in the national and social economy. Smith (Smaller Dictionary of the Bible), referring to the position of woman in the Hebrew commonwealth, and contrasting it with that which she generally occupies among Eastern nations, remarks, — "Rebekah travelled on a camel with her face unveiled, until she came into the presence of her affianced (*Gen.* xxiv. 64–5); Jacob saluted Rachel with a kiss in the presence of the shepherds (*Gen.* xxix. 11). Women played no inconsiderable part in public celebrations (*Exod.* xv. 20–1; *Judg.* xi. 34). The odes of Deborah (*Judg.* v.), and of Hannah (1 *Sam.* ii. 1, &c.), exhibit a degree of intellectual cultivation which is in itself a proof of the position of the sex in that period. Women occasionally held public offices, particularly that of prophetess, or inspired teacher (*Exod.* xv. 20; *Judg.* iv. 4; 2 *Kings* xxii. 14; *Neh.* vi. 14; *Luke* ii. 36). The management of household affairs devolved mainly on the women. The value of a virtuous and active housewife forms a frequent topic in the Book of Proverbs (xi. 16; xii 4; xiv. 1; xxxi. 10, &c.)." Among the Greeks women were secluded in private apartments, and were compelled to wear a veil when out of doors. The Romans treated women with great consideration, entrusting to them the education of the young and the control of their household affairs; but in the latter days of the Republic and of the Empire, when morals became corrupt, measures were taken for their restraint. Thus the *Lex Oppia* imposed sumptuary restrictions; Augustus (b. c. 27—a. d. 14) would not allow them to be present at the public games; and by a law passed in 222, they were formally excluded from the senate. The ancient Germans assigned a very high position to the female sex; and Tacitus (61–117) commemorates the excellence of character which their women exhibited. During the Dark Ages the female lot was of course a hard one, the right of free choice in marriage and the advantages of education being totally denied them. The romantic chivalry of the 11th and following centuries introduced a better order of things, and laid the foundation for that recognition of female rights and respect for female excellence which are at once the most powerful agent and the clearest evidence of modern civilization.

—*v. a.* To make pliant or effeminate, as a woman. (r.)

Wom'an-hater, *n.* One who has an aversion to woman.

Wom'anhood, *n.* The state, character, or collective qualities of a woman. — Women taken collectively.

Wom'anish, *a.* Suitable to a woman; having the qualities of a woman; feminine; effeminate.

Wom'anishly, *adv.* In a womanish manner.

Wom'anishness, *n.* The state or quality of being womanish.

Wom'ankind, *n.* The female sex; the race of females of the human kind.

Wom'anless, *a.* Destitute of woman.

Wom'anliness, *n.* Quality of being womanly.

Wom'anly, *a.* Becoming a woman; suiting a woman; feminine.

—*adv.* In the manner of a woman.

Womb, (*woom*,) *n.* [A.S. *wamb*; O. Ger. *wamba*, the belly.] (*Anat.*) The *uterus*, a hollow symmetrical organ in the female, having the shape of a truncated conoid, and destined to lodge the fœtus from its commencement of conception till birth. It is situate in the pelvis, between the bladder and the rectum above the vagina, and below the convolutions of the small intestine. The *W.* is flattened from before backward, and is nearly an inch in thickness. It is two inches broad at its highest part, and becomes narrower towards the vagina: terminating in a contracted portion, called the *cervix* or *neck*, to distinguish it from the rest of the organ, called the *body*. From its *fundus* or upper portion, the Fallopian tubes pass off. The mouth is called *Os uteri*, or *Orificum vaginale*. At the point where the body of the *W.* is continuous, below, with the neck, the cavity is slightly constricted, forming what is sometimes termed the *internal orifice*. The cavity of the *W.* is very small, and its parietes are thick. The portion of the cavity corresponding with the body is triangular and flattened. Its superior angles present the extremely fine orifices of the fallopian tubes. The cavity of the neck is slightly dilated before opening into the vagina. The *W.* increases in size and weight from the moment of conception till within a few days of labor: as soon as that process occurs, it immediately contracts, and in a few days recovers its natural size.

—The place where anything is produced.

—Any large or deep cavity.

Wom'bat, *n.* (*Zoöl.*) The common name of the *Phascolomydæ*, a family of *Rodentia*, comprising quadrupeds which have large, flat heads, short legs, and a body that appears as if crushed, and without a tail. They have two incisors in each jaw, similar to those of Rodents, and each of the grinders has two transverse ridges. They are sluggish, feed upon grass, and burrow in the ground. The *W.* is of the size of a badger, and both this and *Lipurus*, a closely related genus, live in Australia.

Fig. 2626. — WOMBAT.
(*Phascolomys ursinus.*)

Wom'elsdorf, in *Pennsylvania*, a post-borough of Berks co., 14 m. W. of Reading.

Women, (*wim'en*,) *n.*; *pl.* of Woman, *q. v.*

Wonansquatock'et River, in *Rhode Island*, falls into Narragansett Bay from Providence co.

Wonder, (*wun'der,*) *n.* [A.S. *wundor, wonder;* Dn. *wonder;* Ger. *wunder.*] That emotion which causes the mind to turn this way and that way, in order to ascertain the source, cause, or object of that which produces such emotion; the state of mind produced by something unexpected, and at the same time inexplicable; astonishment; amazement; surprise.—Cause of wonder; that which excites surprise; a strange thing; a prodigy; a miracle.

—*v. n.* To be struck with wonder; to be affected by surprise or admiration.

Won'derer, *n.* One who wonders.

Won'derful, *a.* Adapted to excite wonder or admiration; exciting surprise; strange; astonishing.

Won'derfully, *adv.* In a manner to excite wonder.

Won'derfulness, *n.* The state or quality of being wonderful.

Won'deringly, *adv.* In a wondering manner.

Won'derment, *n.* Astonishment; surprise.

Won'derous, *a.* Same as WONDROUS, *q. v.*

Won'derstruck, *a.* Struck with wonder or surprise.

Won'der-work, *n.* A prodigy; a miracle; a wonderful act or work. (R.)

Won'der-work'er, *n.* One who performs wonders or prodigies.

Won'der-work'ing, *a.* Doing wonderful works or acts.

Wondrous, (*wun'drus,*) *a.* Admirable; marvellous; such as may excite surprise and astonishment; strange.

Won'drously, *adv.* In a strange or wonderful manner.

Won'drousness, *n.* The state or quality of being wondrous.

Wonewoc, in *Wisconsin*, a post-township of Juneau co., 65 m. from Madison.

Won't. A colloquial contraction of *would not*, that is, *will not.*

Wont, (*wunt,*) *a.* [A.S. *wænian*, to accustom, from *wenan*, to wean.] Accustomed; habituated; using or doing customarily.

—*n.* Habit; custom; use.

—*v. n.* To be accustomed or habituated; to use; to be used.

Wont'ed, *a.* Accustomed; used; usual.

Wont'edness, *n.* The state of being accustomed. (R.)

Woo, *v. a.* [A.S. *wogan;* Fr. *vouer;* Lat. *vovere.*] To make love to; to solicit in love; to court.—To invite with importunity; to court solicitously.

—*v. n.* To court; to make love.

Wood, *n.* [A.S. *wudu;* Dn. *woud.*] A large and thick collection of trees; a forest;—frequently used in the plural.—The substance of trees.

—Trees cut or sawed for architectural purposes, or for fuel.

(*Bot.*) The solid part of the stems and branches of a plant, as distinguished from the pith which occupies the centre, and the bark which envelops the whole. For its mode of formation, see AGE OF PLANTS.

—*v. a.* To supply with wood as fuel.

—*v. n.* To supply with wood; to take in wood.

Wood, in *Indiana*, a township of Clark co.

Wood, in *Ohio*, a N. N.W. co.; *area*, 623 sq. m. *Rivers.* Maumee and Portage rivers, and Beaver and Toussaint creeks. *Surface*, undulating; *soil*, fertile. *Cap.* Bowling Green. *Pop.* (1897) 51,260.

Wood, in *Texas*, a N.E. co.; *area*, 700 sq. m. *Rivers.* Sabine and the Lake Fork of the same. *Surface*, diversified; *soil*, generally fertile. *Cap.* Quitman. *Pop.* (1897) 14,850.

Wood, in *West Virginia*, a N.W. co., bordering on Ohio; *area*, 375 sq. m. *Rivers.* Ohio, Little Kanawha, and Hughes rivers, and French and Lee's creeks. *Surface*, hilly; *soil*, generally fertile. *Cap.* Parkersburg. *Pop.* (1897) 29,500.

Wood, in *Wisconsin*, a central county; *area*, 828 sq. m. *Rivers.* Wisconsin and Yellow rivers, and Mill creek. *Surface*, diversified; *soil*, moderately fertile. *Cap.* Grand Rapids. *Pop.* (1895) 21,637.

Wood Anem'one, *n.* (*Bot.*) See ANEMONE.

Wood'berry, or WOODBURY, in *Pennsylvania*, a village of Bedford co., 15 m. N.N.E. of Bedford.

Wood'bine, *n.* (*Bot.*) See CISSUS.

Woodbine, in *Illinois*, a post-township of Jo Daviess co. *Pop.* (1897) 940.

Woodbine, in *Maryland*, a post-village of Carroll co., abt. 37 m. W. of Baltimore.

Wood'bourne, in *New York*, a post-village of Sullivan co., 100 m. S.S.W. of Albany.

Wood'bridge, a town of England, co. of Suffolk, on the Deben, 8 m. from Ipswich. It has a considerable traffic, and a dock for building vessels. *Pop.* 5,500.

Woodbridge, in *California*, a post-village of San Joaquin co., 14 m. N. of Stockton.

Woodbridge, in *Connecticut*, a township of New Haven co., 6 m. N.W. of New Haven.

Woodbridge, in *Michigan*, a township of Hillsdale co.; *pop.* abt. 876.

Woodbridge, in *New Jersey*, a post-township of Middlesex co., 38 m. N.E. of Trenton.

Woodbridge, in *Pennsylvania*, a village of Fayette co., 190 m. S.W. of Harrisburg.

Woodburn, in *Illinois*, a post-village of Maconpin co., 15 m. N. of Springfield.

Wood'bury, in *Connecticut*, a p.-vill. and twp. of Litchfield co., 25 m. N.N.W. of New Haven.

Wood'bury, in *Illinois*, a village and township of Cumberland co., 100 m. E.S.E. of Springfield.

Woodbury, in *Iowa*, a W.N.W. co., bordering on Nebraska; *area*, 800 sq. m. *Rivers.* Missouri, Little Sioux, and the West Fork of the Little Sioux. *Surface*, diversified; *soil*, fertile. *Cap.* Sioux City. *Pop.* (1895) 46,202.

Woodbury, in *Kentucky*, a village and twp. of Butler co., 20 m. N.W. of Bowling Green.

Woodbury, in *Minnesota*, a post-township of Washington co.

Woodbury, in *New Jersey*, a city, cap. of Gloucester co., 9 m. S. of Philadelphia. *Pop.* (1895) 3,853.

Woodbury, in *Pennsylvania*, a post-twp. of Bedford co.

Woodbury, in *Tennessee*, a post-village, cap. of Cannon co., 50 m. E.S.E. of Nashville.

Woodbury, in *Vermont*, a post-township of Washington co., 14 m. N.N.E. of Montpelier.

Wood-choir, (*wud'kwīr,*) *n.* The singing-birds of the wood.

Wood'chuck, *n.* (*Zoöl.*) See MARMOT.

Wood'cock, *n.* (*Zoöl.*) A favorite game-bird of the Snipe fam. The American *W.* (*Philohela minor*) "is 11 inches long, and the wing 5¼ inches; the bill very long, the upper mandible longer than the under, and fitted to it at the tip; the eyes far from the bill, and the tail short; the occiput with 3 transverse bands of black, alternating with 3 of pale yellowish-rufous; the upper parts of the body variegated with ashy reddish and black; the under parts pale rufous, bill brown, and legs pale reddish. The *W.* is mainly nocturnal in its habits, seldom taking wing in the full light of day unless disturbed. It walks about, however, and feeds by day as well as by night. Its food is mainly earthworms, of which it swallows as many in a day as would equal its own weight; and hence its favorite resorts are where it can obtain these worms in abundance. The moist grounds which these birds frequent are perfectly filled with *bill-holes* which they have made in probing for worms; and these holes become a guide to the hunter, who looks at their frequency and freshness when he would find good shooting. When flushed by the hunter or the dog, the *W.* ordinarily flies but a short distance, plunging into a clump of bushes or thicket near by, or in thicker part of the swamp. It spends the winter in warm climates, but breeds from the Carolinas to Nova Scotia. The nest, made of dead leaves and grass, is placed under a bush, or beside a fallen trunk. The eggs, which are laid from February to June, according to locality, are usually four, dull yellowish-clay color, irregularly and thickly marked with dark-brown. In three or four weeks from the time the young are hatched, they are able to fly, and when six weeks old, they fly almost as well as the old ones." (*Tenney.*)—The European *W.* (*Scolopax rusticola*), *la bécasse* of the French, found all over Europe, is about 14 inches long. Its plumage resembles that of the American; the head is grayish in front, yellowish-brown with transverse darker brown streaks behind. Its food and habits are the same as those of the American species.

Wood'cock, in *Pennsylvania*, a post-bor. and twp. of Crawford co., 8 m. N.E. of Meadville.

Wood'-craft, *n.* Skill in hunting, or other sports in the woods.

Wood'-cut, *n.* An engraving on wood, or a print or impression from such engraving. See WOOD ENGRAVING.

Wood'-cutter, *n.* A person who cuts wood.—An engraver on wood.

Wood'-duck, or SUMMER DUCK, *n.* (*Zoöl.*) A very beautiful species of duck (*Aix sponsa*), of the section having the hind-toe destitute of membrane, a native of North America. It is found during the breeding season in almost all parts of the United States, and as far N. as Nova Scotia, migrating southwards in winter, when it abounds in Texas and Mexico, but some remain during winter even in Massachusetts. It has been found capable of domestication.

Wood'ed, *a.* Supplied or covered with wood.

Wood'en, *a.* Made of wood; consisting of wood.—Awkward; clumsy

Wood Engraving, *n.* The art of producing raised surfaces by excision on blocks of wood, from which impressions can be transferred to other surfaces, was undoubtedly known to the Egyptians; but they appeared to have used their wooden stamps solely for the purpose of stamping on clay or other ductile material; and the earliest application of *W. E.* to the production of a book is supposed to have been in China, about the middle of the 10th century, and was probably first used for the production of playing-cards, the outlines of which were formed by impressions from wood-cuts, and the coloring filled up by hand. The art made rapid progress; and the next great step was the production of books printed from wooden types, and illustrated with pictorial wood-cuts. Towards the close of the 15th century, the art had attained an excellence which induced artists of celebrity and talent to select it as the means of conveying their designs to the world. From the end of the 16th century the art to a great extent declined; but at the close of the 17th century, a certain Mr. Bewick devoted himself with enthusiasm to the art, and from that time it has continued to flourish. Originally, various kinds of wood, such as plum-tree, beech, mahogany, and pear-tree, were employed for *W. E.*, and are still frequently employed for coarse work; but there is no wood so suitable for this purpose as box, as it combines all the qualities necessary to admit of the most delicate execution. Upon a good piece of the small close-grained English box, the finest line can be preserved in unbroken smoothness. The tools of the wood-cutter consist exclusively of gravers, small gouges, and chisels. The block is placed on a small circular leathern cushion filled with sand, which affords not only a firm rest to the smooth wood, but permits it to be freely turned in all directions. The graver is held and used in a manner peculiar to this kind of engraving. The butt of the handle rests against the palm of the hand, three of the fingers closing round it, while the thumb is projected forward upon the block, serving at once as a rest for the blade and a check to regulate the force in cutting, the motion of the tool being regulated by the forefinger. When an engraved block is damaged, or a serious error made, the only remedy is to drill out the part to the depth of about half the thickness of the wood, and to insert a tight-fitting plug, tapered at the bottom to insure its being driven home. The top of the plug is made level with the surface of the block, and the part redrawn and engraved. The comparative merits of wood and steel engraving have sometimes been much discussed. The fact appears to be, that each is best suited for the production of certain effects. There is a certain mellow richness of tone about a highly finished steel print which cannot be rivalled by an engraving on wood; and on the other hand, the latter is unrivalled for the production of broad bold contrasts and sparkling sketchy effects. The special advantage, however, which *W. E.* possesses over all other forms of graphic art, is its applicability to the purposes of book-illustration in the form of *text-cuts*, that is, cuts inserted and printed in the pages of type.

Wood'ford, in *Illinois*, a N. central co.; *area*, 540 sq. m. *Rivers.* Illinois; also Mackinaw and Crow creeks. *Surface*, undulating; *soil*, fertile. *Products.* Corn, oats, wheat, barley, potatoes, butter, wool, hay, &c. *Min.* Stone-coal. *Cap.* Metamora. *Pop.* (1897) 22,010.

Woodford, in *Kentucky*, a N. central co.; *area*, 247 sq. m. *Rivers.* Kentucky, and the South Fork of Elkhorn. *Surface*, undulating; *soil*, fertile. *Products.* Corn, oats, tobacco, wheat, barley, rye, wool, hemp, hay, &c. *Cap.* Versailles. *Pop.* (1897) 12,950.

Wood'-house, *n.* A house or shed where wood is deposited.

Wood'hull, in *Michigan*, a post-township of Shiawassee co.

Wood'hull, in *New York*, a post-township of Steuben co., 25 m. S.S.W. of Bath.

Wood'iness, *n.* The state or quality of being woody.

Wood Island, in *Maine*, at the entrance of Saco River, has a revolving light on the E. side, 45 ft. above the sea; Lat. 43° 27′ N., Lon. 70° 15′ W.

Wood'land, *n.* Land covered with wood, or land on which trees are suffered to grow, either for fuel or timber.

Woodland, in *California*, a city, cap. of Yolo co., 18 m. N.W. of Sacramento. *Pop.* (1897) 3,450.

Woodland, in *Illinois*, a township of Carroll county.—A township of Fulton county.

Woodland, in *Iowa*, a twp. of Decatur co.

Woodland, in *Michigan*, a post-township of Barry co

Woodland, in *Minnesota*, a township of Wright county.

Woodland, in *Wisconsin*, a township of Sauk county.

Wood'lawn, in *Alabama*, a village and township of Dallas co.

Woodlawn, in *Missouri*, a post-township of Monroe co., 70 m. N. of Jefferson City.

Woodlawn, in *Tennessee*, a post-township of Montgomery co.

Wood'-layer, *n.* A young oak or other tree laid down in a hedge.

Wood'less, *a.* Destitute of wood.

Wood'lessness, *n.* The state of being destitute of wood.

Wood'-louse, *n.* (*Zoöl.*) See ONISCUS.

Wood'man, *n.; pl.* WOODMEN. (Written also *woodsman.*) A sportsman; a hunter.—One who fells timber; a forester; one skilled in the forest.

—In England, one of the men appointed to look to the Queen's woods.

Wood'man, in *Wisconsin*, a post-township of Grant co., 6 m. S.W. of Boscobel.

Wood'mansie, in *New Jersey*, a post-village of Burlington co., E. of Camden.

Wood-note, *n.* A wild, musical note, like that of a forest-bird.

Wood-nymph, *n.* A fabled goddess of the wood; a dryad.

(*Zoöl.*) The common name of the beautiful lepidopterous insects comprising the genus *Eudryas.* The Wood-Nymph (*E. grata*, Fabr.) expands one inch and a half to one inch and three-fourths, the fore wings pure white, with a broad stripe along the front edge for more than half its length, and a broad band around the outer hind margin, of a deep purple-brown, the band edged on the inside with olive green, and marked towards the edge with a wavy white line; under side of the fore wings yellow, with a round and kidney-shaped black spot. The hind wings are yellow, with a broad purplish brown hind border above, on which there is a wavy white line; below they have a central black dot. The caterpillar, which infests the grape-vine, attains one inch and a quarter in length, is blue transversely, banded with deep orange, the bands dotted with black; the top of the eleventh ring is humped.

Wood-opal, *n.* (*Min.*) A variety of opal with a peculiar ligneous structure, which is made into snuff-boxes and other ornamental articles at Vienna.

Wood-pigeon, *n.* (*Zoöl.*) The ring-dove, *Columba palumbus.*

Wood River, in *Rhode Island*, rises in Kent co., and joins the Charles River in Washington co., to form the Pawcatuck River.

Wood'ruff, *n.* (*Bot.*) The common name of the genus *Asperula*, order *Galiaceæ*, containing a number of annual and perennial species, with whorled leaves, natives of the northern parts of the Old World, and distinguished by a funnel-shaped or bell-shaped corolla, a bifid style, and dry didymous fruit

Wood'pecker, *n.* (*Zoöl.*) The common name of all the very numerous scansorial birds comprising the family *Picidæ*. They are well characterized by their striking and peculiar habits, to which their whole structure is singularly adapted. The bill of the *W.* is large, strong, and fitted for its employment; the end of it is sharp and formed like a wedge, with which it pierces the bark of trees, and penetrates through the outside sound wood of the tree, to the inside decayed part, where its food is lodged. (Fig. 2627,) Its neck is short and thick, and furnished with powerful muscles, which enable it to strike with such force as to be heard at a considerable distance; the noise thus occasioned is not by vibration round a hole, as some authors assert, but by a succession of strokes repeated with surprising rapidity. Its tongue is long and taper, and capable of great elongation. At the end of it there is in most of the species a hard horny substance, curving slightly downwards, which penetrates into the crevices of trees, and extracts the insects and their eggs which are lodged there; it is also lubricated by a glutinous secretion. The tail consists of ten stiff, sharp-pointed feathers, rough on the under sides, and bent inwards, by which it supports itself on the trunks of trees while in search of food; for this purpose its feet are short and thick, and its toes, which are placed two forward and two backward, are armed with strong hooked claws, by which it clings firmly, and creeps up and down in all directions. There are several genera, and the American species, some of which are also called *Sapsuckers*, are by far too numerous to be described here.

Fig. 2627. — WOODPECKER.

Wood-rush, *n.* (*Bot.*) See LUZULA.

Wood-screw, (*-skru.*) *n.* The common screw made of iron, and used by carpenters and joiners for fastening together pieces of wood, or wood and metal.

Woodruff's, in *S. Carolina*, a post-township of Spartanburg dist.

Woods, in *Kentucky*, a twp. of Jefferson co.

Woods'field, in *Ohio*, a post-village, cap. of Monroe co., 120 m. E. of Columbus.

Wood's Hole, in *Massachusetts*, a post-village of Barnstable co., 70 m. S.E. of Boston.

Woodside, in *Illinois*, a post-village and township of Sangamon co., 6 m. S.W. of Springfield.

Woodside, in *New Jersey*, a township of Essex county.

Wood'son, in *Kansas*, a S.E. co.; *area*, 504 sq. m. *Rivers*. Neosho and Verdigris. *Surface*, level; *soil*, fertile. *Cap.* Yates Center. *Pop.* (1895) 9,313.

Wood'sonville, in *Kentucky*, an unimportant village of Hart co.

Wood-soot, *n.* Soot from burnt wood. See SOOT.

Wood-sorrel, *n.* (*Bot.*) See OXALIS.

Wood Spirit, WOOD NAPHTHA, METHYLIC ALCOHOL, PROLIGNEOUS ETHER, or PYROXYLIC SPIRIT, *n.* (*Chem.*) The first member of a very important homologous series of alcohols, of which ordinary alcohol or spirit of wine is the type. In order to obtain the Wood Spirit, the portion which distils over below 212° F. is rectified in a still containing chalk, which retains the acetic acid as acetate of lime. The useful application of crude wood spirit depends upon its burning with a nearly smokeless flame in lamps (though as a source of heat only, not of light), and upon its power of dissolving most resinous substances employed in the preparation of varnishes, stiffening for hats, &c.

Wood'stock, a town of England, in Oxfordshire, on the Glyme, 8 m. from Oxford. — Old *W.*, a little to the N. of the present town, was a residence of the early English kings; but no remains of the ancient palace exist. *Pop.* 1,200.

Wood'stock, in *Connecticut*, a village and township of Windham co.

Wood'stock, in *Illinois*, a city, cap. of McHenry co., 51 m. N.W. of Chicago. *Pop.* (1897) 1,950

—A township of Schuyler co.

Wood'stock, in *Maine*, a post-village and township of Oxford co., 45 m. W. of Augusta.

Wood'stock, in *New Hampshire*, a post-vill. and twp. of Grafton co., 50 m. N.W. of Concord.

Wood'stock, in *New York*, a post-vill. and twp. of Ulster co., 50 m. S.S.W. of Albany.

Wood'stock, in *Ohio*, a post-vill. of Champaign co., 32 m. N.W. of Columbia.

Wood'stock, in prov. of Ontario, a town, cap. of Oxford co., 98 m. S.W. of Toronto.

Wood'stock, in *Vermont*, a post-village and township, cap. of Windsor co., 55 m. S.E. of Montpelier.

Wood'stock, in *Virginia*, a post-town, cap. of Shenandoah co., 160 m. N.W. of Richmond.

Wood'stone, PETRIFIED STONE, AGATIZED WOOD, *n.* A mineral of fibrous texture, with the fibers intertwined like those of wood, essentially composed of silicious earth supposed to have been gradually deposited as the vegetable matter was decomposed and removed.

Woods'town, in *New Jersey*, a post-borough of Salem co., 55 m. S.S.W. of Trenton.

Woods'ville, in *New Jersey*, a post-village of Mercer co., 13 m. N. of Trenton.

Wood'ville, in *Illinois*, a post-village of Adams co., 95 m. W.N.W. of Springfield.

—A township of Greene co.

Wood'ville, in *Minnesota*, a township of Waseca co.

Wood'ville, in *Mississippi*, a post-town, cap. of Wilkinson co., 35 m. S. of Natchez.

Wood'ville, in *North Carolina*, a village and township of Bertie co.

—A post-village of Perquimans co., 205 miles E.N.E. of Raleigh.

Wood'ville, in *Ohio*, a village of Clermont co.

—A post-village of Sandusky co., 120 m. N.W. of Columbus.

Wood'ville, in *Pennsylvania*, a village of Butler co., 20 m. N. of Pittsburg.

Wood'ville, in *Virginia*, a post-village of Rappahannock co., 115 m. N.W. of Richmond.

Wood'ville, in *Wisconsin*, a township of Calumet county.

Wood-vinegar, *n.* Diluted acetic acid, containing 6¼ per cent. of monohydrated acetic acid.

Wood'ward, in *Pennsylvania* a, township of Clearfield county.—A township of Clinton county.—A township of Lycoming county.

Wood'wardsville, in *New Jersey*, a village of Burlington co.

Woodwardsville, in *New York*, a village of Essex co., 100 m. N. of Albany.

Wood'-wasp, *n.* (*Zoöl.*) See CRABRO.

Wood'-waxen, *n.* (*Bot.*) The Dyer's brown. See GENISTA.

Wood'-work, (*-wurk,*) *n.* That part of any structure which is made of wood.

Wood'y, *a.* Abounding with wood. — Consisting of wood; lignoous.— Pertaining to woods; sylvan.

Wood'y Fibre, *n.* (*Bot.*) The name given to very slender transparent membranous tubes, taperiug acutely to each end, lying in bundles in the tissue of plants, and having no direct communication with each other. They are of extreme tenuity, and form the substances called *hemp* and *flax*. The same tissue forms wood.

Wood'y-night'shade, *n.* (*Bot.*) *Solanum dulcamara*. See SOLANUM.

Woo'er, *n.* One who courts or solicits in love.

Woof, *n.* [A. S. *weft*, from *wefan*, to weave.] The threads that cross the warp in weaving.— Cloth; texture.

Woof'y, *a.* Having a close texture.

Woo'ingly, *adv.* Enticingly; with persuasiveness; so as to invite to stay.

Wool, *n.* [A. S. *wul, wull;* O. Ger. *wolla;* Gr. *ioulos*, down.] A term used somewhat indefinitely, but more generally applied to the fleecy coat, or soft hair of the sheep. *W.* has always formed the principal material of the clothing of mankind in most temperate regions. The filaments of *W.* taken from a healthy sheep present a beautifully polished and even glittering appearance. The fibres of *W.* are either straight or crooked. The division into locks formed by the coherence of the single fibres, varies in every species of *W.*, and forms what is called the *staple*. The body of *W.* which is born in connection from one animal is called a *fleece*. The *W.* of the same animal differs much on the various parts of the body; that on the back and sides is the best. The great difference in the *W.* of different sheep depends in general upon their descent, the crossing of breeds, climate, food, and manner of living; and among the individual animals of the same breed, upon age, sex, and outward circumstances; the *W.* is, therefore, divided into coarse *W.*, which is long, either straight or irregularly curled, and fine wool, which is regularly curled. Eight or ten different kinds are frequently found in a single fleece. The qualities which mainly govern the classification and commercial value of *W.* are:—1. The fineness of the fibre; 2. its softness and elasticity; 3. soundness of staple; 4. color; 5. cleanness; 6. length of staple. The average diameter of the coarsest of the *W.* used in the arts is 1-450th of an inch, while that of the finer sorts of *W.* ranges from 1-1100th to 1-1300th of an inch in diameter. If a lock of *W.* be held up to the light, it will be perceived that all its fibres are twisted into corkscrew-like ringlets; and if the fibres be subjected to a powerful microscope, they will be seen to consist of central stems, from which spring circlets of tiny leaf-shaped projections. In the finer sorts of *W.* these projections present at first the appearance of minute serrations, like the teeth of a saw, but on closer inspection they resolve themselves into leaves or scales. These imbrications form an important element of the felting properties of wool. See SHEEP.

(*Manuf.*) After the bags of wool are delivered at the manufactory, they are first *sorted*, or divided into various qualities, generally called *prime*s, *seconds*, and *thirds*. The wool is then scoured or washed, to get rid of the animal grease. This is done at the dye-house, with stale urine, heated to about 120°, and which is afterwards washed out in running water. The wool is now fit for dyeing, or it may be deferred until the cloth is woven: in the one case, the cloth is said to be *wool-dyed;* in the other, *piece-dyed*. After the wool is dyed, it is passed through the *twilly-devil*, or *tucker*, which consists of a large wooden cylinder, having strong iron spikes, about three inches long, projecting from it, in a spiral direction, round its circumference. The wool, passing between feeding-rollers, is exposed to the action of the spiked cylinder, which, revolving with great rapidity, tears apart the fibres of the wool, and allows any dust or dirt to fall through a grating beneath. After this, the wool is picked over, in order to remove seeds, pieces of string, or other substances. This process is now generally performed by what is called the *burring-machine*. After the wool has been picked, it is oiled, previous to passing through the *scribbler* and *carder*, which is very similar in principle to the carding-machine used in the cotton manufacture. The rovings produced by the carder are the first commencement of the thread; but in order to obtain strength, they require to be twisted, and for this purpose are submitted to the action of the *slubbing-billy*. The threads are now ready for weaving into cloth. The first operation which the cloth undergoes after it is woven is *braying*, the object of which is to get rid of the oil used preparatory to spinning. The cloth is then *milled*, *i. e.*, the fibres of the cloth are felted together, and the whole surface of it covered with a thick, fulled face, by means of being submitted to the action of soap and water. After this process comes that of *teazling*, by which the cloth is roughed both ways by the prickly flower-heads of the teazle. The filaments drawn out by teazling are of unequal length, and require to be shorn to make them level. The next of the finishing processes is to arrange the cloth in regular folds, and submit it to the action of an hydrostatic press.

(*Statistics.*) The production of wool in the U. S. was in 1870, 162,000,000; 1880, 232,500,000; 1890, 276,000,000; 1900, 288,635,621 lbs. In the last named year there were imported 76,736,209 lbs. Consumption within the U. S 436,642,519 lbs. In 1900 there were in the U. S. 41,883,065 sheep yielding 288,636,621 lbs. of wool. The total wool product of the world was 2,699,844,704 lbs., viz.: North America, 319,502,328; South America, 510,000,000; Europe, 946,907,376; Asia, 274,000,000; Africa, 134,425,000; Australasia, 510,050,000.

Wool, JOHN ELLIS, an American general, B. in Newburg, N. Y., 1789. On the breaking out of the war of 1812, he obtained a captain's commission, and distinguished himself at the storming of Queenstown Heights, where he was severely wounded, and for which he was promoted to the rank of major, and also at the battles of Plattsburg and Beekmantown, and for his gallantry in the last of these actions he was brevetted lieutenant-colonel. At the end of the war, *W.* was retained in the regular army; in 1818 appointed lieutenant-colonel, and in 1826 brevet brigadier-general. In 1832 he was sent to Europe, to examine the military systems of the principal nations, and was everywhere received with marked respect. On his return, he was appointed to inspect the coast defences, and in 1836 was charged with the removal of the Cherokee Indians to Arkansas. At the breaking out of the Mexican war, Gen. *W.* was assigned the duty of organizing the volunteers, after which, with a body of 3,000 troops, he set out for the seat of war, where he distinguished himself by the strict discipline and order which he enforced. He was in a measure instrumental in gaining the battle of Buena Vista, for which he was favorably mentioned by General Taylor and brevetted major-general, besides receiving the thanks of Congress and being presented with a sword. At the close of the war he remained in command of Monterey until order was restored. He was afterwards transferred to the dept. of the Pacific. At the commencement of the late Civil War, he hastened to offer his services to the government, and was sent to New York to organize the volunteers. He took the responsibility of reinforcing Fortress Monroe, and thus saved that important post. In Aug., 1861, he was appointed to the dept. of Virginia, and afterwards to the command of the Middle Department, with his headquarters at Baltimore. In May, 1862, he was promoted to the rank of major-general of the regular army. D. in Troy, N. Y., Nov. 10, 1869.

Wool'-burler, *n.* One who removes the little knots or extraneous matters from wool, and from woollen cloth.

Woold, *v. a.* [D. *woelen;* Ger. *wühlen.*] (*Naut.*) To strengthen a made or started spar, by winding tarred rope tightly round it at the weak or suspected place.

Wool'-driver, *n.* A trader in wool.

Wool'-dyed, *p. a.* Dyed in the yarn before making up; not piece-dyed.

Wool'fell, Wool'fel, *n.* A skin not stripped of the wool.

Wool'-gathering, *a.* Indulging in idle fancies; listless; dreamy; inattentive.

—*n.* Idle indulgence of the imagination; vagary.

Wool'-grower, *n.* A person who raises sheep for the production of wool.

Wool'-growing, *a.* Producing sheep and wool.

Wool'-hall, *n.* A wool-market.

Woolled, (*woold,*) *a.* Having wool; as, fine-*woolled* sheep.

Wool'len, Wool'en, *a.* Made of wool; consisting of wool.— Pertaining to wool.

—*n.* Cloth made of wool.

Wool'len-draper, *n.* A dealer in woollen goods.

Woollenet', *n.* A thin, texile fabric made of wool.

Wool'len-scribblers, *n. pl.* Machines for combing wool into thin, downy, translucent layers.

Wool'liness, *n.* The state of being woolly.

Wool'ly, *a.* Consisting of wool.— Resembling, or clothed with, wool.

Wool'ly-head, *n.* A negro. (A cant term.)

Wool'man, *n.*; *pl.* WOOLMEN. A dealer in wool.
Wool'-pack, *n.* A large pack or bale of wool weighing 240 lbs. — Anything thick, bulky, but light.
Wool'-sack, *n.* A sack or bag of wool. — The seat of the lord-chancellor in the House of Lords, on account of its being a large, square bag of wool, without back or arms, covered with red cloth.
Wool'-stapler, Wool'-winder, *n.* A wholesale dealer in wool; a sorter of wool.
Wool'-stock, *n.* A heavy wooden hammer for milling cloth, or driving the threads of the web together. *Sm'ds.*
Woolwich, (*wool'ij,*) a town and naval station of England, in the county of Kent, on the Thames, 8 m. from London. This place was originally only a small village, inhabited by fishermen, and owes its consequence to the establishment of a royal dock, in the reign of Henry VIII. Since that time it has gradually risen to its present importance; but its progress has been more particularly rapid during the past century, in consequence of the establishment of the arsenal and the augmentation of the royal artillery. Its dock-yard is the most ancient in Great Britain, and is supplied with all that is necessary for the building and equipping of ships of war; but, from the shallowness of the water in the river, such ships are mostly built at other naval ports, and this yard kept for the construction of steamers. The royal arsenal contains in its model-room a pattern of every article made use of in the artillery service. This arsenal is the grand British depôt for every species of ordnance, both military and naval, covering more than 100 acres, and containing about 25,000 pieces of ordnance. It is the largest arsenal in Great Britain, and has extensive stores of gun-carriages, military wagons, and everything which appertains to the department of ordnance. It is the head-quarters of the royal horse and foot artillery, and the royal sappers and miners, for whom, with the other corps, extensive barracks are provided. Here also is the Royal Military Academy, which was instituted in 1741. In the Thames, opposite the dock-yards, are the hulks for the reception of convicts sentenced to hard labor; they are employed on government works. *Pop.* (1897) 107,650.
Wool'wich, in *Maine*, a post-township of Sagadahoc co., 25 m. S. of Augusta.
Woolwich, in *New Jersey*, a township of Gloucester co.
Woonsock'et, in *Rhode Island*, a city of Providence co., 16 m. N.W. of Providence. It contains numerous cotton mills, machine shops, iron foundries and manufactures of spool-thread, sewing-silk and fringes, jewelry, musical instruments, stoves, &c. *Pop.* (1897) 32,330.
Woor'aly, Wou'ri, *n.* A virulent poison from South America, having the characteristics of strychnia.
Woos'ter, in *Indiana*, a post-village of Kosciusko co., 9 m. S.E. of Warsaw.
—A village of Scott co., 80 m. S.E. of Indianapolis.
Wooster, in *Iowa*, a village of Jefferson co., about 9 m. S.E. of Fairfield.
Wooster, in *Ohio*, a city, cap. of Wayne co., 90 m. N.E. of Columbus. *Pop.* (1897) 6,650.
Woo'sung, in *Illinois*, a post-village of Ogle co., 7 m. N.N.W. of Dixon.
Wootz, *n.* (*Metall.*) A species of steel of excellent quality, imported from India, and of which it is believed that the celebrated Damascus sword-blades were made. It is made by melting small pieces of wrought iron mixed with some twigs from a tree, and covered by a green leaf, in small crucibles luted close with clay; these crucibles are then built up in a pyramidal form in a furnace, and exposed to a strong heat. The pieces of *W.* are taken out after the crucibles are cooled, and are of the size of about half a hen's egg. To form a Damascus sword-blade, each piece of *W.* was drawn out under the hammer into a thin riband, and a bundle of them was then welded together. *W.* has been known from remote antiquity. It contains traces of silica and aluminium.
Worcester, JOSEPH EMERSON, LL.D., (*woos'ter,*) an American lexicographer, b. in Bedford, N. H., 1784. He graduated at Yale College, 1811, and for several years afterwards taught in Salem. His great work is his *Dictionary of the English Language*, 4to, Boston, which has taken its rank among the best works of the kind. Among his other works are: *Geographical Dictionary, or Universal Gazetteer*, 2 vols., 1817; *Gazetteer of the United States*, 1818; *Elements of History, Ancient and Modern*, 1828. Dr. *W.* was a Fellow of the American Academy of Sciences, a corresponding member of the Royal Geographical Society in London, and a member of other learned bodies. D. Oct. 27, 1865.
Worcester, a city of England, and the chief town of Worcestershire, beautifully situated on the E. bank of the Severn. Its principal object of interest is the cathedral, a noble specimen of Gothic simplicity, which was consecrated in 1218. The outside is extremely plain, and devoid of ornaments; its beauty consisting in its height, space, and the lightness of its architecture. In shape the cathedral is a double cross, with a length of 514 feet, a breadth of 78, and a height of 68, the entire tower rising to an altitude of 200 feet. *Manuf.* Gloves, lace, nails, spirits, leather, and porcelain. *Pop.* 33,226.
Worcester, in *Maryland*, a S.E. co., bordering on Delaware and the Atlantic Ocean; *area*, 475 sq. m. *Rivers.* Pocomoke and St. Martin's. *Surface*, level; *soil*, moderately fertile. *Cap.* Snow Hill. *Pop.* (1897) 21,250.
Worcester, in *Massachusetts*, a central co; *area*, 1,551 sq. m. *Rivers.* Miller's, Chicopee, Blackstone, Nashua, and Thames. *Surface*, undulating; *soil*, fertile. *Pop.* (1895) 306,307.—A city, cap. of the above co., 55 m. E.N.E. of Springfield; Lat. 42° 16′ 17″ N., Lon. 71° 48′ 1.9″ W. It is regularly laid out, with wide and pleasant streets. *W.* is the point of junction of 6 lines of railroad, and contains extensive manufactories of steel and iron wire, cotton and woollen goods, mechanic's tools, agricultural implements, boots and shoes, fire-arms, machinery of every description, &c. The college of the Holy Cross, founded by the Jesuits in 1843, has a library of 5,000 vols. *W.* has also an academy; a female collegiate institute; the Oread institute; a seminary for girls; and a public high school. The State lunatic asylum is situated there. The American Antiquarian Society, founded here in 1812, has a library of about 35,000 vols., and a valuable collection of antiquities. *W.* has also a free public library of about 25,000 vols. *Pop.* (1895) 98,687.
Worcester, in *New York*, a post-village and township of Otsego co., 55 m. S.W. of Albany.
Worcester, in *Pennsylvania*, a post-township of Montgomery co., 7 m. N. of Norristown.
Worcester, in *Vermont*, a post-township of Washington co., 10 m. N. of Montpelier.
Worces'tershire, an inland co., in the west of England, bounded N. by Staffordshire, S. by Gloucestershire, W. by Herefordshire and Shropshire, and E. by Warwick; *area*, 765 sq. m. Worcester is one of the most varied, fertile, and beautiful counties in England, the salubrity of its climate being only exceeded by the richness and abundance of its soil. The most important manufactures are carpets, lace, gloves, nails, malt, cider, perry, salt, sheet and bar iron, and oil cake. Chief town, Worcester.
Word, (*wurd,*) *n.* [A. S. *word, wyrd*; Du. *woord*; Ger. *wort.*] An articulate or vocal sound, or a combination of such sounds, uttered by the human voice, and expressing an idea or ideas; a single component part of human speech or language. — The letter or letters, written or printed, which represent a sound or combination of sounds. — Talk; discourse; language. — Verbal contention; dispute. — Living speech; oral expression; promise. — Signal; order; command; military token. — Account; tidings; message. — Declaration or purpose expressed; declaration or affirmation.
—The Scripture; divine revelation, or any part of it; Christ. — A motto; a short sentence; a proverb.
By word of mouth, orally; by direct expression of language. — *Compound word*, a word formed of two or more single words. — *Good word*, a recommendation; a favorable notice or account. — *In a word*, briefly. — *In word*, in declaration only. — *Word for word*, literally; in the exact words.
—*v. a.* To express in words; to style; to phrase. — To meet with talk instead of action.
Word'-book, *n.* A vocabulary; a dictionary.
Word'-catcher, *n.* A person who cavils at words.
Word'ily, *adv.* In a verbose or wordy manner.
Word'iness, *n.* The state or quality of abounding with words.
Word'ing, *n.* The act or manner of expressing in words.
Word'less, *a.* Silent; not using words.
Word'-painting, *n.* The act of describing anything by words, so vividly as to present it to the mind as if painted.
Words'worth, WILLIAM, an English poet, b. at Cockermouth, Cumberland, 1770, was the son of an attorney, and became a student of St. John's College, Cambridge, where he took his B. A. degree in 1791. *W.* gave his first poetic effusions to the world in 1793, under the title of *An Evening Walk*; in 1798, *Lyrical Ballads* appeared, the joint but uneven production of *W.* and Coleridge. From this time up to 1815 he published a new edition of *Lyrical Ballads*, *Sonnets*, *Essays on Epitaphs*, *The Excursion*, *The Prelude*, *Peter Bell*, *The Waggoner*,

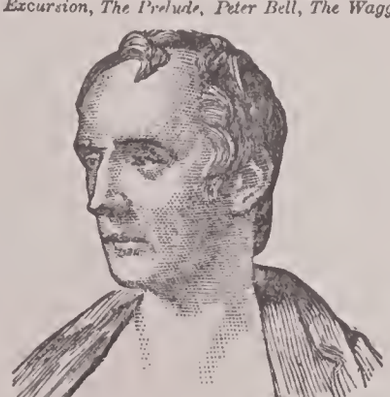
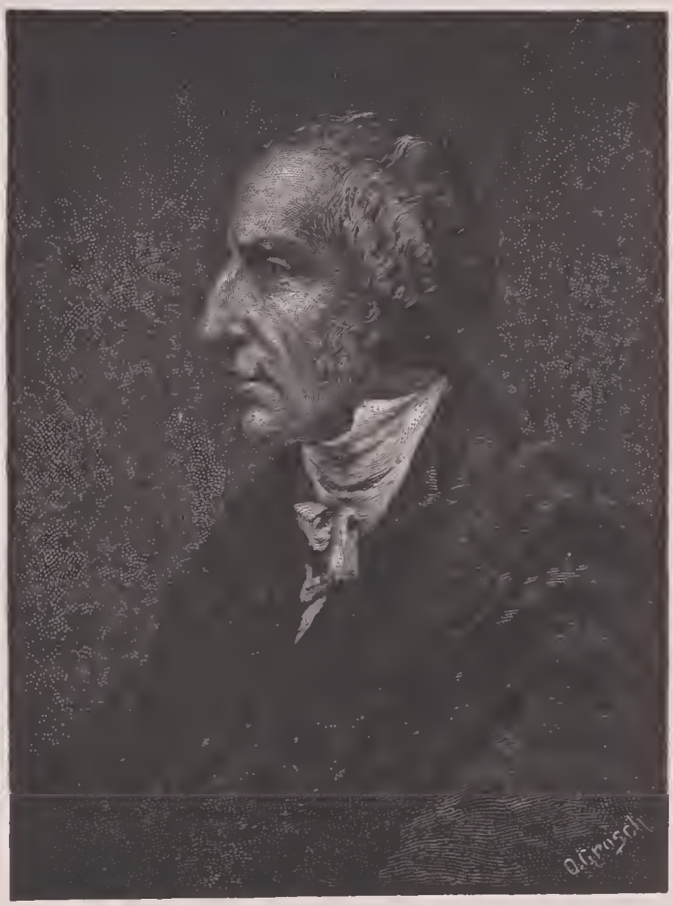


Fig. 2628. — WORDSWORTH.

and many minor pieces. About this time he received the appointment of distributor of stamps, and in 1843 he obtained the office of poet-laureate, vacant by the death of Southey. D. 1850. "The influence of *W.*," says an eminent critic, "on the literature, and especially on the English poetry, has been immense, and it is far yet from being exhausted. The regenerating power of his genius has so operated upon the public taste, that the pure, the simple, and the good, are now the more regarded elements of poetry." For many years *W.* enjoyed that guerdon of love and admiration which are too frequently reserved for departed genius; and thousands of his admirers made a pilgrimage to the poet's home, Rydal Mount. His autobiographical poem, *The Prelude, or the Growth of a Poet's Mind*, was a posthumous publication. Memoirs of *W.* were published soon after his death by his nephew, Canon Wordsworth. The complete poetical works of *W.*, edited by the late Henry Reed, professor of Literature in the University of Pennsylvania, were published in Philadelphia about 1870. Mr. Reed, in returning from a pilgrimage to Rydal Mount, was unfortunately lost in the ill-fated steamer *Arctic*, in September, 1854.
Word'y, *a.* Using many words; verbose. — Containing many words; full of words.
Work, *n.* [A. S. *weorc, worc*; Du., Sw., and Ger. *werk*; Gr. *ergon.*] Something produced by toil, whether mental or bodily; labor; employment. — Exertion of strength, particularly in man; manual labor. — That which is made or done; the effect of labor; the product of labor. — Embroidery; flowers or figures wrought with the needle; any fabric or manufacture; the matter on which one is at work. — Action; deed; feat; achievement; operation; management; treatment. — Literary performance. — A piece of mechanism.
(*Mech.*) The work performed by any force is measured by the product of the force into the space through which it is exerted. The *unit of work* is called the *foot-pound*, and is that which is performed in raising a pound weight, in opposition to gravity, to a height of one foot. The work required to raise five pounds to a height of ten feet, therefore, is fifty *foot-pounds*.
(*Mining*) A term applied to ores before they are cleaned and dressed.
(*Theol.*) Moral duties, internal or external; — the actions of a moral, as distinguished from those of a Christian life.
To go to work, to commence operations. — *To set to work*, to employ.
—*v. a.* To produce by toil, either mental or bodily; to form by labor; to mould, shape, or manufacture.
—To bring into any state by action. — To influence by acting upon; to manage; to lead. — To make by action, labor, or violence. — To manage or direct in a state of motion; to put in motion. — To produce by action, labor, or exertion; to effect by labor in some particular manner, as by the needle; to embroider. — To direct the movements of, as of a ship. — To put to labor; to exert. — To cause to ferment, as liquor.
To work a passage. (*Naut.*) To pay for the passage by performing labor.
To work in or *into*, to insert; to interweave; to insinuate. — *To work off*, to remove gradually, as by labor. — *To work out*, to effect by labor or exertion.
—*v. n.* To be in action, so as to produce something by toil, either mental or bodily; to labor; to toil; to be occupied in performing manual labor, whether severe or moderate. — To act; to carry on operations; to operate; to carry on business. — To be customarily engaged or employed in. — To act internally; to ferment. — To produce effects by action or influence. — To act or operate on the stomach and bowels, as a cathartic. — To be tossed or agitated; to influence.
To work at, to be employed in or upon. — *To work to windward.* (*Naut.*) To fly against the wind; to beat.
Work'able, *a.* That can be worked, as a metal. — That can be worked, or that is worth working, as a mine.
Work'-bag, *n.* A bag used for holding instruments or materials for work, such as needle-work, &c.
Work'-day, *n.* A working-day.
Work'er, *n.* One who, or that which, works or performs. — A working-bee.
Work'-fellow, *n.* A fellow-laborer.
Work'-folk, Work'-folks, *n. pl.* Laboring people.
Work'-house, *n.* A house for work, a manufactory; a house for the poor, where suitable food, clothing, and employment are provided.
Work'ing, *a.* Acting; operating; laboring; devoted to bodily toil; fermenting.
—*n.* Act of laboring.
Work'ing-beam, *n.* (*Steam Engine.*) See BEAM.
Work'ing-day, *n.* [*Work* and *day.*] A day on which labor is performed, as distinguished from the Sabbath, holidays, &c.
—*a.* Laborious; plodding; common; coarse; gross.
Work'ington, a seaport-town of England, in Cumberland, near where the River Derwent falls into the ocean, 7 m. from Whitehaven. To the coal-mines in the vicinity, *W.* owes all its importance. *Pop.* 6,46[illegible].
Work'man, *n.* Any man employed in manual work or labor; a skilful artificer or mechanic; a laborer.
Work'manlike, *a.* Like a workman; skilful; well performed.
Work'manly, *a.* Skilful; well performed; workmanlike.
—*adv.* Skilfully. (R.)
Work'manship, *n.* Skill or art of a workman; the degree or style of art; dexterity; manufacture; something made, particularly by manual labor; that which is effected, made, or produced.
Work'-master, *n.* A performer of any work; a workman.
Work'shop, *n.* A shop where a workman, a mechanic, or artificer, or a number of such individuals, carry on their work.
Work'sop, a town of England, in Nottinghamshire, 24 m. from Nottingham, at the N. extremity of Sherwood Forest; *pop.* 7,000.
Work'-table, *n.* A small table used by ladies at their needle-work.
Work'-woman, *n.* A woman skilled in needle-work. — A woman who works for hire.
World, *n.* [A. S. *woruld, world*; Ger. *welt.*] The universe; the whole system of created globes or vast bodies of matter. — The earth; the terraqueous globe; — sometimes called the lower world. — The heavens, as when we speak of the heavenly world, or upper world. — Sys-



William Wordsworth

1770–1850

THE WORLD

ON MERCATOR'S PROJECTION.

Great Britain
Germany
France
Italy

Netherlands
Spain
Portugal
Denmark

United States

Countries having foreign possessions are colored as above; this color scheme is extended to include Africa, Asia, and Oceania.

Telegraph Cables ——— Oceanic Routes and Distances -----

Hammond's 8 × 11 Map of The World.
Copyright, 1902, by C. S. Hammond & Co., N.Y.

WORLD.

Abyssinia.....G 6
Area sq. m..150,000
Pop.....3,500,000

Afghanistan..H 4
Area sq. m..215,400
Pop.....4,000,000

Alaska.....C 2
Area sq.m..590,884
Pop.....63,592

Algeria.....F 4
Area sq. m..184,474
Pop.....4,739,556

Anam.....A 5
Area sq.m...52,100
Pop... ...6,124,000

Andorra.....G 4
Area sq. m.....175
Pop.....6,000

Angola.....G 7
Area sq.m..484,800
Pop.....4,119,000

Argentina.....E 9
Area sq. m.
1,135,840
Pop.....5,022,024

Australia.....A 8
Area sq. m
2,972,573
Pop.....3,771,715

Austria-Hungary
G 3
Area sq. m..241,333
Pop 45,405,267

Belgium.....G 3
Area sq. m..11,373
Pop.....6,693,548

Belize.....E 6
Area sq. m...7,562
Pop. 1901... 37,479

Bhutan.....A 5
Area sq. m...16,800
Pop.....50,000

Bolivia.....E 7
Area sq. m..703,400
Pop.....1,816,271

Brazil.. .....E 7
Area sq. m.
3,218,130
Pop.....14,333,915

Br.Cent.AfricaG 7
Area sq. m...42,217
Pop.....900,705

Bulgaria.....G 4
Area sq.m...38,080
Pop.....3,744,283

Cambodia.....A 6
Area sq. m..37,400
Pop.....1,500,000

Canada, Domin.of
Area sq. m. [D 2
3,745,574
Pop.....5,371,315

Cape of Good Hope
G 9
Area sq. m.221,311
Pop 1,756,224

Chile.....E 9
Area sq. m..307,620
Pop.....2,712,145

Chinese Empire
Area sq. m. [A 4
4,277,170
Pop.....426,047,325

Colombia.....E 6
Area sq. m..504,773
Pop.....3,878,600

Costa Rica....E 5
Area sq. m..18,400
Pop.....253,040

Cuba.... .....E 5
Area sq. m...44,000
Pop.....1,572,845

Dahomey.....G 6
Area sq. m..60,000
Pop.....1,000,000

Denmark .....G 3
Area sq. m..15,388
Pop.....2,464,770

East Africa, Br.G 6
Area sq. m.
1,000,000
Pop.....10,000,000

East Africa, Ger.
G 7
Area sq. m..384,000
Pop.....6,863,275

East Africa, Por.
G 7
Area sq. m.293,400
Pop.....3,120,000

Ecuador.....E 7
Area sq. m..116,000
Pop.....1,400,000

Egypt .....G 5
Area sq. m. 400,000
Pop.....9,821,100

France .....G 3
Area sq. m 207,054
Pop.... .38,961,945

Germany .. ..G 3
Area sq. m..208,830
Pop.....56,367,178

Gold Coast....G 6
Area sq. m. 119,260
Pop.....1,486,433

Great Britain and
Ireland..F 3
Area sq. m. 121,027
Pop.....41,609,322

Greece..... G 4
Area sq. m...25,014
Pop.... ..2,433,806

Guatemala....D 5
Area sq. m...48,290
Pop.....1,647,300

Guiana BritishE 6
Area sq. m. 104,000
Pop..... ..278,328

Guiana Dutch.E 6
Area sq. m...46,060
Pop..... 70,207

Gulana FrenchE 6
Area sq. m...30,500
Pop 32,908

Gulnea French F 6
Area sq. m...95,000
Pop..... 2,200,000

Haiti.....E 5
Area sq. m 10,204
Pop..... 1,294,400

Hawaii .....C 5
Area sq. m....6,449
Pop.... ..154,001

Honduras.....D 5
Area sq. m. 46,250
Pop 650,000

India. ... .H 5
Area sq. m.
1,766,642
Pop.....294,361,056

Italy.....G 4
Area sq. m. 110,646
Pop 32,475,000

Ivory Coast...F 6
Area sq. m. 116,000
Pop.....2,000,000

Jamaica ..... E 5
Area sq. m....4,200
Pop.....785,434

Japan .....B 4
Area sq. m. 147,655
Pop.....44,805,937

Java and Madura
A 7
Area sq. m...50,554
Pop..... 28,746,668

Kamerun.....G 6
Area sq. m. 191,130
Pop..... 3,500,000

Kongo FrenchG 6
Area sq. m. 450,000
Pop..... 15,000,000

Kongo State ..G 7
Area sq. m. 900,000
Pop.....30,000,000

Korea..... A 4
Area sq. m..82,000
Pop..... 17,000,000

Liberia..... F 6
Area sq. m..35,000
Pop.....2,060,000

Madagascar...H 8
Area sq. m. 227,950
Pop..... 2,505,240

Mexico .....D 5
Area sq. m. 767,005
Pop.....13,605,919

Montenegro...G 4
Area sq. m.. 3,630
Pop.....228,000

Morocco.....F 4
Area sq. m. 219,000
Pop 9,400,000

Natal..... G 8
Area sq. m.. 29,200
Pop 959,384

Nepal ... . D 3
Area sq. m..54,000
Pop.. 4,000,000

Netherlands...G 3
Area sq. m..12,648
Pop.....5,347,182

New Zealand..B 9
Area sq. m. 104,751
Pop 772,719

Nicaragua.....E 6
Area sq. m..49,200
Pop.....380.000

Nigeria.... ...G 6
Area sq. m.400,000
Pop.....25,000,000

Norway .....G 2
Area sq. m.124,130
Pop.....2,240,032

Oman .....H 5
Area sq. m..82,000
Pop.....1,500,000

Orange River Col.
G 8
Area sq. m..48,326
Pop 207,503

Panama.....E 6
Area sq. m..31,570
Pop.....300,000

Paraguay.... E 8
Area sq. m. 157,000
Pop.....630,100

Persia.....H 4
Area sq. m.628,000
Pop.....9,653,600

Peru.....E 7
Area sq. m.695,773
Pop.... ..4,609,999

Philippine Is..A 6
Area sq. m.115,029
Pop.....7,635,426

Porto Rico....E 5
Area sq. m...3,600
Pop 953,243

Portugal..... F 4
Area sq. m..34,254
Pop.....5,016,267

Rhodesia.....G 8
Area sq. m..312,000
Pop.....950,000

Roumania....G 4
Area sq. m..50,700
Pop.....5,912,600

Russia.....G 3
Area sq. m.
8,660,395
Pop.....128,932,173

Salvador.....E 5
Area sq. m...7,225
Pop..... 1,006,848

Santo DomingoE 5
Area sq. m..18,045
Pop.....610,000

Senegal.....F 6
Area sq. m.806,000
Pop.....4,523,000

Servia.....G 4
Area sq. m..18,630
Pop.....2,493,770

Siam..... . ..A 5
Area sq. m.220,000
Pop.....5,000,000

Sierra Leone .F 6
Area sq. m...4,000
Pop.....76,655

S. W. Africa
German. G 8
Area sq. m.322,450
Pop.... 205,462

Spain.....F 4
Area sq. m.190,050
Pop 13,618,086

Straits Settle-
ments..A 6
Area sq. m.....270
Pop.....572,249

Sweden..... G 2
Area sq. m.172,876
Pop 5,136,441

Switzerland ..G 3
Area sq. m..15,976
Pop.....3,315,443

Togoland.....G 6
Area sq. m..33,000
Pop.....2,500,000

Trausvaal Col.G 6
Area sq. m.119,139
Pop.....1,094,156

Tunis.....G 6
Area sq. m..51,000
Pop.....1,900,000

Turkey.....G 4
Area sq. m.
1,157,860
Pop 24,028,900

United States.D 4
Area sq. m.
2,970,230
Pop.....76,303,387

Uruguay.....E 9
Area sq. m..72,210
Pop.....978,048

Venezuela.....E 6
Area sq. m.593,943
Pop.....2,323,527

tems of beings, or the orbs which occupy space, and all the beings which inhabit them.—Present state of existence; a secular life; public life or society: business or trouble of life.—A great multitude or quantity; mankind; people in general.—Course of life; the customs and manners of men; the practice of life.—All that the world contains; a large tract of country; a wide compass of things; any large portion of the earth; as, the *Old World*, the *New World*.—The inhabitants of the earth; the whole human race; the carnal state or corruption of the earth; the ungodly part of the world.—Time:—only used in the phrase *world without end*. See GLOBE.

World'liness, *n.* State of being worldly; a predominant passion for obtaining the good things of life; covetousness; addictedness to gain and temporal enjoyments.

World'ling, *n.* One devoted to this world, or to worldly gain and pleasures.

World'ly, *a.* Relating to this world, or to this life, in contradistinction to the life to come; secular; temporal; devoted to this life and its enjoyments; not attentive to a future state; bent on gain; human; commou; belonging to the world.

World'-wide, *a.* Co-extensive with the world.

Worm, (*wêrm,*) *n.* [A.S. *wyrm, worm;* Lat. *vermis.*] That which creeps or crawls; any small creeping animal or reptile, either entirely without feet, or with very short ones.—Remorse; that which incessantly gnaws the conscience; that which torments.—A being debased and despised.—A spiral instrument, resembling a double cork-screw, fixed on the end of a staff, and used for drawing wads or cartridges from guns.—Anything spiral, as the threads of screws; a spiral, leaden pipe placed in a tub of water, through which the vapor passes in distillation, and in which it is cooled and condensed; a supposed small worm-like ligament situated beneath a dog's tongue.

—*pl.* (*Zoöl.*) The lowest class of articulated animals, corresponding to the ANNULOSA, *q. v.* See, also, ANNELIDÆ, LUMBRICINÆ, NEMATOIDS, TAPE-WORM, &c.

—*v. n.* To work slowly, gradually, and secretly.

—*v. a.* To cut something, called a worm, from under the tongue of a dog; to expel or undermine by slow and secret means; to draw the wad or cartridge from a gun; to clean by the instrument called a worm.

Worm'-fence, *n.* A rail fence constructed in a zig-zag manner.

Worm'-grass, *n.* (*Bot.*) See SPIGELIA.

Worm'leysburg, in *Pennsylvania*, a village of Cumberland co., 1 m. S.W. of Harrisburg.

Worms, (*werms,*) a city of Germany, in Hesse-Darmstadt, on the Rhine, 25 m. from Mayence. Its streets are dark and narrow, and its cathedral is a ponderous Gothic building, with dismantled walls. The public buildings are the Mint and the Town-house, in which Luther appeared before the Diet in 1521. (See LUTHER.)—*Manuf.* Tobacco, with a trade in agricultural produce. *W.* was formerly an imperial city, and is very ancient. In the 13th century the population is said to have been 60,000. It is famous for the many diets which have been held in it, the most celebrated of which was that convoked by Maximilian I. in 1495, at which a perpetual public peace was established, and that of 1521. *Pop.* 10,672.

Worm'-seed, *n.* (*Med.*) Same as *Semen contra.* See SEMEN.

Worm'-shaped, *a.* Thick and almost cylindrical, but bent in different places; vermicular.

Worm'-tea, *n.* (*Med.*) A preparation consisting of pink-root, senna, manna, and savine, in various proportions. It is much used as an anthelmintic.

Worm'-wheel, *n.* (*Mech.*) A wheel with teeth to fit into the spiral parts of a screw.

Worm'wood, *n.* (*Bot.*) See ARTEMISIA.

Worm'y, *a.* Relating to worms; abounding with worms.

Worn, *pp.* from WEAR, *q. v.*

Wor'nil, Wor'mul, *n.* A tumor on the back of cattle, occasioned by an insect that punctures the skin.

Worn'-out, *a.* Destroyed or much injured by wear; trite.

Woronzoff, MICHAEL SEMENOVITCH, PRINCE, (*wo-ron'-zoff,*) an eminent Russian statesman and general, b. of an illustrious family at Moscow, 1782. He entered the Russian army in 1801, served against the Turks, and distinguished himself in the great war with France. He was severely wounded at Borodino, and commanded the cavalry at the battle of Leipsic, Oct., 1813. Ten years later he was named governor of New Russia and Bessarabia, and in 1844 governor of the Caucasus. He carried on the war with the heroic mountain-tribes, and took Shamyl's stronghold, Dargo. D. at Odessa, 1856.

Wor'rier, *n.* One who worries.

Wor'ry, *v. a.* [Ger. *würgen,* to choke.] To compress the throat of; to strangle; to suffocate; to tear; to mangle with the teeth; to tease; to trouble; to harass with importunity, or with care and anxiety; to fatigue; to harass with labor; to vex; to persecute brutally.

—*n.* Perplexity; trouble; vexation.

Wor'ryingly, *adv.* In a worrying manner.

Worse, (*wers,*) *a.* [A.S. *wyrse.*] More evil; bad or ill in a greater degree; more depraved and corrupt (in a moral sense); in regard to health, more sick.

—*adv.* In a manner more evil or bad.

—*n.* Not the advantage; not the better; the loss.

Wor'ship, *n.* [A.S. *weorthscipe.*] A title of honor, used in addresses to certain magistrates, and others of rank or station; the act of paying divine honors to the Supreme Being; or the reverence or homage paid to him in religious exercises, consisting in adoration, confession, prayer, thanksgiving, and the like.—The homage paid to idols or false gods by pagans; idolatry of inferiors.—Obsequious or submissive respect; unbounded admiration; as, *hero-worship.*

—*v. a.* (*imp.* and *pp.* WORSHIPED; *ppr.* WORSHIPING;—often, but incorrectly, written *worshipped* and *worshipping.*) To attribute worthiness to; to adore; to pay divine honors to; to reverence with supreme respect and veneration; to respect; to honor; to treat with civil reverence; to honor with extravagant love and extreme submission.

—*v. n.* To perform acts of adoration; to perform religious service.

Wor'shipable, *a.* Capable of being worshipped. (R.)

Wor'shiper, (also, but improperly, written WORSHIPPER,) *n.* One who worships; one who pays divine honors to any being; one who adores.

Wor'shipful, *a.* Claiming worship; claiming respect; worthy of honor from its character or dignity; a term of respect, especially applied to magistrates and corporate bodies.

Wor'shipfully, *adv.* In a worshipful manner; with respect.

Wor'shipfulness, *n.* The state or quality of being worshipful.

Worst, (*wurst.*) *a.* (Superl. of *worse,* q. v.) Evil in a very high or in the highest degree; most bad; most evil; most severe or dangerous; most difficult to heal; most afflictive, pernicious, or calamitous.

—*n.* The most evil state; the most severe or aggravated state; the height; the most calamitous state.

—*v. a.* To get the advantage over in contest; to defeat; to overthrow.

Worsted, (*wust'ed.*) *n.* Yarn spun from combed wool, and which, in the spinning, is twisted harder than ordinary.

Wort, (*wurt,*) *n.* [A.S. *wyrt;* O.Ger. *wurz;* Goth. *aurts,* an herb, plant.] A plant; an herb; now used chiefly, or wholly, in compounds, as in *mugwort, liverwort,* &c.

—New beer unfermented, or in the act of fermentation; the sweet infusion of malt or grain.

Worth, WILLIAM JENKINS, an American general, b. in Hudson, Columbia co., N. Y., March 1, 1794. He received but a scanty education, and on the breaking out of the war of 1812, he entered the army as a private soldier. He was appointed 2d lieut. of infantry in 1813, was aide-de-camp to Gen. Lowie the same year, and Gen. Scott in 1814; and the same year received the brevets of Captain and Major for gallant conduct at the battle of Chippewa, July 5th, and at that of Lundy's Lane, July 25th, at which latter he was severely wounded. He was promoted to the rank of major in 1832, and to that of Colonel in 1838. In 1841, he assumed the command of the Florida war, which he brought to a successful termination after several severe conflicts. At the outbreak of the Mexican war, he joined the command of General Taylor, and distinguished himself at the storming of Monterey, for which he received the brevet of Major-general, and a sword from Congress. He also distinguished himself at Cerro-Gordo, Puebla, Cherubusco, the capture of Vera Cruz, Molino-del-Rey, and in storming the San Cosmo gate of Mexico. At the close of the war he was placed in command of the South-West. He was presented with a sword by the states of New York and Louisiana, and by his native co., besides a vote of thanks from Florida. D. in San Antonio, Texas, 1849. A monument was erected to his memory by the city of New York, where his remains are interred.

Worth, (*wurth,*) *n.* [A.S, *weorth, wurth, weorthan,* to become; Ger. *werth.*] Value; price; rate; that quality of a thing which renders it useful, or which will produce an equivalent good in some other thing.—Value of mental qualities; desert; merit; excellence; virtue; usefulness; as, a man or magistrate of great *worth;* importance; valuable qualities.

—*a.* Equal in price to; equal in value to.—Deserving of, (in a good or bad sense, but chiefly in a good sense.)—Equal in possessions to; having estate to the value of.

Worth, in *Georgia,* a S.W. co.; *area,* 700 sq. m. It is bordered on the N.W. by Flint River. *Surface,* level; *soil,* fertile. *Cap.* Isabella.

Worth, in *Illinois,* a township of Cook co., abt. 9 m. S.W. of Chicago.

Worth, in the State of *Illinois,* a township of Woodford county.

Worth, in *Indiana,* a township of Boone co.—A township of Hancock co.

Worth, in *Iowa,* a N. county, bordering on Minnesota. *Area,* 408 sq. m. It is drained by Lime and Shell Rock creek. *Surface,* undulating; *soil,* fertile. *Cap.* Northwood. *Pop.* (1895) 10,285.

Worth, in *Michigan,* a township of Sanilac co., abt. 1 m. S. of Lexington.

Worth, in *Missouri,* a N. county, bordering on Iowa. *Area,* 275 sq. m. It is drained by Grand River. *Surface,* undulating. *Soil,* generally fertile. *Cap.* Grant City.

Worth, in *N. York,* a twp. of Jefferson co.

Worth, in *Pennsylvania,* a township of Butler county.—A township of centre county.—A township of Jefferson county.—A post-township of Mercer county.

Wor'thily, *adv.* In a manner suited to; deservedly; according to merit; justly; not without cause.

Wor'thiness, *n.* The state or quality of being worthy; worth; desert; merit; excellence; dignity; virtue.

Worthing, (*wer-thing,*) a maritime town of England, in Sussex co., 11 m. from Brighton; *pop.* 5,600.

Wor'thington, in *Massachusetts,* a post-township of Hampshire co., 100 m. W. of Boston.

Worthington, in *Ohio,* a post-village of Franklin county, 9 miles N. of Columbus.—A township of Richland co.

Wor'thington, in *Pennsylvania,* a post-borough of Armstrong co., 6 m. W. of Kittanning.

Worthington, in *W. Virginia,* a post-village of Marion co.

Worth'less, *a.* Having no worth or value; having no value of character or no virtue; having no dignity or excellence.

Worth'lessly, *adv.* In a worthless manner.

Worth'lessness, *n.* The state or quality of being worthless; want of value; want of useful qualities; want of excellence or dignity.

Worth'ville, in *New York,* a post-vill. of Jefferson co.

Wor'thy, (*wur'thy,*) *a.* [Ger. *würdig;* Ln. *waardig.*] Possessing worth or excellence of qualities; noble; illustrious; virtuous; estimable; deserving; being such as merits; having worth or excellence.—Equivalent to; suitable; having qualities suited to (either in a good or bad sense); equal in value; suitable to anything bad; deserving of ill.

The Nine Worthies of the World are, Joshua, Gideon, Samson, David, Judas Maccabæus, Alexander the Great, Julius Cæsar, Charlemagne, and Godfrey of Bouillon. Authorities are not agreed respecting the last-mentioned. Richard or Robert Burton (an assumed name for Nath. Crouch), in his *History of the Nine Worthies,* published in 1687, gives three Gentiles, viz., Hector, Alexander the Great, and Julius Cæsar; three Jews, viz., Joshua, David, and Judas Maccabæus; and three Christians, viz., Arthur, Charlemagne, and Godfrey of Bouillon. Shakspeare (Love's Labors Lost, act v. sc. 2) introduces only five in the pageant of the Nine Worthies, viz. Pompey, Alexander, Judas Maccabæus, Hercules, and Hector.

—*n.* A man of eminent worth; a man distinguished for useful and estimable qualities; a man of valor.—Used frequently in the plural.

Wotton-under-Edge, a town of England, in Gloucestershire, 16 m. from Gloucester. *Pop.* 2,734.

Would, (*wood,*) *a.* The past tense of WILL, *q. v.*

Would'-be, *a.* Professing to be; desirous of becoming. (Colleq.)

Wound, (*woond,*) *n.* [A.S. *wund;* Lat. *vulnus, vulneris.*] A cut; a stab; a laceration; a breach of the skin and flesh of an animal, or of the bark and wood of a tree, or of the bark and substance of other plants, caused by violence or external force; injury; hurt.—Injury; detriment; damage; as, a *wound* given to one's reputation.

(*Surg.*) A solution of the continuity of a soft part of the body, effected by some external agent, and attended with a greater or less amount of bleeding. Wounds are of various kinds, and are generally distinguished as Incised, lacerated, contused, and punctured. An *incised W.* is a simple division of the fibres made by a sharp cutting instrument. A *lacerated W.* is one in which the fibres, in place of being cleanly divided by a sharp instrument, are torn asunder by violence, the edges of the wound being in this case jagged and uneven. A *contused W.* is one made by a violent blow by some blunt instrument, the part being bruised as well as torn. A *punctured W.* is one made with a narrow pointed instrument, as a sword or bayonet. *W.* are dangerous, according to the extent of soft parts which they involve, the parts they occur in, and the state of health of the individual. In incised *W.* the first thing to be attended to is to stop the hemorrhage. This is usually accomplished by simply bringing the edges of the *W.* together; but if any of the larger blood-vessels have been injured, pressing the trunk, by means of a bandage or tourniquet, will be necessary; and should this not succeed, the vessels must be secured with ligatures. Next, care should be taken that all extraneous substances are removed from the *W.* Then the edges of the *W.* are to be brought together, and retained either by straps of adhesive plaster, or in some situations by one or two stitches. Generally such *W.* heal very quickly, without any suppuration taking place, or, as it is said, "by the first intention." When, however, this is not the case, and suppuration comes on, all attempts to procure union by the first intention should be abandoned, the plasters and bandages removed, poultices and warm dressings had recourse to to remove inflammation, and afterwards healing ointments applied. Lacerated and contused *W.* require to be similarly treated; but they heal less kindly, and suppuration almost always takes place. The swelling and inflammatory symptoms which commonly attend contused *W.* are to be diminished by cooling lotions or emollient poultices. Punctured *W.* are dangerous from their depth, and the internal effusion of serum and blood which usually attends them. They are frequently also followed by severe inflammation and suppuration, although this may be prevented by using antiseptics. Sometimes it may be necessary to enlarge the *W.* a little, so as to remove the stretching of the parts; and to lessen the inflammation, leeches and fomentations are often required. See GUNSHOT WOUNDS.

(*Law.*) In medical jurisprudence, the word *W.* is applied to any lesion of the body, referring not only to a solution of continuity, as in the common sense of the word, but also to every other kind of accident, such as bruises, contusions, fractures, dislocations, and the like.

—*v. a.* To bruise; to hurt by violence; to cut, slash, or lacerate.

Wound', *imp.* and *pp.* from WIND, *q. v.*

Wound'er, *n.* A person who, or that which wounds.

Wound'less, *a.* Free from wound or injury; invulnerable.

Wound'wort, *n.* (*Bot.*) A plant of the genus *Stachys* or BETONICA, *q. v.* It is about a foot high and rather slender. Stem erect, square, generally hispid backward on the angles, sometimes nearly smooth. Leaves smooth, membranaceous, generally rounded at

base and acute at apex. Spike terminal, leafy, composed of verticels, each with 4–8 pale purple flowers. Variable in pubescence. It is found in fields and roadsides.

Wound'y, *adv.* Extremely. (Low.)

Wou'rali, Wou'rara, Woo'rari, *n.* An arrow-poison prepared by the S. Amer. Indians. See STRYCHNOS.

Wou'vermans, PHILIP, an eminent Dutch painter, b. at Haarlem, 1620, excelled in depicting roadside, hunting, and marauding scenes. D. 1668. His brothers, *Peter* and *John*, were both distinguished painters.

Wou'-wou, *n.* (*Zoöl.*) The native name of the Silvery Gibbon (*Hylobates leuciscus*), a pretty monkey found in the Malay peninsula.

Wove, *imp.*, and WOVEN, *pp.*, from WEAVE, *q. v.*

Wrack, (*rak,*) *n.* [Fr. *varec.*] (*Bot.*) See ZOSTERACEÆ.

Wraith, (*rath,*) *n.* [A. S. *orath*, breath.] A spirit supposed to preside over the waters. — A supposed apparition of a person either before or after his death. (Scot.)

Wran'gel, KARL GUSTAF VON, a grand-marshal of Sweden, b. 1613, distinguished himself as a naval and military commander. He defeated the Danish fleet in 1644, the imperial army near Augsburg in 1648, and D. 1676.

Wrangle, (*rang'gl,*) *v. n.* To dispute angrily; to quarrel peevishly and noisily; to brawl; to altercate.

—*v. a.* To involve in a quarrel or dispute; to embroil.

—*n.* An angry dispute; a noisy quarrel.

Wran'gler, *n.* An angry disputant; one who disputes with heat or peevishness.

(*Cambridge University, Eng.*) One who attains the highest honors in the public mathematical examinations for the degree of bachelor of arts is so called. At the close of the last day of examination, those who have most distinguished themselves (to the number of thirty at least) are arranged in order of merit by the examiners, and divided into three classes: wranglers, senior optimes, and junior optimes. The first or senior wrangler is the most distinguished mathematician of his year.

Wrap, (*rap,*) *v. a.* To wind or fold together. — To cover by winding something round: to involve. — To hide; to comprise; to contain; to involve totally; to inclose. — To transport; to snatch up.

To be wrapped up in, to be completely engrossed in.

—*n.* A wrapper — generally used in the plural for shawls, furs, &c.

Wrappage, (*rap'pej,*) *n.* The act of wrapping. — That in which anything is wrapped.

Wrap'per, *n.* One who, or that which wraps. — That in which anything is wrapped or inclosed; an envelope. — A loose upper garment.

Wrap'rascal, *n.* A great-coat; a cant term for a coarse upper coat.

Wrasse, (*ras,*) *n.* (*Zoöl.*) See LABRUS.

Wrath, (*rath,*) *n.* [A. S. *wrath*, *wræth.*] Violent anger; vehement exasperation; indignation; fury; rage; choler; ire; resentment. — The effects of anger; the just punishment of an offence or crime.

Wrath'ful, *a.* Full of wrath; very angry; greatly incensed; furious. — Springing from wrath, or expressing it.

Wrath'fully, *adv.* In a wrathful manner; with violent anger.

Wrath'fulness, *n.* The state or quality of being wrathful.

Wrath'ily, *adv.* In a wrathful manner.

Wrath'less, *a.* Free from anger.

Wrath'y, *a.* Very angry. (Colloq.)

Wreak, (*reek,*) *v. a.* [A. S. *wrecan.*] To execute justice upon; to inflict punishment or vengeance upon.

Wreath, (*reeth,*) *n.*; *pl.* WREATHS. [A. S. *wræth.*] A garland; a chaplet; an ornamental twisted bandage. — Anything twisted or curled; as, a *wreath* of smoke.

Wreathe, (*reeth,*) *v. a.* To twist; to convolve; to wind one about another; to interweave; to intertwine. — To encircle, as a garland. — To encircle, as with a garland.

—*v. n.* To be interwoven or entwined.

Wreath'less, *a.* Destitute of a wreath.

Wreath'y, *a.* Twisted; curled; spiral.

Wreck, (*rek,*) *n.* (Written also *wrack.*) [Du. *wrak*, broken; A. S. *brecan*; Lat. *frango*; Gr. *regnumi.*] Destruction; ruin; dissolution by violence.

—A vessel broken on the rocks; a ship dashed against rocks or land and broken, or otherwise rendered useless by violence and fracture.

—Any ship or goods driven ashore or found floating at sea in a deserted or unmanageable condition. — The remains of anything ruined.

(*Maritime Law.*) The name given to such goods as after a shipwreck are cast upon the land by the sea, and left there within some country so as not to belong to the jurisdiction of the admiralty, but to the common law. Wrecks, by the common law, belong to the king or his grantee, but if claimed by the true owner within a year and a day, the goods, or their proceeds, must be restored to him. In this country, the several States bordering on the sea have enacted laws generally similar to the English law. Ships or goods found derelict or abandoned at sea, and called *Floatsam*, belong to the United States, if unclaimed by the true owner within a year and a day.

(*Metall.*) A vessel in which ores are washed for the third time.

—*v. a.* To break on the rocks; to strand; to drive against the shore, or dash against the rocks, and break or destroy; to ruin.

—*v. n.* To suffer wreck or ruin.

Wreck'age, *n.* The act of wrecking. — The ruins or remains of a ship or cargo that has been wrecked.

Wreck'er, *n.* One who plunders the wrecks of ships, or collects goods cast on the shore from wrecks. — A vessel used to save life and property from a wrecked vessel.

Wreck'-master, *n.* A person appointed by lawful authority to take charge of goods, &c., cast on shore from a wreck, in the interest of the owners.

Wren, (*ren,*) *n.* [A. S. *wrenna.*] (*Zoöl.*) The common name of the active little insessorial birds comprising the genus *Troglodytes*, family *Liotrichidæ*. This genus is distinguished by having the bill nearly as long as the head, compressed, decurved; and the wings about equal to the tail. There are several species, among which the best known is the House-wren, *T. ædon*, found in the eastern U. States to Missouri. It is nearly five inches long, the wings over two inches; the color above reddish brown, barred with dusky, under parts brownish-gray. This *W.*

Fig. 2629. —HOUSE-WREN, (*T. ædon.*)

delights in being near the habitations of man, and builds its nest in any hole it finds in the timbers or walls of our buildings, or in a hollow tree of the orchard or garden. The nest is formed of dry twigs and grasses, and lined with soft materials; eggs five or six, pale-reddish. — The Ruby-crowned Wren, and the Golden-crested Wren belong to the family *Tardidæ*, genus *Regulus*, q. v.

Wren, SIR CHRISTOPHER, an English architect, b. at East Knoyle, Wiltshire, 1632. In 1608 he became surveyor-general of the king's works, and, in 1680, was chosen president of the Royal Society. D. 1723. His great work is St. Paul's Cathedral. See PAUL'S, (ST.)

Wrench, (*rench,*) *v. a.* [A. S. *wringan.*] To pull with a strain; to wring, wrest, or twist by violence. — To strain; to sprain; to distort.

—*n.* A violent twist, or a pull with twisting. — A sprain; an injury by twisting, as in a joint. — An instrument for screwing or unscrewing iron-work.

Wrench'-hammer, *n.* A wrench so formed that one end may be used as a hammer.

Wren'tham, in *Massachusetts*, a post-township of Norfolk co., 23 m. S.S.W. of Boston.

Wrest, (*rest,*) *v.a.* [A.S. *wræstan, gewræstan.*] To twist or extort by violence; to pull or force from by violent wringing or twisting; to take or force by violence. — To distort; to turn from truth or twist from its natural meaning by violence; to pervert.

—*n.* Distortion; violent pulling and twisting; perversion — An instrument to tune with. — A partition which determines the form of a bucket in an overshot wheel.

Wrest'er, *n.* One who wrests or perverts.

Wrestle, (*rès'l,*) *v. n.* [A.S. *wræstlian*; Du. *worstelen.*] To contend by grappling and trying to throw down; to strive with arms extended. — To struggle; to strive; to contend.

—*v. a.* To wrestle with.

—*n.* A struggle between two persons who try to throw each other down.

Wres'tler, *n.* One who wrestles; one who is skilled in wrestling.

Wretch, (*retch,*) *n.* [A. S. *wræcca.*] An outcast; an exile; a miserable person; one sunk in the deepest distress. — A worthless mortal; a person sunk in vice. — It is sometimes used by way of slight or ironical pity or contempt, and also used to express tenderness.

Wretch'ed, *a.* Very miserable; sunk into deep affliction or distress, either from want, anxiety, or grief; calamitous; very afflicting. — Worthless; paltry; very poor or mean; despicable.

Wretch'edly, *adv.* In a wretched manner; most miserably; very poorly; meanly; despicably; pitifully.

Wretch'edness, *n.* The state of being wretched; extreme misery or unhappiness, either from want or sorrow. — Meanness; despicableness; pitifulness.

Wrex'ham, a town of England, in N. Wales, co. of Denbigh, 11 m. from Chester. It is a great mart for flannel, and in the vicinity are several iron manufactories. *Pop.* 7,500.

Wriezen, or **Wrietzen,** (*reet'zen,*) a town of Prussia, on the Oder, 37 m. from Berlin. *Manuf.* Woollens, tobacco, leather, &c. *Pop.* 7,182.

Wriggle, (*rig'gl,*) *v. n.* [Du. *wrikken, wriggelen.*] To move the body to and fro with short turns or motions.

—*v. a.* To put into a quick, reciprocating motion; to introduce by a shifting motion.

Wright, FANNY. See OWEN.

Wright, (*rīt,*) *n.* [A.S. *wyrhta*, from *wyrcen*; Du. *wirken*, to work.] An artificer; one whose occupation is some kind of mechanical business; a manufacturer. This word is now chiefly used in compounds, as in wheel-*wright*, ship*wright*, &c.

Wright, in *Indiana*, a post-township of Greene county.

Wright, in *Iowa*, a N. co.; *area*, 576 sq. miles. *Rivers.* Iowa and Boone. *Surface*, undulating; *soil*, fertile. *Cap.* Clarion. *Pop.* (1895) 16,024.

Wright, in *Michigan*, a township of Hillsdale co. — A post-township of Ottawa co.

Wright, in *Minnesota*, a central co.; *area*, 684 sq. m. *Rivers.* Mississippi and Crow. There are also a number of small and beautiful lakes. *Surface*, undulating; *soil*, fertile. *Cap.* Buffalo. *Pop.* (1895) 27,653.

Wright, in *Missouri*, a S. co.; *area*, 700 sq. m. *Rivers.* Gasconade, the Osage Fork of the same, and James, Bryant's, Finley, and North Forks of White river. *Surface*, diversified; *soil*, moderately fertile. *Min.* Lead, copper, and iron. *Cap.* Hartville. *Pop.* (1897) 15,600.

Wright, in *South Carolina*, a township of Darlington county.

Wrigh'tia, *n.* (*Bot.*) A genus of plants, order *Apocynaceæ*, consisting of shrubs, or small aërial rooting trees, confined to the eastern hemisphere, ranging from Silhet and Nepaul to Western Australia. An inferior kind of Indigo is prepared from the leaves of *W. tinctoria* in some parts of Southern India, and called Pala Indigo, from Pala or Palay, the Tamil name for this and some allied milky trees. The wood of the Palay is beautifully white, close-grained and ivory-like, and is commonly used in India for making toys. It is well suited for turning, carving, and inlaying, and has been tried for engraving as a substitute for boxwood, but found unsuitable. The wood of *W. antidysenterica* has also been made the subject of a similar experiment without success. It is very hard in the centre, and is used in India for posts and rice-beaters. The bark is the Coussi-bark of the *Materia Medica*, and is valued as a tonic and febrifuge, and as a remedy for dysentery. The oat-like seeds also are reputed to possess valuable medicinal properties.

Wright's Corners, in *New York*, a post-village of Niagara co., 60 m. W. of Rochester.

Wright's Ferry, in *Wisconsin*, a post-village of Crawford co., abt. 10 m. E. of Prairie du Chien.

Wrights'town, in *New Jersey*, a post-village of Burlington co., 20 m. S.S.E. of Trenton.

Wrightstown, in *Pennsylvania*, a post-township of Bucks co., 9 m. S.E. of Doylestown.

Wrightstown, in *Wisconsin*, a post-twp. of Brown co.

Wrights'ville, in *New Jersey*, a village of Monmouth co., 5 m. from Allentown.

Wrightsville, in *New York*, a township of Schoharie co., 24 m. W. of Albany.

Wrightsville, in *Pennsylvania*, a village of Warren co., 225 m. N.W. of Harrisburg. — A post-borough of York co., 11 m. E.N.E. of York.

Wring, (*ring,*) *v.a.* [A.S. *wringan*; O. Ger. *ringan*, to squeeze out.] To twist; to turn and strain with violence. — To squeeze; to press; to force by twisting. — To writhe; to distress; to press with pain. — To distort; to pervert. — To persecute with extortion.

(*Naut.*) To bend or strain out of its position.

—*v. n.* To writhe; to twist as in anguish.

Wring'-bolt, *n.* (*Ship-building.*) A bolt for securing the planks against the timbers until they are properly fastened by bolts, spikes, and treenails.

Wring'er, *n.* One who, or that which, wrings; an extortioner. — An instrument for wringing or forcing water out of clothes after they have been washed.

Wring'ing-wet, *a.* So wet as to require wringing.

Wring'-stave, *n.* (*Ship-building.*) Strong pieces of wood used with the wring-bolts.

Wrinkle, (*rin'kl,*) *n.* [A.S. *wrincle, wrinclian.*] A small ridge or prominence, or a furrow, formed by the shrinking or contraction of any smooth substance; corrugation; a crease, as on the face; a fold or rumple in cloth. — Roughness; unevenness.

—*v. a.* To contract into furrows and prominences; to corrugate. — To make rough or uneven.

—*v. n.* To shrink into furrows, or wrinkles and ridges.

Wrink'ly, *adv.* Somewhat wrinkled; having a tendency to be wrinkled.

Wrist, (*rist,*) *n.* [A.S. *wrist.*] (*Anat.*) The part or joint between the forearm and the hand; the CARPUS, *q.v.*

Wrist-drop, *n.* (*Med.*) A disease to which compositors are liable, caused by using new type, which cuts the skin of the thumb and fingers. Lead-poison enters at the abraded places, and paralysis of the wrist is the result. It may be cured by soaking the hand in a solution of potassium.

Bridle wrist, the wrist of the left hand, in which a horseman holds the bridle.

Wrist'band, *n.* That hand or part of a shirt-sleeve which covers the wrist.

Wrist'let, *n.* An elastic band which confines the upper part of a glove at the wrist.

Writ, (*rit,*) *n.* That which is written; particularly applied to the scriptures, or books of the Old and New Testament.

"Of ancient *writs* unlocks the learned store." — *Pope.*

(*Law.*) A mandatory precept, issued by the authority and in the name of the sovereign or the state, for the purpose of compelling the defendant to do something therein mentioned. It is issued by a court or other competent jurisdiction, and is returnable to the same. It is to be under seal, and attested by the proper officer, and is directed by the sheriff, or other officer legally authorized to execute the same. — *Writ of error*, a writ issued out of a court of competent jurisdiction, directed to the judges of a court of record in which final judgment has been given, and commanding them, in some cases, themselves to examine the record; in others, to send it to another court of appellate jurisdiction, therein named, to be examined, in order that some alleged error in the proceedings may be corrected.

Writative, (*rī'tā-tiv,*) *a.* Disposed to write; — opposed to *talkative*. (Low.)

Write, (*rīte,*) *v. a.* (*imp.* WROTE; *pp.* WRITTEN.) [A. S. *writan*; Goth. *writs*, a point, a line.] To form by a pen on paper or other material, or by a graver on wood or stone. — To express by forming letters and words on paper or stone. — To impress durably. — To compose or produce, as an author. — To copy; to transcribe. — To communicate by letter.

To write to, to communicate with by written documents. — *To write one's self*, to style or call one's self; as, "who begun to *write themselves* men" — To bring into a certain condition by writing; as, "There is not a more melancholy object in the learned world, than a man who has *written himself* down." (*Addison.*)

—*v. n.* To perform the act of forming characters, letters, or figures, as representatives of sounds or ideas. — To be

employed as a clerk or amanuensis.—To play the author; to recite or relate in books.—To call one's self; to be entitled to use the style of.—To compose; to frame or combine ideas and express them in words.

Writ'er, *n.* One who writes or has written; an author. —A clerk or amanuensis; a scribe; a penman.

Writers to the Signet, a society of lawyers in Scotland, equivalent to the highest class of attorneys in England.

Writ'ership, *n.* The office or the state of a writer.

Writhe, (*rith,*) *v. a.* [A. S. *writhan;* Dan. *vrider.*] To distort; to twist with violence.—To wrest; to force by violence.

—*v. n.* To twist or twine one's self; to twist and turn; to be distorted, as from agony.

Writ'ing, *n.* The act or art of forming letters and characters on paper, wood, stone, &c., for the purpose of recording the ideas which the characters and words express, or of communicating them to others by visible signs.—Anything written or expressed in letters; a book; a manuscript; any written composition; a pamphlet; an inscription.

(*Hist.*) That the art of writing began in the conveying of information by pictures, and the gradual reduction of these pictures into hieroglyphic symbols, is the theory now generally entertained. A modification of the hieroglyphic method led to the very ancient cuneiform writing of Babylonia, while in Egypt the hieroglyphics gradually became simplified into the more rapid hieratic and demotic methods of writing. The Egyptian characters, at first word-signs only, became in part syllabic, and subsequently alphabetic; and it is held to be not improbable that the Phœnicians, who traded with Egypt, when forming a written language for themselves adopted the alphabetic Egyptian signs as the basis of their writing, subsequently transmitting them to other nations. The Greeks and Romans believed Phœnicians were the inventors of letters, the knowledge of it being brought by Cadmus from Phœnicia into Greece, about 1500 B.C. From the Phœnician, therefore, are probably derived:—1. The Oriental alphabets used in Asia W. of the Indus, written, like Hebrew, from right to left; the principal being the Syriac, Arabic, and Persian. 2. The Pelasgic, or original Greek alphabet, originally written, like the Phœnician and other Eastern languages, from right to left. It was afterwards written consecutively from right to left, and from left to right, in the manner that land is ploughed. This procured for it the name of *βουστρόφηδον*, or furrowed writing. This species of writing maintained its ground for a lengthened period. The laws of Solon, promulgated about 694 B. C., were written in it; and it was used till the 5th cent. B.C. But writing from left to right was introduced for a considerable period before the alternate or furrowed method was abandoned. Inscriptions dated 742 B. C. have been found written from left to right, or in the way now practised. From the Pelasgic alphabet were derived the Etruscan and Oscan. From the Ionic, a later variety of the Greek, came the Arcadian, the Coptic, the Ethiopic, the Mœso-Gothic, and Runic, and in comparatively modern times, the Armenian, Illyrian, Sclavonic, Bulgarian, and Russian. With regard to Greek writing, it is to be observed that the most ancient mode was in capitals. The small letters now in use seem to have been introduced gradually; for in our oldest Greek MSS., even so early as the 5th century, they appear intermixed with capitals. But the latter were principally employed until the 7th or 8th century. 3. The Latin alphabet is also derived from the Ionic-Greek. In the earliest inscriptions which we possess, the forms of the letters scarcely differ from those in use at the present day; but great varieties have been in subsequent times introduced: first, in the ordinary method of writing it; as, the Uncial, Semi-Uncial, Lombard, Italic, &c. Secondly, in the number and form of the letters contained in the numerous alphabets derived from it. 4. A fourth class of alphabetical languages consists of the Sanskrit and its derivatives. These are very numerous, and are spoken in the continent and islands of India. The antiquity of the Sanskrit alphabet is undoubtedly great; but those who assign to it a separate origin are probably in error. Indeed, the great regularity of the Devanagaree, or most elegant form of the Sanskrit alphabet, and its copiousness (it contains 100 letters) seem to afford strong presumption that it was compiled by some learned individual or body (like the Russian and other modern Western alphabets), from other forms of writing then in use, and imported into India from the West. The Sanskrit and its derivative languages are written, like European, from left to right. These four classes comprehend all the alphabetical languages in existence. The following table exhibits the number of letters in some of the principal: See *Origin and Development of Letters.* Taylor.

Class 1. Hebrew, Samaritan, Syrian, and Chaldean, 22 each. Phœnician (known) 17. Arabic, 28. Persian, 32.

Class 2. Greek, 24. Armenian, 38. Ethiopic or Abyssinian, 202. Modern Russian, 41.

Class 3, (which is only a subdivision of Class 2.) Latin, 22. English, 26. French, 28. Italian, 20. German, 26.

Class 4. Sanskrit (Devanagaree), 100.

Writing obligatory. (*Law.*) A bond; an agreement reduced to writing, by which the party becomes bound to perform something, or suffer it to be done.

Writ'ing-book, *n.* A book for the practice of penmanship.

Writ'ing-desk, *n.* A desk or table used for writing on.

Writ'ing-master, *n.* One who instructs in penmanship.

Writ'ing-paper, *n.* Paper suitable for writing upon.

Writ'ing-school, *n.* A school in which penmanship is taught.

Writ'ing-table, *n.* A table used for writing upon.

Wrong, (*rong,*) *a.* [A. S. *wrang,* from *wringan.*] Not suitable; not morally right; twisted or turned out of the right line of conduct; that deviates from the line of rectitude prescribed by God; not just or equitable; not right or proper; not legal.—Not according to the truth; erroneous.—Not physically right; not according to rule; incorrect.

—*n.* That which is wrong or twisted from the right line; whatever deviates from moral rectitude; any injury done to another; a trespass; a violation of right.

—*adv.* In a wrong manner; not rightly; amiss; morally ill; erroneously.

—*v. a.* To do a wrong to; to injure; to treat with injustice; to deprive of some right, or to withhold some act of justice from.—To do injustice by imputation; to impute evil unjustly.

Wrong'doer, *n.* One who does wrong, or performs some evil action.

(*Law.*) One who commits an injury; a *tort-feasor.*

Wrong'-doing, *n.* An evil or wicked act.

Wrong'er, *n.* One who wrongs another.

Wrong'ful, *a.* Injurious; unjust; unfair.

Wrong'fully, *adv.* In a wrongful manner; unjustly; in a manner contrary to the moral law or justice.

Wrong'head, *n.* A person of a perverse mind.

—*a.* Wrongheaded.

Wrong'headed, *a.* Perverse in understanding; obstinately wrong in opinion; stubborn; perverse.

Wrong'headedness, *n.* The state of being wrongheaded.

Wrong'ly, *adv.* In a wrong manner; unjustly; amiss.

Wrong'ness, *n.* The state or quality of being wrong.

Wrong'-timed, *a.* Ill-timed.

Wrote, (*rōt,*) *imp.* from Write, *q. v.*

Wroth, (*rawth,*) *a.* [A. S. *wruth, wrath.*] Very angry; much exasperated.

Wrought, (*rawt,*) *imp.* and *pp.* from Work, *q. v.*

Wrought-iron. See Iron.

Wrung, (*rŭng,*) *imp.* and *pp.* from Wring, *q. v.*

Wry, (*rī,*) *a.* [Dan. *vraa;* Sw. *vra.*] Twisted; turned to one side; distorted.—Deviating from the right direction.—Wrested; perverted. (R.)

Wry face, a distorted countenance; a grimace.

Wry'neck, (*rī'nek.*) *n.* A twisted or distorted neck.

(*Zoöl.*) A small bird of the Woodpecker family (*Yunx torquilla*), found in various parts of Europe (Fig. 2630). Its principal colors consist of different shades of brown. The bill is rather long, sharp pointed, and pale gray; the eyes light brown; but what chiefly distinguishes this bird is the structure of its tongue, which is of considerable length, of a cylindrical form, and capable of being pushed forward and drawn into its bill again. Legs short and slender; toes long, two before and two behind; the claws sharp, much hooked, and formed for climbing branches of trees, on which it can run with the utmost facility.

Fig. 2630.—WRYNECK, (*Yunx torquilla.*)

(*Med.*) The *torticollis*, a variety of rheumatism, seated in the muscles of the neck, which prevents the motion of the head, and causes the patient to hold it inclined to the side affected. It is commonly of short duration; usually disappearing in a few days. Rubefacients are the best topical applications. The term is also applied to permanent contractions of the muscles of the neck, which causes the neck to be held to one side. The remedy is the division of the contracted muscles.

Wry'necked, *a.* Having a distorted neck.

Wudwan, (*wood-wan',*) a town of India, in Guzerat; Lat. 22° 39′ N., Lon. 71° 38′ E.; *pop.* 35,000.

Würtemberg, a kingdom of the German empire, bounded on the W., S.W., and N.W. by the grand-duchy of Baden; E., S.E., and N.E. by Bavaria; and S. by the lake of Constance and Vorarlberg; Lon. bet. 8° 15′ and 10° 30′ E., Lat. between 47° 35′ and 49° 35′ N.; *area,* 7,532 sq. m. It is divided into the 4 circles of the Neckar, Black Forest, Jaxt, and Danube. Its cap. is Stuttgart. The surface of *W.* is composed of hill and dale. In the Black Forest Circle the mountains attain the highest elevation, Balersbronn being 3,781; Schwarzkopf, 3,584; Gaiskopf, 3,455; and Lemberg 3,313 feet above the sea. Rich pastures, cultivated fields, orchards, gardens, hills covered with vines, and mountains with forests, give the most diversified scenery. The most important rivers are, the Neckar, the Danube, and the Main. The prevailing rocks are granite, gneiss, limestone, and various sandstones. Tourmaline, cobalt, bismuth, silver, malachite, chalcedony, gypsum, copper, rock-crystal, and iron occur. The pent-lands are extensive, and yield annually 450,000 florins. There are many springs of mineral waters, those of Cannstatt and Stuttgart being much frequented. The climate is mild and healthy, but in the highlands the winters are long and cold. Wheat, oats, barley, rye, potatoes, beans, maize, turnips, mangold-wurzel, lucerne, &c., are the principal agricultural products. The manufactures are chiefly linen, woollen, cotton, and silk fabrics. Wool- and cotton-spinning, bleaching, dyeing, printing, iron-founding, making machinery, cutlery, gold and silver articles, glass, porcelain, earthenware, tile, cabinet-work, sawing wood, carriage-building, grinding corn, book-printing, and the cognate trades, are principal industries. In *W.*, more than 215,000,000 bottles of beer, or 125 by each person, are consumed yearly, besides wine, brandy, and liquors. Several dialects of German are spoken, of which the Swabian and Franconian are the most general. The population is divided into Evangelical Lutherans, 1,320,295 (68 6-10 per cent.), Catholics, 614,177 (30 6-10), other Christians, 16,064, Jews, 20,699. Every child between 7 and 14 years must attend school. There are 4 Protestant theological seminaries. The university of Tübingen has 41 ordinary professors, 9 extraordinary, and 19 tutors. Its students average 650, of whom 150 are foreigners.—*W.* was overrun in the 4th century by the Alemanni, who occupied that part afterwards called Swabia, and were conquered by the Franks under Clovis I. in 496. Eberhard V., called the Bearded and the Pious, was created duke by the Emperor Maximilian I., July 21, 1494. It underwent various vicissitudes during the Thirty Years' war, and the peace of Westphalia restored the reigning family, Oct. 24, 1648. It was entered by the armies of France, Feb. 9, 1803. It was raised to an electorate by the German diet in 1801, and the elector assumed the title of king, Jan. 1, 1803. National assemblies, convoked to revise the constitution of Sept. 25, 1819, were dissolved, without effecting their object, in 1849 and 1850. A treaty was concluded with Prussia, Aug. 13, 1866. In 1870 *W.* joined Prussia in the war against France, and in 1871 it became an integral part of the new German empire.

Wurtemberg, in *Pennsylvania,* a post-village of Lawrence co., abt. 13 m. S.E. of Newcastle.

Wurts'borough, in *New York,* a post-village of Sullivan co., 90 m. S.S.W. of Albany.

Würzburg, (*voorts'boorg,*) a city of Bavaria, in Lower Franconia, on the Main, by which it is divided into two parts, joined by an elegant bridge, 134 m. from Munich. It stands in a hollow. The Main is here a large and noble stream, presenting, with its boats and barges, an animated picture. On the left bank is a hill, with a

Fig. 2631.—ST. BURKHARDT'S CHURCH, WURZBURG.

castle, formerly the episcopal residence, now a citadel. The town itself is still surrounded with a mound and moat. Its university has a lib. of 250,000 vols., and there is a Jew's synagogue, a polytechnic institute, a school of music and several hospitals. *Manuf.* Woollens, leather, paper, surgical instruments, &c.

Wurzen, (*voort'zen,*) a walled town of Saxony, on the Mulde, 14 m. from Leipsic. *Manuf.* Linens and hosiery. *Pop.* 4,000.

Wyacon'da, in *Missouri,* a post-village of Scotland co., abt. 44 m. W.N.W. of Keokuk, Iowa.—A river which rises in Appanoose co., Iowa, and flowing S.E., enters the Mississippi at La Grange, in Lewis co.—A township of Clark co.

Wyalu'sing, in *Pennsylvania,* a creek which enters the N. branch of the Susquehanna from Bedford co.—A post-borough and township of Bradford co., 10 m. S.W. of Towanda.

Wyalusing, in *Wisconsin,* a post-village and township of Grant co., 100 m. W. of Madison.

Wyandot', or **Wyandott,** in *Kansas,* an E. co., bordering on Missouri; *area,* 160 sq. m. *Rivers.* Missouri and Kansas. *Surface,* undulating; *soil,* fertile. *Products.* Corn, wheat, oats, hay, vegetables, broom corn, all kinds of dairy products, live stock, &c. *Cap.* Kansas City. *Pop.* (1895) 57,352.

—A village, former cap. of the above co., on the Missouri river, 24 m. S.E. of Leavenworth.

Wyandot, in *Ohio,* a N.W. central co.; *area,* 404 sq. m. It is drained by the Sandusky river. *Surface,* undulating; *soil,* fertile. *Cap.* Upper Sandusky. *Pop.* (1897) 24,260.

—A post-village of the above co., 50 m. N. of Columbus.

Wyandots', a tribe of N. American Indians of the Iroquois family, the Hurons of the French writers, who called themselves Wendats or Yendats, first known at Montreal, where, in the middle of the 17th century, they became Roman Catholics under the instructions of the French missionaries. Having, as allies of other tribes, become involved in a war with the Iroquois, they were nearly exterminated, and the remnant emigrated to the country around Lake Superior; then gathered at Mackinaw, 1670, under the care of Father Marquette; thence came to Detroit, where they furnished 400 warriors to the English in 1812. In 1829 they were settled in the number of 600, on the head-waters of the Sandusky

river in Ohio; and in 1832, by a treaty with the U. S. government, removed to Kansas, where, in 1885, many of them acquired the rights of citizenship, each having of their divided lands a farm of 40 acres. A few of them removed to the Indian Territory.

Wyandotte', in *Cal.*, a post-township of Butte co. —In *Michigan*, a post-vill. of Wayne co., on Detroit river.

Wyandotte Cave, a remarkable cave in Crawford co., *Ind.*, 4 m. from Leavenworth; it is over 20 m. in extent, and is said to rival Mammoth Cave (*q. v.*) in its size and beauty.

Wych Hazel, *n.* (*Bot.*) See HAMAMELIDACEÆ.

Wycliffe, or **Wicklif,** JOHN DE, (*wik'lif,*) the earliest of the English reformers, called the Morning Star of Reformation, and B. in Yorkshire, 1324. He studied at Merton College, Oxford, where his greatest talents, in 1361, obtained him the mastership of Baliol College. In 1376 *W.* began to preach against and to denounce the corruptions of the church; such conduct led to his citation before a synod, ordered to examine him by Gregory XI. *W.* appeared, supported by John of Gaunt, duke of Lancaster, and Lord Henry Percy; *W.* made an able defence of himself, and the council ended without any determination. It would appear that, still continuing to denounce papal corruption, he was, in 1378, summoned before a synod held in the archbishop's palace at Lambeth; but his safety was secured by a message from the king's mother, ordering the proceedings to terminate. It is remarkable that, although *W.* continued his vehement attacks upon the temporal power of the Pope, and also upon several vital points of Roman Catholic doctrine, he escaped the fate of those who professed "heresy." This immunity from the consequences of his bold conduct is supposed to have been owing to the secret protection of John of Gaunt; nevertheless, forty years after his death, his bones were taken up and burned by order of the council of Constance. He wrote, among other works, a tract on the schism of the popes; and also translated the New Testament into English. D. 1384.

Wycombe, CHIPPING or HIGH, (*wik'kum,*) a town of England, in Buckinghamshire, 29 m. from London; *pop.* 4,221.

Wye, (*wī.*) a river of England, in South Wales, rising in the S. side of Plinlimmon, in Montgomeryshire, and, after a course of 130 m., falling into the Severn below Cheyston.

Wye River, in *Maryland*, an inlet of the Chesapeake Bay, between Talbot and Queen Anne cos.

Wyes, (*wīz,*) the supports of the telescope in the theodolite and in the levelling instrument; —so called from their resemblance to the letter Y, and written also *Y's.*

Wy'lliesburg, in *Virginia*, a post-village of Charlotte co., 18 m. S. of Marysville.

Wym, in *Maine*, a vill. of Kennebec co.

Wymondham, or WINDHAM, (*wind'ham,*) a town of England, in Norfolk co., 8 m. from Norwich. *Manuf.* Woven fabrics, spindles, tops, &c. *Pop.* 5,500.

Wy'nant's Kill, in *New York*, a stream which falls into the Hudson in Rensselaer co., 2 m. below Troy.—A post-village of Rensselaer co., 7 m. E.N.E. of Albany.

Wy'nantsville, in *New York*, a vill. of Rensselaer co.

Wyoce'na, in *Wis.* a.p.-v. and twp. of Columbia co.

Wyo'ming, a N.W. State of the American Union, lying mainly on the eastern slope of the Rocky Mountains, and in great part a mountainous region. It lies between Lat. 41° and 45° N., and Lon. 104° and 111° W., and is bounded on the E. by South Dakota and Nebraska, N. by Montana, S. by Colorado and Utah, and W. by Utah and Idaho, its length, E. to W., averaging 355 m., and breadth, N. to S., 276 m.—*Area*, 97,890 sq. m., or 62,649,600 acres. The State is traversed by the main axis or continental divide of the Rocky Mountains, which system finds here its greatest northern development, and is noted for the picturesqueness of its scenery and its wild and rugged character. The Wind River Mountains, in the west-central part of the State, constitute the culminating crest of the main range of the Rockies. Numerous other ranges traverse the State, including the Big Horn Mountains in the north-central section, the Laramie Range in the southeast, the Medicine Bow Mountains in the south, north of these the Sweetwater and Rattlesnake ranges, and in the west the Teton, Shoshone and Gros Ventre ranges. In the extreme northeast the Black Hills extend into the State from South Dakota. The greatest altitude of the Wind River Range is that of Fremont's Peak, 13,790 feet high. Other elevated peaks are the Grand Teton, 13,690, Mt. Hayden, 13,691, &c. The Wind River Mountains form the initial point of three widely separated drainage systems: those of the Columbia, flowing westward to the Pacific; the Colorado, southwestward to the Gulf of California, and the Missouri, southeastward to the Gulf of Mexico. Much the greater part of the State consists of elevated plains, it having a mean elevation of 6,000 feet.—*Rivers.* The S.E. part of *W.* is traversed by the North Fork of the Platte and its affluents, including the Laramie and Sweetwater rivers, the Ledge Pole, Rock, Poison Spring, Medicine Bow, Horse, and Rawhide creeks. The N.E. part is drained by the North and South Forks of the Cheyenne river, which flows eastward to the Missouri. The streams traversing the S.W. are Green river and its numerous affluents, whose waters reach the Pacific Ocean through the Colorado river and the Gulf of California. The N.W. is watered by the Big Horn and Yellowstone rivers, affluents of the Missouri, which flow north through S.E. Montana. The small streams W. of the Wind River Mountains combine to form the Snake River, which flows through Idaho to join the Columbia in Washington. None of these streams are navigable. They supply the mountains with an abundance of watercourses, but the plains and broad valleys are poorly supplied, many streams which run full in the mountains during the year drying out in summer on the plains. The Yellowstone Lake in Yellowstone National Park (*q. v.*) is the largest body of water in the State.—*Geol.* The surface strata of *W.* extend through much of the whole geological range, including rocks of the Eozoic, Devonian, Carboniferous, Triassic, Jurassic, Cretaceous, and Tertiary formations, while the evidences of recent volcanic action are shown in great sheets of lava and volcanic breccia, from which mountain ranges have been carved, and in the active hot springs and geysers of the Yellowstone Park. —*Min.* Of the numerous mineral products of *W.*, coal forms one of the most important. The Laramie Plains, an extensive plateau in the southern section of the State, embracing an area of 30,000 sq. m., are largely underlaid with lignite or brown coal of high order, containing 50 per cent. of carbon, its deposits ranging from a few inches to 15 feet in thickness and underlying an area of some 20,000 sq. m. Carbon, Evanston, Rock Springs, Almy and Twin Creek, on or near the Union Pacific R. R., are the most prolific mining regions, their deposits being extensively worked, and furnishing fuel for the railroads, towns and manufacturing industries of the State. The deficiency of fuel in many sections of the adjacent States makes these great deposits of the highest value, and has instigated a rapid increase in production, the yield having grown from 829,355 tons in 1886, to about 2,500,000 tons in 1896. Iron also exists abundantly in close juxtaposition to the coal-beds and in the mountains which surround the Laramie Plains. The other minerals include gold, silver, tin, copper, lead, bismuth, gypsum, graphite, sulphur, arsenic, alum, soda, petroleum, asbestos, and various building stones—granite, sandstone, marble and limestone. Gold and silver have been mined to some extent, though the yield as yet is small. Soda exists in several counties, the deposits near Laramie being 12 feet thick. Petroleum is found in many localities, and a number of wells have been bored in Fremont and Natrona counties.—*Natural productions.* *W.* contains about 22,000,000 acres of mountainous area, 18,000,000 acres of high plateaus, about 30,000,000 acres which produce nutritious grasses suitable for grazing, and 10,000,000 acres which can be utilized for agriculture, if irrigated. Like the mountain states of the west in general, *W.* has an arid climate, the rainfall in the arable regions being nowhere sufficient for agriculture. In this part of the State it ranges from 8 to 15 inches, diminishing westerly. More rain falls in the mountains, reaching there 30 or more inches annually. Timber, consisting chiefly of pine, spruce, and hemlock, exists abundantly on the mountains of every section of the State, with trees of other kinds on the foot-hills and in the valleys. The forests on the Black Hills in the E., on the Medicine Bow, Elk, and other ranges E. of the main divide, and those on the headwaters of Green river in the W. are hundreds of sq. m. in extent, and afford some of the finest timber of the country. During the high stages of water in the principal streams lumber may be rafted down to the Union Pacific R. R., and thus brought within easy reach of a market, it being of the highest advantage to those portions of the W. which are deficient in building material. The regions adapted to grazing are covered with highly nutritious grasses, native as well as introduced. These, on account of the dry climate, cure naturally, thus retaining their valuable qualities. There are hundreds of thousands of acres of fine pasture-lands, where cattle may feed throughout the year, and where they can be cheaply reared, the loss from exposure not being deemed sufficient to render provision for shelter and feeding necessary. The raising of cattle and sheep has therefore become the leading industry of the country, the State possessing over 1,500,000 cattle and 1,000,000 sheep.—*Agric.* The soil of the uplands and plateaus is a light sandy loam, that of the valleys a black loam, on which, by the aid of irrigation, large crops of alfalfa, clover, timothy, etc., may be grown. The cereal crops embrace wheat, corn, oats, barley, rye, and buckwheat, while potatoes yield largely, and are of excellent quality. Sugar beets are also grown. Agriculture is limited to the lands in the valleys and along the bases of the mountains, where flowing streams render irrigation possible. As yet the farming area is small, but it may be increased by a system of mountain reservoirs and irrigation canals. Of 1,830,432 acres in farms in 1890, only 476,831 were improved. A large proportion of the area of the State is still open for settlement, under the Homestead laws. —*Climate.* The summers are mild and delightful, the winters severe, in exposed regions, though the dryness of the air renders the cold endurable. Storms are infrequent, and the climate, as a rule, healthful and agreeable, the atmosphere being pure, rarefied, and usually cloudless. *Springs.* *W.* abounds in mineral springs, which are found widely throughout the State, including saline, chalybeate, sulphurous, and alkaline waters. Many of these are highly charged with elements of medicinal value, and some of them are noted for their curative properties. The mineral waters of Yellowstone Park are without a rival in the world for abundance. The *fauna* of the State includes the grizzly, black, and cinnamon bears, wolf, coyote, puma, wild-cat, wolverine, otter, beaver, porcupine, &c. The buffalo, once very abundant, is now practically extinct. There are many varieties of game and other birds, and of fishes.—*Pol. div.* *W.* is divided into 13 counties, as follows:

Albany.	Crook,	Laramie,	Sweetwater.
Big Horn,	Fremont,	Natrona,	Uinta.
Carbon,	Johnson,	Sheridan,	Weston.
Converse.			

The leading towns are Cheyenne (the capital), Larnmie, Rock Springs, Rawlins, and Evanston. The Shoshone Indian reservation includes 1,520,000 acres of excellent land, now occupied by Shoshone and Arapahoe Indians, some 2,000 in all.—*Govt.* The elective executive officials consist of a governor, secretary of state, auditor, treasurer and superintendent of public instruction. The legislative department of the government includes a Senate, whose members are elected for 4 years, and a House of Representatives, elected for 2 years. Sessions are held biennially, and are limited by the Constitution to 40 days. The judicial department embraces a supreme court, district courts, and justices of the peace. The right of citizens to vote and hold office cannot be abridged on account of sex, and men and women enjoy equally all civil and political privileges. *W.* was the first of American communities to give full suffrage to women, this being done in 1870, under the Territorial government, and subsequently included in the State constitution. The system seems to have worked to the satisfaction of the people, and full woman suffrage has since been adopted by several of the adjoining states.—*Educ.* In 1894, *W.* had 18,933 children of school age, of whom 10,310 were enrolled in the public schools, the teachers numbering 407. In addition there is a State University and agricultural college, at Laramie, a Congregational College, at Big Horn, and a number of private schools. The public institutions include an insane asylum at Evanston, a State hospital, at Rock Springs, a Soldiers' and Sailors' Home, at Cheyenne, and a State penitentiary, at Laramie.—*Hist.* The area of *W.* was in the main included in that of the Louisiana Purchase, of 1802, though the western section formed part of the Oregon settlement. In 1868, Congress set aside portions of the Territories of Dakota, Utah, and Idaho, as a separate Territory, to which the name of *W.* was given, from Wyoming Valley, in Pennsylvania. This Territory was admitted to the Union as a State, July 10, 1890. The oldest white settlement within its confines was Fort Laramie, on Platte river, which was made a fur trading post in 1834, rebuilt by the American Fur Co., in 1836, sold by them to the U. S. and garrisoned as a fort in 1849. It was long an important base of operations against the Indians, though it is now abandoned. Settlement took place very slowly until recently, the Indians occupying the more fertile districts. As the latter were removed, settlement became more rapid. There have been 2 serious Indian outbreaks, the Custer massacre by the Sioux, in 1876, and the Meeker massacre by the Utes, in 1878. The N.W. corner of the State, remarkable for its natural beauties and wonders, has been set aside as the Yellowstone National Park (*q. v.*). *Pop.* (1870) 9,118; (1880) 20,789; (1890) 60,705; (1900) 92,531.

Wyoming, in *New York*, a W. co.; *area*, 606 sq. m. *Surface*, undulating; *soil*, fertile. *Cap.* Warsaw. *Pop.* (1897) 32,645.

Wyoming, in *Pennsylvania*, a N.E. co.; *area*, 395 sq. m. *Surface*, mountainous; *soil*, moderately fertile. *Cap.* Tunkhannock. *Pop.* (1897) 16,840.

—A post-borough of Luzerne co., on the Susquehanna.

—A mountain of Luzerne co., extending from 15 to 20 m. along the Susquehanna, having an altitude of 1,000 feet.

Wyoming, in *West Virginia*, a S. co.; *area*, 700 sq. m. *Surface*, mountainous, and mostly covered with forest; *soil*, adapted to wool-growing. *Cap.* Oceana.

Wyoming Val'ley, in *Pennsylvania*, a valley in Luzerne co., Pa., famous as the scene of a massacre following a battle of Tory and Indian invaders, on one side, and the American settlers on the other, July 3, 1778. The American force was weak, nearly all the fighting men being away in the Continental Army, and more than half of it was killed. The survivors took refuge in Forty Fort, where most of the families of the Valley had gathered. The Tories, under Colonel Butler, offered unexpectedly easy terms of surrender, and the settlers went back to their homes, while the invaders were supposed to be leaving the Valley. Against the commands of their white leaders the Indians remained, and, on the night of July 4, began massacreing the inhabitants and burning the houses. All who could escape made their way into the Wilkes-Barre Mountains and the swampy land beyond, where so many women and children died that it was afterward called "The Shades of Death." When peace was established and the Indians came under control, the surviving settlers returned. They were confirmed in the possession of the valley about 1787.

Wy'sox, in *Illinois*, a township of Carroll co.

Wy'sox, in *Pennsylvania*, a post-village and township of Bradford co., about 3 m. E. of Towanda. *Pop.* (1897) 1,290.

Wythe (*with*), in *Illinois*, a township of Hancock co.

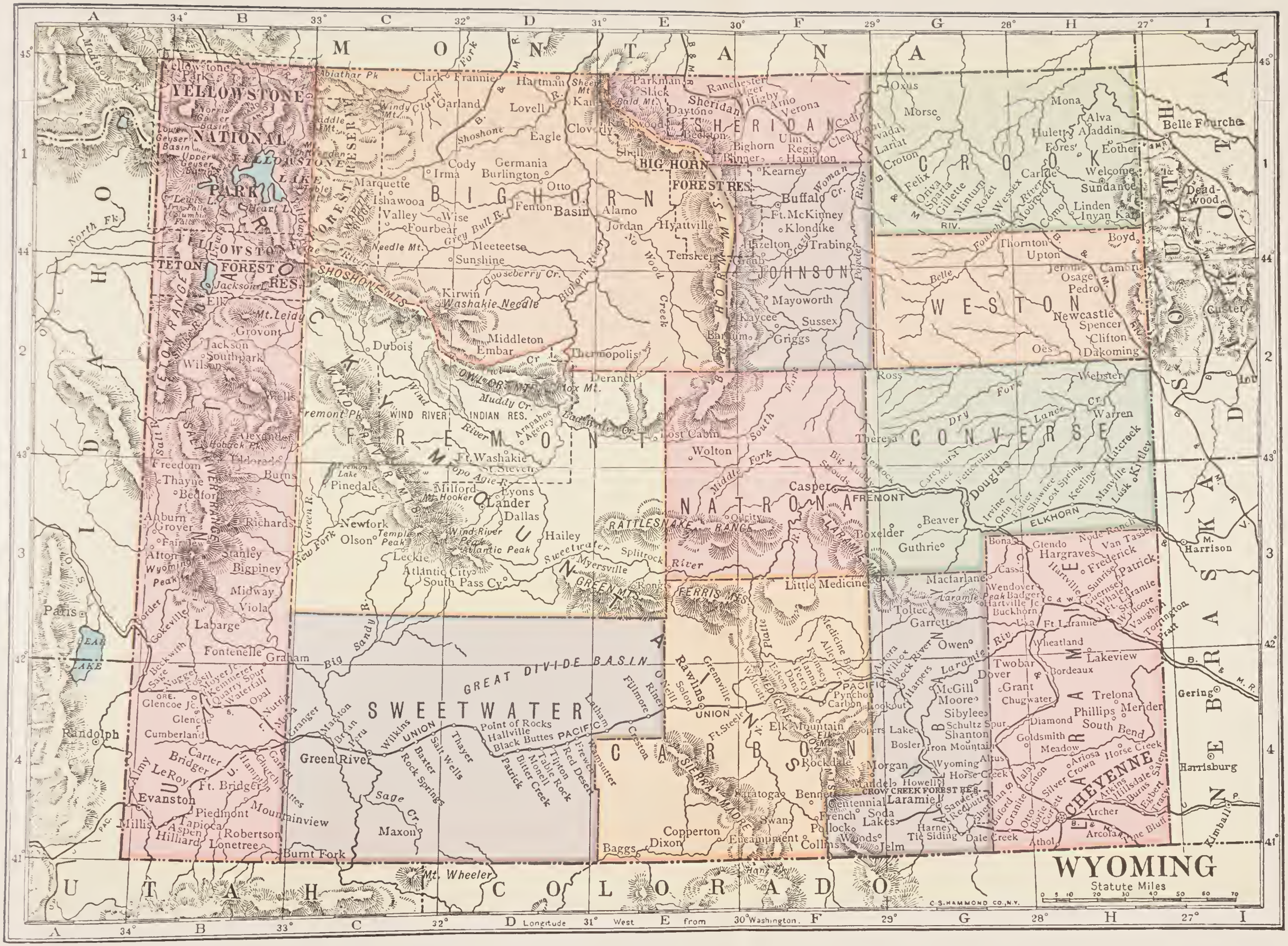
Wythe, in *Virginia*, a S.S.W. co.; *area*, 496 sq. m. *Rivers.* Holston and Little Kanawha, or New River, and Cripple, Reed and Walker's creeks. *Surface*, elevated; *soil*, fertile. *Min.* Iron, lead, stone-coal, limestone, and gypsum. *Cap.* Wytheville. *Pop.* (1897) 19,250.

Wythe'ville, in *Virginia*, a post-town, cap. of Wythe co., on the Norfolk & Western R.R., 133 m. W.S.W. of Lynchburg; has some manufactures. *Pop.* (1897) 2,900.

Wy'vern, *n.* (*Her.*) An imaginary animal representing a flying serpent.

John Wycliffe

1324–1384


WYOMING
Statute Miles
MONTANA
IDAHO
UTAH
COLORADO
NEBRASKA
SOUTH DAKOTA
YELLOWSTONE NATIONAL PARK
YELLOWSTONE LAKE
TETON FOREST RES.
BIG HORN FOREST RES.
WIND RIVER INDIAN RES.
BIG HORN
SHERIDAN
CROOK
WESTON
JOHNSON
FREMONT
NATRONA
CONVERSE
SWEETWATER
CARBON
LARAMIE
CHEYENNE
GREAT DIVIDE BASIN
Cody
Lander
Casper
Laramie
Rawlins
Green River
Evanston
Cheyenne
Sundance
Newcastle
Douglas
Buffalo
Thermopolis
Riverton
Worland
Basin
Powell
Torrington
Wheatland
Lusk
Gering
Harrisburg
Kimball
Randolph
Paris
Afton
Pinedale
Dubois
Meeteetse
Greybull
Shoshoni
Kaycee
Mayoworth
Hyattville
Ten Sleep
Hartville
Guernsey
Glenrock
Bosler
Medicine Bow
Saratoga
Encampment
Baggs
Dixon
Maxon
Burnt Fork
Mt. Wheeler
Hanz Pk.
Longitude West from Washington.
C. S. HAMMOND CO., N.Y.

WYOMING.

Land surface,
Sq. m. 97,575
Water surface,
Sq. m. 315
Pop. 1900 .. .92,531
White.....89,051
African.....940
Indian.....1,686
Chinese..... 461
Japanese 393
Native-born,
75,116
Foreign-born,
17,415
Males.....58,184
Females...34,347

COUNTIES.

Albany .....G 4
Bighorn..... D 1
Carbon.....F 4
Converse.....G 2
Crook.....G 1
Fremont .....D 2
Johnson .....F 1
Laramie .....H 4
National Park
Reservation B 1
Natrona.....F 3
Sheridan ...F 1
Sweetwater...D 4
Uinta .....B 3
Weston ..... G 2

CITIES-TOWNS

Pop.	Thousands.	
14	Cheyenne.	H 4
8	Laramie. ...G	4
4	Rock Springs	C 4
2	Rawlins.....E	4
2	Evanston...	B 4
1	Sheridan ...F	1
1	Green River.	C 4

Pop.	Hundreds.	
8	Casper .....F	3
7	Newcastle...	H 2
7	Lander.....D	3
7	Douglas ....G	3
7	Buffalo.....F	2
6	Carbon.....F	4
5	Cody C	1
2	Thermopolis	D 2
2	Sundance...H	1
1	Lust .....H	3
1	Gillette.....G	1
1	Basin.....D	1

W.—SECTION II.

Waddell', James Iredell, naval officer, was born at Pittsboro, N. C., July 13, 1824; entered the navy (1841); joined the Confederate navy (1862); served on different missions, and (Oct. 19, 1864) took command of the *Shenandoah*, and began a piratical warfare on American shipping on the high seas, capturing 38 ships. He returned to America a few years after the war, and was a captain in the service of the Pacific Mail Steamship Company. Died March 15, 1886.

Wade'na, in *Minnesota*, a N. W. central co.; *area*, 540 sq. m.; intersected by the Crow Wing river, and also drained by the Red Eye and Leaf rivers. *Surface*, rolling prairie with timber, both pine and hard wood; *soil*, fertile. *Cap.* Wadena. *Pop.* (1895) 6,076.

Wads'worth, James Samuel, soldier, was born at Geneseo, N. Y., Oct. 30, 1807; educated at both Yale and Harvard; studied law with Daniel Webster; enlisted in the Federal army (1861), and became a brigadier-general; engaged in the battles of Fredericksburg, Chancellorsville, and Gettysburg, and was assigned to the command of a division, under Gen. Grant. He was wounded at the battle of the Wilderness, May 6, and died May 8, 1864.

Wa'ges-fund, *n.* (*Polit. Econ.*) A term formerly in use to denote that portion of active capital employed in paying the wages of labor; not properly a "fund," but the aggregate of individual wages.

Wag'ner, Alexander, painter, was born at Pesth, Hungary, in 1838; was a pupil of Theodor von Piloty, at Munich. His pictures are mainly historical figures; one, the *Roman Chariot Race*, received a medal at the Centennial Exposition of 1876. He was appointed a professor at Munich about 1864.

Wagner, in *South Dakota*, a N.W. co.; *area*, 720 sq. m.; drained by Grand river. Grazing the leading industry. Unorganized. *Pop.* (1895) 55.

Wagonette', *n.* A kind of four-wheeled pleasure-wagon of light construction, without top, having seats lengthwise back, and one or two crosswise in front, holding six or eight persons.

Wahoo', *n.* [Am. Ind.] The burning-bush. (See Euonymus).—The winged elm (*Ulmus alata*), a small tree of the Southern and Western U. S., the hard and close-grained wood of which is used for the hubs of wagons, &c.

Wahoo, in *Nebraska*, a post-village, cap. of Saunders co., 54 m. W. of Omaha; has mills. *Pop.* (1897) 2,650.

Wah'peton, in *North Dakota*, a city, cap. of Richland co., 27 m. W. of Fergus Falls. Red River Valley University (Methodist) is located here. *Pop.* (1897) 1,950.

Waite, Morrison R., jurist, was born at Lyme, Conn., Nov. 29, 1816; graduated at Yale (1837); was admitted to the bar (1839); removed to Ohio, and became prominent in his profession and in politics; was a member of the legislature; in 1871 was sent to Geneva as U. S. Consul in the "Alabama" case; was president of the Constitutional Convention of Ohio (1873), and became Chief Justice of the U. S. Supreme Court in 1874. He received the degree of LL.D. from Yale College. Died March 23, 1888.

Wakash'an In'dians. (*Ethnol.*) A language-stock of North American Indians, often hitherto called *Nootkan*, which embraces the dialects of the Makahs, of Cape Flattery, Wash., and of many small tribes living along the west coast of Vancouver Island, B. C., divided into two sections, Aht tribes and Hæltzuk tribes. The total census gives about 5,400 persons speaking this tongue, which is a deep-throated, clicking guttural, almost unpronounceable by white men. J. G. Swan's history of the Makahs and Dr. Boas' account of the Kwakiuth Indians are the most comprehensive writings upon these maritime people and their customs.

Wake'field, in *Massachusetts*, a post-town of Middlesex co., 10 m. N. of Boston; has manufactures of rattan, pianos, and shoes. *Pop.* (1895) 8,304.

Wake'-rob'in, *n.* A plant (*Arum maculatum*). (See Arum.)—Also, any species of Trillium. See Trilliocæ.

Wal'dersee, Count von, soldier, was born at Potsdam, Germany, April 8, 1832; entered the army in 1850, and served with distinction thereafter, finally succeeding General Von Moltke as field-marshal of the German army in 1888. He was given command of the Ninth Army Corps in 1891. At the annual maneuvers of the German army near Stettin, in 1895, for his show of strategic ability he was complimented by the Emperor and promoted to the rank of field-marshal. Was commander-in-chief of the allied forces during the Boxer outbreak in China in 1900.

Walke, Henry, U.S.N., was born in Princess Anne co., Va., Dec. 24, 1808; entered the navy (1827); served during the Mexican war, and in the Mediterranean Squadron; in 1861 commanded the *Carondolet* at the battles of Fort Henry and Fort Donelson; captured the batteries below Island No. 10; led the Union fleet at the battle of Fort Pillow; was conspicuous at the battle of Memphis, and with the *Carondolet* overcame the Confederate ram *Arkansas;* was active in the Vicksburg and Red River operations; cruised for two years after the *Alabama* in the *Sacramento;* was commissioned commodore in 1866 and rear-admiral in 1870; retired in 1871, and died March 8, 1896.

Walk'er, Amasa, political economist, was born in Woodstock, Conn., May 4, 1799; was for many years engaged in commercial pursuits; from 1842 to 1848 he lectured on political economy at Oberlin, Ohio; in 1848 became a member of the Massachusetts Assembly, and in 1849 of the Senate; in 1851–52 was secretary of state, and in 1862–63 was a member of Congress. He was lecturer on political economy at Amherst College (1859–69). He was an active reformer, interested in the anti-slavery movement, and was one of the founders of the Free Soil party. In 1857 he began the publication of a series of articles on political economy, and was regarded as an authority on questions of finance. Died Oct. 29, 1875.

Walker, Francis Amasa, statistician and political economist, son of Amasa Walker, was born in Boston, Mass., July 2, 1840; graduated at Amherst (1860); served in the Civil War; was wounded at Chancellorsville; was for a time in Libby Prison; brevetted brigadier-general (1865). From 1865 to 1867 he taught Latin and Greek at Williston Seminary. In 1869 he was appointed chief of the Bureau of Statistics at Washington, and was superintendent of the ninth and tenth censuses (1870 and 1880), becoming an authority on statistical questions in the U. S. He was U. S. Indian Commissioner (1872); professor of Political Economy in the Sheffield Scientific School of Yale (1873–81); in 1881 he became President of the Massachusetts Institute of Technology in Boston. He was U. S. Commissioner to the International Monetary Conference in Paris in 1878; was elected in 1878 to the National Academy of Sciences, and was elected an honorary fellow of the Royal Statistical Society of London. Besides his census reports he published several volumes; among them: *The Indian Question* (1874); *The Wage Question* (1876); *Money* (1878); *Money, Trade and Industry* (1879); *Political Economy* (1883); *History of the Second Army Corps* (1886), and last, his masterly work on *Bimetallism*. Died Jan. 5, 1897.

Walker, John, lexicographer, was born near London, Eng., March 18, 1732. He is remembered as the author and compiler of the *Critical Pronouncing Dictionary*, published in 1791, which was, for more than half a century a popular authority, gradually superseded by Webster and others. Died Aug. 1, 1807.

Walker, John Grimes, U. S. N., was born in Hillsboro, N. H., March 20, 1835; graduated at the Naval Academy (1856); served, during the Civil War, on the Atlantic coast, the Gulf squadron, and the battles of the Mississippi river; was secretary of the lighthouse board (1873–78); chief of bureau of navigation (1881–89); acting rear-admiral commanding the South Atlantic station (1889–93); and rear-admiral and president of the naval retiring board in 1895.

Walker, Robert James, lawyer and statesman, was born in Northumberland, Pa., July 19, 1801; graduated at the University of Pennsylvania; removed to Natchez, Miss. (1826); in 1836 was elected to the U. S. Senate; secretary of the treasury (1845–49). In 1857 he was appointed governor of the territory of Kansas; in 1861 he was a staunch Federalist, and advocated the most vigorous policy toward the seceding States. In 1863 he was appointed financial agent of the U. S. in Europe, and negotiated $250,000,000 of the 5-20 U. S. bonds. Died Nov. 11, 1869.

Walk'erville, in *Montana*, a post-town of Silver Bow co. *Pop.* (1897) 2,150.

Wal'lace, Lewis, lawyer, soldier, and author, was born in Brookville, Ind., April 10, 1827; was a soldier in the Mexican war; practiced law in Covington and Crawfordsville, Ind. (1848–61); served with distinction in the Civil War, becoming a major-general of volunteers (1862), and rendering valuable service as a commander during 1863 and 1864. In 1881–85 he was U. S. minister to Turkey. Meanwhile, and since, he has practiced law and engaged in literary work. He published in 1873 his first novel, *The Fair God*, a story of the conquest of Mexico by the Spaniards; after seven years of study and preparation he issued his most popular book, *Ben Hur* (1880); then followed *Commodus, a Tragedy* (1889), and *The Prince of India* (1893). He also wrote *The Life of Benjamin Harrison*. Died Feb. 15, 1905.

Wal'lace, in *North Dakota*, a N.W. co.; *area*, 1,323 sq. m.; bounded N. and N.E. by Missouri river. *Soil*, generally fertile. Grazing is the leading industry. Unorganized. *Pop.* (1897) 100.

Wal'lack, James William, actor, was born at Lambeth, London, England, Aug. 24, 1795; was an actor from early childhood, and appeared in leading Shakespearean rôles in England and America; from 1837 was interested in theatrical management in New York city, finally establishing Wallack's Theater, in 1861. He was an actor of fine personality, thoroughly accomplished in stage technique. Died Dec. 25, 1864.

Wallack, John Lester, actor, son of James W. Wallack, was born in New York city, Jan. 1, 1820; appeared on the stage in 1847, and acted in various New York theaters until 1852, when he became a permanent member of his father's company. On the death of the latter (1864) he succeeded him as proprietor of Wallack's Theater, which he conducted for nearly a quarter of a century. Died Sept. 6, 1888.

Wal'ler, in *Texas*, a S.E. co.; *area*, 500 sq. m.; bounded W. by the Brazos river. *Surface*, slightly undulating, chiefly prairie; *soil*, fertile, especially in the Brazos bottom. *Cap.* Hempstead, or Hempstead Center. *Pop.* (1897) 13,350.

Wall'-flow'er, *n.* (*Humor.*) A person, especially a woman, who, at a ball or party, does not join the dance, but sits or stands by the wall.

Wall'hofen, Pauline (Lucca), vocalist, was born in Vienna, Austria, of Jewish parents, in 1842; after receiving a musical training under Uschmann and Lévy, she appeared in 1859 at Olmutz, and soon after at Prague in *Norma* and *Les Huguenots*. Through the influence of Meyerbeer she secured an engagement in Berlin in 1861; within the next ten years she had received world-wide recognition, singing in the principal capitals of Europe, and in the U. S. Since 1875 she has resided in Vienna. She married Baron von Rohden in 1865; was later divorced, and married Herr von Wallhofen.

Wal'lowa, in *Oregon*, an extreme N.E co.; *area*, 2,890 sq. m.; bounded E. by Snake river, and N.W. by the Grande Ronde river. *Surface*, varied, mountains, rolling hills, and valleys; *soil*, fertile and well watered. Has fine agricultural land, grazing land, immense tracts of timber, fine marble, building stone, silver and galena. *Cap.* Enterprise. *Pop.* (1897) 4,220.

Wall'-pa'per, *n.* (*Manuf.*) The Chinese used paper for wall decoration at an early date, and there are instances of it in Europe as early as the 16th century, though it did not come into general use until the 18th century. Some of the earlier designs were all pictures, with panels of plain paper between. They were made by block printing and stencilling. When paper became obtainable in the roll, cylinder printing was introduced, the machines employed being similar to those used in calico printing. The paper is run between a large central cylinder and a set of pattern-cylinders, each bearing that portion of a pattern which is to appear in a certain color, and having its own appropriate color-fountain. The pattern-cylinders are usually made of wood, into which thin strips of brass are driven to outline the pattern, the interstices being filled in with felt. Some of the more expensive patterns are still made by hand. For gold effects, the paper is usually printed in yellow size, and a bronzing powder dusted on before the size has time to dry; or the real gold leaf may be applied. Flock paper is also made by size printing, and dusting with flock (which is finely comminuted wool), dyed to some appropriate color. Satin papers are made by finishing with powdered steatite and polishing. The quality of paper used for hangings is different from that required for printing, the requisites being a stout fiber, and a soft surface that will easily take the colors. Sometimes very thick and tough paper is employed, and embossed and tinted in imitation of stamped leather. Originally, wall-papers were regarded as cheap substitutes for really ornamental wall hangings, but as they have improved in design, and are hung with taste for general effect, they have come to be regarded as suitable in handsome apartments.

Wall-tree. *n.* (*Hort.*) A fruit tree trained on walls for the better exposure of the fruit to sunshine, and for sake of the heat radiated from the wall—a practice especially followed in Great Britain. Trees are trained on walls in hothouses as well as in the open air. Flued walls are often used, the fruit being thus partially forced by artificial heat; and screens of various kinds, as of reeds, canvas, and oiled paper, are sometimes employed to protect blossoms in spring. Woollen nets are also much used for this purpose, and a net even with wide meshes affords much protection from spring frosts. Wall-trees intended permanently to occupy the wall, are generally trained in the nursery with a dwarf stem only five or six inches in length, so that the branches may cover the whole wall, and no available part of it may be lost. It is usual, however, in planting to introduce *riders* alternately with the permanent wall-trees, which, are grafted or budded on tall stocks, and occupy part of the wall till the other trees have

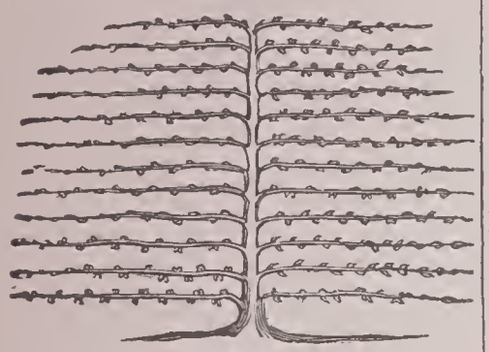


Fig. 3093.—HORIZONTAL TRAINING.

become large enough to require it all for themselves, being often trained into a star shape. Different modes of training wall-trees are practiced, of which the principal are known as *fan training* and *horizontal training* (Fig. 3093). In the former the branches are arranged like the spokes of a fan; in the latter a main stem is led up, from which they are spread out horizontally on both sides. There is a Dutch mode of training, which consists in leading two chief branches horizontally to right and left, and training shoots from them straight up to the top of the wall. It is necessary for the gardener in training wall-trees to consider the habit of each kind, particularly whether fruit is chiefly to be expected on young branches or on the *spurs* of older branches. Superfluous branches must in all cases be carefully removed, and among these are to be reckoned all *foreright shoots*, or branches which project straight from the wall.

Walpel'lo, in *Iowa*, a S.S.E. co.; *area*, 432 sq. m.; intersected by Des Moines river. *Surface*, undulating, prairie and forest; *soil*, fertile; coal and limestone; has extensive manufacturing interests. *Cap.* Ottumwa. *Pop.* (1895) 33,293.

Walsh, in *North Dakota*, a N.E. co.; *area*, 1,584 sq. m.; bounded E. by the Red River of the North, and also drained by Forest river and the North and South Forks of Park river. Eastern half of surface, level prairie; western half, undulating; *soil*, a very fertile black loam watered by timbered streams. *Cap.* Grafton. *Pop.* (1897) 20,200.

Wal'ter, JOHN, journalist, was born in England in 1739; in 1785 he established a newspaper, *The London Daily Universal Register;* in 1788 the name was changed to the *Times*. Mr. *W.* died Nov. 6, 1812, and the management of the *Times* devolved upon his son, John.

Walter, JOHN, journalist, son of the foregoing Walter, was born in 1784; becoming manager of the *Times* in 1803, he organized a system of press dispatches from abroad, more rapid than those furnished by the government; through this means the news of the battle of Waterloo and other events appeared in the *Times* ahead of the official dispatches. In 1814 he introduced steam-power presses; raised the standard of literary excellence by securing the ablest writers and those who most correctly reflected the best official and social circles. Died in 1847.

Walter, JOHN, journalist, son of the foregoing, was born in London in 1818; educated at Eton and Exeter College, Oxford, graduating in 1843. In 1847 he was elected to Parliament for Nottingham, which he represented for 12 years; was member for Berks from 1859 till 1885, with the exception of the election of 1865. In his conduct of the *Times* he continued the progressive policy of his predecessors. Died Nov. 3, 1894.

Wal'worth, in *South Dakota*, a N. co.; *area*, 740 sq. m.; bounded W. by Missouri river. *Surface*, undulating; *soil*, very fertile. Agriculture and stock raising are the chief industries. *Cap.* Bangor. *Pop.* (1895) 2,480.

Wame'go, in *Kansas*, a post-village of Pottawatomie co., 37 m. W. by N. of Topeka. *Pop.* (1895) 1,410.

Wan'amaker, JOHN, merchant, was born in Philadelphia, Pa., July 11, 1837; educated in the public schools. In 1861 he began business ventures of his own, and in 1876 became the head of the extensive clothing, dry goods, and miscellaneous business in Philadelphia. In the conduct of his business he introduced the profit-sharing system; in 1888–89 he distributed more than $100,000 among his employees. In 1858 he founded Bethany Presbyterian Church and Sunday-school, and for many years was president of the Young Men's Christian Association of Philadelphia. He was Postmaster-General of the U. S. under President Harrison (1889–93).

Wan'dering Jew. See JEW.

(*Bot.*) Any one of several trailing plants cultivated in hanging-baskets and window-gardens.

Wap'pinger's Falls, in *New York*, a post-village of Dutchess co., 8 m. S. of Poughkeepsie; has excellent water-power. Here are large print works, several machine shops, and other manufactures. *Pop.* (1897) 4,200.

War Col'lege, The Na'val. (*Navy.*) An institution under the care of the Secretary of the U. S. Navy, having a large building on Coasters Harbor Island, Newport, R. I., for the instruction of navy officers in strategy and "the science of naval warfare as distinguished from the development of naval material." To it are assigned, in the intervals of sea-service, some 30 officers of various ranks, who listen to lectures upon strategy, tactics, International law, maritime interests of the United States, and new questions arising in respect to naval science. They also engage in the solving of problems and games of defence and attack relating to given coast-districts, and make careful studies of all the elements required for given supposable operations in various places and circumstances. The college was founded by Admiral Stephen B. Luce, about 1885, and among its first presidents was Capt. A. T. Mahan, whose writings upon the influence of sea-power in history and cognate subjects were suggested and begun there. Capt. H. C. Taylor, U. S. N., was one of his most eminent successors.

Ward, ARTEMUS. See BROWNE, CHARLES F.

Ward, ELIZABETH STUART PHELPS, was born at Andover, Mass., Aug. 13, 1844; daughter of Rev. Austin Phelps, professor in the Theological Seminary; educated at Andover, under her father's supervision; she became interested in various reformatory enterprises, and many of her earlier sketches reflect her purpose in this direction. She began to write for publication in early youth, her first book, *Ellen's Idol*, being published in 1864. Many of her early writings were for juvenile readers; her later books have dealt with problems for mature minds. Among her works are "*The Tiny Series*" and "*The Gypsy Series*," of four volumes each; *The Gates Ajar* (1868); *The Silent Partner* (1870); *The Story of Avis* (1877); *Doctor Zay* (1884); *Come Forth* (1891); *The Supply of St. Agatha* (1896), &c. She has published two volumes of verse, and a series of autobiographical reminiscences, published in *McClure's Magazine*. In 1888, she married her cousin, Rev. Herbert D. Ward.

Ward, FREDERICK TOWNSEND, soldier, was born at Salem, Mass., Nov. 29, 1831. He served in the French army in the Crimean War; in 1860 he entered the service of the Chinese Emperor in the war against the Taiping rebels, offering to capture cities for a fixed price each. He organized bands of soldiers, training them in European tactics; captured the city of Sungkiang, and the following year captured Ningpo. For his services he was made a mandarin of the fourth degree and admiral-general. He became a subject of the Emperor, and married the daughter of an influential native. Sept. 21, 1862, in an assault on Tse-ki, near Ningpo, he was killed; Gen. Gordon succeeded to the command. *W.* was buried in the Confucian cemetery at Ningpo, and the Chinese raised a great mausoleum in his honor.

Ward, JOHN QUINCY ADAMS, sculptor, was born at Urbana, Ohio, in 1830. He studied under Henry K. Browne, in Brooklyn, N. Y., working in his studio for 6 years; afterward he spent a year or two in Washington, modelling busts, and preparing designs for future works. In 1861, took a studio in New York, and, among other things, finished *The Escaped Slave*, in bronze. In 1863, visited the Indians, and passed several months among them, making studies with reference to his statue of *The Indian Hunter*, which he completed in bronze on his return. This statue was purchased by citizens of New York, and presented to Central Park. Later, he executed in bronze statues of *Com. W. C. Perry* (with basso-relievos for pedestal); *The Good Samaritan; Seventh Regiment Memorial Statue; Colossal Group in Marble for Equitable Building; Gen. Reynolds;* a colossal *Shakespeare*, now in Central Park, N. Y., and a colossal *Washington*, which stands in front of the sub-treasury building in Wall Street, New York. He was elected a member of the National Academy of Design, in 1863; was elected for the second time to the office of vice-president of that institution in 1871, and president in 1872. He is regarded as one of the best American sculptors.

Ward, MARY AUGUSTA ARNOLD (MRS. HUMPHREY), novelist, was born in Tasmania, where her father, Rev. Thomas Arnold, held an educational position; in 1856 the family returned to England. In 1872 she was married to Thomas Humphrey Ward, a writer on the London *Times*. She began her literary work by writing critical articles for *MacMillan's Magazine*, &c.; her first novel, *Miss Bretherton*, was issued in 1884; in 1888 she published *Robert Elsmere*, a book that, at the time, aroused active discussion and provoked animated argument among theological debaters. Other books which she has published since are, *The History of David Grieve* (1892); *Marcella* (1894); and *Sir George Tressady* (1896). In 1890, Mrs. Ward took an active part in founding University Hall in London, an institution designed for the purpose of carrying into practical effect the theories set forth in *Robert Elsmere*.

Ward, in *North Dakota*, a N.W. co.; *area*, 5,955 sq. m.; drained by Mouse river. *Surface*, undulating; *soil*, fertile and well watered; fine grazing country; has an abundance of fine lignite coal. *Cap.* Minot. *Pop.* (1897) 2,340.

Ward, in *Texas*, a W. co.; *area*, 1,160 sq. m.; bounded S. and W. by the Pecos river. Unorganized. *Pop.* (1897) 160.

War'ing, GEORGE E., sanitarian, was born in Poundridge, N. Y., July 4, 1833; was drainage engineer of Central Park, New York city (1857–61); served throughout the Civil War, after Jan., 1862, as colonel of the 4th Missouri Cavalry. In 1879, he was appointed expert and special agent of the tenth census of the U. S., with charge of the social statistics of cities; in 1882, he became a member of the National Board of Health. He devised the new system of drainage adopted by the city of Memphis, after the yellow fever scourge of 1878; he also originated many improvements in connection with the drainage of houses and towns. In 1895 he was appointed street commissioner of New York city, and revolutionized the methods before prevailing, giving the city effective and honest service. In 1898 he went to Havana, where he sought to remove the causes of yellow fever, but he took this fever himself and died October 29 of that year.

War'ner, CHARLES DUDLEY, author, was born in Plainfield, Mass., Sept. 12, 1829; graduated at Hamilton College, in 1851, and at the Law School of the University of Penna., in 1856; practiced in Chicago, until 1860; was editor of the *Press*, Hartford, Conn., in 1861, and of the Hartford *Courant*, in 1867. He travelled in Europe; in 1884, became associate editor of *Harper's Magazine*, contributing several series of critical articles. Among his books are: *My Summer in a Garden* (1871); *Backlog Studies* (1872); *In the Levant* (1876); *In the Wilderness* (1878); *Their Pilgrimage* (1886); *A Little Journey in the World* (1892); *The Golden House* (1894), &c. In 1884–92, he conducted the "Editor's Drawer" in *Harper's Magazine*, and afterward the "Editor's Study." In 1896, he began the editorship of the *Library of the World's Best Literature* a work in 30 octavo volumes. Died Oct. 20, 1900.

Warner, SUSAN, novelist, was born in New York city, July 11, 1819; she made her literary reputation with her first novel, *The Wide, Wide World* (1851); other novels from her pen are *Queechy* (1852); *The Old Helmet* (1863); *Daisy* (1868); *Wych Hazel* (1876); *Nobody* (1883); *Daisy Plains* (1885), &c. Died Mar. 17, 1885.

War'ren, JOSEPH, physician and Continental patriot, was born at Roxbury, Mass., June 11, 1741; graduated at Harvard (1759); studied medicine, and practiced in Boston (1762); was one of the Committee of Safety appointed after the Boston massacre of March 5, 1770; in 1774 he drew up the "Suffolk Resolves," which placed Massachusetts virtually in a state of rebellion against Great Britain; on May 31, 1775, he was chosen president of the Provincial Congress, thus becoming executive officer of the provisional government. In the battle of Bunker Hill, June 17, 1775, while commanding the militia, he was instantly killed.

Warren, SAMUEL, novelist and legal writer, was born in Denbighshire, Wales, in 1807; graduated at Edinburgh University; was called to the bar (1837), and became recorder of Hull (1852). His novels, *The Diary of a Late Physician* and *Ten Thousand a Year*, were very popular. Of his legal writings, perhaps the most important is *Blackstone Systematically Abridged* (1857). Died in 1877.

Warren, SAMUEL PROWSE, organist, was born in Montreal, Canada, Feb. 18, 1841; educated in Montreal and in Berlin. Returning to America (1864), he settled in New York; was organist of Grace Church (1868–94). He gave organ recitals, with miscellaneous programmes covering a wide field of selections; his compositions include organ music, and solos and part-songs.

War'rington, in *Florida*, a post-town of Escambia co. *Pop.* (1897) 1,574.

War'tegg (Mas.), MINNIE, singer, better known by her maiden name of MINNIE HAUCK, was born in New York city, Nov. 16, 1852. The family removed to New Orleans in 1855; in 1865 she made her first appearance at a concert. During the years that followed she was a pupil of Errani, in New York, and in 1868 sang there in opera, as *Amina*. In the autumn of 1868, she went to London, and (1869–73) sang in Vienna, making occasional tours on the Continent. Her signal success was in the Bizet's *Carmen*, which has since been associated with her name. She has been successful in the Wagner opera, her *Elsa* in *Lohengrin* being especially approved by the composer. In 1881 she was married to Count Ernst von Hesse-Wartegg, since which date she has appeared on the stage only at rare intervals.

Wa'satch, in *Utah*, a N.E. co.; *area*, 3,444 sq. m.; drained by Uintah river and smaller streams. *Surface*, mountainous; Wasatch Mountains in the west and Uintah Mountains in the N.; much of the country is desert. *Cap.* Heber. *Pop.* (1895) 4,408.

Wase'ca, in *Minnesota*, a city, cap. of Waseca co., on the C. & N. W. and Minn. & St. L. R.Rs., 26 m. E. by S. of Mankato. *Pop.* (1895) 2,780.

Wash'abaugh, in *South Dakota*, a S.W. co.; *area*, 1,260 sq. m. Grazing the leading industry. Unorganized.

Wash'burn, WILLIAM BARRETT, was born in Winchendon, Mass., Jan. 31, 1820; graduated at Yale (1844); engaged in manufacturing and banking at Greenfield, Mass.; was elected State senator (1850), and member of the Assembly (1854); was a member of Congress (1862–72); governor of Massachusetts (1872–74); and U. S. senator (1874–75) to fill the vacancy caused by the death of Charles Sumner. Died Oct. 5, 1887.

Wash'burn, WILLIAM DREW, lawyer, brother of Hon. E. B. Washburne, was born in Livermore, Me., Jan. 14, 1831; graduated at Bowdoin (1854); studied law, and began to practice in Minneapolis, Minn. (1857); was elected to the legislature in 1858 and in 1871; was a member of Congress from Minnesota (1879–85); and s U. S. senator (1889–95). He is interested in various manufacturing enterprises in Minneapolis, and is president of the Minneapolis & St. Louis Railroad, as well as of the "Soo" line.

Washburn, in *Wisconsin*, a N.W. co.; *area*, 864 sq. m.; drained by Namakagon river and several lakes. *Surface*, mostly level, somewhat broken by hills; *soil*, one-half excellent farming land, the rest high and timbered. Lumber is the chief product. *Cap.* Shell Lake. *Pop.* (1895) 4,266.

—A city, cap. of Bayfield co., on Lake Superior, 12 m. S. of Bayfield. Has a good lake trade. *Pop.* (1895) 5,178.

Wash'burne, ELIHU BENJAMIN, statesman, was born in Livermore, Me., Sept. 23, 1816; had some early experience in journalism, but finally studied law at Harvard; was admitted to the bar (1840), and began practice in Galena, Ill. He was elected to Congress in 1852, and held office until 1869. He was called the "Father of the House" from his long continuous term of service; and his close scrutiny of all demands on the treasury won for him the name of the "Watch-dog of the Treasury." He opposed all measures that tended to subordinate the claims of the U. S. government to those of corporations or individuals. In 1869 President Grant appointed him secretary of state; soon after he was appointed minister plenipotentiary to France. During the Franco-German War the American legation was the refuge of Germans and other foreigners who could not leave Paris, and *W.*, acting as the representative for these governments, gave them assured protection. For this service he received special honors from the Emperor of Germany and Bismarck, as well as from the French leaders, Gambetta and Thiers. His *Recollections of a Minister to France* was published in 1887. After his return to the U. S. he resided in Chicago until his death, Oct. 22, 1887. He was the only member of his family who spelled his name with a final *e*.

Wash'ington, BOOKER TALIAFERRO, educator, was born a slave, at Hale's Ford, Va., April 18, 1858. After the war his mother removed with him to West Va., where he worked in the mines, attending school in the winter months. Several years of his youth were spent at service in New England; in 1871 he entered General Armstrong's school for colored boys at Hampton, Va., graduating with honors in 1875; he then attended Wayland Seminary, in Washington, D. C. In 1879 he became a teacher at Hampton, and two years later was placed in charge of the Tuskegee Institute, a school having only 30 students, and no available buildings, to which the State of Alabama made an annual appropriation of $2,000. Here he began to develop a method similar to that followed in the Hampton school, and gradually built up the Institute, until in 1897 it had 867 students, 79 instructors, 2,460 acres of land, and 37 buildings, the property valuation being $300,000. Twenty-five industries are carried on by the students; all but three of the buildings were built by the students, even to the making of the bricks and the sawing of the planks. All trades are taught, but especially the various branches of farming. The chief object is to train the colored youth in various self-supporting occupations. Girls are also taught the branches most useful to them. The position taken by *W.* is that the race problem will be solved when the negro becomes a valuable workman, and financially independent. At the Atlanta Exposition, on Sept. 18, 1895, he made an address that attracted the attention of all the country, and won for him the sympathy and respect of all classes.

Washington, in *Alabama*, a W.S.W. co., bordering on Mississippi; *area*, 960 sq. m. *Rivers.* Tombigbee and Escatappa. *Surface*, undulating; *soil*, sandy and poor. *Cap.* St. Stephens. *Pop.* (1897) 8,550.

Washington, in *Arkansas*, a N. W. co., bordering on Indian Territory; *area*, 900 sq. m. *Rivers.* White and Illinois, a branch of the Arkansas. *Surface*, diversified; *soil*, fertile. *Cap.* Fayetteville.

—A township of Conway co.

—A post-village, cap. of Hempstead co., 125 m. S. W. of Little Rock.

—A township of Independence co.

—A township of Lawrence co.

—A township of Ouachita co.

—A township of Sevier co.

—A township of Sharpe co.

Washington, in *California*, a township of Alameda co.

—A post-village and township of Nevada co., 22 m. E.N.E. of Nevada.

—A township of Plumas co.

—A township of Sonoma co.

—A village and township of Yolo co.

Washington, in *Colorado*, a N.E. co.; *area*, 1,080 sq. m.; the N.W. corner is intersected by the South Platte river, and it is also drained by Red Willow creek. *Surface*, rolling; *soil*, fertile, dark loam; no timber. *Cap.* Akron. *Pop.* (1897) 2,550.

Washington, in *Idaho*, a W. co.; *area*, 2,700 sq. m.; bounded W. by Snake river. *Surface*, mountainous, with fertile valleys; *soil*, a black loam easily irrigated; large tracts of fir, pine, tamarack, &c. *Min.* Gold, silver, copper, and lead. *Cap.* Weiser. *Pop.* (1897) 4,340.

Washington, in *South Dakota*, a S.W. co.; *area*, 1,510 sq. m.; drained by White river. Grazing is the leading industry. Unorganized.

Washington and Lee University. (*Educ.*) In 1749 Robert Alexander, one of three brothers who emigrated to America from Ireland in 1736, started a school, which he called the Augusta Academy, for the county of Virginia, in which he lived. Under this name the school existed from 1749 to 1776. It was moved to Mount Pleasant, near Fairfield, within the bounds of the adjoining (Rockbridge) county, in which is the famous Natural Bridge, beneath which flows a tributary of the James river. While at Mount Pleasant the name of the school was changed to Liberty Hall Academy, which appellation it retained from 1776 to 1798. In 1780 it was again removed to a place near Lexington, the county-town of Rockbridge. In 1796 it received from Gen. Washington 100 shares of stock in the James River Canal Company, which had been voted to him by the General Assembly of Virginia, but which he preferred to be donated to some public object, suggesting the academy. The legislature afterward commuted the stock to an interest-bearing fund of $50,000; thereupon, in 1798, the school was called the Washington Academy. It was finally removed, in 1803, within the corporate limits of Lexington. In 1813 it became Washington College. It received, in 1803, a fund of $25,000 from the Society of the Cincinnati. During the Civil War, when Gen. "Stonewall" Jackson was one of its professors, the college was closed and its scientific apparatus was destroyed. It was reorganized in 1865 under the presidency of Gen. Robert E. Lee. On his death, in 1870, the name was changed to its present form, as a mark of gratitude to the benefactor who had "rescued the institution from the obliteration that threatened it after the war." It has found many friends, at the North as well as the South, who have increased the endowment to $641,000, its revenue in 1896 being $45,000. In that year it had 18 instructors and 223 students, with 30,000 volumes in its library.

Wash'ington Heights, in *Illinois*, a village of Cook co., 12 m. S. of Chicago, of which it is a suburb.

Washington Mills, in *New York*, a post-village of Oneida co. *Pop.* (1897) 1,250.

Washington University. (*Educ.*) A non-sectarian, co-educational institution at St. Louis, Mo., incorporated in 1853. It has been formed by the conglomeration of six schools started at different times: The undergraduate department, which includes the college (1859); the St. Louis Law School (1867); the O'Fallon Polytechnic School (1870); the Henry Shaw School of Botany (1886); the School of Fine Arts; the St. Louis Medical College (1891); and the Missouri Dental College (1892). The college curriculum is identical with that in similar institutions. The polytechnic school has courses in civil engineering, mechanical engineering, chemistry, mining and metallurgy, building and architecture, each course including four years' instruction. To the university are attached three secondary schools: The Smith Academy for boys (1854); the Mary Institute for girls (1859); and the manual training school (1879). The university had in 1896, in all departments, 175 instructors, 1,823 students, and special reference libraries containing altogether 15,000 volumes. Its real estate in 1896 was worth $625,000, its total endowment was $800,000, and its revenues, exclusive of benefactions, were $160,000.

Wash'ita, in *Oklahoma*, a W. co.; drained by Washita river. *Surface*, undulating in parts, level in others; *soil*, black sandy loam, very fertile; some timber. *Cap.* Cloudchief. *Pop.* (1897) 10,000.

Wash'out, *n.* An opening or channel made by a torrent or flooding rain, as along a wagon-road or railway track.

Wa'ter Val'ley, in *Mississippi*, a post-town, cap. of Yalabusha co., 17 m. S. of Oxford; has railroad car and machine shops. *Pop.* (1897) 3,150.

Wa'ter-bag, *n.* A bag for holding water; especially a skin bag as used in the East for carrying or distributing water; or a rubber bag for holding water, usually hot, to be applied to some part of the body, as for inducing perspiration.

Wa'ter-gas, *n.* (*Chem.*) Illuminating gas made by the decomposition of water. The water is used in the form of steam, the hydrogen being liberated from the oxygen and made to take up hydrocarbons. The theory of the production of water-gas is based upon the chemical fact that carbon, in a highly heated state, has so strong an affinity for oxygen that it will decompose steam and combine with the oxygen, which is one of its constituents. Air consists principally of a mixture of two gases, oxygen and nitrogen, in the proportion, by volume, of about one part oxygen to four parts nitrogen. There is also in the air a little vapor of water and carbonic acid gas, but we need take no account of these. Oxygen is the active principle of the air, and is the great supporter of combustion. Nitrogen is a gas that will not support combustion, and by its presence in the air it serves to dilute the oxygen. An atmosphere of pure oxygen is too intense for animal life; it would also cause so hot a fire that few materials could withstand the heat. Water is composed of two gases, hydrogen and oxygen, combined in the proportion, by volume, of two parts hydrogen to one part oxygen. Hydrogen is the lightest gas known, and in burning produces per pound the greatest amount of heat.

In order to avail themselves of the valuable qualities of so common a gas as hydrogen, the manufacturers of water-gas employ a cupola, in which anthracite coal is heated to incandescence with the aid of an air-blast. When the incandescence is satisfactory, the air-blast is turned off, and superheated steam is allowed to pass through the red-hot coals. This liberates the hydrogen, while the carbon of the coal unites with the oxygen to form carbonic oxide gas. These two gases mixed together form what is termed water-gas, which burns with an intense heat, but if used at this stage would give out only a pale blue flame. In order to give it illuminating power, the gas is passed to an illuminator, where it takes up a quantity of vaporized naphtha. The oil-vapor and the water-gas are made to pass together through a carburetter and superheater, where contact with the surfaces of the highly heated checker-bricks results in the final product becoming "fixed," *i. e.*, made a permanent gas that can be distributed under varying conditions of temperature and pressure without condensing or losing any of its valuable light-giving constituents. The gas passes from the superheater through the oil heater to the washer and thence to the condensing, scrubbing, and purifying apparatus, which is not essentially different from that employed in coal-gas works, going finally to the gas-holder, to be distributed to consumers. For a description of the manufacture of coal-gas, see GASLIGHT.

Wa'tertown, in *South Dakota*, a city, cap. of Codington co., about 100 m. N. of Sioux Falls. A manufacturing city; has mills, foundries, machine shops, manufactures of plows and harrows, sash and doors, carriages and wagons, paint, varnish, &c.; numerous elevators and grain warehouses, and is the center of a rich agricultural and stock-raising region, whose products it ships in large quantities. *Pop.* (1895) 2,709.

Wa'ter-works, *n. pl.* (*Engin.*) Establishments for providing a supply of water to dwellers in cities and towns, where the population is too dense to be satisfied with wells, are known by this name. The principle of their construction is simple. Water from some convenient stream or lake is led into a reservoir and retained till required, or pumped to a higher level, from which a pressure is obtained to fill the mains and pipes that distribute the water over the district. In hilly regions it is usually possible to obtain the use of streams sufficiently elevated to render it possible to form a reservoir by means of a simple dam. Where such are not obtainable in the limits of the municipality, it is often necessary to buy the water-shed of some less populous district, and divert the water to the desired use. If a sufficient quantity of water cannot be had at a proper elevation, it becomes necessary to resort to pumping. The location of a reservoir with a water-level a little above the highest stories of the buildings in the district is sufficient to supply them by pressure, but if the streams are lower than the reservoir, the water can be pumped up into them. If there is no high point at which a reservoir may be placed to give the pressure, it becomes necessary to use a standpipe or water-tower, which is connected with the mains, and kept filled by pumping. In some places it is impossible to find streams of sufficient size, and then artesian wells are driven to obtain a supply. Such water is usually very pure and palatable. Where it becomes necessary to use water which is not wholly satisfactory, as river-water, receiving more or less unwholesome drainage, the supply may be made potable by filtration and deposition. Even very foul water may be purified in this way. Filter-beds, onto which water may be pumped for purification, are made as follows: A large tank, resembling a small reservoir, of perhaps an acre in extent, is built about with a wall and bank, and furnished with a floor of rubble or old bricks, upon which is spread broken stone, coarse gravel, fine gravel, and finally sand. From 3 to 4 feet of material thus arranged will allow the water admitted above to flow through the interstices to a lower outlet, retaining the impurities in the sand. In laying out the water-pipe system of a town or city the mains may be laid at any convenient incline, up hill or down, as water seeks its level, but they must always be located below the frost line to avoid danger of bursting. The consumption of water in European cities is from 40 to 50 gallons per head per diem, but in American cities frequently reaches double that amount. See HOLLY SYSTEM; FILTRATION OF WATER.

Waton'ga, in *Oklahoma*, a post-village, cap. of Blaine co. *Pop.* (1897) 450.

Wat'son, JAMES CRAIG, astronomer, was born in Fengal, Ontario, Can., Jan. 28, 1838; graduated at the University of Michigan (1857), having devoted his attention to astronomy. Before his graduation he had discovered a comet. He became professor of Astronomy and director of the observatory there (1863). In 1879 he accepted similar positions at the University of Wisconsin. He discovered 23 asteroids, several of the smaller comets; and his calculation of the orbit of Donati's comet is accepted as authoritative. In 1869 he went to Iowa, and in 1870 to Sicily, to observe the eclipses of the sun. He had charge of the American party that went to Pekin, China, in 1874, to observe the transit of Venus. In 1876 he was one of the judges of the award at the Centennial Exposition in Philadelphia; in 1878 he conducted the government expedition to Wyoming to observe the total solar eclipse. He published a *Popular Treatise on Comets* (1860), &c. Died Nov. 23, 1880.

Watson, JOHN. See IAN MACLAREN.

Watson, THOMAS E., journalist and politician, was born in Columbia co., Ga., Sept. 5, 1856; admitted to the bar (1876); elected to the legislature (1882); Democratic State elector-at-large (1888); elected to the Fifty-second Congress from Georgia; the nominee of the People's Party for Vice-President in the campaign of 1896.

Watson, WILLIAM, poet, was born in Wharfedale, Yorkshire, England, in 1856. In 1892 he published his poem, entitled *Wordsworth's Grave*, which at once made him famous. The same year he published the memor-

ial poem, *Lachrymæ Musarum*, which was pronounced the finest tribute paid to Tennyson. He has previously published *Love Lyrics; Epigrams of Art, Life, and Nature;* and *The Prince's Quest*. In 1893 he published *The Eloping Angels*, and a volume of essays entitled *Excursions in Criticism*. A volume of poems appeared in 1894, and *The Father of the Forest* in 1895. In 1896 he wrote sonnets on the Sultan that conveyed through the medium of verse some stern moral and political criticism. In recognition of Watson's talent, he has been granted a civil-service pension of £100.

Wat'terson, Henry, journalist, was born in Washington, D. C., Feb. 16, 1840; began his career as a writer for *The Democratic Review* and *The States;* in 1861 went to Nashville and edited the *Republican Banner;* joined the Confederate ranks, and served as staff-officer during 1861–63, and as chief of scouts in Johnston's army. After the war he returned to edit the *Banner*, but soon removed to Louisville, where (1867) he founded the *Journal*. This paper was later consolidated with the *Courier*, and became the *Courier-Journal*, one of the foremost of American newspapers. *W.* presided over the Democratic National Convention of 1876, and was a strong supporter of Tilden; he was a member of every succeeding convention, representing Kentucky, and exerting a marked influence on the action taken by the convention. In 1876–77, he was a member of Congress, serving with distinction, but declining renomination. He is an active public speaker and a voluminous writer on economic subjects.

Watts, George Frederick, painter, was born in London, England, in 1820; is eminent as a portrait painter, many notable people having been among his sitters. His other work is chiefly ideal or mythological in subject, but he has done some strong work in historical lines, and has executed some admirable frescoes. He was elected a Royal Academician in 1867, but resigned in 1896, after the death of Millais.

Wauko'mis, in *Oklahoma*, a post-village of Garfield co., 9 m. from Enid. *Pop.* (1897) 500.

Wave'-mo'tors, *n. pl.* (*Mech.*) Motors employing the force of the waves on the seashore have been invented in considerable numbers, but so far as known none of them have ever been used except in an isolated and experimental way. Their unreliability as a source of steady power, and their liability to destruction in storms, combined with their necessary location at points where great demand seldom exists for power, seem to be the reasons which have militated against their use. One class of these motors utilizes the force of waves rolling up the beach to push horizontal floats hanging from upright levers, to which a reciprocating motion is given, so that a set of paddles connected by pawls and ratchets with an overhead shaft, may cause continuous rotation of the shaft. Of this pattern is the Whitesides wave-motor, tested at Oakland, Cal. The Stahl wave-motor is typical of another class, in which levers bearing paddles are oscillated by the waves so as to turn an overhead horizontal wheel, through the medium of pawls and ratchets. More simple forms have a horizontal board or boards suspended so as to swing a few inches above the sand of the beach, the oscillations being made use of to drive a crank on shore. This form cannot be expected to produce as regular a motion as either of the two previously mentioned. Another method of utilizing the power of a wave to drive a motor is to use a broad float that lies free in the water within certain limitations to operate pawls and drive a wheel by means of connecting-rods and pawls, whose positions are affected by its changes of level. A still simpler form, making use of the same idea, has a float confined within stakes, where its rise and fall are utilized to produce mechanical motion. It would seem as if some of these motors might be used to charge storage batteries, and deliver power by wire to adjacent points.

Wa'verly, in *Illinois*, a post-village of Morgan co., 18 m. S. E. of Jacksonville; has flour mills, creameries, and tile factory. *Pop.* (1897) 1,500.

Way'eross, in *Georgia*, a post-town, cap. of Ware co., 60 m. W. of Brunswick. *Pop.* (1897) 4,000.

Way'land, Heman Lincoln, clergyman, educator, and journalist, was born at Providence, R. I., April 23, 1830; graduated at Brown University (1849) and Newton Theological Seminary; taught in the University of Rochester (1852–54), was pastor of a Baptist church at Worcester, Mass. (1854–61), and chaplain of the 7th Connecticut Volunteers (1861–64); held the chair of Rhetoric and Logic at Kalamazoo College (1865–70); was president of Franklin College, Indiana (1870–72); edited the *National Baptist* (1872–94), and afterward the *Examiner*. Died Nov. 7, 1898.

Wayne, in *Michigan*, a post-village of Wayne co., 18 m. W. of Detroit. *Pop.* (1894) 1,555.

Wayne, in *Nebraska*, a N.E. co.; *area*, 444 sq. m.; intersected by Logan creek and also drained by Plum creek, both affluents of the Elkhorn river. *Surface*, undulating; timber scarce; *soil*, fertile. *Cap.* Wayne. *Pop.* (1897) 7,000.

—A post-village, cap. of above co., 46 m. W. of Sioux City, Iowa. *Pop.* (1897) 1,500.

Wayne, in *Pennsylvania*, a post-village of Delaware co., on the Penna. R.R., 13½ m. N.W. of Philadelphia. *Pop.* (1897) 2,000.

Weak'fish, *n.* See Sciænidæ.

Weath'er Bu'reau. (*U. S. Govt.*) A bureau of the U. S. Department of Agriculture, at Washington, whose business it is to observe and collect information as to the weather in all parts of the country and contiguous regions; to calculate a forecast of it for each of various defined districts, and to publish these promptly, so that the people may know the probabilities as to local weather in each district.

The principles underlying those constant regional changes of temperature, atmospheric movements, and relative dampness or dryness of the air, which constitute *weather*, are discussed in the article Meteorology. See also Atmosphere, Barometer, Climate, Clouds, Rain, Temperature, Thermometer, Wind, and similar topics. It being of the highest importance, in many practical relations, to know in advance what the weather is likely to be, especially in such pursuits as farming, navigation, and warlike enterprises, men from the beginning of time have endeavored to judge, by a study of the appearances of the sky, the actions of plants and animals, &c., what changes were about to occur; and have called to their aid many fanciful notions, as the influence of the moon, &c. As soon as such instruments as the thermometer, barometer, and hygrometer were invented, systematic observations of temperature, humidity, direction of the winds, and the like, were made in all the more civilized parts of the world, and an enormous mass of classified facts of this kind were long ago collected and recorded. In recent

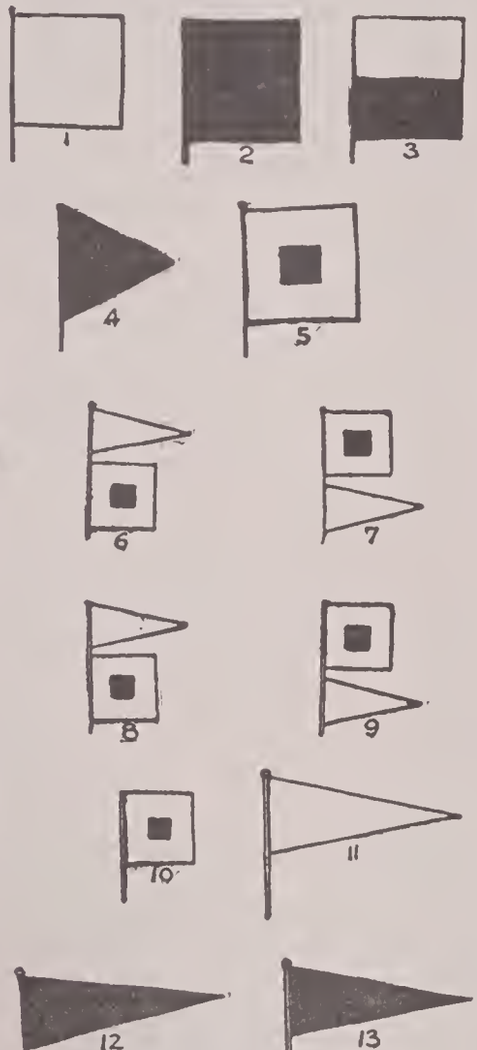


Fig. 3094.—WEATHER BUREAU SIGNALS.

1, white flag, clear weather; *2*, blue flag, rain or snow; *3*, white and blue flag, local rains or snow; *4*, black triangular flag, signal for temperature; *5*, white flag with black center, cold wave; *6*, northeasterly winds; *7*, southeasterly winds; *8*, northwesterly winds; *9*, southwesterly winds; *10*, red flag, black center, storm of violence; *11*, white pennant (on Great Lakes), westerly winds; *12*, red pennant (on Great Lakes), easterly winds; *13*, red pennant (on Coast).

times the United States has taken the lead in this matter. Benjamin Franklin, with that remarkable penetration that made him great, pointed out some of the fundamental climatic facts in America, such as the eastwardly drift of storms in the Northern U. S.; and Thomas Jefferson saw that only by simultaneous observations could truth be discovered, and arranged that weather observations should be taken at the same hours at several points in Virginia.

When the Smithsonian Institution was founded it was one of the earliest cares of Joseph Henry (*q. v.*) to organize a system of simultaneous instrumental weather observations all over the United States, and these were sustained for 40 years or more, and resulted in the collection and publication of several volumes of tabulated meteorological material, which have formed the basis of that science in the United States, and have been of vast service in the science of cosmic meteorology. "Weather prophets" had attempted to grow more scientific than formerly by these studies, forming theories of coincidences and returning "cycles" of weather, which are less trustworthy than the guess of the average farmer or sailor; but real weather-prophets presently arose, and weather-prophecy is now founded upon a scientific basis. This was made possible by the invention and spread of the electric telegraph, enabling one to make immediate use of widely scattered data. As early as 1850, Maury, then the principal student and exponent of oceanic meteorology, and author of numerous works on hydrography, winds, sea-currents, &c., proposed the charting of collected observations; and Henry soon utilized his corps of observers and the telegraph to display upon a map daily, by movable symbols, the state of the weather at various points in the United States. This interested thinking people greatly, but the oncoming of the Civil War interrupted its development. "In 1869," says Prof. Harrington, "the idea was revived and put into practical operation by Prof. Cleveland Abbe, then director of the Cincinnati Observatory. . . . The data were collected by the Western Union Telegraph Company, free of charge, and the enterprise was fostered by the Cincinnati Board of Trade. Professor Abbe drew the maps, and copies of them were struck off in the local office of the telegraph company [and locally distributed]."

So much interest was taken in this matter by business men that an Act of Congress was soon passed requiring the War Department to undertake a similar work for the whole country, with special reference to storm-warnings for the Atlantic coast and the Great Lakes. As was anticipated, this duty was committed to the chief signal officer of the army (see Signal Service), Gen. A. J. Myer, who at once called Professor Abbe to his assistance, and organized a general service with so much celerity that he began to issue bulletins and storm-warnings in Nov., 1870. As this was the direct outcome of the early work of Maury, Henry, and others, who antedated any European efforts of a similar kind, the credit of taking the lead in public forecasting of the weather is universally accorded to the U. S. Nevertheless, the interruption occasioned by the Civil War permitted both France and England to institute governmental weather service earlier than it was begun at Washington. Leverrier, at Paris, began to issue the French weather-maps in 1863; and in England Fitzroy started the British system of meteorological forecasts in 1861. It would be interesting to trace their development, and certain local peculiarities, especially as these, and several other foreign countries, now coöperate with America; but lack of space prevents, nor is it necessary, since their methods do not essentially differ from, and are largely based upon, those of the American bureau. General Myer's work attracted instant attention and welcome, and he soon came to be known as "Old Probabilities," for all his prognostications were given as "probable" rather than as certain. The large and increasing percentage of correctness established the value of the forecasts, however, and the service grew steadily.

In 1880 Myer died, and his successor, Gen. W. B. Hazen, found the care of this office the greater part of his duty, as chief signal officer, for seven years. He was followed by Gen. A. W. Greely, who had already won fame by his arctic studies. The annual expenditure was now about $1,000,000, a considerable part of which, especially in Hazen's time, was spent for purely scientific ends, such as special arctic explorations, stations in Alaska, &c. Public sentiment favored less of this, and disliked the routine of the War Department, where every observer was an enlisted "sergeant," or "corporal," or "private." Congress therefore transferred the weather service to the Department of Agriculture in 1891, where it became a bureau in charge of Prof. Mark W. Harrington (*q. v.*) until July 1, 1895, when he was succeeded by Willis L. Moore, who had grown up in the bureau. The equipment and methods of the U. S. Weather Bureau are now fully developed, and the forecasts are implicitly relied upon, 9 out of 10 proving true, while the total expense has been reduced to about $850,000 annually. There are now (1897) about 125 telegraphic reporting stations, 30 exchange stations (with other countries), 2,500 voluntary observers reporting to over 40 State weather services (for nearly every State in the Union sustains a similar local service, of which some, as that of Massachusetts and New York, are highly efficient), and over 200 stations reporting floods and other data as to rivers. About 1,700 stations show weather and temperature signals; about 175 stations show storm signals, and 500 signal frosts. Some 100 stations make forecasts, and publish weather-maps, of which about 2,500,000 are issued annually. While the principal and foremost work of all these observers and stations is the collection of data, and the dissemination of daily forecasts derived from them, there is also obtained, systematically, a large amount of meteorological information, which is also published and commented upon by the scientific staff of the bureau in the annual reports and occasional publications, the most important part of which, perhaps, relates to the rainfall of the continent. In this, as in all else, the hearty coöperation of the Canadian Weather Service is of the highest mutual benefit.

The method of weather forecasting is as follows: Twice each day, morning and evening, the observers simultaneously note the conditions at their stations—temperature, cloudiness, humidity, force and direction of the wind, &c., according to the required list—write

them out in the cipher used by the bureau, and telegraph them to Washington, and also to the central (forecasting) station in each district. In each of these stations—the outer ones assisted by advices from Washington—the forecast-official of the day studies them, deduces the probabilities of the weather for the 24 or 36 hours, and hands his statement to the newspaper press-agencies, by whom they are distributed to the morning and afternoon newspapers throughout the country. Every effort is otherwise made to disseminate the information, which is known to the public generally within three or four hours of the collection of the data. Telegraph and railway companies, boards of trade, shipping agencies, and others get the forecast direct, and post it conspicuously; and the weather-map issued daily is posted in thousands of public places within a short time after it is printed. In the interior of the country, where daily newspapers cannot promptly reach farmers and ranchmen, who are most interested, some railway place upon their trains large colored signals, which can be seen by the rural population as the trains run past farms and villages. Steam whistles have also been employed to sound signals. On the coasts lofty lights, rockets, and search-light signals are sometimes employed, especially to warn mariners against dangerous approaching storms. The extension of telephone lines is increasing the facility of spreading this valuable information. At all stations and on many private buildings flags during the day and lanterns at night are hoisted as symbols of prevailing weather or expected changes. These are as follows:

The white flag indicates clear or fair weather; blue flag indicates rain or snow; white and blue flag indicates that local rains or showers will occur, and that the rainfall will not be general. The black triangular flag always refers to the temperature; when placed above number 1, 2, or 3 it indicates warmer weather; when placed below number 1, 2, or 3 it indicates colder weather; when not displayed, the indications are that the temperature will remain stationary, or that the change in temperature will not vary more than five degrees from the temperature of the same hour of the preceding day from June to August, inclusive, seven degrees from November to March, inclusive, and not more than six degrees for the remaining months of the year. A white flag, with black square in center, indicates the approach of a *sudden* and *decided* fall in temperature, and is usually ordered at least twenty-four hours in advance of the cold wave. When No. 5 is displayed, No 4. is always omitted. A special storm flag, red with black square in center, is prescribed for use in North and South Dakota, Minnesota (except at lake stations), Iowa, Nebraska, and Wyoming, to indicate high winds, accompanied by snow, with temperature below freezing. When displayed on poles, the signals should be arranged to read downward; when displayed from horizontal supports a small streamer should be attached to indicate the point from which the signals are to be read.

Another class of flag-signals relates to wind, storm, and hurricane, and these are as follows:

Storm Signals.—A red flag with a black center indicates that a storm of marked violence is expected.

The pennants displayed with the flags indicate the direction of the wind; red, easterly (from north to south); white, westerly (from southwest to north). The pennant *above* the flag indicates that the wind is expected to blow from the northerly quadrants; *below*, from the southerly quadrants.

By night a red light indicates easterly winds, and a white light above a red light westerly winds.

Information Signal.—Red or white pennant displayed alone.—When displayed at stations on the Great Lakes indicates that winds are expected which may prove dangerous to tows and smaller classes of vessels, the red pennant indicating easterly and the white pennant westerly winds.

When displayed at stations on the Atlantic, Pacific, and Gulf coasts indicates that the local observer has received information from the Central Office of a storm covering a limited area, dangerous only for vessels about to sail to certain points, and serves as a notification to shipmasters that information will be given them upon application to the local observer. Only the red pennant is displayed on the coasts. No night information or hurricane signals are displayed.

Hurricane Signal.—Two red flags with black centers, displayed one above the other, indicate the expected approach of tropical hurricanes, and also of those extremely dangerous storms which occasionally move across the Lakes and Northern Atlantic coast.

"The forecaste," says Professor Harrington, "depend on the general shift easterly of the weather existing at any moment over the U. S. This shift is at about the speed of an express train, but is subject to innumerable fluctuations in speed and direction, and the weather conditions, in advancing, may change in intensity or assume new features. The skill of the forecaster lies in foreseeing these fluctuations, and for this long experience, as well as a sort of intuitive tact, is necessary. . . . The art so far has depended chiefly on empirical methods, and advance in this direction seems to be about exhausted. Further progress can hardly be expected except by improvements in the theory of meteorology. . . . There are two directions of advance which give especial promise of useful results. The first lies in the study of the phenomena of the condensation of moisture in the air into raindrops and other forms. The best judgee are of the opinion that in this process lies the secret of such intense storms as tornadoes. . . . The other promising line of research lies in the investigation of the meteorological processes taking place in the free air, especially in the cloud-layer. An investigation of the free air can be carried on by balloons, towers, and kites, and the last (see KITE) in 1896 had developed unexpected capacity for usefulness."

Weav'er, JAMES B., soldier and politician, was born in Dayton, O., June 12, 1833; graduated in law (1854); served in the Union army during the Civil War, becoming a brigadier-general; afterward practiced law in Iowa; filled several offices in that State, and edited the *Iowa Tribune*, at Des Moines; was elected to Congress in 1878; in 1880 was the Greenback candidate for the Presidency; in 1884 he was again elected to Congress, and re-elected in 1886. In 1892 he was again a Presidential candidate, this time on the People's Party ticket, and received 22 electoral votes.

Webb, ALEXANDER STEWART, U. S. A., was born in New York city, Feb. 15, 1835; graduated at West Point (1855); was commissioned in the artillery, and served in Florida; was then made assistant professor of Mathematics at West Point (1857–61); served throughout the Civil War, making a distinguished record and receiving the brevet of major-general, U. S. A. (1865). He was a professor at West Point until 1868; commanded the 5th Military District in 1869; was president of the College of the City of New York, in 1869; resigned from the army in 1870.

Webb, GEORGE JAMES, musician, was born at Salisbury, Wiltshire, Eng., June 24, 1803; removed to the U. S. in 1830, and located in Boston as an organist and a teacher of music. He made a specialty of voice culture; published many collections of popular music in the fashion of that day, among them: *The American Glee Book; Little Songster for Schools; Massachusetts Collection of Psalmody, &c.* Died Oct. 7, 1887.

Webb City, *Missouri*, a city of Jasper co., 9 m. S. W. of Carthage; has extensive zinc and lead deposits, and large mining operations. *Pop.* (1897) 5,500.

Weber (*va'ber*), WILHELM EDUARD, physicist, was born at Wittenberg, Germany, in 1804; died at Göttingen, 1891. In 1825, in connection with his brother, Ernst Heinrich, he published a work on *The Theory of Waves*. He is best known by his researches, made in concert with Prof. Gauss, in terrestrial magnetism. In 1837, for having protested against the violation of the constitution, he was one of seven professors dismissed from the University of Göttingen, but was restored in 1849, after having filled the chair of Physics at the University of Leipsic. He contributed a number of important articles to the scientific journals of Germany, and was the author of several published works.—ERNST HEINRICH, his brother, a physiologist, was born in 1795; his principal work, *De Aure et Auditu Hominis et Animalium* (1820). Died in 1878.—EDUARD FRIEDRICH, another brother, also a distinguished physiologist, was born in 1806; author of several important scientific treatises. Died in 1871.

Web'ster, in *Louisiana*, a N.W. parish; *area*, 609 sq. m.; drained by Bayou Dorcheat. *Surface*, undulating; *soil*, fertile; abounds in valuable timber, iron ore, and coal. *Cap.* Minden. *Pop.* (1897) 14,450.

Webster, in *Mississippi*, a N.E. central co.; *area*, 430 sq. m.; bounded S. by the Big Black river. *Surface*, undulating; *soil*, fertile. *Cap.* Walthall. *Pop.* (1897) 13,180.

Webster, in *Nebraska*, a S. co.; *area*, 576 sq. m.; intersected by Republican river. *Surface*, undulating; timber scarce; *soil*, fertile; good pasturage. *Cap.* Red Cloud. *Pop.* (1897) 14,200.

Webster Groves, in *Missouri*, a post-village of St. Louis co., 10 m. from St. Louis. *Pop.* (1897) 2,500.

Web'-worm, *n.* (*Zoöl.*) Any caterpillar that forms a web about itself is a web-worm, such as the TENT-CATERPILLARS (*q. v.*). In the U. S., however, the term applies specifically to the garden or fall web-worm, the larva of a pyralid moth of the family *Botidæ* named *Hyphantria cunea*. The tawny yellow moths of the year appear as soon as the leaves are fully developed, and fly about in the evening and during the night for six or eight weeks, when all gradually perish; in the Southern States, however, this insect is double-brooded, and the second set of moths linger until autumn is well advanced. Meanwhile they have paired early and the female has deposited her eggs (about 450) in a cluster on a leaf. In favorably warm weather these hatch in 10 days. The caterpillars are pale yellow or greenish, striped and spotted with black and dusky, and are covered with whitish hairs. "As soon as the caterpillars hatch they immediately go to work to spin a small silken web for themselves, which, by their united efforts, soon grows large enough to be noticed upon the trees. Under this protecting shelter they feed in company, at first devouring only the green upper portions of the leaf. . . . As they increase in size they enlarge their web by connecting it with the adjoining leaves and twigs; thus as they gradually work downward their web becomes quite bulky, . . . and an unpleasant feature in our public thoroughfares and parks." When they approach maturity (in about a month) they let themselves down by a silken thread, or perhaps tumble, to the ground, when each one creeps into some crevice of bark or rubbish, or buries itself in the loose earth about the roots of the tree or bush, and wrapping itself in a thin, almost transparent cocoon, proceeds to undergo its metamorphosis into a pupa and development toward a perfect insect. In the case of the first brood of a Southern region this requires about 8 days, when the moth emerges; but in the case of the Southern second brood, or of the Northern single brood, this pupa stage is prolonged into a winter hibernation, and the moth does not appear until the following summer. The injury done by these insects in denuding shade-trees, orchards, and gardens, where they are unchecked, is enormous; and it is the duty of every man to search for and destroy their eggs, and especially to burn or otherwise destroy all their web-nests, as soon as they are formed.

Wed'more, FREDERICK, author, was born at Clifton, England, July 9, 1844; educated at Paris and Lausanne. His earlier literary work was chiefly in the line of novels and short stories, which were well received. He became better known as an art critic; In 1878 and 1880 he published *Studies in English Art*, in two series of papers; *The Masters of Genre Painting* (1880); and *The Four Masters of Etching*. In 1878 he became art critic for the London *Standard*. In 1885 he visited the U. S., and lectured at Harvard and Johns Hopkins Universities; has since published *Balzac*, in the Great Writers Series (1889), and two short stories. In 1893 he edited an edition of M. Michel's *Rembrandt*.

Weed, THURLOW, journalist and politician, was born in Greene co., N. Y., in 1797. After learning the printers' trade and serving in the War of 1812, he edited several newspapers before 1830, when he established the Albany *Evening Journal*, which he edited until 1862, exercising a great influence in the Whig and Republican parties and becoming one of the most skilful political leaders of his day. During the Civil War he was sent on a mission to Europe, and after the war was editor, for a time, of the New York *Commercial Advertiser*, resigning on account of ill health. Besides his editorial writing, he wrote *Letters from Europe and the West Indies* (1866); *Reminiscences* (*Atlantic Monthly*, 1870); and an autobiography, which was finished by his grandson, Thurlow Weed Barnes. Died in 1882.

Weichsel (*vīk'sĕl*) **Wood.** (*Bot.*) A species of wood used in the manufacture of pipestems, brought from the banks of the river Weichsel, Germany.

Weigh'ing-machines', *n. pl.* (*Mech.*) Almost all weighing-machines operate on the principle of the balance or scales, although some are made which utilize the contractive or expansive power of a spring, and measure the same on an indicator or scale. Balances for weighing small articles usually have arms of equal length, the weight being ascertained by placing the article on one end of the scales and weights on the other until an approximation to the exact weight is obtained. For heavier weights the steelyard is commonly employed, having levers so arranged that a small weight on the end of a long lever is made to balance a heavy article hung from a short lever. Platform-scales are but an extension of the steelyard principle, the scale being marked on the long lever, and the platform being balanced on the short lever. In all such machines friction is a source of error, and it becomes necessary to reduce this to a minimum. The balance is therefore obtained on what are known as knife-edges, which are formed of hardened steel, and brought to as narrow a straight edge as the weight supported will admit. Weight may also be measured by the elastic pressure of a fluid, as water. (See TESTING-MACHINE.) The British mint employs a most delicate machine for weighing gold coins and testing them, and separating them into "good," "light," and "heavy" groups. This machine employs an extremely long arm on which to balance the coins, the length of the leverage thus reducing the effect of the friction in the machine. By its use about 23 coins a minute are weighed to within 1-100th of a grain of the exact standard. The automatic weighing-machine of Percival Everett was patented in 1886, and has come into universal use as the slot-machine type of weighing-machine used in railway stations, ferry houses, and other public places. In this machine the weight of the person on the platform is conveyed by levers to a counterpoise, so as to turn a pivoted spindle and a weighted arm, which may be geared to a segment that controls the pointer on the circular scale outside the machine. When the proper coin is placed in the slot the gearing is brought together and the indicator works; but if no coin is introduced, though the weighing process is gone through with, no effect is visible at the indicator.

Wei'mar, in *Texas*, a post-town of Colorado co., 16 m. W. of Columbus. *Pop.* (1897) 1,580.

Weir, HARRISON WILLIAM, artist and writer, was born at Lewes, Eng., May 5, 1824; in early years was articled to a designer on wood, color-printing, and wood-engraving; later devoted himself to artistic painting, in which he was entirely self-taught. He won recognition for his excellent work in water-colors, and even more for his book illustrations and sketches for various periodicals; he also illustrated several books on natural history, and he wrote as well as illustrated other books, including *Animal Stories, Old and New; Bird Stories, Old and New; Our Cats, and All About Them;* the last being his most elaborate work. He was the founder of the Annual Cat Show at the Crystal Palace. He is noted as a judge at shows, as a horticulturist, and a poultry-fancier.

Weir, JOHN FERGUSON, artist, son of Robert Walter Weir, was born at West Point, N. Y., Aug. 28, 1841; trained in art by his father; opened a studio in New York city (1861); was elected an Academician (1866); spent a year in Europe, and (1869) was appointed director of the Yale School of Fine Arts. He was a judge of the fine arts at the Centennial Exposition of 1876. *The Gun Foundry* (1867) and *Forging the Shaft* are the most noted of his pictures.

Weir, JULIAN ALDEN, artist, son of Robert Walter Weir, was born at West Point, N. Y., Aug. 30, 1852; studied with his father and afterward with Gérôme, at Paris.

He became an Academician in 1886; has painted some fine portraits, including one of his father, and one of John Gilbert.

Weir, Robert Walter, painter, was born in New Rochelle, N. Y., June 18, 1803. After studying in New York, he went to Italy (1824), remaining for several years. In 1829 he was elected a member of the National Academy of Design. In 1832 he became instructor in drawing at West Point, holding this position for 42 years. Among his best-known paintings are *The Belle of the Carnival; Landing of Henry Hudson;* and *Embarkation of the Pilgrims*, in the rotunda of the Capitol, at Washington. Died May 1, 1889.

Weir, in *Kansas*, a city of Cherokee co., 4 m. S. E. of Cherokee; has coal mines and zinc smelting works. *Pop.* (1895) 3,020.

Weis'mann, August, biologist, was born at Frankfort-on-the-Main, Jan. 17, 1834; studied medicine at Göttingen, Vienna, and Paris, giving special attention to the natural sciences. In 1861 he became physician to the Archduke Stephen, of Austria. This appointment gave him leisure to attend to his favorite studies, which resulted in the publication of *Development of the Diptera* (1864). He studied zoology at the University of Gelssen (1863), and a few years later became professor at Freiburg. He made original researches, especially on insects, and wrote two books upon the subject, but failing eyesight interfered with this phase of work, and he gave his thoughts to philosophical reflection in regard to the theory of descent and natural selection, writing *Studies in the Theory of Descent* (1880); *Essays on Heredity and Kindred Subjects* (1882–92); *The Germ-Plasm* (1893); and *Germinal Selection* (1896). His works are known to all students of biology, and have been translated into the English language.

Weit'zel, Godfrey, U. S. A., was born in Cincinnati, Ohio, Nov. 1, 1835; graduated at West Point (1855). He was in active service in the engineering department all his life. During the Civil War he was occupied in constructing defences, and also commanded divisions of the army at various points, being commissioned brigadier-general of volunteers in 1862 and major-general in 1864, and at the close of the war receiving the brevet of major-general, U. S. A. After the war he was engaged in important engineering works. Died March 19, 1884.

Welch, William Henry, pathologist, was born at Norfolk, Conn., April 8, 1850; graduated at Yale (1870) and at the College of Physicians and Surgeons in New York (1875). He studied pathology at European universities; became demonstrator of Anatomy and professor of Pathology in Johns Hopkins University, and pathologist in the university hospital. His writings are chiefly contributions to standard works, and consist of chapters on special subjects within the scope of his specialty.

Welles, Gideon, statesman, was born in Glastonbury, Conn., in 1802; studied law; in 1826 he became editor and proprietor of the *Hartford Times*. In 1846–49 he was chief of a bureau in the Navy Department in Washington; was called to the Cabinet as secretary of the navy by President Lincoln (1861), and filled that office with success and credit during the Civil War period. After his retirement from office he published his *Memoirs of the War*. Died Feb. 11, 1878.

Wel'lesley, in *Massachusetts*, a post-town of Norfolk co., 15 m. W. by S. of Boston; seat of Wellesley College. *Pop.* (1895) 7,799.

Wellesley Col'lege. (*Educ.*) A non-sectarian institution for the higher education of women, in the village of Wellesley, Mass., on Lake Waban, about 15 miles from Boston. It was founded in 1875, by Henry F. Durant, of Boston. The main building is 475 feet long, and five stories high. Other buildings are for the School of Music (1881), the Farnsworth School of Art (1889), the Chemistry Building, besides Stone Hall, and 8 cottages for dormitories. In 1896 its income from all sources was $216,470, which included appropriations from the State of Wyoming and the U. S., amounting to the income from nearly $1,000,000. In that year it had 175 instructors and 718 students, with about 47,000 volumes in its library.

Wel'ling, James Clark, educator and editor, was born in Trenton, N. J., July 14, 1825; graduated at Princeton (1844), and studied law. In 1848 he was appointed associate principal of the New York Collegiate Institute. Meanwhile he was a writer for the Washington *National Intelligencer*, of which he later became the editor (1856–65), also being appointed clerk of the U. S. Court of Claims (1862). In 1867 he returned to the profession of teaching, as president of St. John's College, Annapolis, Md.; professor of Belles-Lettres at Princeton (1870), and president of Columbian University, Washington (1871), retaining this position for life. Died Sept. 4, 1894.

Wel'lington, in *Kansas*, a city, cap. of Sumner co., 30 m. S. by W. of Wichita; has large stone quarries; trade center of a fertile agricultural district. *Pop.* (1895) 3,657.

Wells, Clark Henry, U. S. N., was born in Reading, Pa., Sept. 22, 1822; graduated at Annapolis (1846); served during the Mexican War; was with the Atlantic Cable Expedition (1857); served throughout the Civil War, and afterward in the squadron off Brazil, and on the coast of Italy. He received the cross of the Legion of Honor, for rendering assistance to a French ironclad in distress near Spezzia. He was promoted by regular grades, until his retirement as rear-admiral, Sept. 22, 1884. Died Jan. 28, 1888.

Wells, in *Minnesota*, a post-village of Faribault co., 20 m. W. by N. of Albert Lea; has railroad repair shops and some manufactures. *Pop.* (1895) 1,702.

Wells, in *North Dakota*, a central co.; *area*, 1,296 sq. m.; intersected by Sheyenne river and also drained by Kline river and Pipestem creek. *Surface*, slightly rolling prairie; *soil*, deep, rich black loam; lignite; little timber. *Cap.* Fessenden. *Pop.* (1897) 1,450.

Wells'ton, in *Ohio*, a city of Jackson co.; 32 m. S.E. of Chillicothe; has large coal and iron mines. *Pop.* (1897) 4,800.

Welsh, John, merchant and philanthropist, was born in Philadelphia, Pa., Nov. 9, 1805; received a collegiate education, and entered mercantile life. Throughout his career he was an active and public-spirited citizen, filling posts of great responsibility and honor. He was president of the executive committee of the Sanitary Fair during the Civil War, and was president of the board of finance of the Centennial Exposition of 1876. In recognition of his services in this latter enterprise the city of Philadelphia presented him a gold medal and $50,000. This sum he employed to endow the Welsh chair of English Literature in the University of Pennsylvania. He was appointed minister to England in 1878, remaining in the diplomatic service for years. Died April 10, 1886.

Wends (*vĕndz*), *n. pl.* [From the same root as to *wend*, to *wander*, and signifying the wandering or roving border tribes] (*Hist.*) The name given by the Germans to all ranch of the Slavs, which call themselves *Serbe* or *Sorbe*, and as early as the 6th century occupied the north and east of Germany from the Elbe along the coast of the Baltic to the Vistula, and as far south as Bohemia. They were divided into several tribes, which were successively subdued by the Germans, and either extirpated or gradually Germanized and absorbed, although remnants of them are still here and there to be found.—In a narrow sense, the name of *Wend* is given to those remnants of the Slavic population of Lusatia who still speak the Wendic tongue, and preserve their peculiar manners and customs. They are divided into Upper and Lower Lusatians, and number about 150,000. The Wends, like the other subject Slavic tribes, were in early times cruelly oppressed by their German masters; in recent times their lot has been more tolerable.

Werder (*vĕr'dĕr*), August von, a Prussian general, was born in 1808; entered the army in 1825, and in 1842–3, with the permission of his government, served as an engineer officer with the Russian army in the Caucasus. He became, in 1866, lieutenant-general, and participated in the campaign in Bohemia, in the army of Prince Frederick Charles. He highly distinguished himself in the battles of Gitschin and Königsgrätz; and on the outbreak of the Franco-German War (1870) he was attached to the superior command of the Third Army Corps of the Crown Prince of Prussia, and did good service before Strasburg, and also in the battles near Belfort. Died in 1887.

Wes'leyan Univer'sity. (*Educ.*) A Methodist co-educational institution at Middletown, Conn. It is the oldest college in the U. S. under the control of the Methodist Episcopal Church. In 1829 a joint committee, appointed by the New York and New England conferences, issued proposals inviting the towns within a specified region to compete by the offer of subscription for the location of a proposed college. In answer to these proposals, two large stone buildings in the city of Middletown, erected before for the American Literary, Scientific, and Military Academy, but vacated a short time previously by the removal of that institution to Norwich, Vt., were offered to the committee as a gift, on condition that an endowment fund of $40,000 should be raised for the endowment of the college. This offer, accompanied by a subscription of $18,000 from the citizens of Middletown, was immediately accepted. The remainder of the $40,000 was raised, and in 1831 the college was chartered and organized under the name of the Wesleyan University. It has commodious buildings beautifully situated, an observatory with a 12-inch refracting telescope, by Alvan Clark & Sons, well-appointed laboratories and cabinets, and a large modern gymnasium. In 1896, the university had 33 instructors, 306 students, and 46,000 volumes in its library. In the same year its productive funds amounted to $1,128,200 and its revenues to $91,000.

Wes'son, in *Mississippi*, a post-town of Copiah co., 9 m. N. of Brookhaven; a summer resort; has a large cotton and woollen factory. *Pop.* (1897) 3,380.

West, or St River. A river of southern China, emptying into the China Sea through the province of Kwangtung; its main branches rise in Yun-nau and Kweichau, and join in province of Kwangsi. It and its tributaries have recently been declared open to foreign trade, but no ports are open to steamers beyond Wachow, in the province of Kwangsi.

West Bay City, in *Michigan*, a city of Bay co., on W. bank of Saginaw river, opp. Bay City. *Pop.* (1894) 12,337.

West Branch, in *Michigan*, a post-village, cap. of Ogemaw co., on Mich. Central R.R., 66 m. N. of Saginaw; has several important manufacturing interests; in a lumbering district. *Pop.* (1894) 1,223.

West Car'roll, in *Louisiana*, a N.E. parish; *area*, 380 sq. m.; drained by Bayous Boeuf and Macon. *Surface*, generally level; *soil*, fertile. *Cap.* Floyd. *Pop.* (1897) 4,150.

West Cleve'land, in *Ohio*, a suburb of Cleveland, Cuyahoga co.

West Conshohock'en, in *Pennsylvania*, a post-borough of Montgomery co., 3 m. S. of Norristown. *Pop.* (1897) 1,870.

West Duluth', in *Minnesota*, a post-village of St Louis co., 4 m. from Duluth. *Pop.* (1895) 3,368.

West Fair'view, in *Pennsylvania*, a post-village of Cumberland co. *Pop.* (1897) 1,200.

West Lib'erty, in *Iowa*, a city of Muscatine co., 38 m. W. of Davenport, has soap, tile, and carriage works, and farming and dairying interests. *Pop.* (1895) 1,481.

West Nash'ville, in *Tennessee*, a post-village of Davidson co. *Pop.* (1897) 1,250.

West Point, the seat of the United States Military Academy. Pleasantly situated upon a level plateau on the W. bank of the Hudson in the midst of the Highlands, and comparatively isolated from the surrounding country, associated with some of the most stirring events of our national history, and possessed of visible relics of the Revolutionary War, West Point may well be the place consecrated to training the youth of the nation for the military service of their country. The government tract of land at West Point contains about 2,100 acres, most of which was purchased in 1790. The buildings mainly surround a spacious parade, the larger part of which is a fine lawn, while the remainder is devoted to cavalry and artillery drills. The Academy, devoted to recitations, &c., is a handsome Renaissance building of stone, erected in 1896 from designs by the late Richard M. Hunt; next is the old Tudoresque Barracks (dating from 1849) where the cadets (students) have their rooms, and next to that the new gymnasium (by R. M. Hunt, 1893). These, with the chapel (Prot. Episcopal, dating from 1836), containing interesting captured flags, portraits, and tablets, and Library (erected in 1840, and now containing 40,000 vols.), occupy the southern side of the square. The Administration building, or Headquarters, and the Mess Hall (cadets' dining-room, containing many portraits of distinguished officers) are near by on the river road, where also are the hospital and residences of many officers of the teaching-corps. On the east the parade extends to the brink of the cliff-like river-bank, where pleasant walks are laid, and statues to Major Dade and Kosciusko stand. Here was erected in 1897 Cullom Memorial Hall, from bequest by Maj.-Gen. G. W. Cullom, U. S. A., designed to provide for the public meetings and social life of the garrison; it is a stately and beautiful building in neo-Greek style. Beyond it are Battery Knox, overlooking the "point" whence the celebrated chain was stretched across to Constitution Island in 1778, and Fort Clinton; both are restorations of Revolutionary fortifications, and under the trees about the latter the cadets spend the summer encamped in tents and studying tactics. The northern side of the parade overlooks the river far upstream, and is adorned by the splendid Battle Monument (dedicated 1897) erected by U. S. army subscriptions to the officers and men of the regular army who lost their lives in the Civil War. It is a lofty pedestal and column of red granite, designed by McKim, Meade & White, surmounted by a bronze Winged Victory after model of Augustus St. Gaudens. Its cost was $75,000. Near by, on Trophy Point, are assembled a large number of captured cannons, relics of past wars. The "seacoast battery," used for artillery instruction, lies just below; and down at the margin of the river are the ordnance laboratory and similar buildings. The western side of the parade is occupied by the residences of the commandant and higher officers of the post and the Academy, which continues northward along the road leading to the beautiful post cemetery, where many noted soldiers are buried. Statues to Col. Thayer, "the father of the Academy," and to Maj.-Gen. Sedgwick adorn this side of the parade. The wooded and rocky hills to the westward contain the ruins of Fort Putnam and other fortifications of Revolutionary date, and the new astronomical observatory, formerly housed in the present Library building. West Point has been a regular army post since the creation of the United States, and has a full military staff, and a small detail of troops, including a fine permanent band.

The U. S. Military Academy grew up here by force of circumstances, since this post, after the Revolutionary War, was made the principal repository of war material. This fact determined the stationing here of the Corp of Engineers, and made it the headquarters of the artillery arm of the reorganized service. To these corps were early attached a number of junior officers, termed "cadets," for the purpose of learning the art of war; this system was soon changed by Congress into a regular School of Instruction, at first in charge of the artillery, but speedily given an independent place under an academic staff of its own. This has gradually developed into the present institution, and now urgently needs enlargement in various directions. Cadets are admitted between the ages of 17 and 21 years. The authorized number is determined by the law that each congressional district and territory is respectively entitled to have one cadet at the academy, and 10 are also appointed yearly at large. The appointments at large are confirmed by the President; the others by the secretary of war, on the nomination of the representative or delegate in Congress. To secure admission candidates must be well versed in those preparatory studies required at the higher colleges, except that less of the classical and more of the mathematical side of knowledge is insisted upon. The examinations are very rigorous, and a physical examination is also required. The course lasts four years. The departments of instruction are as follows: Natural and experimental philosophy, drawing, mathematics, chemistry, mineralogy and geology, tactics, modern languages, law, civil and military engineering, practical military engineering, ordnance and gunnery, sword

exercise, and music. Several of these are presided over by civilian professors having the "assimilated" rank of lieutenant-colouels, but all the instructors are detailed officers of the army. For tactical purposes the corps of cadets is formed into a battalion of four companies, composed without regard to academic classes, and each commanded by a regular captain; but all the lieutenauts and non-commissioned officers are appointed from the fourth class for academic proficiency, the highest cadet rank and most coveted honor being that of cadet battalion adjutant. Many drills, and all the early instruction of the freshmen, or "plebes," are conducted by these cadet officers, under the eye of the company commanders.

Graduates of the academy become *ipso facto* second lieutenants in the army, in which they are expected to serve at least a year before boing privileged to resign. Those standing at the head of the class may choose their service, and usually enter the Corps of Engineers or artillery; the remainder are assigned to vacancies elsewhere. The academy is annually inspected by a board of visitors appointed by the President, whoso annual reports, and that of the superintendent, should be read by persons interested. The most interesting and valuable general book is Colonel Bailey's *Reminiscences of West Point.*

West Point, in *Mississippi*, a post-town, cap. of Clay co., 16 m. N.W. of Columbus. In a cottou-growing region. *Pop.* (1897) 3,000.

West Ware'ham, in *Massachusetts*, a post-village of Plymouth co., 45 m. S. S. E. of Boston.

West Wheat'field, in *Pennsylvania*, a township of Indiana co.

West'cott, Brooke Foss, Biblical scholar, was horn near Birmingham, England, Jan. 12, 1825; gradnated at Trinity College, Cambridge, snd was ordained in 1851; preacher to the University of Cambridge (1859); canon of Peterborough Cathedral (1869). In March, 1890, he was ordained bishop of Durham. He was one of the compauy for the revision of the authorized version of the New Testament. In collaboration with Dr. Hort, he published (1881) *The New Testament in Greek.* He wrote several critical and historical works on Biblical themes. Died in 1887.

West'ern Reserve'. (*U. S. Hist.*) A part of the pubUc lands in Ohio, comprising 3,667,000 acres, extending 120 m. westward from the Peunsylvania boundary, claimed by Connecticut under her charter of 1662, but relinquished in 1800 to Ohio.

Western Reserve Univer'sity. (*Educ.*) Organized in Cleveland, Ohio, In 1884, by the consolidation of several earlier institutions. It now consists of Adelbert College (founded 1826) at Hudson, which, at the time of its moviug to Cleveland, was given 20 scres of land by the city, and hy Amasa Stone buildings worth $150,000 and an endowment of $450,000. It has a library of about 25,000 volumes. Besides three courses of study, vlz., classical, modern languages, and Latin-English, much attention is given to practical training in chemistry, physics, and biology. For the purposes of this training there are three laboratories. The invested funds amount to $700,000, the real estate and apparatus to $300,000. There are 11 professors, and 5 instructors and lecturers. A gymnasium was sdded to the equipment in 1888. While essentially a Christian institution, the collego is in no sense denominational. (2) The college for women, organized by the university in 1888, and in full operation, with 13 instructors and a course of study on the same grade as Adelbert. It has $172,000 ondowment, with grounds and buildings worth $120,000 more. (3) The college of medicine, formerly the medical department of Adelbert College, and known as the Cleveland Medical Collego. It has 24 instructors, a four-years' graded course, and occupies a building erected for it by John L. Woods, at a cost of ahout $250,000. It has also a permanent fund amounting to $150,000, and operates a dispeusary with $50,000 endowment. (4) The college of dentistry, established in 1892. It has 9 instructors. (5) The college of law, opened in 1892. It has 10 instructors, with the support and coöperation of the Cleveland bar. (6) The graduate department, opened in 1892. It is nnder the direction of the faculties of Adelbert College and the college for women. (7) At Hudson, O., is the Western Reserve Academy, a preparatory and classical school, belonging to Adelbert College. The university had in 1896, in all its departmcnts, 152 instructors and 920 students, with 130,000 volumes in its various libraries. Its total revenues in that year were $310,000.

West'minster (Hugh Lupus Grosvenor), Duke of (the first duke, and third marquis), was born in London, Eng., Oct. 13, 1825; was member of Parliament for Chester (1847–69); succeeded to tho marquisate Oct. 31, 1869; was created a duke in 1874. He is reputed to be the wealthiest nobleman in Europe.

West'minster Abbey. This magnificent and venerable historic pile of London, Eng., stands on the site of a Saxon church huilt in the 7th century, and is snpposed to have received its name of *West Minster* by way of contradistinction to the Cathedral Church of St. Paul's, originally styled the *East Minster* — minster being old Saxon for a church attached to a mouastery. The present structure dates originally from the time of Edward the Confessor, 1055–1065, but of this epoch, the Pyx House, a low chamber, 110 feet long hy 30 feet wide, vaulted and divided by a central range of eight plain pillars with simple capitals, is nearly all that remains. The greater part of the Abbey as it now stands was built in tho reign of Henry III. In 1220 that monarch erected a chapel dedicatod to the Virgin, and in 1225 he demolished the old abbey of the Confessor, and erected the existing choir and transepts, together with the Chapel of King Edward the Confessor, which were consecrated in 1269. The rest of the huilding arrived at completiou under the abbots, the westorn parts of the nave and aisles having been erected between 1340 and 1483. The west front and its great window were constructed by Richard III. and Henry VII. The chapel erected by Henry III. was takeu down in order to replace it by the superb chapel known as *Henry the Seventh's.* The only later additions to the present pile have been the two towers at the north end, the work of Sir Christopher Wren. The entire building is of cruciform shape, with an extreme length, including Henry VII.'s Chapel, of 513 ft.; its width across the transepts is 203 ft. The width of the nave and aisles is 79 ft.; of the choir, 38 ft.; and of Henry the Seventh's Chapel, 70 ft. The altitude of the roof is 102 ft., a height seldom found in English churches. Owing to the immediate vicinage of St. Margaret's Church, the east front of the Abbey and its finest, is not exhibited to the fullest sdvantage, noither is the noblo western front. It is in the interior that the mind of the beholder becomes impressed with an almost boundless admiration. The harmony of its architectural proportions, the lofty and long-drawn aisles with their subdued light and ghostly silence, the superb stained windows — all combine to impress one with unusual feelings of veneration and solemnity. The Abbey is crowded with tombs and historic monuments. Besides being the last resting-place of the monarchs of the Tudor, Stuart, and early Georgian lines, it contains the mausoleums of many of the greatest among English statesmen, warriors, philosophers, poets, artists. To be interred in Westminster Abbey has become the consummation of a life of honor. At the end of the south transept is Poet's Corner, the necropolis of some of the highest names in English literature. Here are the tombs or cenotaphs of Chaucer, Beaumont, Ben Jonson, Shakspeare, Drayton, Cowley, Milton, Dryden, Addison, Prior, Gray, Thomson, Gay, Goldsmith, Dickens, Macaulay, Bulwer-Lytton, Thackeray, Browning, and Tennyson, and other great men. In the north transept are the monuments of Pitt, Fox, Chatham, Canning, Wilberforce, Palmerston. Elsewhere are those erected to the memory of England's great engineers — Watt, Telford, Stephenson, Brunel, &c. Edward the Confessor's Chapel, at the east end of tho choir, contains a shrine erected by Henry III., and the altar-tombs of Henry III., Edward I., Edward III., and Henry V. Tho canopy over that of the third Edward is esteemed one of the finest examples of wood-carving extant, and, indeed, is equal to anything produced by mediæval art. Near the altarpiece of the choir, are placed the two coronation chairs used by the English sovereigns. That of the king encloses the famous Stone of Destiny, on which the Scottish monarchs were crowned for many generations. The other is the queen-consort's chair, first employed at the coronation of Mary, wife of William III., and with him, co-sovereign of the realm. Attached to the Abbey are the Cloisters, the Chapter-house, and the building known as the famous Westminster School, formerly used as the monks' dormitory in the old monastic times. The best and most interesting account of tho subject of this article is that given by Dr. Stanley, the late Dean of Westminster, entitled *Historical Memorials of Westminster Abbey*, published in 1867.

West'on, in *Wyoming*, a N.E. co.; *area*, 4,830 sq. m.; drained by Sheyenne and Belle Fourche rivers, and Beaver creek. Eastern part, Black Hills; central and west, rolling; *soil*, dark-red alluvial; plenty of timber. *Min.* Bituminous coal, gold, and silver. *Cap.* Newcastle. *Pop.* (1897) 3,000.

West'point, in *Nebraska*, a post-village, cap. of Cuming co., 82 m. N. of Omaha. Has excellent water-power and large mills. *Pop.* (1897) 2,500.

West'ward, *adv.* [A. S. *westweard.*] Toward the west; as, "The course of empire *westward* takes its way."

West'wardly, *adv.* In a course or directiou toward the west; as, to sail *westwardly.*

Wey'ler, Valeriano, a Spanish general, was horn about 1836, it is claimed of Irish extraction. During the earliest disturbances in Spain and in the African war against the Moors, he was a favorite lieutenant of the brutal chief, Valmaseda, and gained a reputation for excessive barbarity that might have been attributable to his associations rather than to himself, if it were not that his later independent action has proved the justice of the direct charge. In self-defence he has claimed that rigorous measures in dealing with rebels are necessary, because of the too great leniency of the past. He ignores all questions of reform, and meets war with war. He was captain-general of Catalonia, Spain, when appointed to the charge of Cuban affairs. He arrived in Havana, Feb. 10, 1896. On Feb. 17 he issued three proclamations, establishing the sternest martial law; among other severe messures ordering that "any who invent or circulate news or information directly or indirectly favorable to the rebellion; those who praise the enemy; who in any manner belittle the prestige of Spain or the army," should be subject to trial hy court-martial, and liable to the death penalty, or imprisonment for life. Pursuant to this proclamation and others of equal severity, the policy of *W.* in Cuba was conducted for 18 months, amid the determined opposition of the Cuban patriot army, and the openly expressed disapproval of the civilized world, especially th popular indignation of the American people. Though the action of the U. S. was officially conservative and diplomatic, the informal opinion of citizens was freely expressed by public speeches and through the press. In his management of Spanish affairs in Cuba, *W.* had the support of the home government, under the control of the Conservative party. In Aug., 1897, the prime minister of Spain, Canovas, was assassinated; General Azcarraga was made temporary president of the Spanish cabinet, and was prime minister for one month, resigning with all his cabinet, Sept. 29, 1897. As a result of a conference which the retiring premier and General Polavieja had with the Queen Regent, the latter became convinced that it would be impossible to reunite the Conservatives to form a strong ministry, and she therefore accepted the resignations. These events were coincident with the arrival at Madrid of the newly appointed U. S. minister, General Stuart L. Woodford. As an immediate sequence of the Azcarraga resignation, *W.* was recalled and the captain-generalship of Cuba was given to General Blanco y Arenas, and a new cabinet was formed by Señor Sagasta.

Wey'man, Stanley, novelist, was born at Ludlow, Shropshire, England, Aug. 7, 1855; educated at Shrewsbury, and at Christ Church, Oxford, and in 1878 was classical instructor in King's School, Chester; admitted to the bar (1881), and practiced eight years. He began to write for *Cornhill Magazine* in 1883; his first book, *The House of the Wolf*, was published in 1889. Others issued since are *The New Rector* (1890); *The Story of Francis Cludde* (1891); *A Gentleman of France* (1893); and during 1894 a series of historical romances, *The Man in Black; Under the Red Robe; My Lady Rotha.* In 1895 he published *The Red Cockade* and *Memoirs of a Minister of France.* He ranks as one of the conspicuous writers of current literature.

Whale'back, *n.* (*Naut.*) A form of vessel or barge having the main deck covered and rounded over, for use in rough seas, in the grain-carrying trade, &c.

Whar'ton, Francis, lawyer, was born in Philadelphia, Pa., Mar. 7, 1820; graduated at Yale (1839); was admitted to the Philadelphia bar (1843); became assistant attorney-general (1845). From 1856 to 1863 he was professor of Logic and Rhetoric in Kenyon College, O., and then went abroad. Upon his return he was ordained in the Protestant Episcopal Church, and installed as rector of St. Paul's Church, Brookline, Mass., also filling the professorship of Ecclesiastical and International Law in the Cambridge Divinity School. In 1885 he was appointed by President Cleveland counsel to the State Department in matters of international law; and in 1888 was appointed editor of the Revolutionary diplomatic correspondence of the U. S. He wrote extensively on legal and theological subjects, his opinions being regarded as authoritative, especially his *Treatise on the Criminal Law of the United States* (1846), which is accepted as a standard work. Died Feb. 21, 1889.

Wharton, Thomas, Marquis of, an English statesman, born about 1640, became Lord-Lieutenant of Ireland, 1708, and Lord Privy Seal in 1714. He was the reputed author of the famous ballad of *Lillibullero*, which popularized the Revolution of 1688 among the lower classes. He was the ablest Parliamentary debater, and most consummate political intriguer of his time, a member of the Junto. Died 1715. —His famous son Philip, first Duke of *W.*, was born in 1698. After a career of unsurpassed extravagance and libertinism, he joined the Jacobites, and for serving in the Spanish army at the siege of Gibraltar, in 1727, suffered attainder. Died at Tarragona, 1731.

Whatcheer', in *Iowa*, a city of Keokuk co., 76 m. W. of Muscatine. Coal mining the principal industry. *Pop.* (1895) 2,675.

What'com, in *Washington*, a N. W. co.; *area*, 2,468 sq. m.; bounded W. by the Gulf of Georgia and intersected by Skagit river. *Surface*, partly mountainous and covered with extensive forests. *Cap.* New Whatcom. *Pop.* (1897) 22,000.

Whatcom, or **New Whatcom,** in *Washington*, a city, cap. of Whatcom co., 125 m N. of Seattle; has a saw-mill, sash and door and furniture factories. Hops, coal and lumber are shipped. *Pop.* (1897) 7,500.

Wheat'on, Frank, soldier, was born at Providence, R. I., May 8, 1833; graduated at Brown University as a civil engineer; engaged on government surveys; became first-lieutenant of cavalry (1855); lieutenant-colonel of volunteers (1861); served throughout the Civil War, commanding brigades and divisions at various points; was brevetted from lieutenant-colonel to major-general for gallantry in action; mustered out of the volunteer service, April 30, 1866; appointed major of the 2d Cavalry, U. S. A., Nov. 5, 1863; and through regular grades of promotion became a brigadier-general, April 18, 1892.

Wheat'stone, Sir Charles, physicist, was born at Gloucester, England, in 1802. He is regarded in England as the *scientific* inventor of the electric telegraph; in the United States Professor Samuel B. Morse is accounted its prior discoverer. As professor of Experimental Philosophy in King's College, London, he made several discoveries with respect to telegraphy, determining the velocity of electricity when passing through a metal wire, and originating a method of converting a few wires into a considerable number of circuits. He also invented the stereoscope and the electrical balance known as the Wheatstone's bridge or Wheatstone's balance, which serves to measure electrical resistances, and is the underlying principle of the rheostat; and devised an apparatus for conveying instructions to the engineers and steersmen on board large steamships. In 1868, he received the Copley Medal of the Royal Society for his researches in acoustics, optics, electricity, and magnetism. Died Oct. 20, 1875.

Wheeler, Joseph, soldier, was b. at Augusta, Ga., April 16, 1836, graduated at West Point, 1859, served in

the cavalry, and in 1861 joined the Confederate army, being made colonel of the 19th Alabama infantry. Commanded a brigade at Shiloh; entered the cavalry service in July, 1862, and was made brigadier-general in October and major-general in January, 1863. At Chickamauga he commanded the cavalry, and afterwards cut the Federal line of communication and destroyed a large amount of stores. He actively opposed Sherman's march through Georgia, and was promoted lieutenant-general in February, 1865. After Stuart, he was the most brilliant cavalry leader in the Confederate army. After the war he studied and practiced law, and was a member of Congress from 1885 to 1898, when he was appointed major-general of volunteers in the war with Spain. He commanded the dismounted cavalry in the Santiago campaign, and played a brilliant part in the assault on the Spanish works at San Juan. Elected member of 56th Congress, 1899–1901.

Wheel'er, WILLIAM ALMON, statesman, born June 30, 1819, in Malone, N. Y. Entered the University of Vermont at the age of 19; after 2 years, commenced the study of law; owing to throat disease, he relinquished law in 1851. He successively occupied the positions of town clerk, school-commissioner, district-attorney, State senator (1858–59), and delegate to the constitutional convention of New York (1867), over which he was called to preside. He represented New York in the 37th, 41st, 42d, 43d, and 44th Congresses. In the latter he was chairman of the Committee on Commerce. He opposed the increase of salary and returned his extra pay. He was the author of what is called the Wheeler compromise of the Louisiana difficulties of 1875. In 1876 he was nominated by the Republicans for the Vice-presidency, and being declared elected in 1877 (see ELECTORAL COMMISSION) served until 1881. Died in 1887.

Wheel'er, in *Nebraska*, a N. central co.; *area*, 576 sq. m.; drained by Beaver and Cedar creeks. *Surface*, undulating; *soil*, fertile. *Products*. Wheat, corn, hay, &c. *Cap*. Bartlett. *Pop*. (1897) 1,950.

Wheel'man, *n.* One who steers a vessel; a helmsman.—One who rides a bicycle or tricycle.

Whi'lom, *a.* [A. S. *hwilum*.] (*Poet*.) Once existing, former.

—*adv.* Of old; formerly; erewhile.

Whip'ple, EDWIN PERCY, author and critic, was born at Gloucester, Mass., in 1819; became a bank-clerk in Boston (1837); afterward was in Merchants' Exchange, and superintendent of the reading-room. He wrote reviews and lectures on literature, his favorite beat, becoming a popular orator in Boston. From 1860 he devoted himself to the literary criticisms for which he is widely known. Died June 16, 1886.

Whist'ler, JAMES ABBOTT M'NEIL, artist, was born at Lowell, Mass., in 1834; educated at West Point; studied art in France, and settled in London, where he became noted for his originality of execution, and his interesting experiments in color harmonies. His paintings are nearly all illustrations of these artistic effects in color combination, and are named according to the colors used, as, *Nocturne in Blue and Gold*; *Harmony in Gray and Green*, &c. Although so conspicuous as a colorist, he is even more noted for his etchings. In 1886 he became president of the British Society of Artists. He has published *Four Masters of Etching* (1883); *Ten O'Clock* (1888), and a volume issued in 1890 (and an enlarged edition in 1892), containing *Ten O'Clock* and a miscellaneous collection of short letters and critiques, including his celebrated rejoinder to John Ruskin's criticisms, which brought *W.* into prominence as the first artist who daringly challenged the infallibility of England's great art authority. This brilliant attack and the partisan debate that it aroused in art circles, won for *W.* a hearing, and a final judgment of praise for the real merits of his work, wherein as an exponent of the impressionist school he showed talent of a high order, besides attaining eminence in the special lines before mentioned. Died July 17, 1903.

Whit'aker, OZI WILLIAM, ecclesiastic, was born in New Salem, Mass., May 10, 1830; graduated at Middlebury College (1856); was a teacher for several years; graduated at the General Theological Seminary (1863), and was ordained a priest of the Protestant Episcopal Church, April 7, 1863. In 1868 he was elected Missionary bishop of Nevada; in 1886, assistant-bishop of Penna.; in 1887, upon the death of Bishop Stevens, he became bishop of Pennsylvania.

White, ANDREW DICKSON, educator, was born at Homer, N. Y., Nov. 7, 1832; graduated at Yale; became professor of History and English Literature in the University of Michigan (1857); resigned in 1862; was president of Cornell University (1867–85), contributing during this time $100,000 to the equipment of the university, and supplying 30,000 volumes to the library, which has since been named for him. He has held many distinguished positions, among them that of Minister to Germany (1879–81); Minister to Russia (1892); and Ambassador to Germany (1896). He has published *Lectures on Mediæval and Modern History* (1861); *The New Germany* (1882); *History of the Warfare of Science with Theology* (1896), &c.

White, EDWARD DOUGLAS, jurist, was born in Louisiana, in November, 1845; educated at Mount St. Mary's College, in Maryland; at the Jesuit College, of New Orleans, and at Georgetown College. He was a soldier in the Confederate army; after the war practiced law; was State senator of Louisiana (1874); associate justice of the supreme court of Louisiana (1878); and elected to the U. S. Senate to succeed Senator Eustis, taking his seat March 4, 1891. While still in the Senate he was appointed an associate justice of the supreme court, Feb. 19, 1894.

White, EDWIN, artist, was born in South Hadley, Mass., May 21, 1817; began to paint when a boy; in 1848 was elected an associate of the National Academy, and in 1849 a full Academician. His success was won by his unaided genius, although he studied in Rome, Paris, and Florence. His paintings are chiefly historical, and have been held at a high valuation. Died in 1877.

White, JOHN WILLIAMS, Greek scholar, was born in Cincinnati, Ohio, March 5, 1849; graduated at Ohio Wesleyan University (1868); filled the chair of Greek and Latin at Willoughby College, and at Baldwin University in Ohio (1868–69); was tutor and assistant professor of Greek in Harvard (1874–84), and then elected to the full professorship. He has written textbooks and papers on subjects within his special field, and is one of the editors of Ginn's College Series of Greek authors.

White, PEREGRINE, the first child born in New England of English parents; born in 1620, on the *Mayflower*, in Cape Cod harbor. He received 200 acres of land because of his birth, and filled several important offices. Died in 1704.

White, RICHARD GRANT, author, was born in New York City, in 1821. He studied both law and medicine, but gave little attention to the practice of either, devoting himself to journalism and literature; being connected with the *Courier and Enquirer* of New York (1845–59)—the last five years as editor. He was an accepted critic of music and art. He made stirring contributions to current literature during the Civil War period, publishing *National Hymns* (1861); *The Gospel of Peace* (a satire); and *Poetry of the Civil War* (1866). He was for 30 years a constant contributor to leading magazines, and his literary criticisms were cordially received by a large circle of readers. His favorite literary subject was the plays of Shakespeare. He wrote *Words and their Uses* (1870); *Every-Day English* (1879), &c. From 1861 to 1878 he was chief clerk in the revenue bureau of the New York Custom House. Died Aug. 8, 1885.

White, WILLIAM, born in 1748, was the first bishop of the Protestant Episcopal Church in Pennsylvania; author of *Memoirs of the P. E. Church*, *Views of the Controversy between the Calvinists and Armenians*, *Lecture on the Catechism*, &c. One of the founders of the Protestant Episcopal Church in the United States. Died in 1836.

White Bear Lake, *Minnesota*, a post-village of Ramsey co., 12 m. N. by E. of St. Paul: a summer resort on a lake of the same name. *Pop*. (1895) 1,334.

White Chap'el. A parish of London, Eng., formerly in the county of Middlesex, in the borough of Tower Hamlets. It has a population of over 30,000, and contains the London Hospital and the Tower of London.

White Goat (of British Columbia). See ROCKY MOUNTAIN GOAT-ANTELOPE.

White Lady, The. (*Superstitions*.) In German, English, and Scottish folk-lore the name of a supernatural visitant supposed to be seen at certain times and upon particular occasions. In Germany, under the name of *Bertha*, this apparition was first seen at Rosenberg, in Bohemia, in the 16th century. Since then she is said to have appeared in many of the castles of the German nobility, both by night and by day, and especially just before the death of a member of the family. The White Lady is looked upon as the ancestress of the house, and her appearance in so many noble families has been accounted for by the intermarriages which have taken place with members of the Rosenberg line, in whose train she followed. She dresses in white, wears a chatelaine of keys, and sometimes watches over the children while their nurses sleep. In England, she is still believed by the peasantry to haunt certain ancient castles and manor-houses; and the same belief lingers in the Scottish Highlands, where she was long supposed to be the presiding genius of the fortunes of certain families. Sir Walter Scott, in his *Monastery*, has described such a spectral guardian in the *White Lady of Avenel*. The name *Bertha* or *Berhta* is also that of the great Teutonic goddess of nature, who appears under other names as well, and who is supposed to go her rounds upon Twelfth-Night. Certain dishes eaten in many districts of Germany about the season of Christmas and until after Twelfth-Night, such as fish, oatmeal-gruel, dumplings, &c., are consecrated to *Berhta*, as being the divinity who influences birth and death, and presides over the ordering and fortunes of the household.

White Pass. A pass over the coast range of Alaska, from the head of the Shkagway cañon (see SHKAGWAY) to Summit lake, one of the sources of the Lewes (Yukon) river. (See YUKON.) It is about 3,500 feet in altitude, and was first regularly used in 1897 by travellers to the Yukon gold regions. A wagon-road was built over it in 1898, and a railroad has been planned across it. It lies about 10 m. S. of and nearly parallel to Chilkoot pass.

White River. A river of the Yukon district, Dom. of Canada. It rises in the coast mountains near the head of Altsekh river, and flowing N.W. some 200 m. through a rough country and by a swift, rocky course, enters the Yukon just above the mouth of the Stewart. Limited quantities of fine placer gold have been found along its course.

White'cap, *n.* A wave that shows white foam.

(*Bot*.) A field-mushroom (*Agaricus arvensis*).

(*Zoöl*.) One of several birds.

(*U. S*.) A member of a self-constituted secret committee or body of men, who, under pretense of regulating or promoting public morality in a community, commit outrages upon individuals who have incurred their ill-will; so called from wearing a white hood.

White'hall, in *Michigan*, a post-village of Muskegon co., 16 m. N.N.W. of Muskegon. *Pop*. (1894) 1,741.

Whites'boro, in *Texas*, a post-town of Grayson co., 17 m. W. of Sherman. A shipping-point for cotton, grain and stock. *Pop*. (1897) 1,290.

White'stone, in *New York*, a post-village of Queen's co., on Long Island Sound, 11 m. E.N.E. of Brooklyn. *Pop*. (1897) 3,240.

Whit'ing, in *Indiana*, a post-town of Lake co., 30 m. N.W. of Crown Point. *Pop*. (1897) 1,520.

Whit'man, CHARLES OTIS, naturalist, was born at Woodstock, Me., Dec. 14, 1844; graduated at Bowdoin (1868), studied at Leipsic, and was appointed professor of Zoölogy in the Imperial University of Tokyo, Japan, (1878). He studied in Europe again in 1880, and returning to the U. S. became assistant to Professor Agassiz, at Harvard. In 1889 he took charge of the Zoölogy department of Clark University; in 1892 was called to the chair of Zoölogy in the University of Chicago.

Whitman, MARCUS. Among the interesting events in United States history none are more so than the story of how the Oregon Territory—now the States of Oregon, Washington and Idaho—was won for the great American republic. A vigorous effort was made by the Hudson Bay Fur Company to secure this region for Great Britain, and this country would have very probably lost one of its most important sections but for the alertness, energy, and intrepidity of Dr. Marcus Whitman, born Sept. 4, 1802, at Rushville, N. Y., and who in 1836 emigrated with a party of missionaries to work among the benighted Indians of the upper Columbia. He crossed the plains and mountains with his young wife by wagon, being the first to demonstrate that the Pacific slope could be reached on wheels. Other missionaries followed, and in 1842 many settlers began to reach that country, wagon trains of several hundred crossing the intervening ranges. Meanwhile the Hudson Bay Company had purchased the rights of the Astor Fur Company at Astoria, and was taking energetic steps to settle the country with emigrants from the Red River country and secure it for the British crown. This plan becoming evident to Dr. Whitman, he determined to forestall it. The Ashburton-Webster treaty was then before Congress, and was expected to cover the Oregon question. It was important that Congress should be advised of the true state of affairs, and he determined to cross the mountains on horseback and endeavor to save this rich region for the United States. With but a single companion, the intrepid pioneer made a winter journey of 3,000 miles, braving the cold and snows of the Rocky Mountains, enduring the severest suffering, and running imminent risk of perishing. Fearing treachery on the part of the English, he turned from the direct route and took the "old Indian trail" southerly to Santa Fé, a thousand miles out of his way. The hardships, perils, and narrow escapes of his journey have seldom been exceeded. Starting in October, he reached Washington on the 3d of March, 1843, only to find that the treaty had been signed. Fortunately the Oregon question had not been included. Dr. Whitman at once went energetically to work, taught the government the value of the land it had deemed worthless, spread far and wide the story of the fertility of Oregon and the fact that it could be reached by wagon, and arrived home again in September at the head of a train of 200 wagons and about 1,000 emigrants. Others rapidly followed, a provisional government was organized, and all question as to the ownership of Oregon was at an end. Dr. Whitman had won this western empire for the U. S., and the results of his work were secured by the treaty of 1846. He died the following year (1847), being, with his wife and some others, massacred by the Cayuse Indians.

Whitman, WALT, poet, was born at West Hills, Long Island, May 31, 1819. His father was a carpenter, and in early life Walt sometimes followed that trade, sometimes set type, and sometimes wrote for the papers or acted as editor, doing anything that came in his way or nothing at all, with the same genial delight in the process of living which is expressed so constantly in all that he wrote. In 1862 he volunteered as an army nurse and served through the war. He had the power of giving himself unreservedly to the interest at hand, and at the close of the war, after having nursed, it is said, 100,000 Union and Confederate soldiers, he was greatly broken in health, partly from hospital malaria and partly from the strain of constantly giving out sympathy, courage, and incentive, for so long a time. He accepted a government clerkship in Washington, where he remained until 1873, when he was disabled by paralysis. After that time he lived in Camden, N. J., keeping the characteristic breadth and freedom of his thought in spite of ill health and a poverty which sometimes amounted to need. His first publication was a thin edition of *Leaves of Grass*, in 1855. From that time until his death he kept adding to, revising, and bringing out new editions of this volume, until the last edition (1892) fairly represents his life-work. When it first appeared it met with little except censure in the U. S., though much more appreciated in England, for he had chosen the whole cycle of nature as his theme, taking the ground that nothing which had been created was unpoetic or unholy. His style was as unusual as his subject, for he disregarded all accepted poetic forms and wrote in a strange, irregular, recitative, sometimes clumsy, awkward, and simply enumerative, sometimes rising to the rhythmic beauty of the psalms, which his poems in some ways resemble, or of the grander sounds of nature. He met with so much criticism that in 1866 William Douglas O'Connor

William Wilberforce

1759–1833

published *The Good Gray Poet: a Vindication*, which helped the public to a better understanding of his purpose, and at the same time gave, in its title, an affectionate description of him by which he was afterward known. In 1868, W. M. Rossetti published an edition of *W.*'s poems, in England; it was met with a favor which was somewhat reflected in America, where he began to have many warm admirers. Besides *Leaves of Grass*, he published *Drum Taps* (1865); *Democratic Vistas* (1871); *Memoranda During the War* (1875); *Two Rivulets* (1876); *Specimen Days and Collect* (1883); *November Boughs* (1888); *Good-bye, My Fancy* (1891); and *Selected Poems*. Died March 26, 1892.

Whit'man, in *Massachusetts*, a post-town of Plymouth co., 21 m. S. of Boston; manufactures shoes, tacks, and eyelets.

Whitman, in *Washington*, a S.E. co.; *area*, 2,124 sq. m., bounded S. by Snake river and also drained by the Palouse river. *Surface*, partly mountainous, partly broad plains; *soil*, fertile. *Cap.* Colfax. *Pop.* (1897) 22,200.

Whit'ney, Adeline Dutton Train, author, was born at Boston, Mass., Sept. 15, 1824, a sister of George Francis Train (*q.v.*); in 1843 she was married to Seth D. Whitney, of Milton, Mass., where she has since resided. She has written regularly for juvenile magazines, and has published a large number of novels, many of them in series.

Whitney, Josiah Dwight, geologist, was born in Northampton, Mass., in 1819; graduated at Yale and spent five years in scientific studies in Europe. Returning, he was occupied in geological surveys throughout the U. S. In 1865 was made professor of Geology in Harvard University. His many published books relate to geology, and most of them are of the nature of reports of his several surveys.

Whitney, William Collins, lawyer, was born at Conway, Mass., July 5, 1841; graduated at Yale (1863), and at Harvard Law School (1864), beginning the practice of law in New York city (1865). He was corporation counsel of New York city (1875–76, 1880–82). In March, 1885, he was appointed Secretary of the navy by President Cleveland; filled this office until March 4, 1889, when he engaged in the practice of law in New York city. Died February 2, 1904.

Whitney, William Dwight, philologist, brother of Josiah D. Whitney, was born at Northampton, Mass., in 1827; became clerk in a banking house, devoting his leisure to language studies, especially Sanskrit. He went to Germany and continued his studies at Tübingen and Berlin (1850–53); in 1854 was made professor of Sanskrit in Yale, and also professor of Comparative Philology. He published several valuable text-books in Sanskrit, and in German. He was the editor-in-chief of the *Century Dictionary*. Died June 7, 1894.

Whymp'er, Edward, wood-engraver and traveller, born in London, 1840; has acquired great celebrity by his mountaineering exploits, particularly that of ascending the Pointe des Ecrins, the loftiest peak of the French Alps, in 1864. In 1865 he gained the summit of the Matterhorn, which no one else had ever reached. In 1867 he explored N.W. Greenland, and demonstrated the former existence of luxuriant vegetation in those high northern latitudes. The fossil plants he collected on this occasion are now in the British Museum. He wrote *Scrambles amongst the Alps in the Years 1860–69*, &c. In 1874–75 he was engaged in exploring Greenland, and in 1880–2 visited America, ascending many mountains in the Ecuadorian Andes. In 1892 he wrote *Travels among the Great Andes of the Equator*.

Wich'ita, in *Kansas*, a W. co.; *area*, 720 sq. m.; drained by affluents of the Smoky Hill river. *Cap.* Leoti. *Pop.* (1895) 1,438.

—A city, cap. of Sedgwick co., 160 m. S.W. of Topeka; has plow works, a watch factory, extensive car works, several large pork-packing establishments, numerous brick yards, and a large lumber business. *Pop.* (1895) 20,051.

Wichita, in *Texas*, a N. co.; *area*, 600 sq. m. It is bounded on the N. by the Red river. *Surface*, undulating; *soil*, very fertile. *Cap.* Wichita Falls. *Pop.* (1890) 4,881.

Wichita Falls, in *Texas*, a post-town, cap. of Wichita co., on the Wichita Valley R.R., 114 m. N.W. of Fort Worth. *Pop.* (1897) 2,150.

Wieck, Frederick, pianoforte teacher, was born at Pretsch, Saxony, Aug. 18, 1785. He taught the piano on a system of his own, and was eminently successful. His method is explained in the brief work, *Clavier und Gesang* (1875). He also published some creditable piano studies.—His daughter, Clara Josephine (Schumann), was one of the best exponents of his teaching, and married another one of his famous pupils, Robert Schumann.

Wil'barger, in *Texas*, a N. co.; *area*, 940 sq. m.; bounded N. E. by Red river. *Surface*, chiefly high prairie, well watered and easily cultivated, well adapted to the raising of small grain. *Cap.* Vernon. *Pop.* (1897) 8,000.

Wil'ber, in *Nebraska*, a post-village, cap. of Saline co., 31 m. S. by W. of Lincoln; has several elevators and flour mills; corn and wheat are largely shipped. *Pop.* (1897) 1,485.

Wil'berforce, Albert Basil Orme, clergyman, was born in England; educated at Exeter College, Oxford; has filled various clerical offices, becoming rector of St. Margaret's, Southampton (1871–94). In 1894 he was appointed a canon of Westminster, and presented to the living of St. John's Church. He became famous as a temperance advocate in his early days, and in later years has been distinguished for his pulpit eloquence.

Wil'berforce, Ernest Roland, clergyman, was born on the Isle of Wight, Jan. 22, 1840; educated at Harrow and Exeter College, Oxford. In 1878 he was nominated to a canonry in Winchester Cathedral. He was subalmoner to the Queen (1871–82), when he was appointed first bishop of the see of Newcastle-on-Tyne.

Wilberforce, Samuel, an eminent English prelate and theologian, was born in 1805, third son of the celebrated philanthropist, William Wilberforce; graduated at Oxford in 1826, and took holy orders. In 1844 he became bishop of Oxford and Lord High Almoner of England, and in 1868 bishop of Winchester and prelate of the Order of the Garter. He was involved in the innumerable theological contests arising from the "Oxford movement," in which, during a revival of religious fervor, so many devout and earnest Church of England prelates went over to the Church of Rome. He himself, although a zealous High-churchman, claimed to represent the old Church of England, which opposed both Puritanism and Roman Catholic superstition. He was noted for his great administrative ability, for his tireless energy, for his versatile social charm, but particularly for his brilliant oratory. His persuasiveness and fertility in expedients earned him the sobriquet of *Soapy Sam*, but he explained it truthfully by saying that although he was always in hot water, he always came out with his hands clean. He wrote: *Note Book of a Country Clergyman* (1832); *Agathos* (1839); *History of the Protestant Episcopal Church in America* (1844); and, with his brother, a life of his father, in 1838. He was killed by a fall from his horse in 1873.

Wilberforce, William, the philanthropist to whose efforts was due the abolition of the African slave trade in British territory, was born at Hull, England, Aug. 24, 1759, and when but 16 years of age published a newspaper article "in condemnation of the odious traffic in human flesh." He was educated at St. John's College, Cambridge, where he began an acquaintance with William Pitt, which afterward grew into intimacy. In 1780 he offered himself at Hull as a candidate for Parliament, and was elected after a sharp contest. In 1784 he was elected to represent York, and in the following years experienced a marked change in his religious convictions, which changed his whole views of life and its duties. This was followed, in 1787, by a series of efforts for social reform and for the abolition of the African slave-trade. After many obstacles, this subject was brought before Parliament in 1789, he opening with a speech of great beauty and power, while he was supported in his efforts by Burke, Pitt, and Fox. Defeated then and later, he persisted in his efforts, and finally in 1807, after nearly 20 years of struggle, he had the joy of having a bill passed making it illegal for any British citizen to engage in the slave trade. It was signed by the King and became law March 25, 1807. He retired from Parliament in 1825, after nearly 46 years' service, in which he had worked earnestly for every measure for the betterment of mankind. He afterward lived in retirement, and three days before his death (July 29, 1833) had the intense satisfaction of learning that Parliament had passed to second reading a bill for the abolition of slavery. He was buried in Westminster Abbey, close by Pitt, Canning, Fox, and Grattan. He published in 1797 a book entitled, *A Practical View of the Prevailing Religious System of Professed Christians in the Higher and Middle Classes of This Country, Contrasted with Real Christianity*. His *Life* and his *Correspondence* were afterward published by his sons Robert and Samuel.

Wil'cox, Ella (Wheeler), poet, was born at Johnstown Center, Wis., about 1845; was educated at the University of Wisconsin; was married in 1884 to Robert M. Wilcox, and has resided in New York city since 1887. She became known as a writer of short poems for various newspapers, and has published several collections of verse and two novels. Her first reputation was made on her *Poems of Passion* (1883).

Wilcox, in *Pennsylvania*, a post-village of Elk co. *Pop.* (1897) 1,120.

Wi'ley, Harvey Washington, chemist, was born at Kent, Ind., Oct. 18, 1844; educated at Hanover College and at the Indiana Medical College; also studied chemistry at the University of Berlin (1878). He has filled many college professorships and official positions under the government, and is a distinguished member of many scientific societies; has published the results of his researches in the form of valuable papers contributed to scientific journals.

Wil'helm, Karl, musical composer, was born at Schnalkald, Prussia, Sept. 5, 1815; taught music in Coefeld, and was director of the Liedertafel there (1840–65). He became famous through his music for the *Watch on the Rhine*, composed in 1854; during the Franco-Prussian War this song became the battle-cry of the German army, and the composer received, in 1871, a pension of $750. Died Aug. 26, 1875.

Wilhelmi'na, Helen Pauline Marie, Queen of the Netherlands, was born at the Hague, Aug. 31, 1880. She succeeded to the throne on the death of her father, King William III., November 23, 1890. Her mother, Queen Emma, acted as regent during the minority of the young queen. Wilhelmina was crowned Sept. 6, 1898, and on Feb. 7, 1901, was married to Prince Henry of Mecklenburg-Schwerin. The lack of children from this marriage has caused apprehension in the Netherlands, as the failure of a direct heir to the throne might yield political peril.

Wil'helmshaven, or **Wil'helmshafen,** a strongly fortified seaport, the principal Prussian naval station on the North Sea. It is situated on the Jahde Bay and surrounded by Oldenburg, from which the ground on which it stands was bought by Prussia in 1864. Though naturally swampy, the place has been built up at great expense into a modern fortress of the first rank, defended by a torpedo system and by forts, and provided with dry docks, basins, naval stores, and work-shops. *Pop.* (1897) 16,150.

Wil'kin, in *Minnesota*, a W. co.; *area*, 725 sq. m.; bounded W. by the Red River of the North. *Surface*, level; scarcely any timber; *soil*, fertile. *Cap.* Breckinridge. *Pop.* (1895) 6,400.

Wil'kins, Mary Eleanor, writer, was born in 1865, in Mass.; educated at Brattleboro, and at Mt. Holyoke Seminary. She is well known as a successful writer of short stories and sketches, and a constant contributor to current magazines. She has published several volumes: *A New England Nun, and Other Stories* (1891); *The Pot of Gold* (a juvenile book, 1892); *Jane Field* (1895); *Pembroke* (1894); *Madelon* (1896), &c.

Willamette' Univer'sity. (*Educ.*) A Methodist Episcopal co-educational institution, founded in 1844 at Salem, the capital of the State of Oregon and one of the handsomest cities on the Pacific coast. The university has a much larger number of pupils than any other collegiate institution in the State, having, in 1896, 737 students, with 52 instructors. Its library is one of the largest collections of books in the State, containing about 7,000 volumes, exceeded by that of Pacific University alone, which numbers about 7,500 volumes. Its annual revenue is surpassed by that of the University of Oregon only, which derives its income from taxation.

Wil'lard, Emma C., educator, was born at Berlin, Conn., Feb. 23, 1787; educated in Berlin and Hartford. She began to teach when 16 years of age, and continued uninterruptedly, taking charge of various academies, until 1809, when she was married to Dr. John Willard, of Middlebury, Vt. She opened a school for girls in Middlebury (1814) and later a seminary at Waterford, N. Y., which was moved to Troy in 1821, where it became known as Troy Female Seminary. This institution enjoyed a very high reputation in its day as the most advanced school for girls, and many of its pupils were afterward distinguished as teachers. Mrs. *W.* resigned the management of this school to her son, John Hart Willard, in 1838. She published several books on history, and a *Journal and Letters from France and Great Britain* (1833); and a volume of poems, containing her most popular song, *Rocked in the Cradle of the Deep*. Died April 15, 1870.

Willard, Frances Elizabeth, a leading reformer, was born in Churchville, near Rochester, N. Y., Sept. 28, 1839; graduated at the Northwestern Female College (1858). She taught for the next 12 years, becoming professor of Esthetics in the Northwestern University, and president of the Woman's College (1871); was corresponding secretary of the National Woman's Christian Temperance Union (1874); president of the Woman's Christian Temperance Union of Illinois (1878); president of the National Woman's Christian Temperance Union from 1879 onward; was one of the organizers of the Prohibition party (1884); editor of the Chicago *Post* (1879); of the *Union Signal*, the official organ of the National Woman's Christian Temperance Union. She organized the World's Woman's Christian Temperance Union (1883), and was made its president at the first convention (1891); she also originated the idea of the Polyglot Petition against the manufacture and importation of alcohol and opium. This petition, addressed to the governments of the world, and signed by 7,000,000 persons, was presented to Queen Victoria and to the President of the U. S. In 1889 Miss *W.* was president of the Woman's Council in the U. S. She has published several books, among them *Glimpses of Fifty Years* (1889); *How to Win* (1888); *A Great Mother* (1893), &c. She received the degree of A.M. from Syracuse University, and that of LL.D. from Ohio Wesleyan University in 1893. Died Feb. 17, 1898.

Wil'liam and Ma'ry, Col'lege of. (*Educ.*) This non-sectarian college, at Williamsburg, in southeastern Virginia, claims to be the oldest institution of learning in the U. S., affirming that it is the lineal descendant of a school dating back to 1617. It is certain, at any rate, that it is the second oldest college in the country, its charter having been approved by King William and Queen Mary in 1693, and Harvard having been founded a few years before. King William aided in the original endowment. The first building was designed by Sir Christopher Wren, but was burned in 1705. The first president was the Rev. Dr. James Blair, who secured the charter from the English crown. At his death, in 1743, the college was highly prosperous. When the War of the Revolution broke out, it was the wealthiest college in America. That war, however, deprived it of all its endowments, save 20,000 acres of land, by the sales of which a new moneyed endowment of $200,000 was obtained. The Civil War stripped it of about everything it had, several of its buildings, as well as its library and apparatus, being destroyed. In 1869 the main building was restored and the college reopened, but in 1882 financial embarrassment made it necessary to close its doors. Liberal gifts from wealthy persons in the Northern States and England, with a yearly appropriation by the General Assembly of Virginia, enabled the institution to open once more in Oct., 1888, and it has since had fair success. In 1893 Congress voted it $64,000 as indemnity for losses sustained during the Civil War. Among its distinguished alumni have been Thomas Jefferson, James Monroe; and John Tyler, Presidents of the U. S.; Benjamin Harrison, Carter Braxton, Thomas Nelson, and George Wythe, who, with Jefferson, were signers of the Declaration; Edmund Randolph, the first attorney-general of the U. S.; John Marshall and Bushrod

Washington, jurists; and Lieut.-Gen. Winfield Scott. George Washington was chancellor of the college (1788–99). The Phi-Beta-Kappa Society was founded at William and Mary in 1776. Its classes number little over 200, and its endowment is small, amounting to $154,000 in 1907.

Wil'liam II., ninth King of Prussia and third Emperor of Germany, was born at Berlin, Jan. 27, 1859, son of the Crown-Prince (afterward Emperor) Frederick and Princess Victoria of England. After a careful training at home, his education was completed in the gymnasium at Cassel; and he also received a thorough military training and full instruction in the arts of government and administration. An accident at his birth caused a permanent weakening of his left arm, yet despite this he became a skilful horseman and an untiring hunter, as well as an enthusiastic yachtsman. In addition to the weakness of his arm, he has a serious affection of the ear, which hitherto has defied treatment. Yet, though thus affected, he has, since his accession to the throne on the death of his father, June 15, 1888, shown an indefatigable and exuberant energy, and has made himself felt as a vigorous power in home and general European affairs. The speeches with which he began his reign showed an exaggerated idea of the imperial dignity, and the energy with which he pushed forward the organization of the army and navy seemed significant of warlike purposes, though his later career has gone far to quiet the apprehensions to which his early actions and expressions gave rise. His independence of action soon led to strained relations with Prince Bismarck, who had continued in office as premier, but who found his authority in governmental affairs greatly diminished by the initiative of the strong-willed young Emperor. A break came when William established a system of partial state-socialism, of which Bismarck strongly disapproved. The result was the resignation of the able chancellor, and his replacement by Count Caprivi, a premier more in accord with the Emperor's views, or less wedded to his own. The foreign policy of the new regime has been to strengthen the triple alliance between Germany, Austria, and Italy, to weaken the older bond between Germany and Russia, and to extend the colonial possessions of the empire, which gained a large territory in Africa in the portion of that continent among the European powers. The island of Heligoland was ceded by England to Germany (1890) in return for advantages granted England in Africa. In the arrangement of the treaty of peace between Greece and Turkey, at the end of the 1897 war, the German Emperor took the most prominent part, insisting that provision for payment of the defaulted interest to foreign bondholders of the Grecian debt (mainly German) should form part of the settlement. The treaty was made in accordance with his views. In his internal administration William has actively sought to establish a more pronounced personal government. He has taken steps to placate the workingmen by establishing a system of old-age insurance, under State auspices, and other legislation in their favor; but has vigorously, though not successfully, sought to repress the socialism so widely spread among the German people. One of his favorite measures, a religious educational bill, he was obliged to withdraw on account of the opposition it excited. His plans for an increase of the army and navy, with the necessary additional taxation, have more than once brought him into conflict with the Reichstag, and in December, 1906, when that body opposed his views for maintaining a large garrison in the colony of German Southwest Africa, he ordered its dissolution and a new election. The action of the Reichstag was partly to sustain its own prerogatives against the autocratic will of the emperor, against which a strong opposition had developed. William has shown himself one of the ablest and most energetic of ruling monarchs, and one ready to maintain the political and commercial interests of Germany to the verge of war, as shown by his conflict with France in 1905 on the Morocco question, in which war seemed imminent. In 1881 he married Princess Victoria of Schleswig-Holstein, and has a family of six sons and one daughter. The crown-prince, Frederick William, was born in 1882.

Williams, Ephraim, soldier, was born at Newtou, Mass., Feb. 24, 1715. He served in wars against the French in 1740 and 1755, being killed in battle in the latter year. He left his estate to found a "Free School" at Williams Town. This is now Williams College.

Williams, George, founder of the Young Men's Christian Association, was born at Dulverton, Somersetshire, England, Oct. 11, 1821. He went to London (1841) as junior assistant with Hitchcock & Rogers. He first gathered together the young men employed in that establishment, and with 12 of them organized a band (June 12, 1844), to be called the "Young Men's Christian Association," and which was designed to be "a society for improving the spiritual condition of young men engaged in the drapery and other trades." He was the first treasurer of the Y. M. C. A., and always devoted to its interests. He was knighted in 1894.

Williams, George Henry, jurist, was born at New Lebanon, N. Y., March 23, 1823; began the practice of law in Iowa (1844); judge of the first judicial district of Iowa (1847–52); chief justice of Oregon Territory (1853–57); member of the convention that framed the Constitution of Oregon (1857); U. S. senator from Oregon (1865–71); member of the commission that framed the Treaty of Washington relative to the Alabama claims (1871); attorney-general under President Grant (1872–75); and afterward practiced law in Washington, D. C.

Wil'liams, in *North Dakota*, a N.W. co.; *area*, 3,420 sq. m.; bounded S. by Missouri river. Grazing and farming are the chief industries. *Cap.* Williston. *Pop.* (1897) 990.

Williams College. (*Educ.*) An educational institution founded by Ephraim Williams (*q. v.*), who left all his property to found a "Free School" at Williams Town, where land had been granted him by the Massachusetts government in 1750. The school was founded on his bequest, and in 1793 was chartered as Williams College. It was a poor and feeble institution until the presidency of Mark Hopkins (1836–72). He was a graduate of the college, and connected with it altogether for sixty years. While he was at the head of the institution, the college grounds were greatly extended, several buildings erected, its corps of instructors enlarged, and an endowment amounting to nearly $300,000 secured. From that time it has prospered. The first foreign missionary society in the U. S. was formed in 1806 by five of its students, while taking refuge under a haystack during a thunder storm. At Williams, in 1836, Prof. Hopkins (not the president) erected the first astronomical and magnetic observatory in North America, and here was organized the first college scientific expedition. Williams is a non-sectarian institution, and in 1906 had 46 instructors and 448 students, with 55,000 volumes, many paintings and art objects in its library. In that year its endowment funds and securities amounted to more than $1,200,000; its buildings and other property were valued at nearly a million more, and its income from all sources was in excess of $140,000.

Wil'liamstown, in *Pennsylvania*, a post-borough of Dauphin co., 5 m. from Lykens. *Pop.* (1897) 2,440.

Will'mar, in *Minnesota*, a post-village, cap. of Kandiyobi co., 104 m. W. of St. Paul; has railroad machine-shops. *Pop.* (1895) 2,511.

Wil'loughby, in *Ohio*, a post-village of Lake co., 18 m. N.E. of Cleveland. *Pop.* (1897) 1,325.

Will'low, in *California*, a post-town, cap. of Glenn co., about 45 m. N.W. of Marysville. *Pop.* (1897) 1,295.

Wills Point, in *Texas*, a post-town of Van Zandt co., 47 m. E. of Dallas. Cotton, grain, hay, fruit, and live stock are shipped. *Pop.* (1897) 1,410.

Will'y-nil'ly, *adv.* [Perhaps originally *will he* (or) *nill he.*] Willingly or unwillingly, whether (one) will or not; as, he must obey, *willy-nilly*. Occasionally used as an *adjective*, in the sense of undecided, uncertain.

Wilmette', in *Illinois*, a post-village of Cook co. *Pop.* (1897) 1,510.

Wil'mot, David, jurist, was born in Bethany, Pa., Jan. 10, 1814; admitted to the bar (1834); member of Congress (1845–51), in 1846 proposing the celebrated "Wilmot proviso;" was presiding judge of the 13th District of Pennsylvania (1853–61); U. S. senator (1861–63), and Judge of the U. S. Court of Claims in 1863. Died March 16, 1868.

Wil'son, Augusta Jane Evans, novelist, was born in Columbus, Ga., May 8, 1835. She is known as the author of the very popular novels, *Beulah* (1859); *St. Elmo* (1866); *At the Mercy of Tiberius* (1887), &c.

Wilson, James, statesman, was born in Ayrshire, Scotland, in August, 1835; son of a farmer, who removed to the U. S. in 1851 and settled in Iowa, where the son received a common-school and academic education. Entering politics, *W.* was elected to the Iowa legislature (1867-73), being Speaker the last two years of his term; member of the 43d, 44th and 48th Congresses, in the latter retaining his seat, which was contested, until the last day of the session. In 1897 he became secretary of agriculture in President McKinley's cabinet, and in 1901 in President Roosevelt's.

Wilson, James F., statesman, was born at Newark, O., Oct. 19, 1828; admitted to the bar (1851); entered politics and filled various State offices in Iowa; was member of Congress from Iowa (1861-69), serving six years as chairman of the Judiciary Committee; U. S. senator (1883-95); declined re-election the latter year. Died April 22, 1895.

Wilson, in *Texas*, a S. central co.; *area*, 940 sq. m.; intersected by San Antonio River. *Surface*, somewhat hilly; *soil*, fertile. *Cap.* Floresville. *Pop.* (1897) 12,150.

Wil'ton Junc'tion, in *Iowa*, a post-town of Muscatine co., 12 m. N. of Muscatine; has some manufactures. *Pop.* (1895) 1,268.

Win'chester, in *Tennessee*, a post-town, cap. of Franklin co., 70 m. W. by N. of Chattanooga; seat of Mary Sharp and the Winchester Normal Colleges. *Pop.* (1897) 1,460.

Wind, *n.* (*Meteorol.*) Air in motion, especially a current of air produced by natural causes, and of some extent, or distinctive as coming from some direction, with a certain degree of permanence. Variation in temperature is the principal cause of winds, the air tending to rise from the surface at heated points, and being drawn in from surrounding cooler places to balance the tendency to a vacuum caused by such rising. S. P. Langley has made a special study of the internal work of the wind, developing the fact that its action is far less constant than was previously supposed, and that during a wind of, say, a certain mean speed, there were very short but frequent pauses, when the speed might fall one-half in a given small area, showing that the wind is made up of an ever-changing, whirling, irregular mass of molecules, apparently as the effect of numerous causes, as surface irregularities of the earth. (See Anemometer.) The wind has also received much study from other investigators interested in the navigation of the air, kite-flying, &c. The present efforts of the U. S. Weather Bureau to obtain records of the condition of the atmosphere at higher strata is sure to increase knowledge as to the wind. The trade-winds and anti-trade-winds are classified as constant, being especially regular on the ocean at the tropics. (See Trade-winds.) The monsoon, simoom, and sirocco (*q. v.*), and land and sea-breezes are classified as periodic, depending upon the difference in temperature of the land and adjacent sea during the day and night. Cyclonic winds are treated at Cyclone. (See also Whirlwind and Tornado.) In mean latitudes the direction of the winds is very variable; toward the poles this irregularity increases, and under the arctic zone the winds frequently blow from several points of the horizon at once. On the other hand, in approaching the torrid zone, they become more regular. The southwest wind prevails in the north of France, in England, and in Germany; in the south of France the direction inclines toward the north, and in Spain and Italy the north wind predominates. In the United States the prevailing winds are from the west. In storms, wind has a tendency to rotary motion, and Dové has demonstrated that there is also a tendency to follow the sun's motion—that is, to pass from north through northeast, east, southeast to south, and so on round in the same direction from west to north.

Wind'flower, *n.* See Anemone.

Win'dom, William, statesman, was born at Waterford, Ohio, May 10, 1827; admitted to the bar of Ohio (1850); removed to Minnesota; was a member of Congress from that State (1858–68); U. S. senator (1870–81); secretary of the treasury (1881); again senator (1881–83); and secretary of the treasury from 1889 until his death, Jan. 29, 1891.

Windom, in *Minnesota*, a post-village, cap. of Cottonwood co., 60 m. W. of Mankato. *Pop.* (1895) 1,523.

Wind'sor, in *Missouri*, a city of Henry co., 21 m. S.W. of Sedalia; has coal. *Pop.* (1897) 1,615.

Windsor Locks, in *Connecticut*, a post-town of Hartford co.; has manufactures of paper, silk, steel, cotton-warp, hosiery, rubber rolls, machinery, school apparatus, &c. *Pop.* (1897) 2,890.

Wines, Enoch Cobb, clergyman, educator and reformer, was born in New Jersey, in 1806; graduated from Middlebury College, Vt. (1827); studied theology; became alternately a preacher and teacher; had charge of Edge Hill School, Princeton, N. J., and of a boarding school at Burlington, N. J.; was professor of Languages in the Central High School, Philadelphia; pastor of churches at Coruwall, Vt. (Cong.), and at East Hampton, Long Island (Pres.); professor of Ancient Languages in Washington College, Pa., and president of the University of St. Louis, Mo. He is best known, however, by his work in connection with prisons and prison-reform, to which he devoted the closing years of a remarkably busy life. He became secretary of the New York Prison Association (1862), of the National Prison Association (1870); visited prisons in Europe under instructions from the U. S. government; was instrumental in convening the First International Prison Congress, London, July 4, 1872, in which 26 governments were represented; became chairman of the World's Prison Commission, which met several times in Europe. He wrote *Commentaries on the Laws of the Ancient Hebrews*, and books and numerous articles on the state of prisons and reform in penal institutions. Died Dec. 10, 1879.

Wink'ler, in *Texas*, a W. co.; *area*, 800 sq. m. Unorganized.

Winnemuc'ca, in *Nevada*, a post-town, cap. of Humboldt co., 170 m. N.E. of Reno; has large railroad workshops, several quartz mills, and shipments of grain, cattle, and wool. Silver mines in the vicinity. *Pop.* (1897) 980.

Wino'na, in *Mississippi*, a post-town, cap. of Montgomery co., 23 m. S. of Grenada; has some manufactures, and ships much cotton. *Pop.* (1890) 1,648.

Winoos'ki, in *Vermont*, a post-village of Chitteudeu co., 3 m. E. of Burlington. *Pop.* (1890) 3,659.

Wins'low, John Ancrum, U.S.N., was born in Wilmington, N. C., Nov. 19, 1811; entered the navy (1827); commissioned lieutenant (1839); for gallantry in the Mexican War received promotion, becoming commander in 1855. He was in command of the *Kearsarge* on special service in pursuit of the privateer *Alabama*; found and blockaded her in the harbor of Cherbourg, June 14, 1864; accompanied her outside the neutral ground on Sunday, June 19, and defeated her after a short engagement. W. was promoted commodore, and commanded the Gulf Squadron (1866–67); was on the Board of Examiners (1868–69); rear admiral (1870); commanded the Pacific Squadron (1870–72). Died Sept. 29, 1873.

Win'sor, Justin, librarian, was born in Boston, Mass., Jan. 2, 1831; studied at Harvard, in Paris, and at Heidelberg; was superintendent of the Boston public library (1868–77); and became librarian at Harvard in 1877. He was first president of the American Library Association (1875–86); president of the American Historical Association and secretary of the Massachusetts Historical Society. Of his various works his *Narrative and Critical History of America* (8 vols. 1884–90) is much the most important. His latest work was *The Struggle in America between England and France from 1697 to 1763* (1895). Died Oct. 22, 1897.

Win'ter, William, poet and dramatic critic, was born in Gloucester, Mass., July 15, 1836; educated in Boston, at the Cambridge High School and at Harvard Law School; admitted to the bar; engaged in lecturing in and around Boston, and in writing for the *Transcript* and *Gazette*; removed to New York (1859) and continued his journalistic work, becoming dramatic critic on the New York *Tribune* in 1865, making that depart-

William II.

1859-

John Winthrop

1588–1649

ment in a few years the leading American authority on the drama. He visited England in 1877, and began a series of works descriptive of English scenes and memorials, beginning with *The Trip to England* (1879–80) and including his most popular book, *Shakespeare's England* (1886–95), &c. He also wrote several books on dramatic subjects, and some dainty verse, having issued 3 volumes of the latter: *My Witness* (1871); *Thistledown* (1877); and *Wanderers* (1888–93).

Win'throp, JOHN, colonial governor of Massachusetts, was born in Suffolk, Eng., Jan. 22, 1588; was a student at Cambridge in 1602–05, and was a justice of the peace before he reached the age of 20 years. Having acquired much reputation with the Puritans, he was one of the leaders of the extensive emigration to America that occurred in 1630, in which year, with 900 colonists, he landed at Salem, Mass., on June 22. About the same time the government of the Massachusetts Bay Company was transferred from England to America, and *W.* was elected governor, being annually re-elected until 1634, when, by his defeat he escaped the chief responsibility for the proceedings against Roger Williams, in which, however, he bore a leading part. *W.* was again defeated in the election of 1636, by Sir Henry Vane, whom he in turn defeated in 1637, retaining the governorship until 1640. He was subsequently governor in 1642–44, deputy governor in 1644–45, and again governor from 1646 until his death, March 26, 1649.

Winthrop, ROBERT CHARLES, statesman and orator, was born in Boston, Mass., May 12, 1809; graduated at Harvard (1828); studied law with Daniel Webster, and was admitted to the bar in 1831. He was a member of the Massachusetts Assembly (1836–40), being speaker of the Assembly from 1838 to 1840; member of Congress (1840–50); speaker (1847–49); and was appointed to Webster's seat in the Senate in 1850, and served one year, after which he retired from political life, and devoted himself to literary, historical, and philanthropic occupations, acting as president of the Boston Provident Association for 25 years, of the Massachusetts Historical Society for 30 years, and of the Harvard Alumni for 8 years, besides filling many other positions of honor and usefulness. He was heard as an orator during Presidential campaigns, or on great historical anniversaries, and is remembered as a speaker of rare polish and fervid eloquence. Four volumes of his *Addresses and Speeches* have been published. Died Nov. 16, 1894.

Wire'-glass, *n.* (*Building.*) The combination of wire-netting and glass is an American invention, although unsuccessful attempts were made in England at an earlier date to produce a union of this sort, which is highly valued for skylights and other glazing that requires protection. In 1871 Thaddeus Hyatt, of England, endeavored to mould wire-netting in glass by first stretching the netting in the mold, and then pouring on the glass. As the wire tended to chill the glass and prevent it from forming properly on the under side, Hyatt undertook to force it into position by hydraulic pressure. Here a new difficulty appeared in the form of the sagging and warping of the wire. He succeeded in making only panes of small sizes, for which there was no special demand. In 1887 another Englishman, named Armstrong, tried pouring the glass first, then laying on the netting and depressing with a heavy roller, and following with a second roller to complete the work. He possessed the germ of the idea which subsequently proved successful, but never carried it to completion. Tenner, a German, in 1888, produced wire-glass in small sizes by first pouring a thin layer, then laying on the netting in a red-hot condition, and pouring on a second thickness of glass, submitting the whole to hydraulic pressure. In 1892 another German, Sievert, improved on this by supporting the wire with corrugations on the lower side of the mould; but it was reserved for Frank Shumann, of Philadelphia, to perfect a process suitable for making glass in large sizes. His patent was dated in 1892, and there are now several factories making the glass under his patents. A long cast-iron table is set in the floor, and heated by gas flames, so that when the molten glass is poured thereon it may not cool too suddenly. On this the glass is poured by hand, two workmen carrying a ladle between them on long handles. In the meantime the wire-netting has been heated red-hot, the object being to place it on the glass at as near the temperature of the molten glass as can be maintained. It is laid on by a vehicle consisting of four rollers, which are also kept hot. The first roller serves to level off the molten glass. The second carries with it the red-hot wire-netting, which is fed in from an inclined plane, and pressed into the molten glass by the corrugations with which this roller is furnished. The third roller smoothes the glass again and covers the depressed netting, while the fourth roller is introduced to prevent the curling up of the glass, which at this stage becomes plastic, and sometimes has a tendency to roll up behind the third roller. The glass is ordinarily cast to the sizes in which it is to be used, but it is possible to cut the sheets at any place by scratching with a diamond, and working a little until the blade of a fine saw can be introduced to separate the wire. The rollers used in this process deliver a pressure of 50 pounds to the square inch. Sizes of glass are made as large as 3 by 8 feet. The thickness of the wire-glass is from $\frac{3}{16}$ to $\frac{3}{8}$ of an inch, and the mesh of the netting from $\frac{1}{4}$ inch to 3 inches. Annealed steel wire is commonly used, and before being heated is washed in benzine, and brushed with machines to render it perfectly clean. This wire-glass is specially valuable in large, arched roofs, as of great railway stations, where it does not endanger persons below by small breakages, as is the case with common glass. It is hail-proof, and will bear the snow from any ordinary fall.

Wiscon'sin, Univer'sity of. (*Educ.*) Incorporated in 1836, two years after Wisconsin became a Territory, and organized in 1848, the year in which it became a State. The university, co-educational and non-sectarian, comprising colleges of letters and arts, a law school, and a post-graduate course, derives its support chiefly from an annual State-tax of one-eighth of a mill on a dollar. Its total income in 1904 was about $652,000. At the close of that year its instructors were 227 in number, and its students 3,151, while its library contained about 86,000 volumes. It is located at Madison, the capital of the State.

Wise'man, NICHOLAS PATRICK STEPHEN, theologian, was born in Seville, Spain, Aug 3, 1802; graduated at the English College, at Rome (1824); was made a priest (1825); professer of Oriental languages in the Roman University (1827), and rector of the English College (1828). He returned to England, and became noted as a preacher and lecturer on the doctrines and practices of the Roman Catholic Church. His treatise on the holy eucharist was published soon after, and also his lectures on the connection between science and religion, which have run through many editions, and have been translated into several languages. Having persuaded Pope Gregory XVI. to increase the number of vicars-apostolic in England, he was himself made vicar-apostolic of the London district (1849). In 1850 he was summoned to Rome and was made an archbishop, and then a cardinal, being the seventh English cardinal since the Reformation. In theology, in science, and in philology *W.* was recognized as one of the most distinguished scholars of his time. Died Feb. 15, 1865.

Wither'spoon, JOHN, a signer of the Declaration of Independence, was born in Gifford, Haddingtonshire, Scotland, Feb. 5, 1722; graduated at the University of Edinburgh (1742); in 1768 he accepted the second invitation to become president of Princeton College, New Jersey; began there an active administration, introducing important lecture courses, and various new departments of study, himself teaching Hebrew, theology, moral philosophy, and rhetoric; and at the same time officiating as pastor of the church. He was elected to the Continental Congress, June 21, 1776, and on his arrival in Philadelphia almost his first act was to sign the Declaration of Independence. He sat in Congress until 1782; after which date he returned to the administration of the college, and, except for two visits to England to raise funds, in 1783 and 1784, he resided quietly on his farm near Princeton, where he died, Nov. 15, 1794.

Witte, SERGEI YULEIVICH, COUNT, Russian statesman, was born at Tiflis, July 29, 1849. He was educated in the New Russian University at Odessa, entered the railway service in 1877, and distinguished himself by his ability in transporting troops during the Russo-Turkish war. He was made general manager of the Southwest Railway in 1886, and his efficiency when the imperial family was threatened with a railway disaster in 1887 led to his appointment as Director of Railways. He entered the Russian Cabinet in 1892, was made Minister of Finance in 1893, and held this post for ten years, during which he doubled the revenue and greatly developed Russian manufacturers. In 1903 he was made president of the Council of the State, and in 1905, as a chief commissioner for Russia in the Peace Conference with Japan, obtained a treaty satisfactory to the Russian Government. For his success in this he was created Count, and in the revolutionary excitement that followed was made Premier of the empire, being second in authority to the Czar himself.

Wof'fington, PEG OR MARGARET, actress, was born in Dublin, Ireland, Oct. 18, 1720. She was the most excellent actress of her time. Died March 28, 1760.

Wolse'ley (GARNET JOSEPH.) VISCOUNT, soldier, was born near Dublin, Ireland, June 4, 1833. He entered the British army in 1852, and served with great distinction in Burmah, the Crimea, India, China and Canada. Knighted in 1870, he commanded in the Ashantee war, in South Africa, and in Egypt, where he won the victory of Tel-el-Kebir in 1882, for which he was made a baron and raised to the rank of general, having before served as major-general and lieutenant-general. He was created viscount after the Soudan campaign of 1884-85, appointed commander-in-chief in Ireland in 1890, made field marshal in 1904, and succeeded the Duke of Cambridge as a commander-in-chief of the army in 1895. He was succeeded by Lord Roberts in 1900.

Women's Rights. During the nineteenth century woman, especially in the United States and Great Britain and its colonies, made many steps of advance from her former position of subservience to and dependence upon man, gaining many political and other privileges formerly enjoyed by man alone. The first decided demand for equality in education, employment, and political condition was made by Mary Wolstonecraft in 1792, since which time great progress has been made. The ordinary industrial employments have been opened to woman in a large measure; she has been widely admitted to the advantages of the higher education, many colleges opening their doors to her; and the control of the property of the wife has been largely conceded to her, in distinction to its former complete control by the husband. The condition of woman has been ameliorated in other particulars, and in regard to her claim to take part in public life and enjoy the privilege of voting on an equality with man, much has been gained. The first Woman's Rights Convention ever called met at Seneca Falls, N. Y., July 19, 1848, and there the claim for Woman Suffrage was first definitely made, Elizabeth Cady Stanton being the prime mover in the demand. Largely as a result of the work of the Woman Suffrage Society, woman now enjoys the full right of suffrage in four American States—Wyoming, Colorado, Utah, and Idaho—and partial suffrage in more than half the States. In Great Britain equal activity has been shown and women have gained the right to vote in all except parliamentary elections. For the latter they made a most vigorous demand in 1906, a number of their leaders invading the precincts of Parliament and willingly suffering imprisonment for their cause. Full suffrage is enjoyed by the women of Australia and New Zealand, municipal suffrage in Canada and Cape Colony, and partial suffrage in several of the countries of Europe. Full suffrage was granted in Finland in 1906 to all women over the age of 24. The movement has now a very strong support among the liberals in most countries, and the triumph of woman in all her demands for social and political equality seems but a question of time.

Won'ders, *n. pl.* THE SEVEN WONDERS OF THE WORLD were, according to the ancients: The Pyramids of Egypt (*q. v.*); the Mausoleum of Artemisia (*q. v.*); the Temple of Diana at Ephesus (*q. v.*); the Wall and Hanging-Gardens of Babylon (*q. v.*); the Colossus of Rhodes (*q. v.*); the Statue of Jupiter Olympus (*q. v.*); and the Pharos of Alexandria (*q. v.*).

Wood, FERNANDO, politician, was born in Philadelphia, Pa., June 14, 1812, and removed to New York city in 1820. He became identified with political organizations there, and was elected to Congress in 1841, serving one term; in 1850 was Democratic nominee for mayor of New York, but was defeated; in 1854 was elected and filled the office so well that he was re-elected almost unanimously. The riot troubles in 1857 disaffected many citizens toward the municipal administration, and he was defeated for re-election. In 1859 he was once more elected. He was in Congress (1863–65, 1867–77). Died Feb. 14, 1881.

Wood Pulp. (*Paper Manuf.*) The manufacture of wood pulp has developed to enormous proportions within recent years. Two modes of manufacture are employed, one known as ground or mechanical wood pulp, the other as chemical wood pulp. The former is the cheapest and least valuable, being chiefly used for making newspaper and cheap wrapping papers. Spruce wood is most commonly employed, it being ground against emery wheels revolving under water, the result being a fine wet sawdust. Pulp so made loses its fibre, and has to be mixed with some more fibrous material, as chemical wood pulp, to make newspaper material. In chemical wood pulp, in which spruce, poplar, and other woods are used, the wood is reduced to chips and digested in great tanks in which suitable chemical materials and live steam are introduced. The result is a pulp in which the fibre is retained, the process simply removing its cementing material.

Book and magazine papers are now made almost wholly from chemical wood pulp, sizing being introduced as a filling, and coating and calendering being employed to give a handsome surface. (See PAPER.) The uses of wood pulp are constantly increasing. It has long been employed in the making of basins, pails and small ware, as a substitute for wood or tin. It is introduced in the so-called paper car-wheels, being used as a filling between the rim, hub, and side-plates. It is forced in under great pressure, and renders the wheel less liable to vibration, thus adding to its durability. At Berlin, Prussia, wood-pulp bricks are being manufactured, the pulp being chemically treated and subjected to a pressure of 2,000 pounds to the inch in moulding. The product is extremely solid, tough bricks, weighing less than one-third as much as clay bricks, and costing about 5 cents each. They are specially valued for building underground conduits for electric cables, because of their insulating qualities. Pipes and drain-tiles are also made by a similar process. About 1894 the manufacture of imitation silk thread from wood pulp was undertaken in both England and France. The pulp is forced by heavy pressure through minute holes in a plate, issuing in threads of a smooth, silk-like finish, which are much stronger than naturally would be supposed. There is literally no end to the list of articles that may be made from wood pulp, and this form of manufacture bids fair in time to largely replace the manufacture of wood articles by carving and turning.

Wood'bury, LEVI, jurist, was born at Francistown, N. H., Dec. 22, 1789; educated at Dartmouth and the Litchfield Law School; admitted to the New Hampshire bar (1812); became a Supreme Court judge (1817); governor (1823–24); speaker of the State assembly (1825); U. S. senator (1825–31); secretary of the navy (1831–34); secretary of the treasury (1834–41); again U. S. senator (1841–45); and a justice of the Supreme Court from 1845 till his death, Sept. 4, 1851.

Wood'ford, STUART LYNDON, lawyer, was born in New York city, Sept. 3, 1835; studied law at Yale, and graduated at Columbia (1854), entering upon the practice of law in New York city; was in the Union army (1862), and brevetted brigadier-general of volunteers. He was lieutenant-governor of New York (1868–70); elected to Congress in 1872; and was U. S. attorney for the Southern District of New York (1877–83). He has written addresses and papers on legal, literary, and political subjects. In 1897 he was appointed U. S. minister to Spain, being entrusted with that important mission because of his well-known firmness and diplomatic acumen.

Wood'ruff, in *Arkansas*, a N.E. central co.; *area*, 577 sq. m.; bounded W. by White river and intersected by the Cache river. *Surface*, nearly level; *soil*, fertile. *Cap.* Augusta. *Pop.* (1897) 16,320.

Woods, William Burnham, soldier, was born at Newark, Ohio, Aug. 3, 1824; educated at Western Reserve and Yale Colleges, graduating at Yale in 1845. He studied law in Newark; was mayor of that city (1856–57); member of the legislature (1857–59), being speaker during 1858. He entered the army as lieutenant-colonel of the 76th Ohio Volunteers, and bore a prominent part, leading a division in Sherman's "March to the Sea." He was brevetted brigadier-general, then major-general; and made full brigadier-general May 31, 1865. He settled in Alabama, in the practice of law; was made State chancellor in 1868; U. S. judge of the fifth circuit in 1869, and an associate justice of the U. S. Supreme Court in 1880. Died May 14, 1887.

Woods, in *Oklahoma*, a N. co.; drained by Cimarron river and the North Fork of the Canadian river. *Surface*, in the north and central parts level or slightly rolling, south part rough; *soil*, black and sandy along streams, red in the uplands, but all fertile; salt, gypsum, and timber. *Cap.* Alva. *Pop.* (1897) 19,000.

Wood'ward, in *Oklahoma*, a N.W. co.; drained by Cimarron river, and the North Fork of Canadian river. *Surface*, hilly and undulating; *soil*, alkaline and good only for grass; very little timber. *Cap.* Woodward. *Pop.* (1897) 3,000.

—A post-village, cap. of Woodward co. *Pop.* (1897) 550.

Wool'sey, Sarah Chauncey, writer, better known by her pen-name, Susan Coolidge, was born in Cleveland, Ohio, about 1845; later settled in Newport, R. I. She has written many books for children, and is also known as a writer of pleasing verse.

Woolsey, Theodore Dwight, educator, was born in New York city, Oct. 31, 1801; graduated at Yale (1823); studied law in Philadelphia and theology at Princeton; was a tutor in Yale for two years; spent three years in Germany, studying Greek at Leipsic, Bonn, and Berlin. Returning (1831), he became professor of Greek in Yale, and held the chair for 15 years. In 1846 he was chosen president of the college, and filled that office for 26 years. He was president of the American company of revisers of the English New Testament (1871–81). Dr. *W.* was a frequent contributor to the reviews, and also published a work on *Political Science*, in two volumes; and *Communism and Socialism* (1880), &c. Died July 1, 1889.

Wool'son, Constance Fenimore, novelist, was born at Claremont, N. H., March 5, 1848; was educated at Cleveland, and at Madame Chegary's school in New York city. She began to write in 1869; has been a constant contributor of stories to the leading magazines, many of them serials that have later been issued in book form. Died Jan. 24, 1894.

Wor'den, John Lorimer, U. S. N., was born in Westchester co., N. Y., March 12, 1818 entered the navy in 1835; at the beginning of the Civil War was captured by the Confederates and held as a prisoner for seven months, but subsequently exchanged, ordered to the command of John Ericsson's *Monitor*, and with this vessel fought the memorable battle with the Confederate ironclad *Merrimac*. Later, *W.* destroyed the Confederate privateer *Nashville*, which had taken refuge under the guns of Fort McAllister, and took part in the storming of the forts of Charleston harbor, under Dupont. On May 27, 1868, he was promoted commodore, and from 1871 to 1874 was superintendent of the U.S. Naval Academy. He was commissioned rear-admiral Nov. 20, 1872; on Dec. 23, 1886, he was retired by his own request. Died Oct. 18, 1897.

Worth, Charles Frenerick, costumer, was born at Bourn, in Lincolnshire, Eng., in 1825; went to Paris (1846), and soon started an establishment for the making of fashionable costumes. He was eminently successful as a designer of fashions, and his establishment, in the Rue de la Paix, became the leading emporium of fashion, employing a thousand workwomen. Died March 4, 1894.

Worth'ington, in *Indiana*, a post-town of Greene co., 46 m. N. E. of Vincennes; has water power and manufactures of flour, lumber, and spokes. *Pop.* (1897) 1,562.

Worthington, in *Minnesota*, a post-village, cap. of Nobles co., 92 m. N. N. E. of Sioux City. *Pop.* (1895) 1,918.

Wright, Carroll D., statistician, was born at Dumbarton, N. H., July 25, 1840; was a colonel in the Union army; admitted to the bar (1865); chief of the Massachusetts Bureau of Statistics (1873–88), and first Commissioner of Labor in the Interior Department (1884). He has published reports of Massachusetts censuses, statistics of labor, on which he is an authority; and *The Factory System of the United States* (1882); *Convict and Labor* (1887); and *The Relation of Economic Conditions to the Causes of Crime* (1893).

Wright, Horatio Governeur, U. S. A., was born in Clinton, Conn., March 6, 1820; graduated at West Point and was assigned to the engineer corps (1841); taught engineering at West Point, and was promoted first-lieutenant in 1848. In 1856 he became assistant to the chief engineer in Washington, where he remained until 1861. He served throughout the Civil War, with an exceptionally brilliant record for leadership, becoming major-general of volunteers (1862), commanding a division at Gettysburg; and later the Sixth Army Corps; was in every engagement of the Army of the Potomac up to July, 1864. He defeated Early at Snicker's Gap; was with Sheridan at Fisher's Hill, Opequan, and Cedar Creek. Mustered out of the volunteer service in 1866, he returned to regular army duty as lieutenant-colonel of engineers, becoming by regular promotion brigadier-general and chief of engineers June 30, 1879. Retired March 6, 1884; died July 2, 1899.

Wyandotte (*wī'ăn-dŏt*) **Cave, The.** An extensive cavern in the limestone underlying Crawford county, S. W. Indiana. More than 22 miles of galleries have been mapped out and many remain unexplored. "The Wyandotte Cave," the late Prof. E. D. Cope wrote, in *The American Naturalist*, "is as well worthy of popular favor as the Mammoth. It lacks the large bodies of water which diversify the scene in the latter, but is fully equal to it in the beauty of its stalactites and other ornaments of calcite and gypsum. The stalactites and stalagmites are more numerous than in the Mammoth, and the former frequently have a worn, or macaroni-like form, which is very peculiar. They twist and wind in masses like the locks of Medusa, and often extend in slender runners to a remarkable length. The gypsum rosettes occur in the remote regions of the cave, and are very beautiful. There are also masses of amorphous gypsum of much purity. The floor in many places is covered with carved branches, and, what is more beautiful, of perfectly transparent acicular crystals, sometimes mingled with imperfect twin-crystals. The loose crystals in one place are in such quantity as to give the name of *Snow Banks* to it. In other places it takes the form of japanning on the roof and wall rock. In one respect the cave is superior to the Mammoth—in its vast rooms, with step-like domes, and often huge stalagmites on the central hills. In these localities the rock has been originally more fractured or fragile than elsewhere, and has given way at times of disturbance, piling masses on the floor. The destruction having reached the thin-bedded strata above, the breaking down has proceeded with greater rapidity, each bed breaking away over a narrower area than that below it. When the heavily-bedded rock has been again reached, the breakage has ceased, and the stratum remains as a heavy coping-stone to the hollow dome. Of course the process piles a hill beneath, and the access of water being rendered more easy by the approach to the surface, great stalactites and stalagmites are the result. In one place this product forms a mass extending from floor to ceiling, a distance of 30 or 40 feet, with a diameter of 25 feet, and beautifully fluted circumference. The walls of the rooms are incrusted with cataract-like masses, and stalagmites are numerous. The largest room is stated to be 245 feet high and 350 feet long, and to contain a hill of 175 feet in height. On the summit are three large stalagmites, one of them pure white. When this scene is lit up it is peculiarly grand to the eye of an observer at the foot of the long hill, while it is not less beautiful to those on the summit. There is no room in the Mammoth Cave equal to these two. An examination into the life of the cave shows it to have much resemblance to that of the Mammoth."

Wy'att, Sir Matthew Digby, architect and writer on art, was born in Wiltshire, England, in 1820. As an architect, he superintended the work on the Crystal Palace in London (1851), and in 1852–54 had charge of the decorations and fine arts departments in the new Crystal Palace at Sydenham. He furnished designs for many important buildings in England and India; was knighted in 1869; was Slade professor of Fine Arts at Cambridge (1869–72). He wrote at length on the popular topics related to his profession. Died May 21, 1877.

Wy'more, in *Nebraska*, a post-village of Gage co., 13 m. S. of Beatrice; has railroad machine shops and roundhouse; grain and live stock are largely shipped. *Pop.* (1897) 3,100.

Wyndham, Charles, actor, was born in 1841; studied medicine, but drifted into the theatrical profession, making his first appearance in America, in 1862, playing *Osrick* to John Wilkes Booth's *Hamlet*, at Washington. He entered the Union army as surgeon, having medical charge of a regiment for a time. Returning to England, he again went upon the stage, with marked success, since which time he has continued to act in England and Germany, and at intervals in America.

Wyo'ming, in *Illinois*, a post-town of Stark co., 31 m. N. by W. of Peoria; has some manufactures. *Pop.* (1897) 1,210.

Wyoming, in *Ohio*, a post-village of Hamilton co. *Pop.* (1897) 1,640.

X (*eks,*) the twenty-fourth letter of the English alphabet, borrowed from the Greek through the Latin, has the sound of *z* at the beginning of a word, but elsewhere the sound of *ks*, as in *excellent, wax, luxury*, or of *gs*, as in *example*. It is used chiefly in words derived from the Greek, and begins no word of Anglo-Saxon origin. The Italians never use it, *s* and *c* being substituted for it; as, *esatto*, exact, *eccellente*, excellent. The Germans commonly in place of *x* use *ks*, *gs*, or *chs*; as, *fuchs*, a fox. In French, *x* has a variety of pronunciations, as *s, cs, gz*, and *z*. This letter interchanges with *c, sc* or *sk, g, ps, h*, and *z*. As a Latin numeral, X stands for 10; when placed horizontally, thus ⋈, it indicates 1000, and when erect with a dash over it, X, implies 10,000. As an abbreviation, X. stands for *Christ*, and Xn. for *Christian*.

(NOTE. For names (chiefly geographical) not inserted under this letter, see the letters J, G, and S.)

Xamiltepec', or JAMILTEPEC, in Mexico, a town of Oajaca, 70 m. S.S.W. of Oajaca; *pop.* abt. 4,000.

Xan'theine, *n.* [Gr. *xanthos*, yellow.] The yellow coloring-matter of flowers.

Xan'thic Acid, or SULPHOCARBETHYLIC ACID, *n.* (*Chem.*) An acid composed of sulphur, carbon, hydrogen, and oxygen, and obtained in combination with potassa by agitating bisulphuret of carbon mixed with a solution of pure potassa in strong alcohol. Its compounds are of a yellow color, whence its name.

Xan'thine, *n.* (*Chem.*) The yellow coloring principle of madder.

Xan'thite, *n.* (*Min.*) A variety of Idocrase, found in small rounded grains or imperfect crystals of a yellow or grayish color, at Amity, in New York. Its principal constituents are silicate of alumina and silicate of lime.

Xan'thium, *n.* (*Bot.*) A gen. of plants, ord. *Asteraceæ*. The Prickly Clotweed, *X. spinosum*, found in roadsides and fields from Massachusetts to Pennsylvania, is about 1 foot high, and very conspicuously armed with straw-colored spines. It yields a yellow dye.

Xan'thocone, *n.* [Gr. *xanthos*, yellow, and *konis*, dust.] (*Min.*) An arsenio-sulphide of silver, generally found in small crystalline kidney-formed masses. It is of a dull-red or clove-brown color, but affords a yellow powder — whence its name.

Xan'thophyll, *n.* [Gr. *xanthos*, and *phyllon*, a leaf.] (*Chem.*) The yellow, autumnal coloring of leaves.

Xan'thoprotein, *n.* [Gr. *xanthos*, and *proteion*, the chief rank.] (*Chem.*) A yellow acid substance, formed by the action of nitric acid upon fibrin.

Xan'thorham'nine, *n.* [Gr. *xanthos*, and *ramnos*, a prickly shrub.] (*Chem.*) A yellow substance extracted from the berries of *Rhamnus tinctoria*, the *Persian berries* of commerce.

Xanthorrhi'za, *n.* [Gr. *xanthos*, and *riza*, a root.] (*Bot.*) A gen. of plants, ord. *Ranunculaceæ*, represented by the Yellow-root, *X. apiifolia*, of the Southern States. Its long roots and rootstocks are of a bright yellow color. Its inner bark, wood, and pith are also of the same color. The whole plant was formerly employed by the American Indians for dyeing yellow; and it is used medicinally as a tonic, all parts of it having a purely and intensely bitter taste.

Xanthorrœa, (*zăn'tho-re'ă,*) *n.* [Gr. *xanthos*, and *reo*, to flow.] (*Bot.*) The Grass-trees, a gen. of plants, ord. *Liliaceæ*. The tall-growing species, *X. arborea*, *X. hastilis* (Fig. 2632), and others, are natives of New South

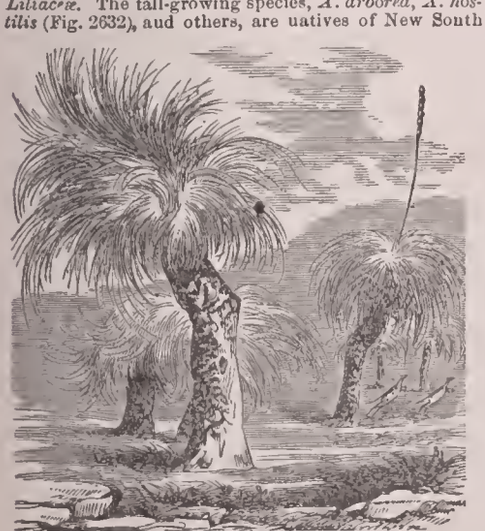


Fig. 2632. — GRASS-TREE, (*X. hastilis.*)

Wales. Their tops afford fodder for cattle, and their young leaves and buds are eaten as a table vegetable. Two fragrant balsamic resins are obtained from species of this genus: the one is known as yellow resin of New Holland, or Botany Bay resin; the other as red resin of New Holland, or Black boy gum.

Xan'thorthite, *n.* [Gr. *xanthos*, and *orthos*, straight.] (*Min.*) A yellowish variety of Allanite, found in Sweden.

Xanthosid'erite, *n.* [Gr. *xanthos*, and *sideros*, iron.] (*Min.*) A variety of brown iron-ore, occurring in yellowish-brown concentric and radiating aggregations of fine fibres with a silky lustre, in the Harz.

Xanthoxylaceæ, (*zăn-thoks-e-lai'se-e,*) *n.* [Gr. *xanthos*, and *xylon*, wood.] (*Bot.*) An order of plants, alliance *Rutales*, closely allied to *Rutaceæ*. They are trees or shrubs, most abundant in the tropics, but especially in tropical America. They are generally characterized by pungent and aromatic properties, and have been employed medicinally as stimulants. The species of the typical genus *Xanthoxylon* possess in a remarkable degree the aromatic and pungent properties common to the order; hence they are popularly known as *Peppers*, Prickly ash. The fruit of *X. piperitum* is employed by the Chinese and Japanese as a condiment, and as an antidote against all poisons. In commerce it is called *Japanese pepper*.

Xanthox'ylum, *n.* (*Bot.*) See XANTHOXYLACEÆ.

Xan'thus. (*Anc. Geog.*) The capital of ancient Lycia, in the S.W. corner of Asia Minor, 9 m. from the sea, on the left bank of the Sibres or Sibrus, the Greek Xanthos, or Yellow River, near the actual village of Koonik. Its ruins, discovered by Sir C. Fellows in 1838, consist of temples and tombs, having carefully executed bas-reliefs of great archæological interest.

Xan'tippe, whose name has passed into a proverb for a scolding wife, was the spouse of Socrates the philosopher, and notwithstanding her ill temper was deeply attached to him. The date of her death is unknown.

Xantip'pus, a Lacedæmonian general, who went to the support of the Carthaginians in 255 B.C., and defeated the Romans under Regulus at Tunes (now Tunis). Notwithstanding his services, the Carthaginians ordered the captain of his ship to throw him into the sea.

Xati'va, or JATIVA, (*cha-te'va.*) a city of Spain, standing on the slope of a hill crowned by an old castle, 36 m. from Valencia. *Manuf.* Linen and woollen fabrics, hats, leather, and soap.

Xavier, ST. FRANCIS, (*za've-ai,*) "the apostle of the Indies," a celebrated Jesuit missionary, B. in Spain, 1506. He was sent to study at Paris, and there met Ignatius Loyola, whose affectionate disciple and ally he thenceforth became. He assisted Loyola in the formation of the new society, and gladly undertook, in 1540, the laborious mission to the East Indies. After very devoted services at Goa on the Malabar coast, in Chavancore, and in the islands of the Archipelago, he went to Ceylon. Meeting there a Javanese refugee, he accompanied him, in 1549, to Japan, and established there the mission which was maintained by the Jesuits more than a century. On his return to India he fell ill, and D. on an island off the coast of China, in Dec., 1552. He was beatified in 1619, and canonized by Gregory XV. 3 years later.

Xe'bec, *n.* (*Naut.*) A small felucca-looking vessel common to the Mediterranean Sea (Fig. 1524), carrying three masts, and which in fair weather and with a good wind mounts two large square sails, but when close-hauled carries large lateen sails.

Xe'nia, in *Ohio*, a city and township, cap. of Greene co., 61 m. W.S.W. of Columbus. *Pop.* (1897) 7,750.

Xe'nidæ, *n. pl.* (*Zoöl.*) See ALCYONACEA.

Xenocrates, (*ze-nok'ra-tees,*) a Greek philosopher, remarkable for the severity of his manners, and his incorruptible integrity, was B. at Chalcedon about B.C. 400. He was a pupil of Plato, and sent on embassies to Philip, king of Macedonia, and afterwards to Antipater. It is said that the Athenians caused him to be sold as a slave, because he was too poor to pay the taxes. Demetrius Phalereus, however, discharged the debt, and gave him his freedom. He was for many years head of the Academy. D. B.C. 314.

Xenophanes, (*ze-nof'a-nees,*) a Greek philosopher and poet, was a native of Colophon, and settled at Elea in Magna Græcia. He lived in the latter half of the 6th century B.C., and was a contemporary of Pythagoras. He is recognized as the founder of the Eleatic School, the characteristic doctrine of which was an idealistic pantheism. Fragments of his poem *On Nature* and of his elegies are all that are preserved to us of his writings.

Xenophon, (*zen'o-fon,*) a celebrated Athenian historian, B. probably about B.C. 450. He was a disciple and friend of Socrates, who saved his life at the battle of Delium. With his friend Proxenus he joined the army of Cyrus the younger as a volunteer in the expedition against Artaxerxes. After the death of Cyrus, at the battle of Cunaxa, and the treacherous murder of the Greek generals, *X* took the lead in conducting the famous *Retreat of the Ten Thousand* from Upper Asia to their native land. He afterwards served in the Spartan army against the Persians, and sentence of banishment being passed on him by the Athenians, he retired into Elis, and lived there about 20 years. It is not known whether he availed himself of the permission to return to Athens, nor when nor where he D. He was living B.C. 357. The principal works of *X.* are the *Anabasis of Cyrus*, the history of the expedition in which the historian took so prominent a part; the *Cyropædia*, a fascinating picture of an ideal state based on the traditions respecting the elder Cyrus; the *Memorabilia of Socrates*, a very precious memorial of the great practical philosopher; and the *Hellenica*, a historical narrative. He wrote several shorter works. *X.*'s mode of thought is practical, not speculative, and his style is singularly lucid, simple, and manly.

Xen'otime, *n.* (*Min.*) A phosphate of Yttria, found at Ytterby, in Sweden.

Xera'sia, *n.* [From Gr. *xeros*, dry.] (*Med.*) A disease of the hairs, which become dry, cease to grow, and resemble down covered with dust.

Xeres de Badajos, or XERES DE LOS CABALLEROS, (*hai-rais,*) a town of Spain, in Estremadura, 40 m. from Badajoz. *Pop.* 6,817.

Xeres de la Frontera, a town in the S.W. of Spain, in Andalusia, 14 m. from Cadiz. It is agreeably situate on the banks of the small river Guadalette, and is celebrated for its excellent sherry wines, of which large quantities are annually exported.

Xerxes I., (*zer'kseez,*) king of Persia, was the son of Darius, and succeeded him to the throne B.C. 485. After suppressing a revolt in Egypt, he prepared for the invasion of Greece. In 480 he set out at the head of an enormous host, which he reviewed at Doriscus, and succeeded in reaching the pass of Thermopylæ. Great part of his fleet was destroyed by a storm; the rest of it engaged the Greek fleet off Artemisium. At the same time took place the memorable battle of Thermopylæ, in which Leonidas and his band of Spartans heroically withstood the Persian host for several days, and then fell through treachery. *X.* then advanced to Athens, and at the battle of Salamis saw his fleet defeated by Themistocles. He returned to Persia, leaving his general Mardonius to carry on the war in Greece. Murdered by Artabanus, B.C. 465.

Xhmenes (*zim'-ē-nēz*), an eminent Spanish prelate; born in 1437, died in 1517.

Ximo, or KIUSIU, (*ze'mo.*) The most S. of the three principal islands of Japan, in the Pacific Ocean, separated from Corea by the Strait of Corea, and from Niphon Island by the Strait of Sikoke. It is mountainous, and has several volcanoes. *Pop.* unascertained. — Nagasaki, the chief commercial port of Japan, is in this island.

Xingu, or CHINOU, (*shing-goo'*,) in Brazil, a river of Matto-Grosso and Para, rises near Lat. 15° S., Lon. 59° W., and flows into the Amazon, 240 m. W. of Para, after a N. course of 1,300 m.

Xiphias, *n.* (*Zoöl.*) The Sword-fishes, a genus of the family *Scomberidæ*, comprising fishes which have a very long beak, and sword-like upper jaw. The common Sword-fish, *X. gladius*, of the Atlantic and Mediterranean, is from 10 to 16 feet long. It attacks the largest animals of the sea, and swims with astonishing swiftness.

(*Astron.*) A constellation in the southern hemisphere; — also called *Dorado* and *Sword-fish*.

Xiph'oid, *a.* [Gr. *xiphos*, a sword, and *eidos*, form.] (*Anat.*) Applied to the ensiform or sword-like cartilage which terminates the sternum beneath. — Applied also to a small, very thin, ligamentous fasciculus, which passes from the cartilage of prolongation of the 7th rib to the anterior surface of the xiphoid cartilage.

Xiphoid'es, *n.* (*Anat.*) The xiphoid cartilage.

Xister, or RASPATORIUM, *n.* (*Surg.*) An instrument used for rasping bones, to detach the periosteum.

Xnear, (*hoo'kar,*) a river of Spain, rising in the Sierra Albarracia, and after a course of 200 m., falling into the Mediterranean, 26 m. from Valencia.

Xulla Islands, (*zool'la,*) a group in the Malay Archipelago, to the S.E. of the Molucca passage. It comprises Zulla-Bessey, Mangola, and Taliabo. The first has a length of abt. 400 m.

Xy'lite, *n.* [From Gr. *xylon.*] (*Min.*) An asbestiform mineral, resembling xylotile in composition and structure, as well as in its brown color.

Xy'lochlore, *n.* [Gr. *xylon*, and *chloros*, green.] (*Min.*) A mineral closely resembling apophyllite, and found in olive-green crystals in Iceland.

Xy'locopa, *n.* (*Zoöl.*) See APIDÆ.

Xyloi'dine, *n.* [Gr. *xylon*, wood.] (*Chem.*) A white granular substance, formed by the action of nitric acid upon starch.

Xy'lol, *n.* (*Chem.*) Any one of three isomeric colorless liquid hydrocarbons, occurring among the oils in crude wood-spirits. It is homologous with benzol and tutol; is frequently called *Xylene*. Form. C_8H_{10}.

Xyl'ophone, *n.* A musical instrument consisting essentially in a row of wooden bars of graduated lengths, which, when struck with small mallets, emit the various tones of the diatonic scale.

Xylo'pia, *n.* (*Bot.*) A genus of plants, order *Anonaceæ*. *X. aromatica*, commonly known as *Piper æthiopicum*, has aromatic fruit, which when dried is used medicinally by the African negroes on account of its stimulant and carminative effects, and also as a sediment. *X. undulata* has nearly similar properties. *X. glabra* yields the Bitter-wood of the West Indies, which has tonic properties.

Xylor'etine, *n.* [Gr. *xylon*, and *retine*, resin.] A crystalline resinous substance, found in certain varieties of turf.

Xy'lotile, *n.* [Gr. *xylon*, and *tilos*, flock or down.] (*Min.*) A delicately fibrous variety of chrysotile, of various shades of wood-brown and green.

Xyrida'ceæ, *n. pl.* [From *xyris*, the typical genus.] (*Bot.*) A small order of plants, alliance *Xyridales*. DIAG. Sepals opposite the carpels, 3 petals, 3 fertile stamens, parietal placentæ, and a minute embryo on the outside of fleshy albumen. The species consist of ledge-like herbaceous plants, found in tropical and subtropical regions.

Xy'ridales, *n. pl.* (*Bot.*) An alliance of plants, class *Endogens*. DIAG. Hypogynous, bisexual, tripetaloid endogens, with copious albumen. It includes 4 orders.—PHILYDRACEÆ, XYRIDACEÆ, COMMELYNACEÆ, and MAYACEÆ, *q.v.*

Y.

Y (*wī,*) the twenty-fifth letter of the English alphabet, is derived from the Greek *r*, and in French and Spanish is called the "Greek *i*." It is a consonant at the beginning of words, when it is produced by the emission of breath, whilst the root of the tongue is brought into contact with the hinder part of the palate, and the edges of the tongue are pressed against the roof of the mouth. At the end of words it is a vowel, and has exactly the sound of *i*. In the body of words, *i* usually takes the place of *y;* but when it occurs, it has the same sound. In English the sound of *y* is usually given to a word beginning with a long *u*, as *union, unity.* As a numeral, Y stands for 150, and with a dash over it, thus Ȳ, for 150,000.

(Note. For names not found under this letter, see *I* or *J.*)

(*Steam-engine.*) Y-shaft, (sometimes corrupted into *weigh-shaft,*) is the shaft for moving the valve, and is so called because in the old atmospheric engines the forked lever for giving motion to the valve or regulator was made in the form of the letter Y.

Y (*i*), an arm or inlet of the Zuyder-Zee, on the shores of which stands Amsterdam.

Yac'ca-wood, *n.* The ornamental wood of *Podocarpus coriacea*, a tree of the order *Taxaceæ*, used in the West Indies for cabinet-work.

Yacht, (*yot,*) *n.* [Ger. *jacht.*] A light, decked, and elegantly fitted-up vessel for excursions of pleasure. *Yacht clubs* are associations formed with a view to improvement in yacht building for private owners and yacht sailing. When got up on a large scale, they are recognized and fostered by the government under which they respectively exist, which furthermore extend to regularly established foreign clubs the privileges they accord to their own. The U. States, Great Britain, France, Holland, Belgium, and Russia, have their national, royal, or imperial clubs, but it is in the United States and in Great Britain that these institutions have taken the firmest hold. The New York Yacht Club was established in 1884, and has stimulated the formation of others until there are now in the U. S. 230 yacht clubs, with an average membership of 150, making a total of 34,500 yachtsmen, of whom about 10,000 own yachts. Of these yachts about one-third are steamers, about 2,000 are schooners, and the remainder are of the sloop, cat, and other types. The steamers range from the palatial craft costing $500,000, to the little $1,000 naphtha launch. Yacht clubs are also numerous in Great Britain, the oldest being the Royal Cork Yacht Club (originally the Cork Harbor Water Club), established before 1720. See America's Cup.

Yacht'ing, *n.* Act of sailing on pleasure excursions in a yacht.

—*a.* Relating to a yacht or yachts; as, a *yachting* voyage.

Yad'kin, a river in *N. Carolina.* See Pedee (Great).

—A N.W. co.; *area,* 320 sq. m. It is drained by Yadkin river, and Deep creek. *Surface,* diversified; *soil,* fertile. *Cap.* Yadkinville. *Pop.* (1897) 14,450.

—A township of Stokes co.

Yak, *n.* (*Zoöl.*) A ruminant animal of the genus *Bos*, the Grunting Cow of Tartary, *B. grunniens.* It is about

Fig. 2633.— yak, (*Bos grunniens.*)

the size of an ordinary ox, which it much resembles in figure of body, head, and legs. It is covered all over, however, with a thick coat of long silky hair, hanging down like the fleece of a sheep. His white tail resembles that of a horse, and is much prized in the East, where it is used to brush away flies, and also as an emblem of authority. It makes a grunting noise, similar to that of a hog. It is domesticated in Thibet.

Ya'ger, or Jaoer, *n.* [Ger., hunter.] One of the light infantry armed with rifles (*chasseurs, riflemen*). In the Prussian service, the yagers form a distinct corps with peculiar discipline; in that of Austria, light infantry, generally from the mountain districts.—In Germany, the term *jäger* is also applied to a peculiar species of higher servant attached to the families of the aristocracy.

Yaguanique (*ya-gwa-nee'ka*), a seaport of Cuba, on the N. coast, 40 m. N.E. of Baracoa.

Ya'kimo Si'ma, an island of Japan, 40 m. S. of Kiusiu, Lat. 30° 24′ N., Lon. 130° 30′ E. It is 20 m. long and 8 wide.

Yakutsk (*ya-kootzk'*), a town of Siberia, on the W. bank of the Lena river, cap. of an enteusive province of same name, in Lat. 62° 2′ N., Lon. 130° 8′ E. It is the emporium for the furs collected in the regions of the North; also of the Russian trade with Kamchatka. The thermometer in winter falls to 70° below zero.

Yallobusha, or Yalabusha, in *Mississippi*, a river rising in Chickasaw co.; flowing W.S.W., unites with the Tallahatchie to form the Yazoo.

—A N. central co.; *area,* 450 sq. m. *Rivers.* Yallobusha and the Loosascoona. *Surface,* undulating; *soil,* fertile. *Cap.* Coffeeville.

Yam, *n.* (*Bot.*) A genus of plants (*Dioscorea*), chiefly natives of the West Indies, Polynesia, China, and other tropical and semi-tropical countries. They have twining stems and tuberous roots, some of which are much used as articles of food, as the potato is in the temperate zones. They contain much starch, and as a rule become somewhat mealy and palatable when boiled. This is not always the case, however, the roots of some species being nauseous and poisonous. They all contain an acrid substance, but this is usually dissipated by boiling. The tubers of the winged yam of Polynesia are from 1 to 3 feet in length and often 30 lbs. in weight, with a blackish skin, but reddish and juicy within. It is supposed that this species may be the original of most of the cultivated yams, including the common yam of the West Indies, the prickly yam of India, and other varieties. Yams are propagated by means of the small tubers which supplement the large ones. One species, *D. batatas*, brought from China, is found to succeed well in France, and will grow in Scotland, but not produce large tubers. The root strikes perpendicularly into the ground, its tubers being formed often at a considerable depth below the surface. The true yam has been but little cultivated in the U. S., though the name of yam is often given to the sweet potato, a plant of different origin. See Dioscoraceæ.

Yamas'ka, in province of Quebec, a central co.; *area,* 283 sq. m. *Rivers.* Nicolet, St. Francis, and Yamaska. Lake St. Peter borders it on the N.W. *Cap.* Pierreville.

—A post-village, former cap. of the above co., on the Yamaska river, 56 m. N.E. of Montreal.

Yam Hill, in *Oregon*, a N.W. co.; *area,* 640 sq. m. *Rivers.* Willamette, Yam Hill, and the North Fork of the latter. *Cap.* McMinnville. *Pop.* (1897) 12,250.

Yan'cey, in *North Carolina*, a W. co., bordering on Tennessee; *area,* 298 sq. m. It is drained by Nolachucky river. *Surface,* mountainous, Mount Mitchell, on the S.E. border, being 6,470 feet high; *soil,* fertile in the valleys. *Cap.* Burnsville. *Pop.* (1897) 10,150.

Yan'ceyville, in *North Carolina*, a post-village, cap. of Caswell co., 75 m. N.W. of Raleigh. *Pop.* (1897) 520.

Yang-tse-Kiang' (or simply Kiang or Chiang), the largest and most important of the rivers of China, and one of the great rivers of the world. It rises in the mountains of Thibet, where its sources were reached and explored by Prejevalsky in 1884–85, and crosses the whole breadth of China, affording a waterway, at times broken by rocks and rapids, from Thibet to the sea. The total length of the river is 3,200 miles, its course lying through the provinces of Yunnan, Sz-chuen, Hoo-pe, Nganhwui, and Kiangsu, and ending in a wide estuary, which begins some 50 miles below Nanking and ends in the vicinity of Shanghai. In addition to the main stream there are many tributaries, some of which are over 1,000 miles long, the drainage basin having a total area of about 690,000 sq. m. The Kiang is of great importance as a channel of commerce. In addition to Nanking, there are on its banks the important towns of Chinkiang, Ncanking, Hankow, Wuchang, Ichang, and Chungking (the last opened to European commerce in 1890). Steamboats ply on the lower reaches of the river, while the navigation of its upper waters is performed by the native boats. Even these find difficulty in certain parts of the stream, having to be driven by poling through the narrow gorges against a strong current. This stream, however, is not subject to the frightful and destructive inundations of the Hoang-ho, China's other great river.

Yan'ina, or Janina, a town of Thessaly, situated on a lake, which communicates with the River Peneus, 40 m. W. of Larissa. It is the capital of a pashalic of the same name, with irregular and ill-paved streets, and many of the houses are simply mud-huts. It has about 16 mosques and a large number of bazaars, where jewelry and articles of dress are displayed in great abundance. It carries on a considerable trade, and exports for the Italian ports wool, corn, oil, and tobacco. Inwardly, through Roumelia and Albania, it sends embroidered velvets, stuffs, and cloths, with the stocks of guns and pistols mounted on chased silver. *Pop.* Variously estimated at from 10,000 to 20,000. — This place, in the time of Ali Pasha, enjoyed a high degree of prosperity; but since his death, in 1822, it has greatly fallen into decay. — The lake is of no great depth, but is surrounded by mountains attaining an elevation of 3,000 feet, rising abruptly from the water's edge, and exhibiting a grand appearance.

Yank, *v. a.* To jerk. (Local U. S.)

Yan'kee, *n.* A popular term for a native or inhabitant of New England; often indiscriminately applied by foreigners to all inhabitants of the U. States. Many ridiculous etymologies have been assigned for this word, which appears to be a corruption of the Indian pronunciation of "English." They called them Yenghees, and the term Yankee was applied to the people of New England abt. 1775.

Yan'keeism, *n.* A Yankee idiom, phrase, custom, or character.

Yan'kee Hill, in *California*, a post-village of Butte co., 16 m. N. of Oroville.

Yan'kee Jims, in *California*, a post-village of Placer co., 22 m. N.E. of Auburn.

Yan'kee Springs, in *Michigan*, a post-village and township of Barry county.

Yan'kee Town, in *Wisconsin*, a village of Crawford co., about 40 m. S.S.E. of La Crosse.

Yank'ton, in *South Dakota*, a S.E. co.; *area,* 515 sq. m. *Cap.* Yankton. *Pop.* (1895) 11,305.

—A city, cap. of the above co., on Missouri river, near the mouth of the Dakota. *Pop.* (1895) 3,814.

Yan'tic, in *Connecticut*, a river of New London co., unites with the Shetucket at Norwich to form the Thames. — A post-village of New London co., 16 m. N. of New London.

Yap, *v. n.* To bark; to yelp; to yaup.

Yaphank', in *New York*, a post-village of Suffolk co., 60 m. E. of Brooklyn.

Yap'on, *n.* (*Bot.*) The South Sea Tea, *Ilex vomitoria.* See Ilex.

Yaque', or Yaqui, a river of Hayti, which enters the bays of Monte Christo and Manzanilla, after a N.W. course of 100 m.

Yaque'sila, or Jaquesila, in *New Mexico*, a river which flows into the Colorado River abt. Lat. 36° N.

Yaqui, or Huaqui, (*ya'kee.*) in Mexico, a river of Sonora, rises N. of Lat. 32° N., and enters the Gulf of California, 25 m. S.E. of Guaymas, after a S.S.W. course of 400 m.

Yard, *n.* [A. S. *gyrd*, a staff, a rod.] The American standard measure of length. See Weights and Measures.

(*Naut.*) A long, cylindrical piece of timber, having a rounded taper toward each end, and slung by its centre to a mast.

(*Astron.*) *Yard*, or *Golden yard*, are popular names given to the three stars in the belt of Orion.

—[A. S. *geard;* Du. *gaard;* — from A. S. *gyrdan*, to gird.] A small piece of ground, usually one adjoining a house; an inclosure within which any work or business is carried on.

—*v. a.* To inclose in a yard; to shut up in a yard, as cattle.

Yard'-arm, *n.* (*Naut.*) The extremity of the yard.—*Yard-arm and yard-arm* is a term descriptive of two ships engaging each other as close as possible.

Yard'leysville, in *Pennsylvania*, a post-village of Bucks co., 128 m. E. of Harrisburg.

Yar'kand, the cap. of Chinese Turkestan, on the river of the same name. It stands in a fertile plain; is the residence of a Chinese governor, and a kind of emporium for the inland trade of Asia. Lat. 38° 20′ N; Lon. 76° 7′ 43″ E. *Pop.* abt. 150,000.—The river rises on the N. side of the Karakorum Mountains, and, after uniting with several other rivers, and pursuing a course of 500 m., finally enters a lake in the desert of Gobi.

Yar'mouth, or Great Yarmouth, a seaport and borough of England, co. of Norfolk, 18 m. from Norwich; Lat. 52° 36′ 8″ N., Lon. 1° 43′ 7″ E. It stands on a peninsula, having the sea on the E., and on the W. the Yare, over which there is a drawbridge, which affords communication with South Town, or Little Yarmouth, and with Gorlestone. *Y.* has long been much frequented as a fashionable watering-place. Its harbor is perfectly secure, but the coast upon which it is built is the most dangerous in England, and has been often the scene of the most disastrous shipwrecks. It is the principal seat of the English herring-fishery, and has also a considerable coal-trade.

Yarmouth, in *Maine*, a post-village and township of Cumberland co., 12 m. N. of Portland.

Yarmouth, in *Massachusetts*, a post-township of Barnstable co., 70 m. S.S.E. of Boston.

Yarmouth, a seaport-town of Nova Scotia, 130 m. S. W. of Halifax.

Yar'mouth Port, in *Massachusetts*, a post-village of Barnstable co., on the N. shore of the peninsula.

Yarn, *n.* [A. S *gearn.*] Thread prepared from wool or flax by spinning; spun wool; woollen, cotton, or linen thread; one of the threads or strands of which a rope is composed.

Yar'oslav. See JAROSLAV.

Yar'riba, a state of Central Africa, in Guinea, near the Niger. It has been little explored by Europeans. Lat. 9° N.. Lon. from 3° to 6° E.

Yar'rish, *a.* That has a rough, dry taste.

Yar'row, *n.* [A. S. *gearwe.*] (*Bot.*) See ACHILLEA.

Yat'aghan, *n.* A Turkish short-sword or long dagger.

Yates, in *New York*, a W. central co.; *area*, 320 sq. m. Seneca Lake borders it on the E., and Canandaigua and Crooked lakes on the W., and it is drained by the outlet of the latter and Flint Creek. *Surface*, undulating; *soil*, fertile. *Cap.* Penn Yan. *Pop.* (1897) 21,950.

—A post-township of Orleans co.

Yates City, in *Illinois*, a post-village of Knox co., 23 m E.S.E of Galesburg.

Yates'ville, in *New York*, a village of Yates co., 190 m. W. of Albany.

Yat'ton, in *Iowa*, a post-village of Washington co., 16 m. S.W. of Iowa City.

Yaup, *n.* The cry of a child or bird; a yelping. (Col.)

—*v. n.* To yelp; to cry as a child or bird;—also written *yaulp*, *yawp*, and *yap*.

Yaup'er, *n.* One who yaups.

Yav'apai, in *Arizona*, a N.E. co.; *area*, 29,236 sq. m. *Rivers.* Gila, Rio de Lino, Rio Salinas, and Rio Verde. *Surface*, diversified; *soil*, fertile in the valleys. *Min.* Gold and silver. *Products.* Chiefly live stock. *Cap.* Prescott. *Pop.* (1897) 9,350.

Yaw, *n.* (*Naut.*) A temporary deviation from a direct line.

—*v. n.* (*Naut.*) To steer wild or out of the line of the course, as a ship.

Yawl, (*yal,*) *n.* (*Naut.*) A small ship's boat, usually rowed by four or six oars; the smallest boat used by fishermen.

—*v. n.* To cry out; to yell. (R.)

Yawn, (*yan,*) *v. n.* [A. S. *gynian, geonian*; Gr. *chaino.*] To open the mouth as in chewing; to gape; to have the mouth open involuntarily through drowsiness or dullness.—To open wide; as, wide *yawns* the gulf below.—To express desire by yawning. (R.)

—*n.* A gaping; an involuntary opening of the month from drowsiness; an opening wide.

Yawn'ing, *n.* (*Physiol.*) The act of one who yawns, consisting of a deep and slow inspiration and expiration, attended with an involuntary opening of the mouth. It is generally produced by weariness or an inclination to sleep; sometimes by hunger, sympathy, &c. It often precedes the fit in some intermittent fevers, and in some instances its recurrence is so frequent as to become a real disease. It is generally supposed to be occasioned by some obstruction in the pulmonary circulation, and may frequently be got rid of by a deep inspiration.

Yawn'ingly, *adv.* In a yawning manner.

Yazoo', a river of *Mississippi*, formed by the junction of the Tallahatchie and Yallobusha rivers at Laflore, in Carroll co., and flowing into the Mississippi 12 m. above Vicksburg, after a S.W. course of 290 m. It is navigable to its source.—A W. central co.; *area*, 1,020 sq. m. *Rivers.* Big Black and Yazoo. *Surface*, level; *soil*, very fertile. *Products.* Cotton, corn, &c. *Cap.* Yazoo City. *Pop.* (1897) 39,360.

Yazoo' City, a post-town, cap. of the above co., 50 m. N.N.W. of Jackson. *Pop.* (1897) 3,690.

Ybicuy, (*e-be-kwee',*) a river of Uruguay, rises on the Brazilian frontier, and joins the Paraguay River opposite Yapegu, after a W. course of 200 m.

Ycacos, (Cape,) (*e-ka'coce,*) a headland of N. Cuba, on the N E. of the Bay of Matanzas; Lat. 32° 9′ N., Lon. 81° 10 W.

Ye, *pron.* [A. S. *ge.*] The nominative plural of the second person, of which *thou* is the singular.

Yea, (*yā,*) *adv.* [A.S. *gea, geac.*] Yes; a word that expresses affirmation or assent;—used only in the sacred and solemn style.

—*n.* An affirmative vote; one who votes in the affirmative.

Yeas and nays. The list of members of a legislative body voting in the affirmative and negative of a proposition.

Yean, *v. n.* [A.S. *eanian.*] To bring forth young, as a sheep; to lamb.

Yean'ling, *n.* The young of a sheep; a lamb. (R.)

Year, (*yēr,*) *n.* [A. S *year.*] That period comprised in the revolution of the earth around the sun. In ancient times, when it was believed that the sun moved about the earth, this period was termed the *solar year*. Accepting the authority of Herodotus, the Egyptians were the first who ascertained the length of the solar year. They divided it into 12 months, each consisting of 30 days. The Greeks more accurately divided the year into 365¼ days, and the Grecian astronomer Sosigines made this the foundation of the Julian calendar. The *sidereal year* is the period required by the sun to move from a given star to the same star again. It is one of the most invariable quantities that nature presents us with, and has a mean value of 365 days, 6 hours, 9 minutes, 9·6 seconds. The time which elapses between the earth's arrival at its perihelion and its return to the same position, is known as the *anomalistic year*, and is equivalent to 365 days, 6 h., 13 min., 49·3 sec. See CALENDAR.

—*pl.* Sometimes equivalent to age or old age.

Year'-book, *n.* (*Eng. Law.*) One of the books of reports of cases in a regular series from the reign of Edward II., inclusive, to the time of Henry VIII., which were taken by the prothonotaries or chief scribes of the courts, at the expense of the crown, and published annually.

Year'ling, *n.* A young beast one year old, or in the second year of his age.

—*a.* Being a year old.

Year'ly, *a.* Happening occurring, or coming every year; annual; lasting a year; comprehending a year.

—*adv.* Once a year; annually.

Yearn, (*yērn,*) *v. n.* [A.S. *geornian*, from *georn*, eager.] To desire with eagerness, longing, and uneasiness; to feel great uneasiness from longing, tenderness, or pity; to long: to feel an earnest desire.

Yearn'ing, *a.* Longing; having a longing desire.

—*n.* Strong emotions of desire, tenderness, or pity; state of being moved with tenderness, pity, or longing desire.

Yearn'ingly, *adv.* In a yearning manner; with yearning.

Yeast, (*yeest,*) *n.* [A.S. and Du. *gist*; L. Ger. *güscht.*] (*Chem.*) The peculiar substance produced during the vinous fermentation of vegetable juices and decoctions, rising partly to the surface in the form of a frothy, flocculent, and somewhat viscid matter, insoluble in water and alcohol, and gradually putrefying in a warm atmosphere. It excites fermentation, and accelerates the process when added to saccharine and mucilaginous liquors. The nature of yeast, and the part which it plays in the process of vinous fermentation, have given rise to much theoretical discussion, and to many valuable investigations, but they are still very imperfectly known. The yeast-plant seems to be closely connected with the vinegar-plant and several similar forms of fungi, which produce fermentation, if not precisely identical with them. The yeast or *leaven* was employed in the manufacture of bread so early as B. C. 1897. (*Gen.* xix. 3.) The absence of leaven constituted the peculiarity of the bread used in the passover, B. C. 1491 (*Exod.* xii. 15).

Yeast'-plant, *n.* (*Bot.*) See PENICILLIUM.

Yeast'y, *a.* Like yeast; containing yeast; foamy; spumy.

Yedo, ("River-door.") The city of Yedo was founded by Iyeyasu, the first Shogun of the Tokugawa line, in A. D. 1600, though as early as the fourteenth century a castle existed on the present site of the city. In 1868, the Mikado took up his residence in Yedo, changing its name to Tokio ("Eastern capital"), and locating the seat of government here. The name Tokio is now universally used by the Japanese, "Yedo" being heard only in the mouths of foreigners. The city lies on both sides of the Sumida River and on the Bay of Yedo, in Lat. 35° 40′ N., Lon. 139° 40′ E. The castle or fortified enceinte occupies several square miles of area in the center of the city, while the entire surface of Tokio covers about 100 sq. m. *Pop.* (1897) 1,410,350. Since the great fires in 1872, 1876, and 1880, it has been largely rebuilt of stone and brick, and many of the new govt. buildings, barracks, colleges, etc, are very neat and handsome. The main street for nearly two miles is lined with fine brick buildings used as stores. The noted bridges, Shim, Kio, Nihon, and Yorodzu Yo Bashi are crossed by this bustling avenue of gay shops, which make it the Broadway of Japan. A large number of gardens, parks, mulberry and tea plantations, the castle groves, moats, and banks, give Tokio the appearance of a great *rus urba*. In general, however, the houses are of wood, one-storied, and mean in appearance. Tokio is now the educational, literary, military, naval, art, and fashion centre and capital of Japan, as well as the political seat of power.—*Yokohama*, distant by railway about 17½ m., is the sea-port of Tokio. It is a splendid foreign city, having most of the features of a European city, its streets being paved and lighted with gas.—The Bay of Yedo is an inlet of the N. Pacific, on the S.E. coast of the main island, and lies between 35° and 35° 40′ N., and intersected by the 140th meridian of E. Lon. The depth of the water, nowhere great, decreases all along the banks toward the city.

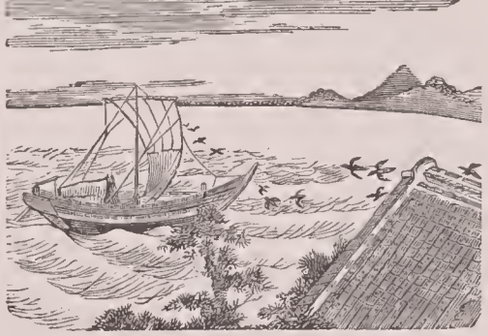


Fig. 2635.—A JUNK IN THE BAY OF YEDDO.
(From a native drawing.—*Oliphant's Japan.*)

Yeka'terinburg. See EKATERINBURG.

Yelk, *n.* Same as YOLK, *q. v.*

Yell, (*yel,*) *v. n.* [A.S. *gyllan, giellan.*] To make a loud, harsh noise with the voice; to cry out with a hideous noise; to cry or scream, as with agony or horror.

—*v. a.* To utter with a yell.

—*n.* A sharp, loud, hideous outcry; a scream or cry of horror.

Yell, or ZELL, one of the most northerly of the Shetland Islands, Scotland; *area*, 94 sq. m.

Yell, in *Arkansas*, a W. central co.; *area*, 936 sq. m. *Rivers.* Arkansas, Fourche La Fave, and Petit Jean. *Surface*, diversified; *soil*, fertile. *Caps.* Dauville and Dardanelles. *Pop.* (1897) 21,390.

Yell, in *Iowa*, a township of Boone co.

Yell'ing, *a.* Uttering hideous outcries; shrieking.

—*n.* The act of uttering hideous outcries; the act of screaming hideously.

Yellow, (*yel'lō,*) *a.* [A.S. *gealew*, yellow; It. *giallo*; Lat. *gilvus*, pale yellow.] Being of a bright gold-like color.

—*n.* A color of golden hue, and of many varieties. It is one of the seven so-called primary colors, and is complementary to blue, with which it forms white.

—*v. a.* To render yellow.

—*v. n.* To grow yellow.

Yellow, in *Iowa*, a twp. of Webster co.

Yellow-bird, or THISTLE-BIRD, *n.* (*Zoöl.*) A North-American bird of the genus *Chrysomitris*, family *Fringillidæ*, characterized by the bill nearly straight, and the tail quite deeply forked. The Yellow-bird, *C. tristis*, is 5¼ inches long, the wing 3 inches; the color gamboge-yellow, crown and wings black, tail and wings marked with white. The female is yellowish-brown, with no black upon the head. The nest is very handsome, made of lichens and fastened to a twig; eggs 4 to 6, white tinged with bluish, and spotted with reddish-brown at the larger end.

Yellow Bluff, in *Florida*, a township of Duval county.

Yellow Breeches Creek, in *Pennsylvania*, falls into the Susquehanna about 4 m. below Harrisburg.

Yellow Creek, in *Missouri*, rises in Sullivan co., and flowing S., enters Grand River on the W. of Chariton co.

Yellow Creek, in *Ohio*, enters the Ohio River from Jefferson co.

—A township of Columbiana co.

Yellow Creek, in *Pennsylvania*, unites with Black Lick Creek in Indiana co.

Yellow Copper-ore, *n.* (*Min.*) See COPPER-PYRITES.

Yellow Dye-tree, *n.* (*Bot.*) See CŒLOCLINE.

Yellow Earth, or YELLOW IRON-OCHRE, *n.* (*Min.*) A mixture of limonite (hydrated protoxide of iron) with hydrated silicate of alumina, found in various countries. It is often used as a coarse yellow pigment, and sold under the name of *Prussian red*, *English red*, &c. It is stated by Bunsen to be a valuable antidote to the poison of arsenic.

Yellow Fe'ver, or BLACK VOMIT, *n.* (*Med.*) An acute febrile disease, endemic on certain parts of the African coast, in the West India islands, and in tropical America, frequently making its appearance in New Orleans, Mobile, Charleston, and other cities of the southern parts of the United States. The disease is confined generally to towns situated on the sea-coast or on the banks of navigable rivers. A certain degree of heat seems to be necessary to its existence, the first frost putting an end to it. It seldom appears above the elevation of 2,500 feet above the level of the sea, depending in part on causes not yet known, but in circumstances favorable to its production, capable of being propagated by contagion. The most marked characteristics of this disease are a yellowness of the skin, general or partial, and the vomiting of a black or dark-colored fluid when about to terminate fatally: but these features are not always present. Otherwise it has the character of a common remittent fever. The mortality from this disease is always very great, more particularly among the young and robust; and hence it is very fatal among armies and navies. Its attack is sudden, but it is usually preceded by a feeling of weakness and restlessness, followed within a few hours with faintness, giddiness of the head, with a small degree of chilliness, and sometimes actual shivering. This is immediately succeeded by a high degree of fever, with great heat and strong beating in all the arteries of the body, particularly observable in the carotid and temporal arteries; flushings in the face, gaspings for cool air, white tongue, but tinged with yellow after the retchings have commenced; excessive thirst, redness, heaviness, and burning in the eyes; heaviness and darting pains in the head and small of the back, and often down the thighs; pulse quick, generally full and strong, but sometimes low and vacillating; skin hot and dry; sickness of stomach, followed by retchings, in which bilious matter is brought up; soreness and intense heat about the præcordia; anxiety, great restlessness, heavy respiration, sighing, scanty and deeply-colored urine. This is the first or inflammatory stage of the fever, and may continue from 24 to 48 or 60 hours. It is succeeded by a sudden abatement of most of the preceding symptoms, and sometimes there is a deceiving tranquillity. The retchings are still violent, but the pulse flags; the heat subsides, the skin is soft and clammy; the urine small in quantity, and of a dark croceous color; a yellow tinge is observed in the eyes, neck, and breast, which afterwards extends itself over the whole body; the tongue, in some cases, is dry, harsh, and discolored, in others furred and moist; there is confusion in the head, and sometimes delirium, with the eyes glassy This stage may continue from 12 to 48 hours, but never longer. In the third and last stage, the pulse sinks, and becomes unequal and intermittent. sometimes very quick; the vomiting is frequent, with great straining and noise, and latterly is of a dark and mucous-looking fluid, which has been called the *black vomit*. The countenance becomes more and more collapsed; the eye loses its full and prominent character; dark-colored blotches and petechiæ occur on the body: the exhalation becomes greater; the respiration hurried and noisy:

the surface and extremities cold and covered with a general clammy perspiration, till at length death supervenes. Sometimes the disease proceeds with fearful rapidity, and the patient is carried off in four-and-twenty hours. With respect to the treatment of this disease, much difference of opinion prevails. It may, however, be safely stated that the remedies should be directed to meet the particular forms of the disease — antiphlogistic in the inflammatory, and stimulant in the exhausted stages. Prof. Sanarelli, a bacteriologist of Montevideo, Uruguay, claimed in 1897 to have discovered the bacillus of yellow fever, and to have produced a curative serum. The important discovery has recently been made that the chief agent in transmitting the germs of *Y. F.* is the mosquito (*q. v.*). The knowledge of this fact has led to most important results in Havana and Santiago, Cuba, where by screening the hospitals against the entrance of mosquitos, *Y. F.*, once very prevalent, has been almost eradicated.

Yellow-ham'mer, or YELLOW-BUNTING, *n.* (*Zoöl. Emberiza citrinella*, a very common European bird of the fam. *Fringillidæ*. The male is known by the head, cheeks, front of the neck, belly, and tail-coverts being of a bright yellow; on the breast and sides reddish spots, which on the sides leave a black streak in the centre. Feathers of the top of the back, blackish in the middle, and reddish-brown on the sides; those on the rump, bright chestnut, terminated with grayish; tail-feathers blackish, the two lateral ones with a conical white spot on the inner barbs. Feet yellowish. The female is smaller than the male; and the yellow of the head, throat, and neck more thickly marked with the brown and olive spots with which those parts are sprinkled. Their food consists of grain, seeds, and insects.

Fig. 2636.
YELLOW-HAMMER,
(*Emberiza citrinella.*)

Yellow Knife, a river of British North America, enters the Great Slave Lake, after a S.W. course of 130 m.

Yellow-legs, *n.* (*Zoöl.*) *Gambetta flavipes*, a bird of eastern North America, family *Scolopacidæ*. It is about 10½ inches long, and 20 in extent of wings. The bill is 1½ inches, straight and slender; wings long and pointed, tail short, legs long, with lower half of tibiæ naked. The general color is ashy above, with many large arrow-heads and spots of brownish-black edged with ashy-white; rump and upper tail-coverts white, the latter barred with ashy-brown; lower parts white, with numerous marks on the neck and arrow-heads on the sides dark ashy-brown; bill greenish-black, and legs yellow. It is usually seen in the Eastern States in small flocks, wading in search of small fry, shrimps, worms, and aquatic insects, both in salt and fresh water. The nest is made among the grass on the edges of rivers and ponds; in autumn they get very fat, and are good eating.

Fig. 2637. — YELLOW-LEGS.
(*Gambetta flavipes.*)

Yel'lowness, *n.* The quality of being yellow.

Yellow Medicine River, in *Minnesota*, rises abt. Lat. 44° 30′ N., Lon. 96° 40′ W., and falls into the St. Peter's River abt. Lat. 44° 40′ N., Lon. 95° 26′ W., after an E.N.E. course of 100 m.

Yellow River, in *Georgia*, rises in Gwinnett co., and flowing S., enters the Ocmulgee a few miles S. of Covington.

Yellow River, in *Wisconsin*, rises near the E. border of Clark co., and flowing S., enters Wisconsin River at Germantown, in Juneau co.

Yellow Or'piment, *n.* (*Chem.*) Yellow arsenic or sulphuretted oxide of zinc, of a beautiful bright and pure yellow color, used as a pigment. In its native state it is used under the name of *Zarnic* or *Zarnich*, varying in color from warm yellow to greenish yellow. Orpiment, in all its varieties as a color, is subject to change and to be changed by all pigments containing oxygen; and if used must be employed alone.

Yellow-rat'tle, *n.* (*Bot.*) See RHINANTHUS.

Yel'low-root, *n.* (*Bot.*) See XANTHORIZA.

Yel'lows, *n. pl.* A disease in horses; the jaundice. — Also a disease fatal to peach-trees.

Yellow Sea, an inlet of the Pacific Ocean, in E. Asia. It opens northward into the gulfs of Leao-tong and Chi-li. It receives the Hoang-ho River, and all the chief rivers of Corea. Lat. bet. 32° and 45° N., Lon. bet. 120° and 127° E.

Yellow Springs, in *Iowa*, a village and twp. of Des Moines co., 15 m. N.W. of Burlington.

Yellow Springs, in *Ohio*, a post-village of Green co., 74 m. N.N.E. of Cincinnati; Lat. 39° 45′ N., Lon. 84° 15′ W. *Pop.* (1897) 1,450.

Yel'lowstone, a river of *Montana*, rises in the mountains of Wyoming, abt. Lat. 43° 40′ N., Lon. 110° W., and falls into the Missouri abt. Lat. 48° 5′ N., Lon. 104° W., after a N.E. course of 1,150 m., for 300 of which it is said to be navigable. It is the largest, though not the longest, tributary of the Missouri. See SECTION II.

Yel'low-throat, or MARYLAND YELLOW-THROAT, *n.* (*Zoöl.*) *Geothlypis trichos*, a very common North American bird of the family *Sylvicolidæ*. It is 5½ inches long, the wing 2·10; and is readily distinguished by a band of black on the forehead, cheeks, and ear-coverts. The female is without the black band. This warbler builds its nest upon the ground, and lays 4 to 6 white eggs speckled with light brown.

Yellow-weed, *n.* (*Bot.*) The Butter-cup, or Crowfoot, *Ranunculus acris*.

Yellow-water, a river of *Alabama*, rises in Covington co., and flowing S.W., enters Pensacola Bay, Florida.

Yelp, *v. n.* [A. S. *gilpan*, to glory, boast, from *gilp*, glory, boasting.] To bark, as a beagle-hound after his prey.

Yelp'ing, *n.* The repeated bark of a young dog, or the bark of a beagle after his prey.

Yem'en, a country of Arabia, which, in its wider sense, includes the whole S. and S.W. of that part of Asia, and then substantially the same country anciently called *Arabia Felix*, or the Happy (though by no means exempted from that curse of aridity under which Arabia generally suffers); — but, more strictly, the name of a province forming the S.W. corner of the peninsula, bounded N. by El Hejaz and Nedjed, E. by Hadramaut and the great Arabian desert, S. by the Gulf of Arden, and W. by the Red Sea. The plain of the Tehama, which forms a broad belt along the whole of the coast, consists almost entirely of a waste of unproductive sand. The Djebel, or mountainous district in the interior, presents, in many parts, a more agreeable aspect. Its lower declivities are covered with trees and aromatic shrubs; and the mountain-chains are divided by fine valleys, which, being watered by numerous streams, can be advantageously cultivated. — *Prod.* The grains chiefly raised are barley, millet, and dhourra; the supply of water being insufficient for the culture of rice. The most valuable and celebrated products, however, consist of the aromatic plants which grow upon the sides of the hills. The coffee of Yemen has always possessed a flavor which that of no other part of the world can rival. Europe, indeed, is now chiefly supplied from the West Indies; but, in the East, the coffee of Mocha is always eagerly sought after. The balm of Mecca, and the fragrant frankincense, are also the products of Yemen. — *Govt.* It is one of the few parts of Arabia which have been formed into a considerable and monarchical state, and is subject to a sovereign, who assumes the modest title of imam, or doctor, but exercises over his subjects an authority nearly absolute. The principal cities are, in the interior, Sana, Mocha, and Aden, the last now a British station. *Pop.* Unascertained.

Yenisei, (*yen'e-sai'e,*) one of the great rivers of N. Asia, in Siberia, rising in Mongolia, and, after a course estimated at 2,300 m., entering the Arctic Ocean 200 m. E. of the mouth of the Obi.

Yeniseisk, (*yen-e-seesk,*) a town of Asiatic Russia, cap. of a govt. of same name, 850 m. E. of Tobolsk; Lat. 58° 27′ N., Lon. 92° 16′ E. It is one of the most important towns of Siberia, the chief article of trade being furs. *Pop.* 6,824.

Ye'nite, *n.* (*Min.*) A brittle, black mineral, consisting chiefly of silica, sesquioxide of iron, protoxide of iron, and lime.

Yeoman, (*yo'man,*) *n.* [A. S. *gemæne*, common, from *gemana*, company.] In England, a common man; a man of small estate in land; a farmer; a gentleman farmer. — An upper servant in a nobleman's family.

(*Naut.*) An interior officer in a ship of war, under the boatswain, appointed to assist in attending to the boatswain's stores.

Yeomen of the Guard, a body-guard of the English sovereign, consisting of one hundred men.

Yeomandong' Monu'tains, a chain of Further India, separating the British prov. of Aracan eastward from Burmah. *Height*, between 2,000 and 8,000 feet.

Yeo'manly, *a.* Like a yeoman; pertaining to a yeoman.

Yeo'manry, *n.* The collective body of yeomen; the collective body of farmers.

Yeovil, (*yo'vil,*) a town and parish of England, in Somersetshire, 6 m. from Sherborne. *Manuf.* Woollen cloth and gloves. *Pop.* 7,957.

Yer'gas, *n.* A kind of coarse woollen wrapper made for horse-cloth.

Yerk, *v. a.* To jerk; to throw or thrust with a endden smart spring.

—*v. n.* To jerk; to move as with jerks.

—*n.* A sudden or quick thrust or motion. See JERK.

Yern. See YEARN.

Yer'-nut, *n.* A pig-nut; an earth-nut.

Yes, *adv.* [A. S. *gese, gea*; D. and Ger. *ja*.] Even so; expressing affirmation or consent; opposed to *no*

Yest (*yĕst*), *n.* Same as YEAST (*q. v.*).

Yeste (*e-ais'tai*), a town of Spain, 50 m. from Albacete. *Pop.* 6,409.

Yes'ter, *a.* [A. S. *gyrstan.*] Belonging or relating to the day before the present; last; last past; next before the present.

Yes'terday, *n.* [A. S. *gyrstan*, yester, and *dæg*, day.] The day before the present; the day last past.

Yes'ter-eve, Yes'ter-evening, *n.* The evening last past.

Yes'tern, *a.* [Ger. *gestern*, yesterday.] Of, or pertaining to, yesterday. (R.)

Yes'ternight, *n.* The night last past; last night.

—*adv.* On the night last past; last night.

Yes'ternoon, *n.* Noon of yesterday.

Yest'y, *a.* Frothy; yeasty.

Yet, *conj.* [A. S. *gyt, get.*] Notwithstanding, nevertheless; however.

—*adv.* Hitherto; still; noting extension or continuance; at the same time; beside; over and above; the state remaining the same; at this time; so soon; at least; at all; in a new degree; even; after all. — Also used as a kind of emphatical addition to a negative.

Yeu d'Isle, (*yoo'deel,*) a fortified island of France, dept. Vendée, 10 m. from the coast.

Yew, (*yu.*) *n.* [A. S. *iw*; Ger. *eibe*.] (*Bot.*) See TAXUS.

—*a.* Relating to yew-trees; made of the wood of the yew-tree.

—*v. n.* To rise in blisters, as scum or brine at salt-works

Yewen, (*yu'en,*) *a.* Made of the wood of the yew.

Yew'-tree, *n.* (*Bot.*) The YEW. See TAXUS.

Yeyd, or **Yezd,** (*yezd,*) a fortified city of Persia, in the province of Irak, on the frontier of Seistan. Being a great emporium of the trade between Hindostan, Bucharia, and Persia, it is large and flourishing, and is supposed to contain not less than 24,000 houses. *Manuf.* Silk stuffs, which are superior to any in Persia; velvets, cotton and woollen goods, arms, and loaf-sugar. Among the population are many Parsees, fire-worshippers, this being almost the only place in Persia they inhabit.

Yez'o, Ez'o, or (less correctly) **Yes'so,** the most northerly of the 4 principal islands of Japan, is separated from the main island by the Straits of Tsugaru, its size being about equal to that of Ireland. It is mountainous in the interior and has several active volcanoes. Coal is plentiful, the mines being worked by convict labor. Fish are abundant, enormous catches of salmon being made in the river Ishikari. It is thinly settled, and its interior is largely unexplored. The natives are an uncivilized people called Ainos (*q. v.*). Efforts are being made to settle and develop the country.

Yield, (*yeld,*) *v. a.* [A. S. *gyld*, payment, *gyldan*, to pay, give, render.] To pay; to render back; to give, as claimed of right; to produce, in general; to give in return for labor, or as profit; to afford; to exhibit; to allow; to concede; to admit to be true; to permit; to grant; to emit; to give up; to resign; to surrender.

—*v. n.* To give up the contest; to submit; to comply with; to give way; not to oppose; to give place, as inferior in rank or excellence.

—*n.* Amount yielded; product; return (applied particularly to products resulting from growth or cultivation.)

Yield'er, *n.* One who yields.

Yield'ing, *a.* Inclined to give way or comply; flexible; accommodating.

—*n.* Act of paying back or of producing; act of surrendering; submission.

Yield'ingly, *adv.* In a yielding manner; with compliance.

Yield'ingness, *n.* Disposition to yield or comply.

Ylo, or ILO, a seaport-town of Bolivia, at the month of the Ylo, in the Pacific; Lat. 17° 37′ S., Lon. 71° 23′ 45″ W.; *pop.* abt. 500.

Yo'cumtown, in *Pennsylvania*, a post-village of York co., 9 m. S.S.E. of Harrisburg.

Yo'der, in *Pennsylvania*, a township of Cambria county.

Yoke, (*yōk,*) *n.* [A. S. *geoc*; Gr. *zeugos*; Lat. *jugum.*] That which joins together; a piece of timber, hollowed or made curving near each end, and fitted with bows for receiving the necks of oxen, by which means two are connected for drawing. — A frame of wood fitted to a person's shoulders for carrying a pail, &c., suspended on each side. — A chain; a link; a band of connection. — A couple; a pair; as, a *yoke* of oxen. — A mark of servitude; service; slavery; bondage.

(*Hist.*) Yokes of iron are mentioned by Moses B. C. 1451 (Deut. xxviii. 48), and it is believed that such were actually used by slaves during the Scriptural period. The ancients regarded it as a symbol of slavery, and it was customary for vanquished armies to pass under a yoke, formed like a gallows, of two upright spears, and a third fixed transversely at top. The Samnites exacted this mark of submission from the Romans after their victory at the Caudine Forks, B. C. 321; and were themselves compelled to undergo the same humiliation B. C. 307 and B. C. 294.

—*v. a.* To put a yoke on; to join in a yoke; to couple; to join with another; to enslave; to bring into bondage; to restrain; to confine.

Yoke'-fellow, Yoke'-mate, *n.* An associate or companion; a mate; a fellow.

Yok'ing, *n.* The act of putting a yoke on; the act of joining or coupling; the harnessing of draught animals.

Yolk, *n.* [A. S. *geolca*, from *gelew.*] The yellow part of an egg. — The nucleous secretion from the skin of sheep, which renders the pile soft and pliable.

Yokoha'ma, the chief port of entry for Japan, is situated on the S. side of a bight of the Bay of Yedo, 17 m. from Tokio. When the country was opened to foreign commerce in 1854, it was a mere fishing village, but in 1859 was made the foreign mercantile settlement in Japan, and has since then grown with great rapidity, having now a population of over 150,000. The town is poorly laid out, with narrow and winding streets, but the Bluff, the foreign residence quarter, is a beautiful location, and commands a very attractive outlook over the bay. The largest foreign community in Japan is located here, and there is an active export trade of silk, tea, rice, and Japanese art objects. Exports about $50,000,000; imports, $25,000,000.

Yo'lo, in *California*, a central co.; *area*, 972 sq. m. *Rivers.* Sacramento and Puta; also, Cache creek. *Surface*, mountainous in the W., elsewhere level; *soil*, fertile. *Min.* Gold. *Cap.* Woodland. *Pop.* (1897) 13,450.

—A post-village of Yolo county, 5 miles northwest of Woodland.

You'der, *a.* [A. S. *geond*, through, over, as far as.] Being at a distance within view.
—*adv.* At a distance within view.

Youk'er, *n.* A young fellow; a youngster.

Youk'ers, in *New York*, formerly a city of Westchester co., on the Hudson river, joining New York city on the S., 16 m. N. of the City Hall; now included in New York city.

Yonne, (*yŏn,*) a dept. of the interior of France, in the ancient prov. of Burgundy, and situate nearly half-way between Paris and the frontier of Switzerland. *Area*, 2,864 sq. m. *Desc* Undulating, with rich pasture-lands. *Rivers.* The principal is the Yonne. *Clim.* Temperate, and of sufficient warmth for the vine. *Prod.* The usual cerealia, and large quantities of wine are made. *Min.* Lithographic stones and ochre. *Manuf.* Woollens, cottons, and beet-root sugar. *Pop.* 372,589.—Also a river rising in the dept. Nièvre, and, after a course of 150 m., joining the Seine at Montereau. It is connected with the Seine by the canal of Bourgogne, and with the Loire by that of Nivernais.

Yoosoofzyes, *n. pl.* An Afghan tribe. See AKBER.

Yore, *adv.* [A. S. *geara*, *gear*, a year.] In time past; long ago.

York, (HOUSE OF,) an English royal family, rival to that of Lancaster, and possessor of an older right to the crown. The first duke of York was Edmund Plantagenet, called also De Langley, fifth son of Edward III. His second son, Richard, earl of Cambridge, married Anne Mortimer, daughter of Roger, earl of March, and granddaughter of Lionel, duke of Clarence, the third son of Edward III. Upon the line of this king's eldest son becoming extinct in 1399, by the death of Richard II., the issue of Anne Mortimer inherited the true representation of Edward III. The rival house of Lancaster was descended from John of Gaunt, duke of Lancaster, and fourth son of Edward III. The house of York furnished three kings to the throne of England—Edward IV., Edward V., and Richard III. The house of Tudor, which supplanted it, was allied to it by the marriage of Henry Tudor, afterwards Henry VII., with Elizabeth, eldest daughter of Edward IV. In the struggle between the houses of York and Lancaster, the partisans of the former were distinguished by a white, and those of the latter by a red rose. Hence the title "Wars of the Roses."

York, (anc. *Eboracum,*) a city in the N. of England, cap. of a co. of same name, is situated on the rivers Foss and Ouse, and in point of rank, though not in commercial importance, is held as the second city of England, 22 m. from Leeds. It is the seat of an archbishopric, and a county by itself. It is entered by five principal gateways and five smaller ones. Of the five bridges of York, one alone crosses the river Ouse; the other four cross the Foss, and both rivers traverse the interior of the city. At the head of the public buildings is the cathedral, which is justly esteemed the glory of York This edifice belongs mostly to the 13th and 14th centuries, and is 542½ feet long, running from E. to W.; 222 broad internally, with a great tower 234 feet high. It has a magnificent W. front, flanked by two towers 196 feet high, and richly adorned within. *Manuf.* Carpets, woollens, linens, glass, paints, and paper-hangings. Before the Roman invasion, *Y.* was one of the chief towns of the Brigantes, the most powerful of the British tribes. The first English parliament was held at *Y.* in 1160 by Henry II.

York, in *Illinois*, a township of Carroll co.—A post-village and township of Clarke county, 22 miles southwest of Terre Haute.—A village of Crawford county, 142 m. east south-east of Springfield.—A post-township of Du Pago co.

York, in *Indiana*, a twp. of Benton co.
—A township of Dearborn county.—A township of Elkhart county.—A township of Noble county.—A township of Steuben county.—A township of Switzerland co.

York, in *Iowa*, a township of Tama co.

York, in *Maine*, a S.W. co., bordering on the Atlantic, and New Hampshire; *area*, 820 sq. m. *Rivers.* Ossipee, Saco, Salmon Falls, and York River. *Surface*, hilly; *soil*, fertile in the interior. It has several good harbors, and ship-building is extensively carried on. *Cap.* Alfred. *Pop.* (1897) 63,050.
—A post-village, township, and port of entry of the above co., on York river, 9 m. N.E. of Portsmouth.

York, in *Michigan*, a post-township of Washtenaw co.

York, in *Minnesota*, a post-township of Fillmore co.

York, in *Missouri*, a township of Putnam co.

York, in *Nebraska*, a S.E. central co.; *area*, 576 sq. m. It is drained by the Big Blue river. Its surface is undulating, and the soil generally fertile. *Cap.* York. *Pop.* (1897) 21,260.

York, in *New York*, a post-township of Livingston co., 6 m. N.W. of Genesee.

York, in *Ohio*, a township of Athens co.—A township of Belmont co.—A township of Darke co.—A township of Fulton co.—A township of Medina co.—A township of Morgan co.—A township of Sandusky co.—A township of Tuscarawas co.—A post-township of Union co.
—A township of Van Wert co.

York, in *Pennsylvania*, a S.S.E. co., bordering on Maryland; *area*, 925 sq. m. *Rivers.* Susquehanna; also, Codorus, Conewago, and Yellow Breeches creek. *Surface*, diversified; *soil*, generally fertile. *Pop.* (1897) 108,450.
—A flourishing city, cap. of the above co., 28 m. S.S.E. of Harrisburg; has very extensive industries. York was settled in 1741 and incorporated in 1787. The Continental Congress sat here from Sept. 30, 1777, to July, 1778. *Pop.* (1897) 24,180.

York, in *S. Carolina*, a N. co., bordering on N. Carolina; *area*, 750 sq. m. *Rivers.* Catawba and Broad; also, Allison's, Buffalo, King's, and Fishing creeks. *Surface*, hilly; *soil*, fertile. *Min.* Gold, iron, manganese, and limestone. *Cap.* Yorkville.

York, in prov. of Ontario, a central co.; *area*, 808 sq. m. *Rivers.* Don, Humber, and Rouge. *County-seat*, Toronto.

York, in *Virginia*, a river formed by the junction of the Mattapony and Pamunkey rivers, at the S.E. extremity of King William co. It falls into the Chesapeake Bay nearly opposite Cape Charles, after a S.E. course of 40 m.—A S.E. co., bordering on York River and the Chesapeake Bay; *area*, 70 sq. m. *Surface*, undulating; *soil*, fertile. *Cap.* Yorktown.

York, in *Wisconsin*, a post-township of Dane co., abt. 18 m. east north-east of Madison.—A township of Green co.

York, in British N. America, a fort on the W. coast of Hudson Bay, at the mouth of Hayes River; Lat. 57° N., Lon. 92° 26' W.

York Haven, in *Pennsylvania*, a village of York co., 16 m. S.E. of Harrisburg.

York Mills, in *New Jersey*, a village of Hunterdon co., 10 m. W.N.W. of Flemington.

York River, in *Maine*, an inlet of the Atlantic, in York co., 7 m. long.

York'shire, a northern co. of England, and the largest in Great Britain. Yorkshire has an area of 5,838 square miles, and is divided into three parts or ridings—north, east, and west. The North Riding is eighty-three miles in length by thirty-eight in width; has an area of 2,055 square miles, and is generally bleak and hilly. The East Riding has an area of 1,119 square miles, and consists of extensive wolds, chalk hills, and a great variety of scenery, and may be regarded as the very heart of the agricultural portion of the country. The West Riding has an area of 2,576 square miles, and consists of level, marshy and undulating lands. The dairy men of London are principally supplied with cows from *Y.*, and the hams from this co. have attained great celebrity. The chief rivers of *Y.* are the Swale, Tees, Derwent, Hull, Calder, Ribble, Ouse, and Don. The manufactures are broad and narrow cloths, shalloons, calimancoes, flannels, hosiery, and all kinds of worsted work, cutlery, and plated goods. *Cap.* York.

Yorkshire, in *New York*, a post-vill. and township of Cattaraugus co., 55 m. S.S.E. of Buffalo.

Yorkshire Grit, *n.* A name given to a stone used for polishing marble and copper-plates for engravers.

York Sulphur Springs, in *Pennsylvania*, a post-village of Adams co., 23 m. S.W. of Harrisburg.

Yorktown, in *Illinois*, a twp. of Henry co.

Yorktown, in *Indiana*, a post-village of Delaware co., 52 m. N.E. of Indianapolis.

York'town, in *New York*, a post-township of Westchester co., 45 m. N.E. of New York.

York'town, in *Virginia*, a port of entry and cap. of York co., on York River, 70 m. E.S.E. of Richmond. On Aug. 1, 1781, Lord Cornwallis established himself in *Y.*, with his whole army of abt. 8,000 men. In the latter part of September the combined American and French armies invested the town, strongly fortified by Cornwallis, and on Oct. 19, the British army, then reduced to abt. 7,000, surrendered to Washington as prisoners of war. *Y.* was a second time besieged by the National troops under Gen. McClellan, from April 5 to May 3, 1862, when the Confederates, abandoning their works, 71 heavy guns, and a large amount of ammunition, retreated to Richmond. *Y.* is noted for these two memorable sieges. In Oct., 1881, the centennial anniversary of the surrender of *Y.* was held here, Congress having made an especial appropriation and extended invitations to France and to the descendants of Lafayette, Rochambeau, Steuben, and other of our distinguished allies to participate.

York'ville, in *Ala.*, a vill. and twp. of Pickens co., 186 m. W.N.W. of Montgomery.—In *Ill.*, a p.-v. of Kendall co., 52 m. S.W. of Chicago.—In *Ind.*, a p.-v. of Dearborn co., 84 m. S.E. of Indianapolis.—In *S. C.*, a p.-v., cap of York dist., 86 m. N.W. of Columbia.—In prov. of Ontario, a village of York co., 2 m. N. of Toronto.—In *Wis.*, a post-vill. and twp. of Racine co.

Yosem'ite Val'ley. A mountain cleft or valley in Mariposa co., Cal., famous for its picturesque beauty and grandeur, on account of which it has been set aside as a perpetual park or reservation. It is situated on the W. slope of the Sierra Nevada Mountains, nearly midway between the N. and S. extremities of the State, and 140 m. nearly due E. from San Francisco. The valley, which is about 6 m. long and from ½ to 2 m. wide, is traversed by the Merced river, and embraces within its confines some of the most magnificent natural scenery of the world. Its sides are composed of lofty granite cliffs, almost vertical, and from 3,000 to 6,000 ft. high. Over these lofty walls streams of water flow at several points, forming in the season of rains and melting snows cataracts of unrivalled beauty. In the early spring, the rains give rise to minor streams and rivulets, which dart downward in lines of glancing light to the valley below, the whole combination of cascades and cataracts giving an indescribable charm to the scene. Trees in great variety adorn the floor of the valley, which during the proper season is carpeted with flowers of varied hue. To these elements of beauty needs to be added the stream that wanders down the center of the valley, its waters icy cold from their mountain source, and of crystal clearness. The Yosemite Valley was discovered by a party of hunters in 1851, during their pursuit of a band of predatory Indians who made it their stronghold. The reports of its remarkable beauty quickly brought tourists, and in 1864, Congress, in order to preserve it from the greed of speculators, took steps to set it aside as a permanent park, in common with the Mariposa Grove of giant trees, in its vicinity. These were granted to California on the express condition that they should be kept "for public use, resort, and recreation," and "be inalienable for all time." In passing up the valley from its outlet, the first of its grand features to be observed is the lofty cliff known as El Capitan, 3,300 feet high, which rises so vertically and stands out so prominently from the bounding cliffs as to make it the most imposing object in the valley. Opposite this stupendous cliff, as if placed there as a relief to its grandeur, descends one of the most beautiful of the cascades, the celebrated Bridal Veil Fall. This springs from the brow of a cliff 900 feet high, and descends in a broad sheet of tremulous spray, which dissolves into mist before reaching the bottom. On the other side, near the lower corner of El Capitan, the Virgin's Tears Fall descends in a beautiful cascade, 1,000 feet high, though it is only to be seen in the rainy season of the early spring. Cathedral Rock, 2,660 feet high, is the next object of interest, and beyond it are The Spires, two graceful granite columns which stand out partly isolated from the walls, like the towers of a Gothic cathedral. The succeeding attractions are the rocks known as the Three Brothers and Sentinel Rock, and opposite the latter the renowned Yosemite Falls, the most wonderful feature of the valley's scenery. This descends in all 2,660 feet, forming two cataracts and a series of cascades, the first fall being a sheer descent of 1,500 feet and the final one 400 feet. The stream is about 25 feet wide, and the cataract, during the season of rains, is unrivalled in height and beauty. At a short distance above Yosemite Falls an affluent enters the Merced, coming down a deep gorge known as Tenaya Cañon. Here are some of the most striking cliff effects of the valley, the most stupendous of them being a vast granite crest known as the Half Dome, 4,737 feet, or nearly a mile, in vertical height. Between this and the North Dome opposite lies an exquisite little pool known as Mirror Lake, which clearly reflects its gigantic surroundings. About two miles farther up the main valley ends, branching into two cañons, one traversed by the main stream, the other by an affluent. The Merced makes its way down the main cañon in two grand falls, and a series of rapids and cascades, which count among

Fig. 2638.—THE YOSEMITE VALLEY.

the leading attractions of the locality. The first reached, Vernal Fall, is a grand plunge of the whole stream, about 100 feet wide, down a vertical depth of 400 feet, the effect being one of great grandeur. For a mile above stretches a series of rapids and cascades of great beauty, the force of flow of the stream approaching that of the rapids at Niagara. These lead to the second cataract, Nevada Fall, which ranks with the greatest of waterfalls in height, volume and impressiveness, the descent being about 600 feet. Near the summit a rocky ledge throws a part of the water aside, giving it a peculiar twist which adds much to the scenic effect. Such are the principal features of this remarkable valley, whose variety and profusion of picturesque scenery stand unrivalled in the world. There are several points from which a general view of it may be attained, including Inspiration Point, at the entrance, and Moran's Point, from which the artist, Thomas Moran, sketched his celebrated picture of the valley. Scientists somewhat disagree as to the formative agencies of this great result of nature's architecture. Traces of glacial action are visible, and there are also indications of the work of earthquakes, while probably other agencies aided in the work. The whole locality is full of evidence of Titanic forces, and from the summit level a magnificent view of mountain and valley scenery is to be had.

You (*yŏ*), *pron.* [A. S. *thu*, *thou*; pl. nom. *ge*, accus. *eow.*] The nominative and objective plural of *thou*. Although strictly applicable only to two or more persons, it is commonly used when a single person is addressed, instead of *thou* and *thee*.

Youghal (*yo'al*), a seaport town of Ireland, in the co. of Cork, on the S. side of the Blackwater river, which forms its harbor, 26 m. from Cork. It is the seat of an export trade and has some potteries. *Pop.* 6,328.

Youghiogeny (*yo-ho-ga'nee*), a river which rises in Preston co., West Virginia, and flows into the Monongahela river, 15 m. S.E. of Pittsburg, after a N.N.W. course of 150 m.

Young, *a.* [A. S. *geong*; Lat. *juvenis.*] Being in the early part of life; not having been long born; not old; being in the first part of growth.—Ignorant, weak, or rather, having little experience.
—*n.* The offspring of an animal or animals; offspring.

Young, BRIGHAM, the president and prophet of the Mormons, born at Whittingham, Vermont, 1801. In

1832 he was made an elder of the Church of the Latter-day Saints, and began to preach at the Mormon settlement at Kirtland, O., and was appointed, in 1835, one of the twelve apostles of the Church. After the Mormons had been driven from Kirtland to Missouri, and from the latter to Illinois, and the murder of Joseph Smith by a mob (1844), *Y.* was chosen president in his place. The year following the charter of Nauvoo was repealed by the legislature of Illinois; and after a cannonade of three days the Mormons were driven from their capital and temple and led by President *Y.* to Utah, where they arrived, after a long and toilsome journey across the plains, July 24, 1847. At the establishment of the Territorial government in 1849, President Fillmore appointed Brigham *Y.* governor of the Territory. Next year the United States judges were driven away, the governor removed, and Colonel Steptoe appointed in his place; but on visiting Utah in 1854, he thought it an unsafe residence, and resigned; the Mormon president exercising supreme authority, and saying: "I am and will be governor, and no power can hinder it, until the Lord Almighty says: 'Brigham, you need not be governor any longer.'" A new governor, Cumming, was, however, appointed, and sent with a force of 2,500 U. S. troops to protect him and the Federal officers; but *Y.* forbade them to enter the Territory, cut off the supply-trains, while the troops were reduced to straits by being overtaken by snow in the mountains. A compromise was effected, and the troops remained until 1860. In 1871 he was indicted for practising polygamy, and placed under arrest by the Federal courts, but his trial never took place. *Y.* retained the presidency of the church until his death, Aug. 29, 1877. See MORMONS and UTAH.

Young, EDWARD, an English poet, born at the village of Upham, in Hampshire, 1684. He was educated at Winchester School and Oxford University, obtained a law fellowship at All Soul's College, and, in 1719, graduated D.C.L. He had before that time made himself known by the publication of several of his poems. *Y.* was ordained priest in 1727, and was appointed chaplain to the king, and three years later rector of Welwin in Hertfordshire. He continued to publish a succession of poems, each with a dedication to some influential person. He was named, in 1761, clerk of the closet to the princess dowager of Wales. *Y.*'s principal poetical work is the *Night Thoughts*, which appeared between 1742–46, and by reason of the seriousness of its subject —the immortality of the soul, and the practical duties which flow from that fact—and the force and showiness with which it is set forth, obtained an immense reputation, and long held its ground as a household book in England.

Young, SAMUEL B. M., general in U. S. army; was born in Pennsylvania, January 9, 1840; enlisted as private in 1861, and rose in rank during the Civil War to brevet brigadier-general. Entered regular army in 1866 as second lieutenant; became colonel of Third Cavalry in 1897; brigadier-general and major-general of volunteers in 1898, commanding an army corps in the war with Spain; subsequently served in the Philippines, becoming major-general in the regular army; on August 8, 1903, succeeded General Miles as lieutenant-general commanding, and on August 15 gave up this title to assume that of Chief of Staff under the new Army law. Retired January 9, 1901.

Young, in *Texas*, a N. co.; *area*, 900 sq. m. It is drained by Brazos river. *Surface*, diversified; *soil*, fertile. *Cap.* Graham. *Pop.* (1897) 6,250.

Young, THOMAS, an English philosopher, born at Milverton, Somersetshire, 1773. At the age of 19 he went to London as a student of medicine under his uncle, an eminent physician. He next studied at several of the German universities, and took his degree as doctor of medicine at Gottingen; but his uncle having left him $50,000, he did not actively pursue his profession. He subsequently became professor of Natural Philosophy at the Royal Institution, physician of St. George's Hospital, secretary to the Board of Longitude, and, finally, conductor of the "Nautical Almanac." He was the discoverer of the principle of interference in the undulatory theory of light, and, among other valuable works, produced *A Course of Lectures on Natural Philosophy and Mechanical Arts.* Died in 1829.

Young'ster, *n.* A young person; a youth.

Youngs'town, in *New York*, a post-village of Niagara co., 30 m. N.N.W. of Buffalo.

Youngstown, in *Ohio*, a thriving city, cap. of Mahoning co., on the Mahoning river, 135 m. N.E. of Columbus. *Pop.* (1897) 40,500.

Youngstown, in *Pennsylvania*, a post-borough of Westmoreland co., 11 m. E. of Greensburg.

Youngs'ville, in *Pennsylvania*, a post-borough of Warren co., 9 m. W. of Warren.

Young Wom'anstown, in *Pennsylvania*, the former name of MIFFLINBURG, in Clinton co.

Youuk'er, *n.* A youngster; a youth. (*Colloq.*)

Yount, in *California*, a township of Napa co. *Pop.* (1897) 2,790.

Your (*yure*), *a. pron.* [A. S. *eower*, gen. pl. of *thu*.] Belonging to you—equally applicable to both members.

Yours (*yorz*). The possessive pl. of *thou*.

Yourself', *pron.; pl.* YOURSELVES. A word added to *you*, to express distinction emphatically between you and other persons—used as the reciprocal pronoun.

Youth (*yüth*), *n.* [A. S. *geogvth*, *ingvth*.] The state of being young; the period during which one is young; the whole early part of life from infancy to manhood; the part of life that succeeds to childhood; a young man; young persons collectively.

Youth'ful, *a.* Full of youth; young; pertaining to the early part of life; suitable to the first part of life; fresh; vigorous, as in youth; proceeding from ungoverned impulse, as in youth.

Youth'fully, *adv.* In a youthful manner.

Youth'fulness, *n.* State or quality of being youthful.

Youth'hood, *n.* The state or the period of youth. (R.)

Ypres (*ee'pr*). [Flem. *Ypern.*] A fortified town of Belgium, in West Flanders, on the Yperles, 30 m. from Bruges. *Manuf.* Linen, lace, cotton, thread, and silk. *Pop.* 17,390.

Ypres'-lace, *n.* The finest and most expensive kind of Valenciennes lace.

Ypsilanti (*ip-se-lan'tee*), in *Michigan*, a flourishing city of Washtenaw co., 30 m. S. W. of Detroit. *Pop.* (1894) 6,111.

Yreka, in *California*, a city, cap. of Siskiyou co., 125 m. N. of Red Bluff. *Pop.* (1897) 1,450.

Yrieix (*e-re-ai'*), **St.,** a town of France, dept. of Haute-Vienne, on the Loue, 22 m. from Limoges. *Manuf.* Linens, druggets, flannels, porcelain, &c. *Pop.* 8,171.

Yssengeaux (*is-sen-zo'*), a town of France, dept. Haute-Loire, 14 m. from Le Puy. *Manuf.* Lace and ribbons. *Pop.* 8,360.

Ystad (*u(r)-stat'*), a town of Sweden, on the Baltic, 46 m. from Christianstadt. It has a spacious harbor. *Manuf.* Woollens, tobacco, &c. *Pop.* 4,500.

Yt'tria, *n.* (*Chem.*) See YTTRIUM.

Yt'trium, *n.* (*Chem.*) One of the rare metals. Its oxide *yttria* (Y_2O_3), was discovered in 1794. In a mineral found at Ytterby, in Sweden. The metal was first obtained by Wöhler in 1828. It occurs as a blackish gray powder, with no very distinctive properties. It has since been found in other minerals, associated with several other rare metals, Texas being one of its principal sources. *Sym.* Y. *Atom. wt.* 89.

Yttroce'rite, *n.* (*Min.*) A native sesquifluoride of cerium, with fluoride of yttrium and fluoride of calcium (Fluor-spar), from Finby, in Sweden.

Yttrotan'talite, *n.* (*Min.*) A mineral from Ytterby, in Sweden, composed chiefly of Yttria and Tantalum.

Yuba, in *California*, a river formed by the junction of the N., Middle and S. Yuba, at the base of Sierra Nevada in Yuba co., and flowing S.W., falls into Feather river near Marysville.—A N. co.; *area*, 750 sq. m. *Rivers.* Feather, Bear, Yuba, and the N. Branch of the latter. *Surface*, mountainous in the E., and level in the W.; *soil*, fertile in the level country. *Min.* Gold and quicksilver. *Cap.* Marysville. *Pop.* (1897) 11,450.

Yu'ba City, in *California*, a post-village, cap. of Sutter co., on Feather river, opposite Marysville. *Pop.* (1897) 580.

Yuba City, in *Idaho*, a village of Elmore co.

Yucatan', the most easterly State of Mexico; *Lat.* nearly between 17° 30′ and 20° 30′ N., *Lon.* between 87° and 91° W. It is in the form of a peninsula, jutting out into the Gulf of Mexico from the mainland of the isthmus, and has, on the N.W., the waters of the Mexican Gulf, the bay or gulf of Honduras on the S.E., the prov. of Vera Cruz on the S.W., and Vera-Paz, in Guatemala, on the S. Here it is connected with the continent by an isthmus of about 120 m. in breadth; *area*, from 50,000 to 80,000 sq. m. The surface is fertile and level, but deficient in regular supplies of water. *Prod.* Corn, maize, indigo, cotton, pepper, sugar-cane, and dye-woods. Abundant and interesting ruins, found at Uxmal, Chichen, &c., prove that a higher civilization was possessed by the race who originally inhabited *Y.* *Cap.* Campeachy. *Pop.* (1897) 282,636.

Yucatan, in *Minnesota*, a post-township of Houston co., about 22 m. S. of Winona.

Yucatan, Chan'nel of, that portion of the sea between Yucatan and Cuba, 120 m. in width.

Yue'ca, *n.* (*Bot.*) A genus of plants, order *Liliaceæ*, popularly known under the names of Adam's Needle, Spanish-Bayonet, or Silk-grass. The species sometimes assume an arborescent habit, producing a crown of linear-lanceolate, more or less rigid leaves, and from the center of each crown a tall erect panicle of showy whitish flowers. They are chiefly found in the West Indies and in Mexico. They are very handsome garden-plants, most of them nearly or quite hardy. In *Y. gloriosa* (Fig. 2639), the crown of leaves becomes elevated on a stout stem, and the panicle is three feet or more in length, branching out on every side.

Fig. 2639.—YUCCA GLORIOSA.

Yu'eu-Yang', a city of China, in Hoo-pe, 580 m. from Pekin; *Lat.* 32° 50′ N., *Lon.* 110° 29′ E.

Yug, *n.* (*Hindoo Myth.*) One of the four eras or periods into which the Hindoos divide the duration of the world. They extend over millions of years.

Yu-ho (*yoo-ho*). The grand canal of China.

Yukon, a river of Alaska, about 2,000 m. in length and navigable for 1,500 m. At its mouth, and intervening deltas, it is 70 m. wide. See page 3126.

Yu'ma, in *Arizona*, a S.W. co., bordering on California and Mexico. *Rivers.* Colorado, Gila, and Williams' Fork of the Colorado. *Surface*, mountainous; *soil*, generally sterile. *Min.* Gold and silver. *Cap.* Yuma.

Yu'ma, or **Yuna,** a river of Hayti, rises in the mountains of Cibao, and falls into the Atlantic by a broad estuary, after a general eastern course of 70 m.

Yuuk, *n.* (*Zoöl.*) A genus of birds, the WRYNECK (*q. v.*).

Yuu-Nau', a city of China, cap. of province of that name; *Lat.* 25° 6′ N., *Lon.* 102° 28′ E.

Yverdun (*e-vair-du(r)n*), a neatly built town of the Swiss canton of Vaud, at the S. extremity of the Lake of Neufchatel, 53 m. from Geneva. *Pop.* (1897) 4,000.

Yvetot (*eev'to*), a town of France, department Seine-Inférieure, 19 m. from Rouen. *Min.* Linen, muslins, &c. Once the cap. of a lordship, the chiefs of which were called kings of Yvetot—a distinction said to have been granted by Clotaire I. in 534; but this is not considered authentic. The title is believed to have originated in the 14th century.

Y.—SECTION II.

YALE — YELL

Yak'ima. In *Washington*, a S. co.; *area*, 5,760 sq. m.; named by Yakima river. *Surface*, partly mountainous, partly undulating; large forests. *Products*, Wheat, oats, hops, tobacco, fruits, wool, hay; live stock. *Cap.* North Yakima. *Pop.* (1897) 7,950.

Yale, Elihu, philanthropist, was born in Boston, Mass., April 5, 1648. His father was one of the original settlers of New Haven (1638), but returned to England in 1651; his family following soon after. Y., at the age of 22, went to India as a trader, and in 1687 he became governor of the East India Company's settlement at Madras, holding that post until 1692. He returned to England a wealthy man, in 1699. He never returned to America, but frequently proved his remembrance of his native town by gifts of money and books to the "Collegiate Schools," at Saybrook, Conn.; in 1745, the name of Yale College was given to the institution, in his honor. Died July 8, 1721.

Yale, Linus B., inventor of the "Yale lock," was born in Salisbury, N. Y., in 1821. In 1850 he devised a key for bankers' safes, involving a principle which soon marked him as an inventive genius. Died Dec. 24, 1868.

Yale Univer'sity. (*Educ.*) This institution, formerly known as Yale College, was authorized, in Jan., 1887, by the General Assembly of Connecticut, to call itself a university. It is the third institution of the kind in the United States, in point of age, its two predecessors being Harvard and William and Mary. The governor and lieutenant-governor of the State are members of the corporation, with whom were formerly associated six State senators, *ex officiis*. In 1871, however, the Assembly, with the assent of the corporation, substituted for the senators six graduates of the college, who were chosen, as their successors (one vacancy occurring annually) are also chosen, by the votes of a plurality of graduates of the first degree of five years' standing. Grouped under the name of Yale University are the department of philosophy and the arts (the academic department, or original Yale College, around which all the others have been developed), the department of theology, of law, and of medicine, the Sheffield Scientific School (see Technical Schools), the School of the Fine Arts, the musical department, and the post-graduate courses. Degrees in arts were first given in 1702, in medicine in 1814, in law in 1843, in philosophy in 1852, in theology in 1867, in fine arts in 1891, and in music in 1894. The course of study in the academical department (Yale College) extends through four years, and leads to the degree of bachelor of arts. The permanent funds of this department (exclusive of real estate, buildings, and apparatus devoted to academical uses) are about $1,500,000. There are nine dormitories, built from 1752 to 1894, and accommodating about 700 persons. A fine gymnasium, for the use of all the students of the university, was erected in 1893. There is also a well-laid-out athletic field, about a mile and a half west of the university buildings. The School of the Fine Arts was founded in 1864, by Augustus R. Street, of New Haven, who erected a building on the college square for its use and otherwise endowed it. Instruction is provided in drawing, painting, sculpture, architecture, and copper-plate etching. The degree of bachelor of arts is conferred on students who have fulfilled the requirements of an advanced course. The theological department was founded in 1822, in connection with the Congregational denomination, and provides a three years' course of study. There is also a graduate course of one year. There is no charge for instruction or for room-rent in the buildings belonging to the school. It is open on equal terms to students of every Christian denomination. The law department, begun in a private school in 1800, was not recognized as part of the college until 1824. For many years the school found quarters in the county court-house. It now occupies a building erected for it in 1895. The medical department was organized in 1813. It has a building of its own. The Peabody Museum of Natural History, devoted chiefly to zoology, geology, and mineralogy, was established by a gift of $150,000 from George Peabody, of London, in 1866. One wing of the proposed museum has been erected. The university possesses an excellent observatory. The University Library, open to students in all the departments, contains about 175,000 volumes, besides many thousands of unbound pamphlets. The total number of volumes in the several libraries of the university is about 240,000. In 1896 it had 234 instructors and 2,415 students. Its productive funds in that year were $3,821,875, and its revenues, exclusive of benefactions, $729,681.

Yamaga'ta, Aritomo, Marquis, a Japanese soldier and statesman, was born in the province of Choshu, in 1838; entered the military service, and took prominent part in the revolution of 1868; was steadily promoted in military and official life, as the reward of distinguished services. In the war with China (1894) he commanded the First Army Corps, and by his skill succeeded in expelling the Chinese from Corea within a few weeks. For this service he was created a marquis in 1895. He advocates the introduction of European methods as far as possible. In 1896 he attended the ceremonies at the coronation of the Czar, as the guest of the Russian Court, proceeding thence by way of the United States to Japan.

Ya'pok, *n.* (*Zoöl.*) A curious opossum (*Chironectes variegatus*) of Central America and Brazil, often called water-opossum, in reference to its aquatic habits. Unlike any other opossums, it has webbed feet, and it is so otter-like in its habits that it was long classed with carnivores. Its food consists of fishes, crustaceans and water-insects, and it lives in holes in the river banks. It is of small size and gray, with 4 or 5 sharply contrasted brown bands across its head and back.

Yates, Edmund Hodgson, journalist and novelist, was born in London, Eng., in July, 1831. He early began his career in journalism, becoming editor of *Temple Bar* and *Tinsley's Magazine;* theatrical critic of the *Daily News*, and a constant contributor to *All the Year Round*. He was also London correspondent of the New York *Herald* until 1874, when he devoted his energies to founding *The World*, a London "journal for men and women." This journal was eminently successful, and Y. continued to be the sole editor and proprietor during his life. In 1884 he was indicted for libel on complaint of the Earl of Lonsdale, and sentenced to two months' imprisonment. His novels are numerous, and many have been very popular. Died May 20, 1894.

Yates, Richard, "war governor" of Illinois, was born at Warsaw, Ky., Jan. 18, 1818; graduated at Illinois College, at Jacksonville (1838); practiced law in Springfield; was a member of the legislature (1842); elected to Congress (1850); governor (1860 and 1862). He was strongly opposed to slavery, and active in raising regiments of Union volunteers. He was elected to the U. S. Senate for one term (1865–71); was U. S. railroad commissioner at the time of his death, Nov. 27, 1873.

Yates Cen'ter, in *Kansas*, a city, cap. of Woodson co., 15 m. S.W. of Neosho Falls. *Pop.* (1895) 1,599.

Yclept', or **Ycleped',** *p.p.* of *clepe*, with prefix *y*. (*Obs.* or *Humor.*) Called; named.

Yel'low Med'icine, in *Minnesota*, a S.W. co.; *area*, 612 sq. m.; bounded N.E. by Minnesota river, and intersected by Lac-qui-parle river. *Surface*, undulating, chiefly prairie; not much timber; *soil*, fertile. *Cap.* Granite Falls. *Pop.* (1895) 12,581.

Yel'lowstone, in *Montana*, a S.E. co.; *area*, 3,105 sq. m.; drained by Yellowstone and Musselshell rivers. *Surface*, tablelands and valleys; *soil*, fertile in valleys with irrigation; valuable cattle ranges on the high lands; extensive beds of good coal. *Products*, Barley, wheat, potatoes, oats, hay, and wool. *Industries*, Cattle and sheep raising, and mining. *Cap.* Billings. *Pop.* (1897) 3,260.

Yellowstone Na'tional Park. Under this name a large tract of country in northwestern Wyoming, embracing the sources of the Yellowstone river, was set apart by Congress, in 1872, as a public park or pleasure-ground for the benefit and enjoyment of the people. The Act forbids any one to settle upon or enclose any part of the 3,575 acres of area thus set apart, and only such buildings can be erected upon it as the secretary of the interior, who has the exclusive control of the park, may deem conducive to the accommodation and comfort of visitors. This region had been vaguely known to the hunters and gold-seekers of Montana for several years previous to that time, but the geological and geographical survey made of it by Dr. F. V. Hayden, the U. S. geologist, in 1870, resulted in the first information to the public generally, and disclosed one of the foremost "wonderlands" of the globe—a region where mountain scenery culminates, and where the most powerful and splendid geysers and hot-springs of the world are gathered by thousands in the valleys. There are remnants of the volcanic period of formation here, which has left nine-tenths of the whole area covered with lavas or scoriæ of some form. The term Yellowstone Basin is sometimes applied to the entire valley; but the basin proper comprises only that portion enclosed within the remarkable ranges of mountains which give origin to the waters of the Yellowstone, south of Mount Washburne and the Grand Cañon. This basin is about 40 miles in length from north to south, and on an average 30 miles in width from east to west. It might be called the vast crater of an ancient volcano, made up of thousands of smaller rents and fissures, out of which the fluid interior of the earth, fragments of rocks, and volcanic dust have been erupted in unlimited quantities. Hundreds of the nuclei or cones of these volcanic rents are now remaining, some of them rising to a height of nearly 11,000 feet above the sea. Indeed, the hot springs and geysers of this region are only the closing stages of that wonderful period of volcanic action which began in Tertiary times. Yellowstone Lake is gradually, but very slowly, diminishing, Dr. Hayden finding old shore-lines on the mountains 500 feet above the present level of the surface.

Warm springs are not uncommon in the valley of the lower Yellowstone, but the temperature is seldom higher than 60° to 80°. It is not until we reach Gardiner's river, a small branch flowing into the Yellowstone on the left side, opposite the third cañon, that the true hot springs commence in their full force. About 3 miles above its junction with the Yellowstone, the valley bottom is covered with a thick calcareous crust, the deposits of hot springs which are now extinct, but flowing swiftly from beneath this crust is a stream of hot water 6 feet wide and 2 feet deep, with a temperature of 132°. A little distance farther up is a high hill, on the slope of which has been formed a system of terraces, each from 200 feet to 300 feet in height, and covered with a thick deposit of lime. On the ascent of the hill, about three-fourths of a mile from the river bottom, there is to be met with one of the most remarkable exhibitions of hot-spring deposits that is to be seen in this land of wonders. In the distance it looks like a vast glacier of snow and ice, on which account it has been named the White Mountain. Indeed, the different terraces can be compared, for their wonderful beauty, only to a frozen cascade. The remains of once-active springs are plainly visible; old chimneys, irregular openings, like entrances to caverns, which extend beneath the crust, are so numerous. This crust is probably from 20 feet to 50 feet in thickness, and underneath it is supposed that the surplus water from the active springs above flows down to the river. A little farther up is a series of basin-like pools, from 4 feet to 8 feet in diameter, and on a terrace about 200 feet farther still are numbers of active springs, with basins 20 feet to 50 feet in diameter, some of them with several centers of violent ebullition in the same basin. The temperature at the outflow varies from 150° to 162°. Upon the terrace, down about midway on the side of the mountain covered with this deposit, the principal active springs are now located, and here is presented to the eye another picture which transcends any description in words. The water is perfectly transparent, and down in the clear depths can be seen distinctly the minute ornament upon the inner sides of the basin; and the exquisite beauty of the coloring and the variety of forms baffle any attempt to portray them, either with pen or pencil: various shades of red, from the most brilliant scarlet to light purple; yellow from deep-bright sulphur, through all the shades, to light cream-color; and green of various shades. These springs also are full of a kind of vegetation, which, under the microscope, proves to be composed of diatoms. There are also in the quiet springs, and in the little springs that flow from the boiling springs, great quantities of a fibrous, silky substance, apparently vegetable, which vibrates at the slightest movement of the water, and has the appearance of the finest quality of cashmere wool. Carbonate of lime predominates in the deposits, and they may therefore be called calcareous springs.

There are two classes of springs in the Yellowstone valley: one in which lime predominates, and in the other silica. With the exception of the White Mountain spring in Gardiner's river, and one or two of not much importance, the other springs of the Yellowstone and Firehole basins are siliceous. They may be divided again into intermittent, boiling and spouting, and quiet springs. Those of the first class are always above boiling point during the period of action, but during the interval the temperature lowers to 150°.

Those of the second are always at the boiling point, and some of them throw the water up 2 to 6 feet by regular pulsations. The springs of the third class may once have been geysers, but are now quiet, and have a wide range of temperature, from 188° to 80°. Where the temperature is reduced below 140° great quantities of the sesquioxide of iron are deposited by the water, lining the inside of the funnel, and covering the surface where the water flows. Taken in the aggregate, these springs have been in constant operation during our present period, and Dr. Hayden estimated that, under favorable circumstances, at least 6 feet of this deposit have been precipitated within the space of one century.

Two remarkable groups of sulphur and mud springs deserve particular mention. The largest group is found on the east side of the Yellowstone, at Crater Hills, 8 miles below the lake. This district covers an area of about a mile square, and is sometimes called the "Seven Hills," from the fact that there are here several mounds of siliceous deposits from extinct springs, varying in height from 50 feet to 150 feet. The old craters of dead and dying springs, and the immense quantity of the siliceous deposits, show that the present active springs represent only the last stages of what must have been at some period in the past a magnificent group. There are still numerous steam-jets, one of which, on the east side, produces a sound like that of a locomotive, which can be heard for a long distance. The surface is fairly riddled with little steam vents, and the crust sends forth a hollow sound beneath the tread; and on removing this shelly covering at any point hot vapors come forth, while its under surface is incrusted with the most beautiful crystals of sulphur. The springs at this point are either boiling, mud, or quiet springs. The principal boiling spring, which is in a constant state of ebullition, sends up a column of water 2 feet to 4 feet; has a basin about 15 feet in diameter; and gives forth such a column of steam that it cannot be approached except on the windward side. But perhaps the most interesting objects here are the mud springs, which are of every size, from an inch in diameter to 20 feet. One of the largest is filled with fine light brown mud, which is in a constant state of agitation, the surface covered all over with puffs like hasty-pudding. Others send forth a thud-like noise every second, with an impulse at long intervals that throws the mud up several feet. The water in the vicinity, as well as the mud, seems to be thoroughly impregnated with alum. In an adjoining valley are little mud or turbid water-vents, which keep up a slumbering noise, showing the nature of the earth beneath the crust. Two miles above on the same side of the Yellowstone is the other group of springs similar to those just noticed. Besides these there are the geysers, to be alluded to presently. One of these is a true intermittent spring, and throws up a column of water 10 feet in diameter from 15 to 30 feet high. The crater becomes filled with boiling water; suddenly immense columns of steam shoot up with a rumbling noise, the water overflowing the basin, another column of water is thrown up for the space of 10 to 15 minutes, when it quiets down, and the basin is nearly empty. This operation seems to be performed about 8 times in 24 hours. Upon the side of the hill bordering the river is one of the most terrific mud-caldrons.

Leaving the Yellowstone Basin, and crossing in a westerly direction the rough and heavily timbered mountain range which divides the drainage of the Yellowstone and the Madison, we come into the great Geyser Basin of the Firehole river, a branch of the Madison Fork. In the distant view, the appearance of the whole country may be compared to a vast limekiln in full operation. The mountains that enclose the valley on either side are composed of basalt and obsidian. As we proceed down the valley, toward the junction of the East Fork with the Madison, the springs grow more abundant, and we soon come to the great basin of the Firehole, in which most powerful geysers are found. The entire valley, 3 miles in width, is covered with siliceous crust as white as snow. The elevated mounds and numerous columns of steam reveal where the most important groups of springs and vents are located. One of the most remarkable of the springs in this lower basin has built up for itself a cistern 150 feet in diameter. Near the center is the rim of the spring, about 25 feet in diameter; the water is in constant agitation, occasionally spouting up like an artificial fountain. The siliceous accumulation made by this spring descends for several hundred feet in innumerable semicircular steps varying from ¼ of an inch to 2 inches in height, and is exquisitely beautiful in all its details. When in active operation, a column of water is thrown 30 feet to 60 feet high, the water spreading over a radius of 50 feet, and filling the numerous reservoirs that surround the immense rim of the basin. There are other funnel-shaped basins with elegantly scalloped rims, covered all over the inner side to the depth of 10 feet to 20 feet with bead-like tubercles of silica. Sometimes these siliceous beads are arranged in large numbers like fungi or corals, or like the heads of cauliflowers. The Upper Geyser Basin is located very near the source of the Firehole river, and between it and the Lower Geyser Basin there is an interval of about 5 miles, in which the hills come close to the river on both sides, and the springs occur only in small groups.

Near the center of the upper basin, which is about two miles long and half a mile wide, there is one of the most powerful geysers of the basin. The preliminary warning is indicated by a tremendous rumbling, which shakes the ground all round with a sound like distant thunder; then an immense mass of steam bursts out of the crater as from an escape-pipe, followed by a column of water 8 feet in diameter, and rising by steady impulses to the height of 200 feet. Dr. Hayden compared the noise and excitement it produced to that of a battle-charge. The fountain continues to play for the space of 15 minutes, when the water gradually subsides and settles down in the crater about 2 feet, and the temperature slowly diminishes to 150°. There are here two separate basins, one of which is in a constant state of violent agitation, while the other plays only at intervals of 32 hours; and although, so far as the eye can detect, there is a partition of not more than 2 feet in thickness between them, neither of them seems to be affected by the operation of the other. The decorations about these springs are beautiful beyond conception; the most delicate embroidery could not rival them in their wonderful variety and complexity.

This noble pleasure-ground became at once an object of national interest, but for some years was almost inaccessible except by special expedition under military guard (against the Sioux Indians) from Bozeman, Montana. The completion of the Northern Pacific Railway through the valley of the Yellowstone in 1882, was followed by the building of a branch line about 50 miles in length from Livingston to Cinnabar on the northern border of the park, whence a line of stages was soon organized to carry tourists to the Mammoth Hot Springs, which is the headquarters for park visitors. Here improvements have been made under permission from and control of the government, until elegant hotel accommodations are now provided. A circuit of good roads has also been made, and a line of stages now run daily during the warm season around the line of objects of principal interest, at several of which small but comfortable hotels have been established. Saddle-horses may be hired, and camping-parties may make excursions and live under tents in remote parts of the park, under certain regulations designed to prevent any destruction or mutilation of timber or the natural curiosities, or the starting of fires or killing of game.

One of the foremost purposes of the park has been to form a preserve and natural breeding-place for wild game. The only remaining free herd of bison is harbored there, and numbers at present about 200. Elk, deer, antelope, and small animals are numerous and increasing. It must be remembered that the Grand Cañon, Yellowstone Falls, and Geyser Basins are all within a comparatively small space, and that three times that area remains which the ordinary tourist never sees. The control of the park is vested in the Department of the Interior. About 500 persons dwell there permanently, however, engaged about the hotels, stage-lines, &c., or in service of the government. These are citizens of Uinta county, Wyoming, and are under State laws made to supplement and still further enforce the regulations of the Federal government. In addition to the civil executive thus provided, the War Department furnishes a garrison of cavalry troops whose duty it is to patrol the park, protect the game from poachers (especially in winter), prevent prospecting the mountains for gold or silver, the thieving of timber, the incursions of wandering Indians, and other lawless acts. This service is excellently performed, and since it was begun many dangers that threatened this national pleasure-ground have ceased to menace its integrity and beauty.

Yerkes, CHARLES T., financier, born at Philadelphia, Pa., June 25, 1837. He became a broker in 1859, and later an agent for the sale of city bonds. He failed in 1871. Went to Chicago in 1881 and gradually gained general control of its street railway system. Later he became engaged in financing and building an electric subway system in London. Died Dec. 29, 1905. He gave to Chicago University the largest telescope in the world, and provided by will for a costly art gallery and a free hospital in New York.

Yg'drasil, *n.* In the Scandian mythology, the great world-tree, the tree of existence. It is an ash, whose three roots extend into the three principal worlds, and its branches spread over the universe.

Ylang'-ylang (*e-lang'-elang*), *n.* (*Perfum.*) The essential oil derived from the flowers of the ylang-ylang tree, *Cananga odorata*, order *Anonaceæ*. They are grown in the Philippine Islands, and exported for perfumers' uses.

Yoa'cum, or **Yoak'um,** in *Texas*, a N.W. co.; *area*, 840 sq. m. Unorganized.

Yo'del, or **Yo'dle,** *n.* A song or tune peculiar to the Swiss or Tyrolese mountaineers, in which they use meaningless syllables and make sudden changes in the tune, from the natural voice to the falsetto, and back.

Yonge, CHARLOTTE MARY, author, was born in England in 1823. She wrote many works of fiction, one of the most popular being *The Heir of Redclyffe*. Some of her stories are historical romances; others were written with the purpose of inculcating High-Church doctrine. Still others are juvenile in character.

York, GEORGE FREDERICK, DUKE OF, second son of the Prince and Princess of Wales, was born June 3, 1865; entered the British navy as a cadet (1877); went on a three-years' cruise around the world (1879), on board the *Bacchante*, and in 1891 was made commander. By the death of his brother, the Duke of Clarence, he became heir to the British throne, and was raised to the peerage as the Duke of York. On July 6, 1893, he married the Princess Mary Victoria of Teck.

York, in *Nebraska*, a city, cap. of York co., 50 m. W. of Lincoln; has large shipments of grain and cattle. Here is the United Brethren College of Nebraska. *Pop.* (1897) 4,160.

York'er, *n.* In cricket, a ball bowled so as to pitch very close to the bat.

You'mans, EDWARD LIVINGSTONE, scientist, was born in Coeymans, N. Y., June 3, 1821; studied medicine and chemistry, and occupied himself with the editing of instruction books in various departments of science. In 1872 he established the *Popular Science Monthly*, a journal that came to be regarded as headquarters for the latest scientific information, and which continued to manage as long as he lived. He also published several volumes. Died Jan. 18, 1887.

Young, CHARLES AUGUSTUS, astronomer, was born at Hanover, N. H., Dec. 12, 1834; graduated at Dartmouth (1853), and became professor of Mathematics at the Western Reserve College, in Ohio, where he remained from 1857 to 1866. He was called to the chair of Astronomy at Princeton in 1877. His principal work is *The Sun*, and he has also published a very popular *Manual of Astronomy* (1888).

Young, JOHN RUSSELL, journalist, was born in Downingtown, Pa., Nov. 20, 1841; educated in the public schools of Philadelphia, and the New Orleans high school. He began his journalistic work on the Philadelphia *Press*, and in 1861 was sent as correspondent to Virginia. In 1864 he accompanied the Red River Expedition; on his return to Philadelphia he was given editorial charge of the *Press*. In 1871 he went to Europe as a correspondent for the New York *Herald*. For the *Herald*, also, he went with General Grant around the world, and on his return was on the editorial staff of the *Herald*, and afterward published *Around the World with General Grant*. On March 15, 1882, he was appointed minister to China, and filled that mission until the change of administration, in 1885. In 1897 he was appointed Librarian of Congress. Died 1899.

Young Men's Christian Association. For two or three centuries there have been societies formed among young men for mutual help in living up to their ideals of Christian life, and for influencing those who had formed no such ideals. The Young Men's Christian Association, as it exists to-day, was not formed, however, until Mr. George Williams, of St. Paul's Churchyard, London, influenced twelve young men to meet on June 6, 1844, and found a society "for improving the spiritual condition of young men engaged in the drapery and other trades." In 1845 a course of lectures which lasted for twenty years was inaugurated by this society, and its field and its methods broadened until branches and similar associations had been formed in all Christian countries. Every Young Men's Christian Association now aims to own gymnasiums, libraries, amusement rooms, reading-rooms and class-rooms, besides its rooms for devotional meetings, and many of them have employment registers, restaurants, baths, or anything that the special conditions of a community may suggest as helpful to young men. The associations of the world are now allied, having formed a *General International Committee*, with offices at Geneva, Switzerland, and in the United States; there is also an *International Committee*, with offices in New York city; it acts as the general executive of the associations in North America.

In 1897 there were about 5,800 associations in the world, divided approximately as follows: In the U. S. and Canada, 1,500; in Europe, 4,000; in Asia, 225; other countries, 75. The total membership in the U. S. and Canada exceeds 270,000.

Young Wom'en's Christian Association. This society, with kindred aims to that of the Young Men's Christian Association, was founded in 1857. An *International Association* was formed in 1886, with a general office in Chicago, and a World's Young Women's Christian Association, with office in London, was founded in 1893. The Young Women's Christian Association gives special attention to receiving work for women and finding a market for the products of home workers. It also tries to provide Institutes, "homes," restaurants, and club-rooms, especially for working women. There were, in 1897, 1,340 associations in Great Britain, 20 in Europe, 20 in India, 25 in Australia, 345 in America, and 175 in other parts of the world, including China and Japan. Membership of American Association, 35,000.

Ysle'ta, in *Texas*, a post-town of El Paso co. *Pop.* (1897) 1,810.

Yuc'ca Fi'ber. (*Com.*) A coarse, harsh, fibrous material employed in the manufacture of cloth, cordage, mats, &c., obtained from the leaves of certain plants of the *Yucca* genus.—*Yucca* starch, a gelatinous substance obtained from the stems of the *Yucca gloriosa*, and manufactured in New Granada. See YUCCA.

Yu'kon, in *Oklahoma*, a post-village of Canadian co. *Pop.* (1897) 500.

Yu'kon Dis'trict and Riv'er. (*Geog.*) The term Yukon belongs (1) to a great river of Northwestern North America; and (2) to an unorganized political district of Canada embracing its upper part, and noted for its gold fields, especially those made famous in 1897 by discoveries in the Klondike Valley.

YUKON RIVER.—This, the largest river of North America, drains the northernmost western slope of the Rocky Mountains and eastern and northern slopes of the Coast Ranges, and flows northwest and west through southern-central Alaska to Bering Sea. From its ultimate sources to its mouth, the distance is about 2,100 miles, following all the windings of the river; but the name is now properly restricted to the main stream formed by, and extending below, the confluence of the Lewis and Pelly—a distance of 1,650 miles, as a boat

travels. Geographers are yet undecided what shall be regarded as the highest source of this great watercourse, as several of its headwaters have not been thoroughly explored; but the opinion prevails that it is found in a small lake on the Coast Range near the northern frontier of British Columbia and close to the sources of the North Fork of the Taku river. The outlet of this stream flows northwest some 65 miles to the head of the long and narrow A'Tlin Lake, which extends north about 45 miles and ends within half a day's journey by Indian carrying-trail of the head of Lake Marsh. From near the head of A'Tlin Lake a slow stream flows west some 7 miles to the head of the Tako Arm of Lake Tagish (see below), the head reservoir of the Lewis. Another affluent of the Tako Arm comes from Summit Lake, at the eastern foot of White Pass (*q. v.*). Another affluent of Tagish Lake rises in Crater Lake, at the eastern end of Chilkoot Pass (which leads across to Taiya Inlet, the head of Lynn Canal, Alaska coast), and soon expands into Lake Linderman, then descends by a short cataract into Lake Bennett, a narrow body of water between high hills, stretching northward for 25 miles, when it bends to the right through Lake Nares into the Windy Arm of Lake Tagish. Lake Tagish itself is a Y-shaped, elongated body of water, measuring about 30 miles, north and south from the head of Tako Arm to the outlet, and bordered by high limestone and sparsely wooded hills. Windy Arm is its eastern branch, and lies in the direct path of the prevailing indraught of air from the sea. The outlet is through a slack stream, 6 miles long, into Lake Marsh (or Mud Lake), which fills the northward-stretching valley with a shallow sea for 20 miles, curving eastwardly at its mouth, where the McClintock river enters from the east. Here the Lewis river may be said to begin, though miners have called the next section Fifty-mile river. It has a moderate current, suitable for boating, and abounds in salmon, which, however, do not ascend into Lake Marsh. Twenty-three miles down its valley has been disrupted by a small volcanic intrusion, through which the river has forced its way 2¾ miles in a gorge (Miles Cañon), succeeded by rapids (White Horse Rapids), where boats and cargoes must be carried around; a portage-railway is likely to be constructed in 1898 to avoid this, the only serious obstacle to boat navigation in the whole river.

Thirteen miles below these rapids the Tahkeena river (*q.v.*) enters from the eastward; and 11 miles farther the Lewis expands into Lake Labarge—this last-named lake is 31 miles in length—filling the continuation of the trough-like valley northward, and in places 6 miles wide. It is bordered by mountains of carboniferous limestone, with troughs between filled with cretaceous rocks, but large grassy spaces occur along the eastern shore. Below this lake the river (sometimes called Thirty-mile) is slow but very crooked for 27 miles, when it receives the large Teslintoo tributary from the southeast, which is likely soon to supersede the upper Lewis as a route of approach to the gold fields; it is wider than the Lewis at the junction, but carries far less water. From this confluence the course is north, through the crooked defiles of the Seminow hills. Several auriferous bars have been worked here, and some shore-placers. Thirty-one miles below the Teslintoo the Big Salmon enters from the southeast—an important river, yielding fine gold in many places.

Thirty-four miles below the Big Salmon, west-northwest, along a comparatively straight course, carries the boatman to the Little Salmon, or Daly, river, where the valley is so broad that no mountains are anywhere in sight, only lines of low hills at a distance from the banks. Five miles below this river the Lewis makes an abrupt turn to the southwest, and 18½ miles beyond that reaches the Nordenskjold, a small, swift, clear-watered tributary from the southwest. The rocks of all this part of the river show thin seams of coal, and gold has been found on several bars. The current now flows nearly due north, and a dozen miles below the Nordenskjold carries one to the second and last serious obstruction to navigation in the Rink Rapids, as Schwatka called them, or Five Fingers, as they are popularly known, referring to five large masses of rock that stand like towers in mid-channel. These and other islands shifting sand. The general course nearly to White river, 96 miles, is a little north of west, and many islands are seen; then the river turns to a nearly due north course, maintained as far as Fort Reliance. The White river (*q. v.*) is a turbid, powerful stream, and 10 miles below it there enters the smaller Stewart river (*q. v.*), the most important right-hand tributary between the Pelly and the Porcupine. The succeeding 125 miles holds what has lately become the most interesting and populous part of the Yukon Valley. The river here varies from one-half to three-quarters of a mile wide, rarely more shallow than three feet in any place, the bars being of gravel, and not inclined to shift greatly, and with a current of 5 to 7 miles per hour. About 23 miles below Stewart river Sixty-mile creek enters from the west; and 44 miles below it the mouth of the Klondike river, and Dawson City, the center of the Klondike region, to be hereafter described. Below this, the Chan-din-du on the east, and Forty-mile on the west are the principal tributaries before the great river passes from Canada into Alaska, near where the 65th parallel of latitude bisects the 141st meridian.

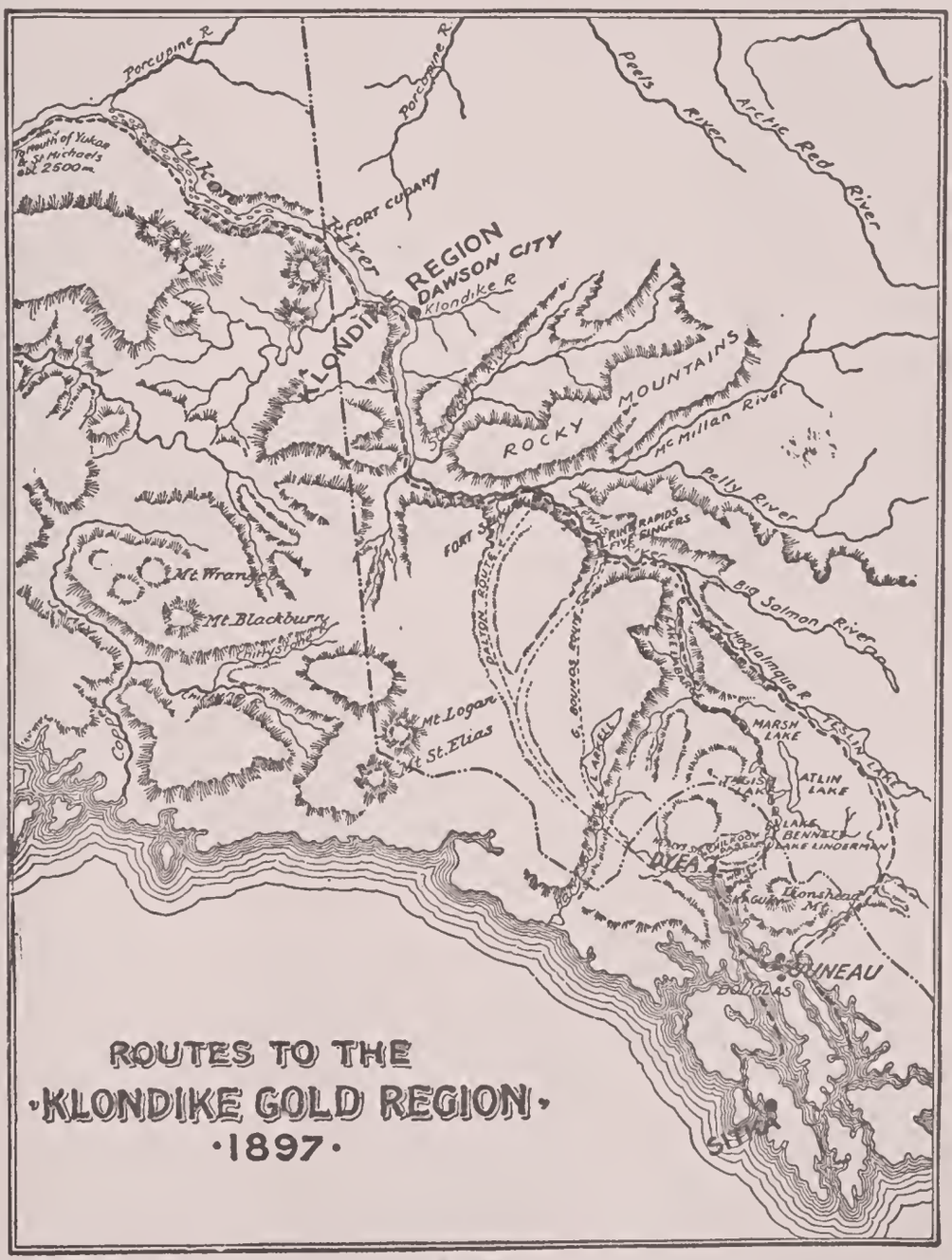


Fig. 3095.

The Yukon continues its northwestern course to just beyond the arctic circle, where it receives the large Porcupine river from the base of the Rocky Mountains eastward, and then turns southeast, spreading out in a low country among a maze of islands, escaping these soon to flow past a long line of precipitous hills, called the Ramparts. Here the large Tanana river (*q. v.*) enters from the southeast, and soon afterward the hills are left behind, and the river flows out upon the great marshy coast-plain of Alaska. At the 158th meridian, scarcely 100 miles inland from the head of Norton Sound, the river turns sharply southward and flows through the marshy plain for nearly 200 miles, when it turns again to the west and finds its way into Bering Sea through a delta over 60 miles in breadth. The main stream above the delta is 2 or 3 miles wide, but shallow and fluctuating; and of the many delta-channels forming a connected maze of waters through the tundra, only one—the northernmost—will float boats of even 6 or 7 feet draft; while the detritus brought down by the river and fanning out from its delta has filled up Norton Sound so that ocean vessels cannot approach within several miles of the shore, and the *entrépôt* of the Yukon is at St. Michael Island, 65 miles north of the delta. Thus, while the Yukon presents no obstruction to navigation of boats of, say, about 6 feet draft as far as Circle City, and those of half that draft may ascend its headwaters to the foot of the mountains with no hindrance, except at Miles Cañon, on the Lewis, only stern-wheel steamers are practically adapted to its navigation, and these can make use of the stream only a third of the year, since the ice rarely goes out before the 1st of June, and reforms about the middle of October.

Yukon District.—The basin of the Yukon includes all the interior region between the Coast Ranges, culminating in the St. Elias Alps (*q. v.*) and the Rocky Mountains, which separate it from the basin of the Mackenzie on the east, while its sources lie mainly on that Cassiar watershed, whose southward drainage is through the Taku, Stickeen, and Liard (Dease) rivers. This basin contains about 150,000 square miles in Canada and about 180,000 in Alaska; total, 330,000. The statement often heard that this Yukon is a greater

hack up the water and render its currents strong and turbulent, but will offer little opposition to a good steamboat. When the Little Rink Rapids, 6 miles below, have been passed, the valley broadens out, the current quiets down, and a pleasing landscape greets the eye as bend after bend is turned. A long wash bank on the northeast side is called Hoo-che-koo Bluff, and soon after passing it one finds himself in the midst of the pretty Ingersoll archipelago, where the river widens out and wanders among hundreds of islets. Fifty-five miles by the river below Rink Rapids, the confluence of the Lewis and Pelly is reached, and here the proper Yukon river begins. (See Pelly River.)

Below the junction, the Yukon averages about one-quarter of a mile in width, and has an average depth of about 10 feet, with a surface velocity of 4¾ miles an hour. A good many gravel bars occur, but no

river than the Mississippi (whose drainage area exceeds 1,225,000 square miles) is, therefore, a manifest exaggeration. In fact, the Yukon is exceeded in importance, measured by the area it drains and the water it discharges, by the Mackenzie, St. Lawrence, and Winnipeg-Nelson in America, and by several rivers of Siberia. Its nearest equals are the Indus and Danube. Its appearance of greatness is largely due to its shallow width; and its moderate outflow, relative to its area, is due to the comparative dryness of the climate of its upper valley, which is shielded from the ocean winds by very high mountains, which condense

Fig. 3096.—JUNEAU, LOOKING TOWARD CHILKOOT PASS.

the larger part of the moisture of the air before it passes beyond the coast ranges.

The climate of the interior is one of extreme rigor in winter, with a brief but relatively hot summer, and the great length of the days (the sun dropping below the horizon only about 4½ hours at the summer solstice in the Klondike Valley) gives a great many additional growing hours and makes out-door work possible nearly every hour of the twenty-four. The winter is correspondingly dark. The daily mean temperature from November to April, inclusive, falls below the freezing point, and the average for December, January and February is about 16 degrees below zero, with the mercury occasionally sinking to 70 or 80 degrees below zero. The continuity of the cold is the striking and exhausting feature, not its occasional maximum. The winter sets in early, and with great suddenness, the mountains beginning to show new snow and the passes to become obstructed in early September. The snowfall along the river itself is not very great, owing to the comparative dryness of the air. The warm weather follows the breaking of the winter in April and May with an equally surprising suddenness, and the land bursts into leaf in a few days. The ground remains permanently frozen, however, below some 18 inches, which is about as far as the roots can penetrate, and from the mouth of the Stewart down it is largely covered with moss, which must be cleared away before any planting can be attempted. On burned tracts hardy vegetables may be raised, and the area devoted to them is constantly increasing. Potatoes do well and barley will usually mature a fair crop. Extensive areas produce pasturage for cattle and natural hay, and it is only necessary to provide shelter and forage during the winter to keep live stock of all kinds. This enables mining prospectors to make use of pack horses and donkeys without other hindrance than from the excessive plague of mosquitoes and forest fires in mid-summer; and it is probable that horses will supersede dogs for winter travelling in the upper part of the valley. On the lower river, reindeer have already been introduced and bred, by aid of the U. S. Government, and these will gradually be trained for sledge-work. It may reasonably be expected, therefore, that in many ways the Yukon Valley will develop, as fast as settled, many means of supporting and comforting life not now possible. There is no more reason why men should not inhabit that region than stands in the way of human occupation of large portions of northern Europe and Asia, which have long been occupied by a civilized people.

The discovery and civilizing of the Yukon Valley are due in the first instance to the fur-traders. By the beginning of the 19th century the Russians in Alaska knew of a great river which the Eskimos about its mouth called Kwikhpak, Kwifpak, or Kwikhpak, as various English spellings represent it, but their traders were a long time in ascending it even to the first hills bounding the tundra, and never got much, if any, distance above the ramparts. Meanwhile, the Hudson Bay Company, having established itself thoroughly in the Mackenzie valley, began to push northwestward, and one of its foremost agents, Robert Campbell, began to explore the upper waters of the Liard. Pressing gradually onward, in 1840 Campbell crossed over the divide north of Lake Finlayson (at the head of the Frances), and discovered (at a place called Pelly Banks, where an Indian trading-post was immediately established and stood for many years) a large river, flowing northwest, which he named Pelly. At the same period another Hudson Bay man, James Bell, was guided by the Indians westward from the junction of the Mackenzie and Peel rivers up a river since called Bell's and over the Rocky Mountains to the head of the Porcupine, which Bell descended to its confluence with a great river which he called Yukon, after the Indians (Co-Yukons) whom he found dwelling on its banks. This was in 1842. In 1843 Campbell, having got the Pelly Banks post well started, built a boat, and floated down the Pelly until it joined with the Lewis river, which he did not ascend, but learned to be the highway of communication between the interior and the Pacific coast, which he was told could be reached over low passes. His commercial sense told him that this was the place for a new trading-post, but it was not until five years later (1848) that he was able to return and build Fort Selkirk, whose ruins may still be seen. The Pelly, Lewis, McMillan, Stewart, White, and other English or Scotch names upon the early maps of this upper part of the valley, were all given by Mr. Campbell in this or his following journey.

Fig. 3097.—RINK RAPIDS, OR THE FIVE FINGERS.

A year before that (1847), Bell's journey had borne similar fruit, in the establishment of a trading-post at the mouth of the Porcupine, called Fort Yukon, the site of which was long ago eaten away by the inroads of the current. The great river may thus be said to have been "discovered" at several points independently: by the Russians at the mouth, by the English at its middle and head, and none called it by the same name or were sure of its continuity. The Russians and the Fort Yukon people soon became acquainted, however, and traced the lower part of the river, and in 1850 Campbell came down from Fort Selkirk, and thus established the identity of the whole stream. Returning to Fort Selkirk, he had scarcely got that post well started when it was attacked by the coast Indians (Chilkats), who found that it was interfering with their monopoly of trade with the valley Indians, and burned to the ground, while Campbell and his men were bidden to depart, which they promptly did.

Between 1864 and 1867, surveys were made by the Western Union Telegraph Company for the building of a telegraph line through British Columbia, Alaska, and Siberia, for the purpose of connecting Europe with America overland; and a party under the charge of Wm. H. Dall examined with great care the lower Yukon, in 1866 and 1867, two men, Ketchum and Labarge, ascending the Lewis as far as Labarge Lake. Soon afterward the gold discoveries in the Cassiar district of northern British Columbia led to some prospecting northward, and miners in 1872 reached, but did not descend, the headwaters of the Yukon; but in 1883 Lieut. Frederick Schwatka, U. S. A., and Mr. Hayes, of the U. S. Geological Survey, made their way, with

Fig. 3098.—WHITE PASS.

Indian help, from Taku Inlet to Lake Tagish, and descended the Lewis on a raft to Fort Selkirk, studying the valley and giving names to its features, few, if any, of which have been adopted. From Fort Selkirk they struck across the mountains forming the divide between the Yukon, White, and Copper rivers, and by a pass only 5,000 feet in height descended to the Chityna, and thence along Copper river to the coast. Subsequently, explorations of this upper district were made by the Drs. Krause, E. J. Glave, Frank Dalton, and others, the most important of whom were Dr. G. W. Dawson and William Ogilvie, of the Geological Survey of Canada, who mapped and studied thoroughly the Pelly and Lewis valleys in 1886 and 1887.

The acquirement of Alaska by the U. S. led to a determination of the boundary where it crosses the valley on the 141st meridian, and some exploration of its lower part. In 1873 an independent trading company entered the district as a rival to the Hudson Bay Company, whose monopoly had ceased by arrangement with Canada in 1870; and steamboats began to run from the island-station, St. Michael, 65 miles north of the delta, to the trading-posts at Melato, New Fort Yukon, Fort Reliance, and others. It gradually became known, as seemed naturally probable from the prevalence of placer gold on the coast and in British Columbia, that the beds of streams flowing into the upper Yukon were auriferous; and by 1880 wandering gold hunters had struggled over the passes from Cassiar or from the coast and tried the gravel bars of the Lewis, Teslintoo, and tributary streams, finding profitable results at several places, to which men will prob-

apiy return in future. By 1884 a considerable number of miners began to use Chilkoot Pass, and more ascended and descended the river to and from St. Michael on the trading companies' steamboats. In 1885 they found gold in such quantities on the Stewart river that a "camp" was formed near its mouth and a trading-store opened. Probably $100,000 was taken out during the summers of 1885 and 1886. At the same time prospecting went on elsewhere, and in 1886 coarse gold was reported upon Forty-mile creek, and a local rush took place to its cañons, the principal attraction being Franklin Gulch, named after its discoverer. Three or four hundred men gathered there by the season of 1887, and all did well. A town of log houses was built, called Forty-mile, agents of the Alaska Commercial Company opened a big store, and a rival corporation, the North American Transportation and Trading Company, appeared and started another near by, called Fort Cudahy. About this time, also, the Canadian government sent a magistrate and a squad of the Northwest mounted police to represent its authority and legalize such mining claims and other transactions as took place on its side of the boundary. Forty-mile is a "bed-rock" creek—that is, one in the bed of which there is very little drift; and in many places the bed-rock was scraped with knives to get the little loose stuff out of crannies. Some nuggets were found. At its mouth are extensive bars along the Yukon, which carry gold throughout their depth. During 1887 the season was very unfavorable, and not much was accomplished. Sixty-mile creek was next brought to notice, and there Miller Gulch proved richer than usual; it is one of the headwaters of Sixty-mile, and some 70 miles from the mouth of the river, where, in 1892, a trading-store, saw-mill, and little wintering-town was begun. Miller creek is about 7 miles long, and its valley is filled with vast deposits of auriferous drift. In 1892 rich strikes were made, and 125 miners gathered there, paying $10 a day for help, and many making fortunes. One clean-up of 1,100 ounces was reported. Glacier creek, a neighboring stream, exhibited equal chances and drew many claimants, some of whom migrated thither in midwinter, drawing their sleds through the woods and rocks with the mercury 30 degrees below zero. All of these gulches and other golden headwaters on both Forty-mile and Sixty-mile creeks are in Alaska; but the mouths of the main streams are in Canadian territory. Birch creek was the next find of importance, and was promising enough to draw the larger portion of the valley population, which by this time had concentrated in this region, and had increased to perhaps 1,000 winter residents.

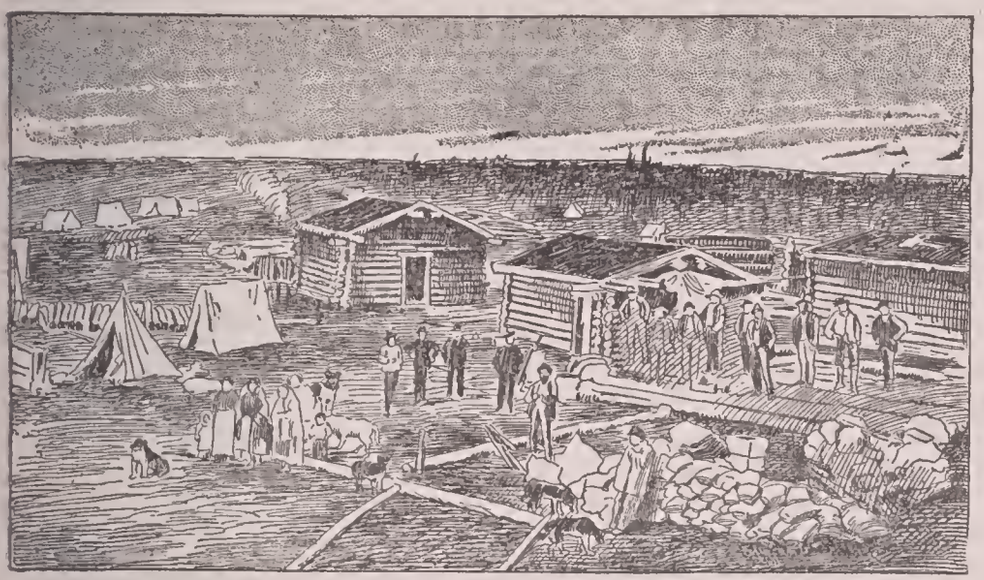


Fig 3099.—THE CIRCLE CITY SUPPLY-STATION.

Birch creek is really a large river rising in the Tanana Hills, just west of the boundary, and flowing northwest, parallel with the Yukon, to a debouchment some 20 miles west of Fort Yukon. Between the two rivers lie the "Yukon Flats," and at one point they are separated by only six miles. Here, at the Yukon end of the road, arose Circle City, so called from its proximity to the arctic circle. This became an orderly little town of regular streets, and had a recorder of claims, stores, theaters, &c. Birch creek has been thoroughly explored, and in 1894 yielded good results. The gold was in coarse flakes and nuggets, so that $40 a day was made by some men, while all did well. The drift is not as deep here as in most other streams, and water can be applied more easily and copiously—a vast advantage. Mammoth, Crooked, Independence, Mastodon, and Preacher creeks are the most noteworthy tributaries to this rich field, which was temporarily nearly deserted during the Klondike excitement of 1897, but will no doubt recover its place later. The Tanana, Koyukuk, and other rivers flowing into the lower Yukon have also been prospected and found to yield more or less placer gold, but their resources are not yet well understood.

The accounts of these gold discoveries were little noticed by the outside world until July, 1897, when a hand of miners arrived in San Francisco from the upper Yukon, bringing a large quantity of gold in nuggets and coarse flakes or "dust." A few days later another steamer brought over $1,000,000 more. Nearly all this was the result of a single winter's work in the valley of a small stream now known the world over as the Klondike, which entered the Yukon near Fort Reliance, or about 50 miles above Forty-mile creek; it is

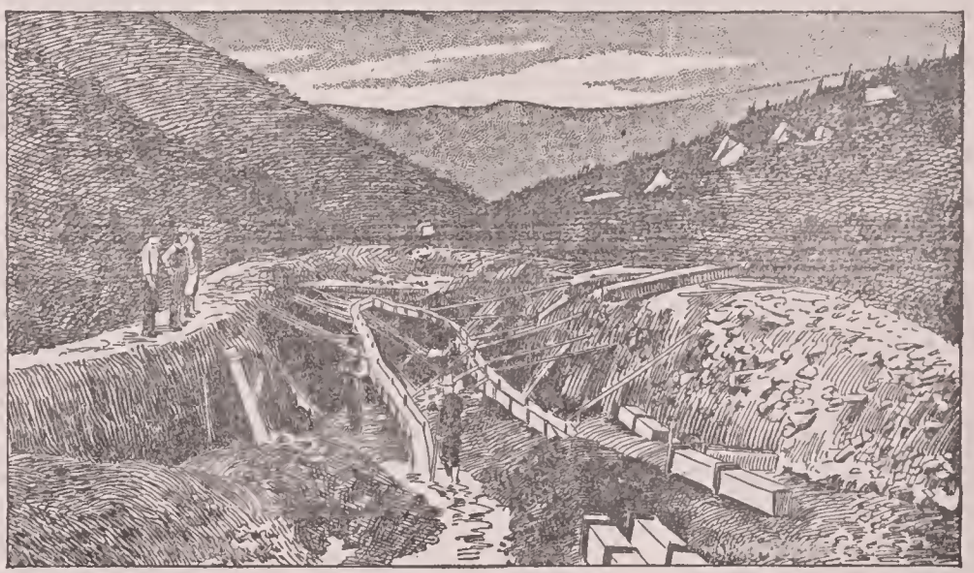


Fig. 3100.—A PLACER MINE ON MILLER'S CREEK.

Fig. 3101.—VIEW OF FORT WRANGELL.

1,500 from St. Michael, by ascending the river, or about 600 from Dyea or Skaguay, on the southern Alaskan coast, by way of Chilkoot or White Pass and down the Lewis and Yukon. This stream had been examined long before by prospectors (who knew it as Deer river, as well as by its Indian name, which is nearer Thlondac than Klondike), and had yielded nothing but moderate returns of "flour" gold; but in the autumn of 1896, along one of the lower southside branches of the stream, prospectors found pockets of flakes and nuggets of gold far richer than anything Alaska had ever shown before. They named the stream Bonanza, and a small tributary El Dorado. Others came, and nearly everyone succeeded. Before spring most of the population of the whole region had struggled in there, and nearly a ton and a half of gold had been taken from the frozen ground. Nuggets weighing a pound (troy) were found. A thousand dollars a day was sometimes saved despite the rudeness of the methods, but these things happened where pockets were struck. Probably the total clean-up from January to June was not less than $1,500,000. A village of log houses, with two trading stores, sprang up at the mouth of the Klondike, named Dawson City, after Dr. G. W. Dawson, which was a busy, orderly place, shut off from the world until navigation opened, when it had about 3,000 inhabitants, counting all those in that valley, and every other place was nearly deserted.

Hundreds of claims were staked out and worked in all the little gulches opening along Bonanza, El Dorado, Hunker, Bear, and other tributaries of the Klondike, and of Indian river, a stream thirty miles south of it, and a greater number seem to be of equal richness with those first worked. All this is within a radius south and east of 20 miles from Dawson City, and most of it far nearer. The country is rough, wooded hills, and the same trouble as to water is met there as else-

where, yet riches were obtained by many men in a few weeks without exhausting their claims.

The methods of placer-mining pursued in the Klondike region and elsewhere along the Yukon are different from those pursued elsewhere, owing to the fact that from a point about three feet below the surface the ground is permanently frozen. The early men tried to strip off the gravel down to the gold lying in its lower levels or beneath it, upon the bed rock, and found it exceedingly slow and laborious work; moreover, it was only during the short summer that any work could be done. Now the miners build fires over the area where they wish to work, and keep these lighted for twenty-four hours. Then the gravel will be melted and softened to a depth of perhaps six inches. This is then taken off and other fires are built until the gold-bearing layer is reached, usually at a depth of 15 feet. When the shaft is down that far other fires are built at the bottom, against the sides of the layer, and tunnels are made in the same manner, through the "pay-dirt" layer, which is about five feet thick. Blasting has no effect on the frozen earth. The material taken out is heaped up to wait until the coming of water in the spring with which to wash it in the rockers and sluices that alone serve the purpose there thus far. The tales of the extraordinary richness of these gravels, and the visible evidence of large amounts of money gained by individual and unskilled efforts, several men exceeding $50,000 as the result of the winter's work, from claims promising 10 or 100 times more, excited the imagination of the whole civilized world, and efforts were made at once by thousands of men and women in all parts of the U. S. and Canada to reach the new gold fields before the end of the summer. The scanty regular lines of transportation to Juneau and St. Michael were at once supplemented by special steamboats, and within a few weeks thousands of men and pack-animals, and many tons of equipments and provisions, were shipped to the north and landed at St. Michael Island, in Norton Sound, where they embarked on the existing river-boats for the long voyage up the Yukon, or put together new flat-bottom, stern-wheeled steamers, taken from San Francisco, Seattle, or Victoria in sections; or else put ashore at the head of Lynn Canal, where landings were extemporized—Dyea, at the entrance of the trail to Chilkoot Pass, and Skaguay at the entrance to White Pass. No proper roads or even pack-trails existed over these lofty and rough mountain passes, the only means of carriage being the lazy, capricious, and exorbitant Chilkat Indians, who were too few, at the best, to do all the work presented to them.

These passes were, however, only the beginning and worst of the many difficulties by this route, for when they had been passed and the navigable waters of the Lewis river reached at Lake Linderman the travellers had to build for themselves boats, and float successfully down 600 miles of riverways before they reached the treasureland of their admiration. As a consequence, a large proportion of those who started arrived too late at Dyea and Skaguay to get their goods across the passes and down the river before being stopped by snow and ice, and either passed an idle and miserable winter *en route* or returned to civilization. The widespread knowledge of these delays and difficulties incident to the sudden attempt to penetrate a total

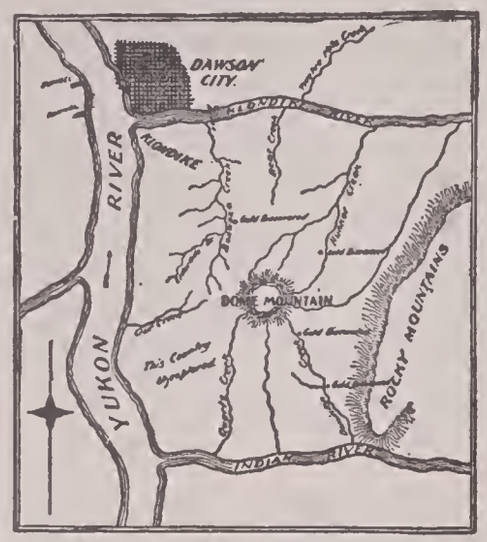


Fig. 3102.—DAWSON CITY GOLD FIELDS.

wilderness in an almost arctic climate, wisely deterred a great number from making the attempt before the spring of 1898, by which time, no doubt, greatly improved means of access will be provided.

It is probable that before the end of the century a narrow-gauge railway will be constructed through White Pass and down to Lake Bennett, where steamboats will run down to Miles Cañon, connecting by a portage-railway with steamboats on the lower river. Another railway is proposed from the mouth of Copper river, giving a short cut to the sea, but its feasibility has not been shown, and the expense of its construction would be enormous. A more practicable and probable railway entry will be that now under examination by the Canadian Pacific Company, which proposes to build a line from the head of navigation on the Stickeen river to Lake Teslin, whence steamboats run directly down the lake and Teslintoo and Lewis rivers to the Yukon.

Little trustworthy news came to the outer world from these mines during the summer of 1897, but it was understood that success was rewarding all intelligent work, and vague reports of an enlargement of the area of production and new discoveries elsewhere were received. It is believed by those best qualified to know that gold-placers will be found widely distributed along the course of the Yukon, and they are likely to consist of pockets of very rich places of small extent rather than large areas of gravel through which gold is evenly distributed.

The Canadian government has enacted a series of special laws to meet the exigencies of this new field, in which aliens form the principal part of the population, including very heavy fees and royalties. To enforce these laws and preserve order generally a large force of mounted police have been sent there, established in scattered fortified posts, whose commanders have magisterial powers. The United States, on the other hand, will establish a military post on the river near the international boundary for similar police duty. See ALASKA.

Yu'lan, *n.* (*Bot.*) A Chinese magnolia (*Magnolia conspicua*), 40 or 50 feet high, but cultivated in this country as a shrub. It has large, brilliant white flowers that appear in early spring before the leaves.

Yule, *n.* [Etym., doubtful.] The old English name for Christmas, or festal celebration beginning Christmas Eve, when the great *yule-log* was burned, being brought in and placed on the hearth with much ceremony, and the *yule-candle* was lighted, which must not go out during the evening lest evil should come to the house. It is of heathen origin, and among the Norsemen was a feast to Odin, in commemoration of the fiery sun-wheel at the winter solstice, the turning-point of the year. These northern people believed that for twelve days—from Dec. 25 to Jan. 6—they could trace on earth the movements and interferences of their gods. The introduction of Christianity modified the festivities, but did not entirely remove the relics of a former faith.

Yu'ma, in *Arizona*, a post-town, cap. of Yuma co., on Colorado river, on the Southern Pacific R.R., 250 m. S. E. of Los Angeles, Cal.; a trade center and shipping point. *Pop.* (1897) 2,265.

Yuma, in *Colorado*, a N.E. co.; *area*, 1,180 sq. m. *Surface*, rolling; *soil*, a sandy loam. *Cap.* Yuma. *Pop.* (1897) 2,840.

Z.

Z (*zed.*) the twenty-sixth and last letter of all modern languages, usually regarded as a double consonant, from its having the sound in some languages of *ts* or *ds*. It is a sibilant or hissing letter, and the only difference in pronunciation between it and *s* is, that the breath is emitted more forcibly in the case of the latter, —the organs of the mouth are in the same position in both cases. This letter is derived from the Greek, in which language it occupies the 6th place in the alphabet, and some have supposed that with them it had the sound of our *g*; as we find in the Scotch name Menzies, pronounced *Ming-es*. In German, the *z* has a compound sound, corresponding to our *ts*; and in Italian it is sounded sometimes like *ts*, sometimes like *ds*. In Spanish it has the sound of *th*; and in French, when sounded at all, like a forcible *s*. It interchanges with *d, g, i, j, s, t, y*. As a numeral it signifies 2,000, and with a dash over it, thus $\bar{Z}$, 2,000,000.

Zaandam, or SAARDAM, (*zan-dam'*,) a town of Holland, in North Holland, on the Zaan, near its junction with the *Y*, 5 m. from Amsterdam. It consists properly of two great valleys, called East and West Zaandam. In 1697, Peter the Great worked in one of the ship-building yards as a carpenter, and the house in which he lived is carefully preserved. *Pop.* 12,320, chiefly engaged in shipbuilding and sea-faring.

Zaca'pa, in Central America, a town of the state of Guatemala, 70 m. N.E. of Guatemala; *pop.* abt. 5,000.

Zacatu'la, a town of Mexico, on the Bolsas river, near its mouth in the Pacific, 180 m. W.N.W. of Acapulco.

Zac'cho, *n.* (*Arch.*) The lowest part of the pedestal of a column.

Zachariah (*zăk'a-rī'a*), a son of Jeroboam II., king of Israel, succeeded his father 773 B.C., but reigned only six months, having been assassinated by the usurper Shallum.

Zacualtipan (*sa-kwal-te-pan'*), a town of Mexico, 100 m. N.E. of the City of Mexico.

Zaf'fre, *n.* (*Chem.*) See COBALT.

Zain, *n.* A horse of a dark color, neither gray nor white, and having no spots.

Zaire. See CONGO.

Zalathna (*za-lat'na*), a town of Transylvania, in Lower Weissenburg. *Pop.* 4,416.

Zaleszczyki (*za'lesh-che'ke*), a town of Austrian Poland, on the Duiester, bordering on Moldavia. *Pop.* 6,000.

Zam'bo, *n.; pl.* ZAMBOS. The offspring of a negro and a mulatto; a sambo.

Za'mite, *n.* (*Pal.*) A name applied to fossil plants of the genus *Zamia*.

Zamora (*sha-mo'ra*), a town of Spain, cap. of a prov. of same name, near the Douro, 39 m. from Salamanca. *Manuf.* Serge, linen, gunpowder, &c. *Pop.* 11,000.

Zamora, in Mexico, a town of the State of Michoacan, 75 m. W.N.W. of Valladolid.

Zamose, or **Zamosz** (*za-mosh'*), a town in the S.E. of Poland, 51 m. from Lublin. *Pop.* 5,300.—In 1771, the Poles were defeated in its vicinity by the Russians.

Zane, in *Ohio*, a township of Logan co.

Zanesfield, in *Ohio*, a post-village of Logan co., 50 m. N.W. of Columbus.

Zanthoxyla'ceæ, *n. pl.* (*Bot.*) See XANTHOXYLACEÆ.

Zan'tiot, *n.* (*Geog.*) A native or an inhabitant of Zante.

Za'ny, *n.* [It. *zanni*, said to be a corruption in the Venetian dialect of *Giovanni*; Eng. *John*.] A merry andrew; a buffoon.

Za'nyism, *n.* The character or practice of a zany; buffoonery.

Zanzibar (*zăn'z'-bär*), a kingdom in East Africa, embracing up to 1886 the islands of Zanzibar, Pemba, Mafia, and Lamu, and a strip of coast 10 m. wide, extending from Cape Delgado, Lat. 10° 40′ S. to Kipini, Lat. 2° 40′ S. There were Arab settlements in Z. as early as the 10th century, and during the 17th century the imam of Muscat won most of the Portuguese dominions N. of Mozambique. Z. became practically independent of Muscat about 1856. In 1888 the mainland district S. of the Umba river became a German protectorate, and the British East Africa Company obtained control of the N. portion. In 1890 the British portion was extended to the river Juba and the islands were made a British protectorate, while Germany bought its portion of the mainland. In August, 1896, Said Khalid, a usurping sultan, was bombarded in his stronghold by a British fleet and was deposed. The island of Z., 625 sq. m. in area, has a population of 125,000, mainly in the town of Z., which is the only large town and trading post on the E. coast of Africa. It is the largest ivory market in the world. There is an excellent harbor, visited by numerous merchant vessels, the trade being considerable.

Zapara (*sa-pa'ra*), in South America, an island and castle of Venezuela, 18 m. N. of Maracaibo, opposite the mouth of Lake Maracaibo. The island is 12 m. long.

Zapato'sa, or **Zapatoza,** a lake of the Republic of Colombia, 35 m. S.E. of Mompox, 25 m. long and 22 broad.

Za'ra, the cap. of Austrian Dalmatia, on the shore of the Adriatic, 170 m. from Venice. It stands on a point of land which runs into the sea, and forms an excellent harbor, capable of containing a whole fleet. It is strongly fortified. *Manuf.* Silk fabrics. *Pop.* 9,063.

Zareba, (*Mil.*) a breastwork made of the prickly pear, piled up as a defence.

Zaslav, (*zas'laf,*) a town of Russian Poland, on the Gorin, 20 m. from Ostrog; *pop.* 8,500.

Zax, (*zaks,*) *n.* A tool for cutting slate.

Zayi, (*za'yee,*) a town of Yucatan, 70 m. S. of Merida.

Zbarasz, (*zba'rash,*) a town of Austrian Poland, in Galicia, 12 m. from Tarnopol; *pop.* 6,217.

Ze'a, Ce'os (anc. *Coos*), an island of the Grecian Archipelago, 14 m. off the coast of Attica; 13 m. long, 8 wide; *area*, 39 sq. m. *Prod.* Wine, honey, fruit, barley, silk and cotton. Here were born the poets Simonides and Bacchylides and the physician Erasistratus. *Pop.* (1897) about 4,500, nearly all in the capital Zea or Ceos.

Zeal (*zēl*), *n.* [Lat *zelus*; Gr. *zēlos*, from *zeo*, to boil.] Fervor; ardor; warmth; passionate ardor.

Zealot, (*zel'ot,*) *n.* One full of zeal; one who engages warmly in any cause, and pursues his object with earnestness and ardor.

Zeal'otism, Zeal'otry, *n.* The character or conduct of a zealot; fanaticism.

Zeal'ous, *a.* Full of zeal; warmly engaged or ardent in the pursuit of an object.

Zeal'ously, *adv.* In a zealous manner; with passionate ardor; with eagerness.

Zeal'ousness, *n.* The quality of being zealous; zeal.

Zean'dale, in *Kansas*, a village and twp. of Wabaunsee co., abt. 6 m. S.E. of Manhattan.

Zeb'edee. (*Script.*) The husband of Salome, and father of James and John, the Apostles, was a fisherman on the W. shore of the Sea of Galilee.

Zebid', a fortified city of Arabia, once the cap. of Yemen, on the River Zebid, 60 m. from Mocha. It was formerly of great commercial importance, but owing to the accumulation of sand at the mouth of its river, has fallen into comparative insignificance. *Pop.* 7,000.

Ze'bra, *n.* (*Zoöl.*) A name applied in a general way to striped species of the genus *Equus*, characterized by a longer tail, tufted at the end, by callosities on the inner side of the fore-legs only, and by *braying*, instead of *neighing*. The name *Z.*, however, is commonly used to designate the species *Equus zebra*, which inhabits the rocky and mountainous districts of S. Africa (Fig. 2640), and has the stripes on all parts of its body. It is closely

Fig. 2640.—ZEBRA.

allied to the ass, having its tail furnished with long hairs only at its tip, and being destitute of a mane like the horse. In disposition it is very wild and untamable, seeking inaccessible crags where to graze, and having sentinels posted on commanding eminences so as to give warning of the approach of any suspicious object; and no sooner is an alarm given, than the herd sets off, galloping over the crags with a swiftness which sets pursuit at defiance.

Ze'bu, *n.* (*Zoöl.*) The name given to the humped varieties of oxen which are found in India and the Asiatic Islands, and extend along the eastern coast of Africa to the Cape of Good Hope (Fig. 47). They are used as beasts of burden, and serve as articles of food, though in this respect its flesh is by no means equal to that of our domestic breeds. The hump, which is chiefly composed of fat, is regarded as a great delicacy. *Z.* differ greatly in dimensions; some are of large size, while others are not much larger than a sheep. They vary in color; the most common variety is of a light-gray, passing into cream color. The Hindoos treat the larger breed with superstitious veneration.

Ze'bu, one of the Philippine Islands, in the E. Archipelago, lying to the W. of Negros Island. *Ext.* 100 m. long, with a varying breadth to 30. Its cap. is of the same name, and has a fort and a cathedral. *Pop.* 9,000. Here Magellan was killed in a skirmish in 1521.

Zeb'ulun, or ZABULON. (*Script.*) The sixth son of Jacob and Leah, born in Mesopotamia.

Zechariah, (Book of,) (*zek-a-rī'a.*) (*Script.*) One of the canonical books of the Old Testament Scriptures, being the eleventh in order of the minor prophets. The author, *Z.*, began his prophecy in the second year of the reign of Darius, shortly after the return from Babylon, where he is generally supposed to have been born. The style of this book is deficient in the purity and freshness of a former age, and the figures and symbols are frequently obscure; though, with the exception of Isaiah, his allusions to the Messiah and his kingdom are the most clear and direct of any of the prophets. Many of the modern critics have denied the authenticity of the last six chapters, though there seems to be little force in their objections.

Zechin, (*zē'kin.*) See SEQUIN.

Zed, *n.* The name of the letter *z*.

Zedekiah, (*zed-e-kī'a,*) the son of Josiah, king of Judah, was placed upon the throne after Jehoiakin had been removed by Nebuchadnezzar, on his second taking of Jerusalem, 599 B.C. He reigned during eleven years, "and he did that which was evil in the sight of the Lord his God." He entered into an alliance with Pharaoh-Hophra, king of Egypt, and revolted against Nebuchadnezzar, who thereupon laid siege to Jerusalem. The prophet Jeremiah counselled Zedekiah to save his city and throne by submission to the Chaldeans; but the king, disregarding this advice, maintained his defence of the city. The Egyptians came to his relief; but, on Nebuchadnezzar offering them battle, they retreated to their own country, and Jerusalem, after undergoing a siege of nineteen months (in the latter part of which a terrible famine raged), was taken, 586 B.C. The king endeavored to escape, but was captured, and condemned to behold his sons slain before him; after which his eyes were put out, and he was carried, bound with fetters of brass, to Babylon. The city was almost entirely destroyed, and the people led into captivity.

Zed'oary, *n.* (*Bot.*) The name commonly given to certain species of *Curcuma* (*C. zedoaria*, and *C. zerumbet*), natives of the East Indies, the root-stocks of which are aromatic, bitter, pungent, and tonic, and are used for similar purposes with ginger.

Zee'land, or ZEALAND, in *Michigan*, a p.-vill. and twp. of Ottawa co., abt. 22 m. S.W. of Grand Rapids.

Zeff, in *Illinois*, a post-twp. of Wayne co.

Zeigiersville, in *Pennsylvania*, a post-village of Montgomery co., abt. 30 m. N.N.W. of Philadelphia.

Zeithun, ZEITUN, or ISDIN, (*zai-toon',*) a town of Greece, 48 m. from Larissa; *pop.* 4,800.

Zeitz, (*zitze,*) a walled town of Prussian Saxony, on the Elster, 67 m. from Dresden. *Manuf.* Woollens, &c. *Pop.* 11,650.

Zelay'a, or CELA'YA, a town of Mexico, 35 m. S.E. of Guanajuato; *pop.* abt. 12,000.

Zell, a vill. in Rhenish Prussia; *pop.* 2,200.—A vill. of the grand-duchy of Baden; *pop.* 1,207.—A vill. in the canton of Lucerne, Switzerland; *pop.* 1,202.—A v. in the canton of Zurich; *p.* 1,300.—A v. in Austria, see MARIAZELL.

Zell, one of the Shetland Islands. See YELL.

Zell, a village of Bavaria, on the river Main. It is noticeable as being the place where, in an old secularized abbey still used as a printing-office (Fig. 2641), the 1st steam printing-press was established in Europe.

Fig. 2641.—ZELL, (Bavaria.)

Zell, a lake of Switzerland, between the canton Thurgau and the S. part of the grand-duchy of Baden. *Ext.* 12 m. long and 4 broad.

Zell, ULAIC, an eminent German printer, b. at Hanau, abt. 1430. He introduced printing into Cologne, where he first published the *princeps* edition of *De Senectate of Cicero*, 1465; and, the following year, *Johannis Chrysostomi super Psalmo Quinquagesimo*. D. abt. 1499.

Zellerfeld (*zel'ler-felt*), a town of Germany, in Hanover, in the Upper Hartz, and opposite Hausthal, from which it is separated by the Zellerbach. *Pop.* 5,000.

Zell'wood, in *Florida*, a post-village of Orange co., on the Florida Central & Peninsular R. R., about 20 m. N.W. of Orlando. *Pop.* (1897) 450.

Zena'na, *n.* The name given in India to the part of a house particularly reserved for the women.

Zend-Aves'ta, [Pers. *living word.*] A name not infrequently, though erroneously, given to the Bible

of the Parsees, the descendants of the ancient Persians. It should be rather termed the "Avesta and Zend," the latter word meaning explanation or commentary. The Avesta is written in the Pahlavi language (*q. v.*). Its authorship is attributed to Zoroaster, the founder of the religion of the Parsees. The general opinion is that the Avesta, as it at present stands, is a collection, made about A. D. 220, of the remains of more ancient writings about the Parsees' religion, though how far these may be justly attributed to Zoroaster it is, of course, impossible to say. The *A.* consists of five books: (1) The *Yasna*, the chief liturgical work, and forming, with the Visperad and Vendidad, a sort of Zoroastrian prayer-book. (2) The *Visperad*, a collection of minor litanies, invocations, and offerings. (3) The *Yashts*, some twenty-one longer hymns of praise and adoration of the ancient divinities and mythical heroes. (4) The Minor Texts, a kind of manual of morning devotion. (5) The *Vendidad*, a species of Iranian Pentateuch, containing priestly injunctions.

Zen'ith, *n.* (*Astron.*) The point of the heavens directly over the head of an observer. The *Z.* is called the "pole" of the horizon, as it is 90° distant from every point of that circle. The *Z.* distance of a heavenly body is the arc intercepted between the body and the *Z.*, being the same as the co-altitude of the body.

Z. sector. (*Astron.*) An instrument which is a portion of a divided circle, and is employed in measuring the *Z* distance of stars. The origin of the beautiful instruments now made use of by astronomers was a piece of mechanism devised by Picard in his celebrated operation for determining the figure of the earth.

Zenjan', a town of Persia, prov. of Irak-Ajemi, 130 m. from Hamadan. *Manuf.* Carpets, arms, and gunpowder. *Pop* 15,000.

Ze'no, a Greek philosopher, founder of the Stoic School, B. at Citium, a small town in Cyprus, probably about B. C. 355. His father Mnaseas was a merchant, and brought him up to the same calling. But the writings of the Socratic philosophers fell in his way, and attracted him to a higher field; and the accident of his shipwreck, with the loss of a valuable cargo, on the coast of Africa, left him poor, and free to follow his genius, and become a philosopher. He first attended at Athens the lectures of Crates, the cynic; but soon, dissatisfied, turned to Stilpo of the Megaric school; and afterwards to the philosophers of the Academy, Xenocrates and Plato. He did not permanently adhere to any of these schools, but after twenty years' ardent inquiry and pursuit of truth, began to teach a system of his own. He gathered his disciples in the *Stoa*, or Portico painted by Polygnotus, whence the name of his school — the *Stoic*. *Z.* was of feeble health and deeply thoughtful aspect; lived very abstemiously, presided over the school for 58 years, and reached, it is said, the age of 98. His personal character was the faithful counterpart of his doctrine, and he was held in such high honor by his fellow-citizens, that they are said to have placed in his keeping the keys of their citadel. D. probably abt. B. C. 264. See STOIC.

Ze'no, called the *Isaurian*, emperor of the East, married the daughter of Leo I in 458. His rule proved so odious to his subjects, that, in 475, he was driven from his throne by Basiliscus; but the year following he recovered it. D. 491.

Ze'no OF ELEA, a Greek philosopher, and a follower of the Eleatic sect. He studied under Parmenides, and accompanied that philosopher to Athens about 454 B. C. According to Aristotle, he was the first who taught dialectically. An ardent patriot, he endeavored to deliver his country from the sway of a tyrant; but the conspiracy in which he was engaged having been discovered, he was put to death in a barbarous manner. He was the author of several philosophical works, none of which have survived. Aristotle has, however, preserved the arguments which Zeno held against the existence of absolute motion. Flourished in the 5th century B. C.

Zeno'bia, SEPTIMIA, a princess of Arabian descent, who became queen of Palmyra in the desert, after the murder of her husband, Odenatus, in 267. The latter was killed by his nephew at a festival, and Zenobia, who acted with great energy, assumed the title of Queen of the East. She was deprived of her dominions by the emperor Aurelian in 272, and D in private retirement near Rome. The celebrated critic Longinus acted as her secretary, and was put to death by the Romans.

Zen'ta, or SZENTA, a town of Hungary, on the Theiss, 24 m. S. of Szegedin.

Ze'olite, *n.* [Gr. *zeo*, to boil] (*Min.*) The name of a fam. of silicates, their chief distinguishing feature being that they always contain a large proportion of water, varying from 4 to 20 per cent. They also possess in common the property of melting with considerable ebullition before the blow-pipe, and of forming a precipitate of gelatinous silica in hydrochloric acid, and of yielding a colorless streak. The Zeolites usually occur in volcanic rocks in the form of crystals, or of foliated and radiated masses, filling cavities, veins, and fissures — sometimes, as in basalt, they constitute an essential ingredient of the rock itself. The principal species composing the group of Zeolitic minerals are: — *Analcime, Apophyllite, Chabazite, Gmelinite, Harmotome, Heulandite, Laumontite, Mesolite, Natrolite, Phillipsite, Prehnite, Scolezite, Stilbite, Thomsonite.*

Zephaniah, (Book of,) *zef-a-ni'ă.*) (*Script.*) One of the canonical books of the Old Testament, the ninth in order of the minor prophets. The author is believed to have flourished during the earlier portion of the reign of Josiah. The book contains States of the Church. The style is pure and poetical, but not characterized by any striking or uncommon beauties.

Zephiri'nus, a Pope, successor of Victor I. He is supposed to have suffered martyrdom about 219. His successor was Calixtus I.

Zephyr, (*zĕf'er,*) *n.* [Lat. *Zephyrus*; Gr. *zephŭros*, strictly the N.W., from *zophos*, the gloom of the nether world, the dark side, the west] (*Myth.*) The personification of the west wind. According to the Hesiodic theogony, he was the son of Astræus and Eos. The Greek name signifies life-bringing, as the time at which that wind begins to blow marks the revival of vegetation. He is represented as a youth beautiful and naked, with a wreath on his head, or carrying flowers in the fold of his mantle.—The west wind; and, poetically, any soft, mild, gentle breeze.

Zer-Afchan, (*zer-af-kan',*) a river of Independent Turkestan, Bokhara, rises E. of Samarcand, and enters Lake Denghiz, after a W. course of 400 m.

Zer'bu, or JERBA, an island of N. Africa, belonging to Tunis, in the Gulf of Cades, 15 m. N.W. of Zarziss, 22 m. long, and 14 broad.

Zer'be, in *Pennsylvania*, a township of Northumberland co.

Zerbst, (*tserpst,*) a town of Germany, duchy of Anhalt-Dessau, on the Nuthe, 66 m. S.W. of Berlin. *Manuf.* Jewelry, earthenware, and beer. *Pop* 9,350.

Ze'ro, *n.* [Fr.: It.; Sp.] An arithmetical cipher; — a term generally used in reference to the thermometer, implying the point at which the gradation commences. The zero of Réaumur's and of the centigrade thermometer is the freezing-point of water. The zero of Fahrenheit's scale is 32° below the point at which water congeals, being about the temperature of a mixture of salt and snow.

Zerub'babel, the son of Salathiel, and one of the family of the kings of Judah. He gained the esteem of Cyrus, king of Persia, who gave him the sacred vessels, with which he returned to Jerusalem, where he rebuilt the temple, which was dedicated 515 B. C.

Zest, *n.* [Ar. *istalaz*, to have the taste, relish, or smack of] That which gives a relish; a relish; something that gives a pleasant taste, or the taste itself; a piece of orange or lemon peel, used to give flavor to liquor; or the fine thin oil that spurts out of it when squeezed.

—*v. a.* To give a relish or flavor to; to heighten the taste or relish of.

Ze'ta, *n.* A Greek letter (ζ), corresponding to the English *z*.

Zeug'lodon, *n.* [Gr. *zeugle*, a yoke, and *odous*, a tooth.] (*Pal.*) A genus of gigantic cetacean animals, the remains of which have been found in the miocene strata of North America (especially in Alabama) and Europe. The entire skeleton of the largest species (*Zeuglodon Harlani*) indicates an animal about seventy feet in length. The skull is very long and narrow; the nostril single, with an upward aspect, above and near the orbits. The jaws are armed with two kinds of teeth, set wide apart; the crown of the tooth being contracted from side to side in the middle of its base, so as to give its transverse section an hour-glass form (whence the name).

Zeug'ma, *n.* [Gr., a yoke.] (*Gram.*) A figure by which an adjective or verb which agrees with a nearer word is referred also, by way of supplement, to one more remote.

Zeulenroda, (*tsoi-len-ro'da,*) a town of Germany, 9 m. S.W. of Greitz. *Manuf.* Woollens, hosiery, and watches. *Pop.* 5,500.

Ze'us. See JUPITER.

(*Zoöl.*) See DORY.

Zeux'is, one of the greatest Greek painters, was a native of one of the many cities named Heraclea, and flourished in the latter half of the 5th century B. C. He travelled a good deal, spending some time at Athens during the Peloponnesian war, visiting the court of Archelaus, king of Macedonia, and afterwards Italy and Sicily. He excelled in form, light and shade, and coloring, in dramatic composition of grand subjects, and in imitation of inanimate objects. He made a large fortune, was extremely vain, and at last used to give away his pictures because he thought them worth more than any price that could be set on them. One of his most celebrated works was the picture of *Helen*, painted for a temple at Croton. Five of the most beautiful girls of that city were his models for the work. Among the other famous works of *Z.* were his *Infant Hercules strangling the Serpent*; *Female Hippocentaur*; *Zeus in the Assembly of the Gods*, &c. Parrhasius was a young rival of *Z.*, and in a competition between them was allowed by *Z.* to surpass him. On that occasion, *Z.* painted a bunch of grapes which birds pecked at, and Parrhasius a curtain which deceived *Z.*

Zey'lanite, *n.* (*Min*) Same as *Ceylanite*. See SPINEL.

Zi'bet, *n.* (*Zoöl.*) A species of carnivorous mammalia belonging to the genus *Viverra* and the family *Viverridæ* (Fig. 2642). It is found on the Asiatic coast, and

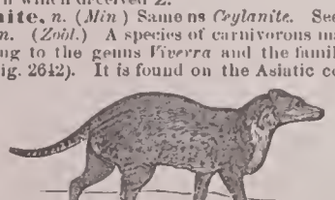


Fig. 2642. — ZIBET.

in some of the larger islands of the Indian Archipelago. It has a short and thick neck, the breast being full and somewhat distended, and differs considerably in its markings from its African congener, the Civet. The substance secreted by an opening near the tail resembles that of the Civet, and is, perhaps, equally prized. See CIVET.

Zie'ga, *n.* Curd produced by the addition of acetic acid to milk, after rennet has ceased to produce coagulation.

Zielenzieg, (*tse'len-tseeg,*) a town of Prussia, 22 m. E. N.E. of Frankfort-on-the-Oder. *Manuf.* Linens, hosiery, hats, leather, and gloves. *Pop.* 4,950.

Zieng Mai-a-Laos, (*zeeng-ma'a-la'os,*) a state of S.E. India, tributary to Siam; Lat. between 20° and 21° N., Lon. 98° and 102° E. *Pop.* 40,000.

Zierik-see, (*se'rik-se,*) a fortified town of the Netherlands, prov. of Zealand, on the island of Schouwen, 30 m. S.W. of Rotterdam; *pop.* 7,700.

Zig'zag, *a.* [Fr.; formed from its likeness in sound to the thing it is intended to represent.] Having sharp and quick turns or flexures.

—*n.* Something that has short turns or angles, as a line, the stem of a plant, &c.

(*Arch.*) A chevron running in a zigzag line.

—*pl.* (*Fort.*) In the attack of a fortress, approaches connecting the parallels. They are directed so that their prolongations fall alternately to the right and left of the fortress, and clear of the most prominent salients of the covered way.

—*v. a.* To form with short turns or angles.

Zilleh, (*zil'la,*) a town of Asia Minor, 35 m. W.S.W. of Tokat. *Manuf.* Coarse cotton cloths. It has an annual fair, attended by over 50,000 persons.

Zilwau'kie, in *Michigan*, a post-village of Saginaw co., 6 m. N.E. of Saginaw.

Zim'mermann, JOHANN GEORG VON, was one of the most eminent physicians in the 18th century, both as a practitioner and as a professional writer. His miscellaneous writings also were numerous; and one of these, his striking but not very philosophical essay *On Solitude*, is now, indeed, quite forgotten, but was once very popular. It was first printed, as a sketch, in 1756, and afterward in its complete shape in 1785. *Z.* was born in 1728, at Brugg, in the canton of Bern. After having studied at Göttingen, he practised medicine successively at Bern and in his native town. His tendency to hypochondria showed itself even thus early, but did not disqualify him from either active practice or from zealous and miscellaneous studies. His professional celebrity gained him, in 1768, the appointment of royal-physician at Hanover; after the second appearance of his work *On Solitude*, he was invited to St. Petersburg; and the year after he attended Frederick of Prussia in his last illness. His writings after this were chiefly gossiping collections, and expressions of the errors with which he regarded the revolutionary principles that were becoming prevalent. His melancholy continued to increase, and he was completely deranged for some time previous to his death, which took place in 1791.

Zim'mermanstown, in *Pennsylvania*, a village of Schuylkill co., 16 m. W. of Pottsville.

Zinc, (*zingk,*) *n.* [Fr.; Ger. *zink*.] (*Chem.*) A bluish-white lustrous metal, having a crystalline lamellar structure, moderate hardness, a somewhat low melting-point. To obtain it pure, commercial zinc, or spelter, as it is termed, is dissolved in pure dilute sulphuric acid; a cement of sulphuretted hydrogen is then passed through it, and it is filtered from any precipitate formed. The solution is then boiled to expel any sulphuretted hydrogen that may remain in it, and the zinc is precipitated in the form of carbonate by pure carbonate of soda. The carbonate is then ignited to transform it into oxide of zinc, which is distilled in a porcelain retort with charcoal prepared from loaf-sugar. Zinc is brittle at ordinary temperatures, but is possessed of considerable malleability and ductility at a temperature of between 200° and 300°, and may be wrought and rolled with ease. A little above this it becomes brittle again, and may be pulverized in a mortar. It fuses at 773°, and at a bright red heat it may be volatilized. If its vapor is exposed to the air, it burns with great splendor, becoming converted into oxide, which is deposited in loose flocculi. At the ordinary temperature it is not acted on by the air, but when exposed to moist air or oxygen, it becomes covered with a tenacious gray coating of hydrated oxide, which impedes the further oxidation of the metal beneath. In this respect zinc rust differs from iron rust, which seems to accelerate the oxidation of the adjacent metal. By the conjoint action of oxygen and carbonic acid, zinc roofing becomes converted into a mixed oxide and carbonate. When melted in the air, the oxide is formed much more rapidly. The metal is readily dissolved by the mineral and vegetable acids. Boiling solutions of potash also act on zinc, hydrogen being liberated, and oxide of zinc remaining dissolved in the alkaline solution. The difficultly oxidizable nature of zinc, its cheapness, the ease with which it is extracted from its ores, and the ready way in which it may be worked, are bringing it daily more and more into use. Neither the vapor nor its oxide is poisonous. It is of the greatest use in the laboratory, for the precipitation of certain metals and for the formation of hydrogen. For voltaic purposes it is indispensable, and its principal alloy, brass, is too well known to need description. It forms alloys with iron and several other metals. The so-called galvanic iron is iron covered with a protective coating of zinc. It also enters into the composition of German silver. The origin of the term *zinc* is lost in obscurity; it was first employed by Basil Valentine, but the great Paracelsus was the first to associate the word with a metal possessing the characters of zinc. It hardly seems probable that zinc was known to the ancients. An obscure passage in Strabo seems to show that a certain stone was found to drop *false silver* when melted, but there is little to show that this *false silver* was zinc. It is positive, however, that its alloys were known to the later Romans, for numerous coins have been found containing copper and zinc nearly in the proper proportions to form brass. It was not until the beginning of the last century that zinc was commercially extracted from its ores in Europe. Before this, however, it was

imported by the Portuguese and others from the East Indies and China, under the name of *tutenag* and *spelter*. It seems first to have been made in England by Mr. Champion, of Bristol, about the year 1743. Long before zinc was known as a metal, brass was made in large quantities by heating metallic copper imbedded in a mixture of calcined calamine and carbonaceous matter. This was effected in large crucibles, which were exposed to a long-continued heat in furnaces constructed for the purpose. The zinc immediately on its liberation from the calamine of course united with the copper without giving any notice of its presence. The only use to which zinc was applied for many years after its discovery was for mixing with copper to form brass; and it was comparatively of late years that the fact of its becoming ductile and malleable when heated was made known. A patent was granted to the discoverers of this property, Sylvester and Hobson, in 1805, since which period the zinc manufactnre has made steady progress. Zinc has a considerable power of dissolving iron; in consequence of which the iron pots in which it is melted soon become corroded and unfit for use. Its specific gravity varies, according to the closeness of texture of the sample, from 7·03 to 7·2, or even 7·3. Zinc is abundantly distributed in the form of various ores throughout the whole known world. Its principal ores are: *Red zinc ore*, which is found and worked in New Jersey, U. States. It consists of oxide of zinc, colored with binoxide of manganese. *Carbonate of zinc*, or *Calamine*, found extensively in the Devonian and carboniferous formations of most countries, especially near Lancaster, Columbia co., Penn., where the mines opened in 1853 are worked by the Lehigh Zinc Company. The calamine mines in this country are nearly worked out, only 280 tons having been raised in 1859, the amount in 1800 being 1,500 tons. *Hydrated silicate of zinc*, which is worked extensively in the U. States. *Sulphide of zinc, blende*, or *black jack*, which is met with in large quantities in various parts of England and Europe. In the extraction of zinc from its ores, the blende or calamine is first crushed between rollers and roasted. In the case of the blende this is a tedious process, and requires great care. The result in either case is oxide of zinc, which is mixed with half its weight of powdered coke or anthracite, and introduced into crucibles of peculiar construction. A circular furnace is employed, within which the crucibles are ranged. In the bottom of each crucible is an opening, to which a short iron pipe is attached, passing through the bottom of the furnace. To the end of this is affixed a removable tube communicating with a sheet-iron vessel. The hole in the bottom of the crucible having been partially plugged with coke, a charge of ore and coal is introduced, and the top of the crucible luted down. The tube connected with the iron vessel is lowered so as to leave the crucible tube open, and the heat is raised. So soon as the flame at the mouth of the short iron tube begins to turn from white to blue, connection is made with the tube leading to the iron pan, and the zinc gradually distills downwards, partly in powder and partly in stalactitic masses. The crude metal is re-melted, skimmed, and cast into ingots. In Silesia and Belgium retorts are used instead of crucibles, or *per ascensum* instead of *per descensum*. Zinc is often known in commerce as *spelter*, the derivation of which term is unknown. The equivalent of zinc, as now determined, is 65. *Symbol* Zn.

Oxide of Zinc. Zinc only forms one oxide, ZnO, which occurs in nature as *red zinc ore*. The anhydrous oxide is formed when zinc is burnt in air, and has been occasionally found in four- and six-sided prisms in the flues of zinc-furnaces. It is best prepared in the laboratory by calcining the precipitate produced by mixing solutions of sesquicarbonate of ammonia and sulphate of zinc. On the large scale, when it is required as a pigment, it is made by distilling zinc in clay retorts, passing into chambers through which a current of air is maintained. The volatilized metal burns at the high temperature to which it is exposed, and the oxide is deposited in the condensing chambers. As a pigment, it has not met with great success, as it does not wear so well as white lead, from its lesser specific gravity. In situations where it is exposed to sulphurous fumes, it stands perfectly, and being harmless in its nature, it is not open to the objections raised against its poisonous congener. Oxide of zinc forms a light white powder, which becomes yellow when heated, regaining its whiteness when it cools. It is a permanent oxide, even at the greatest heat. When exposed to the air, it becomes converted into a carbonate. It dissolves readily in acids, and its salts have the same form as those of magnesia and oxide of iron, with which it is isomorphous. Its salts, though neutral in composition, have an acid reaction. It is not easily dissolved in solutions of potash and soda, but if fused with them in a silver crucible, it forms compounds soluble in water, in which the oxide of zinc appears to play the part of an acid. The hydrated oxide is formed by adding a solution of potash to the sulphate of zinc. It is readily soluble in excess of alkaline solutions. In medicine, oxide of zinc is used in ointments as an astringent and desiccant, and by itself as a tonic, especially in cases of nervous debility brought on by drinking. Zinc is said to be a binoxide, but it requires confirmation. — *Nitrate of zinc* is prepared by dissolving zinc in dilute nitric acid. It forms deliquescent four-sided prisms, soluble in water and alcohol. — *Sulphate of zinc*, or *white vitriol*, is manufactured on a large scale by roasting native sulphide of zinc (blende), extracting the mass with water, and evaporating to the crystallizing point. It is generally sent into commerce in white lined masses. Generally speaking, it contains six atoms of water of crystallization; but compounds containing less have been formed. It crystallizes ordinarily in four-sided prisms. It is used in medicine as an emetic, and very largely by calico-printers. It is soluble in 2½ parts of water, but insoluble in alcohol. Several basic sulphates are said to exist. They combines directly with ammonia, forming a definite compound. It also forms double sulphates with those of potassa, ammonia, magnesia, and protoxide of iron. — *Carbonate of zinc*, or *calamine*, occurs in nature in large amorphous masses, and occasionally in crystals of the same form as those of carbonate of lime. It is the chief ore of zinc, and is employed in its impure state in medicine as an exsiccant, and in healing cerates. The anhydrous carbonate may be prepared in the laboratory by placing a tube containing carbonate of soda in a strong tube containing sulphate of zinc, sealing the outer tube hermetically, heating it to 320° Fahr., and inverting it so that the solutions may mix: crystalline grains of the anhydrous carbonate are gradually deposited. No neutral carbonate of zinc can be obtained from its salts by double decomposition. — *Chloride of Z.* is prepared by dissolving granulated zinc in hydrochloric acid, and evaporating, when it is obtained in a semi-solid hydrated mass, known as *butter of Z.* If this be further heated, it fuses, becomes anhydrous and solid. It is deliquescent, fuses easily, and may be distilled. It is remarkably soluble in water, and its strong affinity for that substance renders it of great use as a desiccating agent in organic research. In solution it forms Burnett's disinfecting fluid. It is a powerful escharotic when applied to the skin, and is used in surgery for that purpose. It fuses above 700° Fahr., but does not decompose unless more strongly heated; hence, a bath of it is sometimes used for maintaining objects at a high temperature. Its solution absorbs ammoniacal gas with avidity. It forms double salts with the chlorides of the alkaline metals. Its solution is also much used in soldering zinc, iron, and copper. Its solution is also much used for preserving objects for dissection, as it does not corrode the instruments in the same way as corrosive sublimate. Several oxychlorides are said to exist. — *Sulphide of zinc*, or *blende*, is found native contaminated with a large number of the other metals. It may be prepared by the direct combination of its elements. The hydrated sulphide is obtained as a white precipitate, by adding an alkaline sulphide to a solution of some zinc-salt. There are several oxysulphides of zinc. The *trisilicate of zinc*, or *electric* calamine, is found native in several parts of the world. Heat develops electricity in it; hence its name. *Valerianate of zinc* is used in medicine in combating nervous disorders.

Zinc-am'yl, *n.* (*Chem.*) A colorless, transparent liquid, emitting fumes, and rapidly absorbing oxygen when exposed to the air, but not taking fire spontaneously.

Zinc-blende, *n.* (*Chem.*) Sulphide of zinc. See ZINC.

Zinc-bloom, DICARBONATE OF ZINC, *n.* (*Min.*) An opaque mineral, of a white, grayish, or yellowish color, dull lustre, occurring in earthy incrustations, and reniform, and consisting of carbonic acid, oxide of zinc, and water.

Zinc-eth'yl, *n.* (*Chem.*) A colorless, transparent mobile liquid refracting light strongly, boiling at 214° Fahr., and remaining uncongealed at —8° Fahr. It may be distilled unchanged in vessels filled with hydrogen or carbonic acid. It has a powerful but penetrating odor, bursting into flame in the air, and emitting fumes of oxide of zinc. Its evaporation is represented by the formula $Zn(C_2H_5)_2$. It is made by digesting iodide of ethyl and hydrous ether and granulated zinc in a sealed glass tube at 266° Fahr. for 12 or 18 hours. (See *Proceedings of the Royal and Chemical Societies.*) The discovery of this singular compound by Frankland has opened up a new field of organic research, and similar compounds have been formed with the other alcohol radicles and several of the metals. Zinc methyl and amyl have also been formed, and resemble zinc ethyl in their properties and preparation. The latter, however, does not inflame in the air. There is hardly any substance known which has so intense an affinity for oxygen and chlorine as *zinc methyl*.

Zinc'iferous, *a.* Producing, or containing, zinc.

Zinc'ite, *n.* (*Min.*) The Red zinc ore. See ZINC.

Zinc-meth'yl, *n.* (*Chem.*) A liquid prepared by the action of zinc upon the iodide of methyl (CH_3I), and resembles zinc-ethyl in its general character; it is, however, far more volatile and more energetic in its reactions than zinc-ethyl, and is decomposed with inflammation and explosion when brought in contact with water; yielding oxide of zinc and marsh-gas (hydride of methyl).

Zincog'rapher, *n.* An engraver on plates of zinc.

Zincog'raphy, *n.* The art of obtaining impressions from plates of zinc. The practice of the art differs from that of lithography only in this, that in the latter German stones are made use of, whilst in the former method plates of zinc are employed. See LITHOGRAPHY.

Zinc'oid, *n.* (*Chem.*) The positive *electrode*. See ELECTROLYSIS.

Zinc'ous, *a.* (*Chem.*) That has the affinity or attractions characteristic of the zinc or generative metal of the voltaic battery, as the *zincous* plates, or zincoid, of the decomposing cell;—used in contradistinction to *chlorous*, noting the affinity or attraction characteristic of the platinum or conducting plate of a voltaic battery.

Zinc'-white, *n.* (*Painting.*) The oxide of zinc used as a pigment.

Zinder', a town of N. Africa, in Bornou, 300 m. W.N.W. of Kooka; *pop.* 10,000.

Zingiber, (*zin'ji-ber,*) *n.* (*Bot.*) A genus of plants, order *Zingiberaceæ*, consisting of herbaceous Indian plants, with creeping jointed woody rootstocks, from which are sent up, every year, stems surrounded by sheathing leaves arranged in two ranks, cone-shaped spikes and flowers protected by bracts. The most important species is *Z. officinale*, the rhizomes of which furnish the well-known spice called *ginger*. The young rhizomes preserved in syrup are imported from the West Indies and China, and form the conserve known as *preserved ginger*, that imported from the West Indies being preferred to the Chinese kind. Ginger is extensively used as a condiment, and in medicine as a stimulant and stomachic.

Zingiberā'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Anomales*. DIAG. One stamen, a two-celled anther, and a vitellus round the embryo. They consist of aromatic herbaceous plants, of which the genus *Zingiber* (*q. v.*) is the type. There are 31 genera, which comprise about 250 species, mostly tropical. Ginger turmeric, grains of paradise, and the various cardamoms, are products of this order.

Zink'enite, *n.* (*Min.*) A native sulphantimonite of lead, composed of 40 per cent. of sulphide of lead and 60 per cent sulphide of antimony. It occurs in several places in bright steel-gray six-sided prisms terminated by low six-sided pyramids.

Zion, or SION, the highest and most southernmost mount of Jerusalem, rising about 2,500 feet above the Mediterranean, and from 200 to 300 feet above the valleys at its base. It was separated from Akra on the N. and Moriah on the N.W. by the Valley Tyropœon; and had the valley of Gihon on the W., that of Hinnom on the S., and that of the Kidron on the S.E. It was a fortified town of the Jebusites till subdued by David, and thenceforward was called the "city of David." A mosque near its southern brow now covers the "tomb of David," so called, most jealously guarded by the Mohammedans.

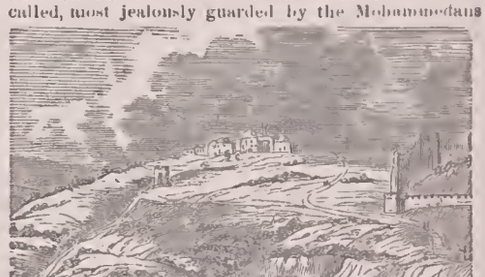


Fig. 2643. — MOUNT ZION.
(With the Mosque of David, part of the S. wall of Jerusalem, and the Valley of Hinnom.)

(Fig. 2643). This mount, together with Moriah and Ophel was enclosed by the first wall, and fortified by citadels. Upon it were erected the magnificent palaces of Solomon, and long afterwards those of Herod. At this present day a considerable portion of it lies outside of the modern wall on the S. — "Zion," and "the daughter of Zion," are sometimes used in Scripture to denote the whole city, including especially Moriah and the Temple; and sometimes figuratively for the seat of the true Church on earth and in heaven.

Zion, in *Pennsylvania*, a post-village of Centre co., 5 m. N.E. of Bellefonte.

Zi'onsville, in *Indiana*, a post-town of Boone co., 15 m. N.N.W. of Indianapolis.

Zionsville, in *Pennsylvania*, a post-village of Lehigh co., 40 m. N.N.W. of Philadelphia.

Zir'con, *n.* [A. S. *zersk*, blue, hyacinth.] (*Min.*) A silicate of zirconia, found in the sand of the rivers of Ceylon and other places. It occurs in crystals, generally square four-sided prisms terminated by four-sided pyramids, and also in grains, sometimes white, but more frequently red, brown, yellow, green, or gray. The colorless or slightly smoky kinds are called *Jargoon*; the bright red, *Hyacinth*; and the grayish or brownish, *Zirconite*. When of a fine color and transparent, these are sometimes used in jewelry.

Zirco'nia, *n.* (*Chem.*) See ZIRCONIUM.

Zir'conite, *n.* (*Min.*) See ZIRCON.

Zirco'nium, *n.* (*Chem.*) The metallic basis of the earth zirconia, contained in the rare minerals zircon and hyacinth, which are silicates of the earth. It has yet only been obtained as a black powder, which does not conduct a feeble voltaic current. It has not been fused, and only assumes a weak metallic lustre under the burnisher. Heated in air, it forms zirconia of ivory whiteness. *Zirconia* (ZrO_2) is its only oxide. It is a white infusible powder, which after ignition is only soluble in sulphuric acid. It forms several salts, of which the sulphate of potash and sulphate of zirconia are mixed together, *sub-sulphate* of zirconia and *bisulphate* of potash are formed. The *chloride of Z.* forms needles, which effloresce in the air, losing water and hydrochloric acid, and leaving behind a soluble oxychloride. Swanberg says that zirconia is not a pure earth, but a mixture of three. *Symbol*, Zr.

Ziska, or **Zizka** (*zis'ka*), JOHANN, the Hussite leader, born at Trocznow, Bohemia, about 1360 or 1380. He was of a noble family, and became a page at the court of King

Wenceslaus; but soon disgusted with the frivolity and vice he witnessed, he entered on a soldier's life. He served in the Polish army, and greatly distinguished himself at the famous battle of Tannenberg, in which the Teutonic Knights were finally defeated; next fought against the Turks, and in 1415 distinguished himself in the English army at Agincourt. That same year the reformers, John Huss and Jerome of Prague, countrymen of *Z.*, and whose doctrines he held, were burnt at Constance. Failing to rouse the king, whose chamberlain he was, to decisive action, *Z.* resolved to take arms himself as the defender of the Hussites. A body of troops was organized, and the terrible Hussite war began with a riot at Prague, in July, 1419. *Z.* took the chief command, built fortresses, and trained the troops, took Prague in 1420, and won a great victory over the Emperor Sigismund, who attacked him on Mount Wittkow, since named Ziska-Berg, in July. In the following year he made himself master of the citadel of Prague, and soon after lost his remaining eye — he had lost one in his childhood. He nevertheless continued to hold the command, and to beat the imperial armies, and among all the battles and engagements he fought, he was only once defeated. The emperor at last treated with him on equal terms, granted freedom of worship to the Hussites, and appointed their hero governor of Bohemia. *Z.* tarnished his fame by the cruelties he practised on the enemies of his faith; and, like some other men called to like grave tasks, justified his course on the ground that he was the agent of divine providence in inflicting vengeance. The treaty with the emperor was not completed, when *Z.*, engaged in the siege of a castle near Czaslau, was seized with the plague, and died there, October 12th, 1424. His remains were interred at Czaslau, and the Emperor Ferdinand I., visiting the church in 1554, is said to have gone with terror from the town to sleep elsewhere. The awe inspired by the name of this great soldier is illustrated by the myths which have grown up around it. The war between the Catholics and the Hussites continued for 11 years after *Z.*'s death.

Zittau, (*tsit'tou,*) a town of Germany, in Saxony, on the Mandau, 48 m. S.E. of Dresden. *Manuf.* Cottons, woollens, and planofortes.

Ziz, a river of Africa, in Morocco, rises S. of the Atlas Mountains, and after a S.E. course of 200 m., loses itself in the sands of the Sahara.

Zizania, *n.* (*Bot.*) A genus of plants, order *Gramineæ*, the most interesting species of which is *Z. aquatica*, the Indian rice or Canada-rice, found in the U. States and Canada on inundated shores of ponds and rivers. Its fruit, which is very abundant, affords sustenance to wild geese, ducks, and other water-fowl.

Zizyphus, (*ziz'i-fus,*) *n.* (*Bot.*) A genus of plants, order *Rhamnaceæ*, chiefly belonging to the tropics of the Old World. Many of the species have edible fruits: thus, *Z. vulgaris*, *Z. jujuba*, and others, yield the fruits called jujubes; *Z. lotus*, the fruit supposed to be the lotus of the ancients, from which the Lotophagi received their name. The latter is much esteemed by the Arabs.

Zloczow, (*zlot'sou,*) a town of Austrian Poland, 33 m. E. of Lemberg. *Manuf.* Canvas. *Pop.* 4,350.

Znaim, or **Znaym,** (*tsna'im,*) a town of Austria, on the Thaya, 34 m. S.S.W. of Brünn. *Manuf.* Woollens, tobacco, and mustard. *Pop.* 5,610.

Zoagli, (*dzo'al-ye,*) a town of N. Italy, on the Gulf of Genoa, 4 m. W. of Chiavari; *pop.* 4,400.

Zoanthus, *n.* [Gr. *zoos*, living, and *anthos*, a flower.] (*Zoöl.*) A genus of Polypes, comprehending those which possess the complex structure of the *Actiniæ*, but consist of different individuals adhering to a common fleshy basis, in which calcareous spicules are sparingly scattered.

Zoarces, *n.* (*Zoöl.*) A genus of acanthopterygious fishes, family *Gobidæ*, distinguished by an elongated body, dorsal, anal, and caudal united, and no spinous rays in the dorsal, except in its posterior part. The Eel-shaped Blenny, or Eel-Pout, *Z. anguillaris*, is from 24 to 36 inches long, dark olive-brown, varied with dusky blotches. It is caught in fishing for cod.

Zodiac, *n.* [Fr. *zodiaque*; Gr. *zodiakos*, from *zodion*, a little animal, from *zoon*, an animal, from *zaō*, Sansk. *jīv*, to live: — the constellations of the ecliptic being for the most part represented by the figures of animals.] (*Astron.*) An imaginary zone or belt in the heavens, extending to about 8° or 9° on each side of the ecliptic, within which the motions of the sun, moon, and principal planets are confined. It was divided by the ancients into 12 parts of 30° each called *signs*, and designated as follows:

Aries (*Ram*) ♈	Libra (*Balance*) ♎
Taurus (*Bull*) ♉	Scorpio (*Scorpion*) ♏
Gemini (*Twins*) ♊	Sagittarius (*Archer*) ♐
Cancer (*Crab*) ♋	Capricornus (*Goat*) ♑
Leo (*Lion*) ♌	Aquarius (*Water-bearer*) ♒
Virgo (*Virgin*) ♍	Pisces (*Fishes*) ♓

These names were given from a fanciful resemblance to the objects designated, which was supposed to be presented by the configuration of the stars. This division is still employed. See Constellation, and Planet.

Zodiacal, *a.* Belonging to the Zodiac.

Zodiacal light. (*Astron.*) A faint nebulous aurora which surrounds the sun in the plane of its equator. This curious phenomenon is visible immediately before sunrise or after sunset, in the place where the sun is about to appear or has just quitted the horizon. It has a flat lenticular form, extending from the horizon obliquely upwards, and following the course of the ecliptic, or rather of the sun's equator. The most favorable times for observing it are in the months of April or May, in the evening, or at the opposite season of the year before sunrise. Many opinions have been entertained respecting the nature and cause of this singular phenomenon. The most plausible of these is, that the *Z. L.* consists of a vast number of meteorites which circulate around the sun, and are gradually falling into that luminary, their impact contributing to restore the solar heat and light lost by radiation.

Zoe, (*zō'e,*) an empress of the East, was the daughter of Constantine IX., and became the wife of Romanus III. in 1028, when she was in the 48th year of her age. She was a debauched woman, and became the murderess of her husband, in order to place her lover on the throne, who reigned under the title of Michel IV. The latter dying, was succeeded by his nephew, Michel V., who was deposed by the people, and *Z.* and her sister Theodora proclaimed joint sovereigns. She displayed great ability and firmness in the government, and in 1042 married in third nuptials Constantine Monomachus. She continued to reign till her death at the age of 74, in 1052.

Zoʻhar, *n.* [Heb., splendor.] A Jewish book, highly esteemed by the rabbis, and supposed to be of great, though altogether unascertained, antiquity. It consists of cabalistical commentaries on Scripture, especially on the Pentateuch. It has been translated into Latin (ed. 1680).

Zoil'ean, *a.* Belonging to, or resembling *Zoilus*, q. v. —Unjustly severe.

Zoʻilism, *n.* Illiberal criticism; unjust censure.

Zoʻilus, a Greek rhetorician, who criticised the "Iliad" with such virulence as to be called "the rhetorical dog;" and his name became so familiar as to be applied to all snarling critics. Flourished about 270 B.C.

Zoisʻite, *n.* (*Min.*) A silicate of alumina and lime, formerly considered a variety of Epidote, and said to occur in fine crystals of a grayish-brown or olive color, at Hollyhill near Strabane, Tyrone.

Zolkiew, (*zhol'ku,*) a town of Austrian Poland, 16 m. N. of Lemberg. *Manuf.* Coarse woollens, leather, and porcelain. *Pop.* 4,350.

Zol'larsville, in *Pennsylvania*, a post-village of Washington co.

Zollverein, (*tsol'fer-ine,*) *n.* [Ger., toll-union.] The idea of a uniform system of customs for the German states, first suggested at the Congress of Vienna in 1815, was acted upon by the government of Prussia, which abolished all distinctions of customs throughout its territories, May 26, 1818, and invited other governments to unite for a similar purpose. The invitation was generally accepted, and the result was the formation of the *Z.*, or Customs Union of the German States, by a treaty signed March 22, 1833. Saxony joined the union March 30, Thuringia May 11, and the uniformity of customs thus introduced commenced Jan. 1, 1834. The German Empire now forms one customs and commercial union, in which was included in 1881 the free port of Hamburg.

Zombor', a town of Hungary, cap. of the co. of Bacs, 120 m. S. of Pesth. *Manuf.* Silks. *Pop.* 24,200.

Zoʻnar, *n.* A girdle which the Christians and Jews of the Levant are obliged to wear to distinguish them from Mohammedans.

Zōne, *n.* [Fr.; Gr. *zōnē*, a girdle, from *zonnumi*, to gird.] A girdle; a belt; a band or stripe running round an object: circuit; circumference.

(*Geog.*) A division of the earth with respect to the temperature of different latitudes. — The whole earth is divided into five *Z.*—the torrid, northern and southern temperate, and northern and southern frigid *Z.* The torrid *Z.* extends 23½° N. and S. of the equator, and twice a year the sun shines vertically on its inhabitants. The two temperate *Z.* extend from the tropics to the polar circles. The distance from the tropics to the polar circles, or the breadth of the temperate *Z.*, both in the northern and southern hemispheres, is 43°. All beyond the polar circles, to the poles, is called the frigid *Z.*

(*Math.*) The portion of the surface of a sphere included between two parallel lines.

Zoned, (*zond,*) *a.* Wearing a zone; having zones or concentric bands.

Zoneless, *a.* Destitute of a zone or girdle.

Zonotrichia, *n.* (*Zoöl.*) A genus of birds, family *Fringillidæ*. It has the bill conical, and slightly notched, wings not reaching to the middle of the moderately rounded tail, the second and third quills longest, tarsus longer than the middle toe, the hind toe longer than the lateral one, the claws of the latter just reaching to the base of the middle one. There are several American species, among which are the White-crowned Sparrow, *Z. leucophrys*, and the White-throated Sparrow, *Z. albicollis*, from east of the Rocky Mountains; and the Golden-crowned Sparrow, *Z. coronata*, of the Pacific coast.

Zonule, *n.* A little zone.

Zoochemy, *n.* [Gr. *zoon*, an animal, and Eng. *chemistry*.] Animal chemistry.

Zoogeny, *n.* [Gr. *zoon*, and *genesis*, generation.] The doctrine of animal formations.

Zoography, *n.* [Gr. *zoon*, and *graphō*, to write.] The natural history of animals.

Zoolatry, *n.* [Gr. *zoon*, and *latreyo*, to work for hire, to serve the gods with prayer and sacrifices.] The worship of animals, as in the religion of ancient Egypt.

Zoolite, *n.* [Gr. *zoon*, and *lithos*, a stone.] A petrified animal substance.

Zoologer, *n.* A zoölogist. (R.)

Zoological, *a.* Pertaining to zoölogy, or the science of animals.

Zoologically, *adv.* According to the principles of zoölogy.

Zoologist, *n.* One who is well versed in zoölogy, or in the natural history of animals, or who describes animals.

Zoologize, *v. i.* To practice the study of zoölogy; to pursue natural history.

Zoology (*zō-ol'-ō-jy*), *n.* [Gr. *zoon*, an animal, and *logos*, a discourse.] The branch of the science of Biology which relates to animals, as distinguished from Botany, that branch which relates to plants. The history of zoölogy has been an extended one. It first came into rank as a science in the works of Aristotle, after having excited the curiosity and attention of mankind for ages previously. After a long subsequent lapse into the domain of the non-scientific, it again became the subject of intelligent observation in the sixteenth century, while the first society for the study of animals and plants—the Academia Naturæ Curiosorum—came into existence in 1651, the Royal Society of London and the Academy of Sciences of Paris being founded somewhat later. From time to time, works on the general facts of zoölogy appeared, the productions of these encyclopædic authors culminating in Buffon's *Histoire Naturelle* (15 vols., 1749–67), a work which took all nature for its province, and contained many useful suggestions and evidences of keen perception. This period of accumulation of undigested facts was followed by one of systemization, the earliest able workers in this field being John Ray and Carl Linnæus. The *Systema Naturæ* of Linnæus (1735), the first definite attempt at classification after Aristotle, recognized six classes in the animal kingdom — Mammalia, Aves, Amphibia, Pisces, Insecta, and Vermes. Lamarck broadened this system, recognizing more clearly the distinction between the vertebrate and Invertebrate animals, and divided the latter much more definitely than had been done by Linnæus. Cuvier, in his *Règne Animal* (1829), advanced the idea of four great types or branches of animal structure—Vertebrata, Mollusca, Articulata, and Radiata. Agassiz and Owen adopted these types, though making much change in the subdivisions. But the Cuvierian system rapidly gave way before the more careful anatomical analysis that succeeded, the class Radiata vanishing and the others suffering much change. The new ideas were embodied in the early classifications of Leuckart, Milne-Edwards, and Huxley, which in their turn were superseded, as anatomy became supplemented by embryological and palæontological research, and as the evolutionary views advanced by Darwin began to exercise their influence on the opinions of zoölogists. The Cuvierian theory of types of structure vanished in the light of these new studies, and was succeeded by the doctrines of descent and genealogical succession. Several systems of classification have been devised to express these new views of the animal world, which are largely similar in their main features, their differences being in minor points. Among these, that of Ray Lankester is one of the most fully developed. It is far too intricate to be given here, and it must suffice to say that the recent systems agree in dividing the animal kingdom into the subkingdoms of Protozoa (single-celled animals), Porifera (sponges), Cœlenterata (polyps, medusæ, &c.), Echinodermata (star-fish, sea-urchins, &c.), Arthropoda (crustaceans, insects, spiders, &c.), Mollusca (the various classes of shell-fish), and Vertebrata (including the classes of fishes, batrachia, reptiles, birds, and mammals). The old subkingdom of Vermes is now found to cover a diverse collection of unrelated or slightly related forms, of more or less worm-like structure, among the most interesting of which are the Tunicata, from their seeming position as ancestral forms of the Vertebrata. The story of animal development has grown more intricate with every attempt to unfold it, new problems constantly arising, and, despite all that has been and is being done for its elucidation, no system of classification to-day existing can be given as in any sense the last word on the subject. While the great main features of the system of animal life are definitely settled, many of those of minor consequence remain open, and there is yet much to be done before a fully satisfactory scheme can be advanced.—*Cell Theory.* The employment of the microscope in zoölogical research, first by Malpighi and Leeuwenhoek, and subsequently by a host of others, led to a vast series of discoveries in physiology and the anatomy of tissues, and finally to the cell-theory, first advanced by Schwann in 1839, which has revolutionized all pre-existing biological conceptions. Since that date the study of the cell has gone on unceasingly, the peculiar structure of its nucleus being discovered, and the potentiality of the cell and its contained protoplasm in the life activities traced. While the cell is the constituent unit of the whole body, and the principal seat of its chemical, physiological, and morphological changes, it plays an equally prominent part in the processes of reproduction, these being dependent upon the union of two cells of opposite sexual origin, the combination of the nuclei of these cells, their subsequent growth and division into a multitude of new cells, and the segregation of these cells into the organs and tissues of the new organism.—*Embryology.* The study of the cellular unit of organisms is but one of the new uses to which the microscope has been put. That of the development of organisms in their embryological stage has proved equally important, and has led to many discoveries of the highest value in zoölogical research. The old doctrine of preformation has been completely overturned, it being clearly recognized that all life begins in a simple cell, from which the organs of the new structure gradually develop, though we cannot well avoid the conclusion that the molecules of the cell-substance possess predisposing activities tending toward the coming organism. Embryology has played an essential part in the new views of classification, the embryo revealing in its development secrets of its ancestry of the most vital significance, such as that of

the former gill-breathing habit of the higher vertebrates.—*Palæontology.* The results of embryological study have been in considerable measure borne out by those of palæontology, which may be looked upon as the embryology of races as distinguished from that of individuals. Research into the characteristic features and zoölogical relations of fossil forms has aided greatly in the growth of new conceptions, and in the development of a system of classification based on all the facts of life, morphological, histological, embryological, &c. The study of the *geographical distribution* of animals is another element to be considered in a review of the new zoölogy. The facts of distribution, first systematized by Sclater in 1857, have since then been closely studied by Wallace and others; and these, combined with the growing knowledge of the geological distribution of animals, have led to clear conceptions of their migrations, and furnished many new arguments in favor of the Darwinian theory of descent. The study of marine fauna, both of the littoral regions and the deep sea, has played its part in this reorganization of zoölogical conceptions, yielding a host of significant facts to add to those derived from anatomical, embryological, and palæontological research. The practical experiment of sounding the ocean depths as a preliminary to electric cable laying first taught zoölogists that the depths of the sea held a yet unstudied fauna, and set in train that series of dredgings which have embraced a vast expanse of ocean area and led to a multitude of strange and suggestive discoveries. In addition, seashore studies have grown more active, laboratories for this purpose being founded in various localities, and the microscope diligently employed in connection with the many other modern methods of research. The stimulus given to study has also led to the voyaging of naturalists to distant lands for the purpose of studying on the spot the animal life of new regions, and of conducting anatomical and embryological researches with the advantage of living material, in place of being confined to the use of alcoholic specimens brought home by collectors. Among the most important of these journeys may be mentioned that of W. H. Caldwell to Australia (1885–86), to study the embryology of the *Monotremata* and of the Dipnoid fish *Ceratodus;* of Sedgwick to the Cape to study *Peripatus;* of Bateson to Maryland to study *Balanoglossus;* and of the brothers Sarasin to Ceylon to study the embryology of the *Cæcilia.* An important result of these researches was the discovery that the mammalian Monotremata lay eggs like birds and reptiles.—*Theories of Descent.* Darwin's evolutionary theory of animal descent embraces two factors, heredity and variation, the influence of the former being toward the close preservation of race characteristics, that of the latter toward divergence from these characteristics, the former acting to check variation, the latter to accumulate slight variations, and at rare intervals produce permanent specific changes. Many recent zoölogists hold that these influences are not alone sufficient to produce the changes which have taken place, and claim that the facts of zoölogy indicate that other influences besides the preservation of fortuitous variations have been necessary to the development of new species. The views of Lamarck have been revived in the Neo-Lamarckian theory, to the effect that changes in the organism due to "use and effort," or the strain to effect certain objects, are capable of transmission to offspring, and that such a "transmission of acquired characters" has had much to do with the evolution of organic forms. This theory has been vigorously combatted by August Weismann, who is the author of a theory of reproduction which controverts any such inheritance. Both sides have gained a strong body of adherents, and an effort has been made on the one hand to prove that acquired characters can be and are inherited, on the other hand to disprove these seeming facts, with the result that at the present time no definite decision has been reached on the question, which remains one of the open problems of the science of Biology. See ANATOMY; BIOLOGY; CELL; EMBRYOLOGY; EVOLUTION; DARWINISM; PHYSIOLOGY; PROTOPLASM; NEO-LAMARCKISM; VERTEBRATA; ANATOMY, COMPARATIVE, &c.

Zoomorph'ism, *n.* [Gr. *zoon,* and *morphe,* shape.] The transformation of men into beasts.

Zoön'omy, *n.* [Gr. *zoon,* and *monos,* a law.] The science treating of laws which govern the organic action of animals in general; the physiology of animals.

Zooph'agous, *a.* [Gr. *zoon,* and *phago,* to eat.] That feeds on animals; carnivorous.

Zoophyte (*zō'o-fīt*), *n.* [Gr. *zoon,* an animal, and *phuton,* a plant, from *phuō,* to bring forth, to spring forth.] (*Zoöl.*) A term employed by Cuvier as a substitute for *Radiates,* viz., to designate the lowest primary divisions of the animal kingdom, which includes many animal organisms that are fixed to a definite spot of rock, shell, &c., and have the form of plants. The term is now never used by scientific naturalists, the plant-like animals comprising the class of *Polypi,* or *Polyps.* See POLYPUS.

Zo'osperm, *n.* One of the spermatozoa of an animal.

Zo'ospore, *n.* (*Bot.*) The name given to those spores, or seeds of acotyledonous plants, which being furnished with cilia, move spontaneously for a short time after being discharged from the spore-case of the parent-plant. The purpose served by the ciliary motion in zoöspores is evidently the wider diffusion of seeds; and the cessation of the motion after a certain time permits the seed to become fixed, in order to germinate. Zoöspores are found in *Characeæ, Algæ, Fungi,* and *Lichens.*

Zootom'ical, *a.* Belonging to zoötomy.

Zoot'omist, *n.* One versed in zoötomy.

Zoot'omy, *n.* [Gr. *zoon,* and *temno,* I cut.] That branch of anatomical science which relates to the structure of animals generally.

Zoroas'ter, ZARATHUSTRA, or ZERDUSHT, the great legislator, prophet, and reformer of the religion of the Parsees, called by Plato a son of Oromages (*Ormuzd*). Of his personal history nothing is known. By some *Z.* is said to be a contemporary of Darius Hystaspes; by others he is placed many hundred, or even many thousand, years earlier. It is of chief moment to recognize him as the earliest systematic expounder of that solution of the Mystery of Evil, which may be termed *Spiritual Dualism.* He imagined two mighty spirits in contest—*Ormuzd* and *Ahriman*—GOD and the DEVIL; and in this he most probably reproduces an older mythology of the Parsee race. Ormuzd was conceived by *Z.* as symbolized by light; the sun a visible type of him; and fire the expression of his energy. Fire-worship spread extensively throughout India and Higher Asia; but, as usual, it became a superstition. Schism followed on the death of *Z.,* who, any more than other great men, had no true successor.

Zos'ter, *n.* [Gr., a girdle.] A kind of tetter; shingles.

Zos'tera, *n.* (*Bot.*) The typical genus of the order ZOSTERACEÆ (*q. v.*).

Zostera'ceæ, *n.* (*Bot.*) The Sea-wrack family, an order of plants, alliance *Hydrales,* comprising a small number of marine plants having the habit of seaweeds. The most interesting species is *Zostera marina,* the Sea-wrack, which is in common use for packing, and for stuffing chairs and mattresses. Its fibers have been recommended as a substitute for cotton.

Zouave', *n.* (*Mil.*) One of a body of troops in the French army, wearing the Moorish dress;—so called from a Kabile people inhabiting a mountainous district between Bougie and Dellis, in Algeria, known as the Zouaoua, and also called Zouaouas, who, to the number of 2,000, were organized into a regular body of troops in 1830. Gradually the enlistment of natives ceased, and the force consists almost exclusively of Frenchmen.—There are also regiments of zouaves in the militia of several of our states.

Zschokke (*tshok'ĕ*), JOHANN HEINRICH DANIEL, a popular German writer, born at Magdeburg, 1771, who took up his residence in Switzerland, where he was successively employed as the head of an educational establishment, governor of Basle, and, after the federal union of Switzerland, in 1803, member of the council of Forests and Mines. He was a voluminous and versatile writer, his principal works being:—*Historical Memoirs of the Swiss Revolution; History of Switzerland for the Swiss People;* many novels, which have been translated into English; and his autobiography, which has also appeared in an English version. Died in 1848.

Zschoppau (*tshop'-pou*), a river of Saxony, rises in the N. slope of the Fichtelerbirge mountains, near the border of Bohemia, and falls into the Mulde, after a N.W. course of 60 m.—A town on the above river, 8 m. S.E. of Chemnitz. *Manuf.* Woollens, cottons, hosiery, porcelain, &c. *Pop.* 6,950.

Zug (*tsoog*), a lake of Switzerland, in the S.W. of the canton of Zug, 9 m. long, and about 3 m. broad, receives the Lorze, which enters it from Lake Ægeri.—The smallest of the Swiss cantons, in the center of the country, surrounded by the cantons of Zurich, Schwyz, Lucerne, and Aargau; *area,* 85 sq. m. *Desc.* Mountainous and fertile. The highest summit is the Kaiserstock, 8,258 ft. above the sea. *Rivers.* The Reuss and the Sihl. *Lakes.* The Zug and Ægeri. *Prod.* Grapes, butter, and cheese. Cattle-rearing and fishing are also eagerly pursued. *Manuf.* Silk, paper, cotton-spinning, and tanning. *Pop.* (1897) 24,100.—Zug, the cap, is on the E. of the Lake Zug, 15 m. from Zurich. *Pop.* 4,300.

Zulia, or SULIA (*soo'le-a*), a river of South America, which rises in the N. of the Republic of Colombia, and flows into Lake Maracaybo, in Venezuela, after a N.N.E. course of 180 m.—A dept. of Venezuela, bordering on the Caribbean Sea and the Republic of Colombia; Lat. between 8° and 12° N., Lon. 68° and 73° W. In the center is Lake Maracaybo. *Cap.* Maracaybo. *Pop.* abt. 154,000.

Zullichau (*tsool'le-kou*), a town of Prussia, prov. of Brandenburg, on the Oder, 43 m. E.S.E. of Frankfort. *Manuf.* Woollens, linens, and leather. Near this town, July 23, 1759, the Prussians, under Gen. Wedel, were defeated by the Russians. *Pop.* 5,500.

Zum'bro, a river of *Minnesota,* formed by the junction of two branches of the S.W. of Wabasha co., and flowing E., enters the Mississippi a few miles below Wabasha.

Zumpango (*soom-pang'go*), a town of Mexico, 30 m. N. of the City of Mexico. *Pop.* about 1,800.

Zuni (*zoon-yee'*), in *New Mexico,* an Indian town of Socorro co. *Pop.* about 2,500. See PUEBLO INDIANS.

Zuni Mountains, a range in *New Mexico,* about Lat. 35° N., Lon. 108° 20′ W.

Zurich (*zoo'rik*), a lake of Switzerland, extending in the form of a crescent, chiefly through the canton of Zurich, but partly, also, between the cantons of Schwyz and St. Gall. It is divided into the Upper and Lower by the strait at Rapperschwyl, which, the breadth being little more than a quarter of a mile, is crossed by a long wooden bridge. *Ext.* 23 m. long, and from ½ to 2¾ broad. *Z.,* without rivalling the lakes of Geneva or Lucerne in sublimity of scenery, is still one of the finest in Europe, being surrounded by a populous and well-cultivated country, and the prospect of its banks being richly varied. It abounds in fish, receives the Linth, and is traversed by steamboats.—A N. canton, having E. Thurgau, W. Aargau, S. Schwyz and Zug, and N. Schaffhausen; *area,* 687 sq. m. *Desc.* Fertile and well cultivated. The general aspect of its territory is pleasant, though without that bold and magnificent scenery which marks the interior and south of Switzerland. The hills, which do not rise above 3,200 feet, are separated by beautiful valleys and lakes. Rich pastures and extensive orchards meet the eye in every direction. *Rivers.* The Rhine, Thur, Toss, Glatt, Limmat, Sihl, and Reuss. *Lakes.* A considerable portion of Zurich, and several smaller lakes. *Prod.* Corn, potatoes, and fruits. There are many mineral springs. *Manuf. Z.* is one of the most industrious cantons of Switzerland. Cotton, silk, and ribbons are the chief manufactures. *Z.* holds the first rank in the Swiss confederation. Its territory was the scene of important military operations in 1798 and 1799. *P.* (1897) 362,750.—A city, cap. of the above canton, stands on the river Limmat, at the N. extremity of the Lake of Zurich, in a narrow valley between the hills, 56 m. N.E. of Bern. It contains very few buildings of note. The town-hall is large, but inelegant; and of its several churches, none are entitled to notice. On the other hand, the beauty of the scenery is striking, and there are a number of beautiful promenades around the town. Its university was established in 1832; and it has several polytechnic schools, a public library, botanic garden, and many learned societies. *Manuf.* Important; consisting of silks, cottons, ribbons, dye-works, and tanneries. Gessner, Lavater, and Pestalozzi were born here. Near *Z.,* in 1443, the Swiss defeated the Austrians; in 1799 the French defeated the Russians and Austrians. In 1859 a treaty between France, Austria, and Italy was signed here, and Lombardy was sold by Austria to the king of Italy for $50,000,000. *Pop.* with suburbs (1897) 115,280.

Zur'lite, *n.* (*Min.*) A variety of Melilite of an asparagus-green color inclining to gray, which occurs at Vesuvius, generally in large rectangular prisms.

Zuru'ma, a river of Brazilian Guiana, which joins the Takutu in Lat. 3° 2′ N., Lon. 60° W., after a S.E. course of 80 m.

Zuruma, a town of Ecuador, dept. of Assuay, 28 m. N. W. of Loxa; *pop.* abt. 7,000.

Zutphen, (*zoot'fen.*) a fortified city of the Netherlands, prov. of Gelderland, at the confluence of the Yssel and Benkel, 16 m. N.N.E. of Arnheim. *Manuf.* Cotton, paper, glue, and tanneries.

Zuyder-Zee, or **Zuider-Zee,** (*zi'der-ze,*) a gulf of the German Ocean, in Holland, 45 m. by 35 m., once a lake, but by an inundation in 1282, united to the German Ocean. The reclamation of the *Z.* by the govt. will reclaim about 500,000 acres, valued at $160 per a.; total cost $46,000,000, and will take ten years to complete.

Zvor'nik, a town of European Turkey, in Bosnia, on the Drin, 78 m. S.W. of Belgrade.

Zwarte Berg, (*zwart bairg,*) ("Black Mountain,") two mountain ranges in Cape Colony, S. Africa, one of which, in parts, attains an elevation of 4,000 feet.

Zwel'lendam, a dist. of Cape Colony, extending E. from Cape Town, and bounded N. by the Zwarte Berg; *area,* 7,620 sq. m. *Desc.* Mountainous, and watered by the river Breede. *Prod.* Corn, butter, and wine. *Manuf.* Soap and brandy. *Cap.* Zwellendam. *Pop.* 14,300.

Zwingli, or **Zuinglius,** ULRIC, (*zwin-glē.*) a Swiss reformer and patriot, B. in the hamlet of Wildhaus, in the Tockenburg, Jan. 1, 1484. After receiving instruction from his uncle, parish priest of Wesen, he was sent to study first at Basel, then at Bern, and afterwards at Vienna. At the age of 18 he returned to his native village, but only to quit it again almost immediately, and renew his studies at Basel. He applied himself to scholastic theology, but gave it up in disgust as a mere waste of time, and soon after rejoiced to hear the teaching of Thomas Wittenbach. *Z.* eagerly studied the classics, and became one of the best scholars of his time. He was also passionately fond of music, and learnt to play well on the flute, the lute, the violin, and other instruments. In 1506 he was ordained priest—he had been master of arts for several years—and accepted the place of pastor of Glarus, which he filled with zeal and devotedness for ten years. During this period thoughts were working in his mind, which were the germs of the reformation to come. He twice accompanied the Swiss auxiliaries to the wars in Italy, fought at the battle of Marignano; and used his influence with his countrymen to dissuade them from foreign military service. In 1514 he had visited Erasmus at Basel, and was greatly influenced by his writings. The year of 1516 *Z.* has noted as the period of the commencement of the Swiss Reformation. That same year he removed to the secluded monastery of Einsiedlen, of which he was appointed priest and preacher. His clear and eloquent announcement of scriptural truth astonished his new hearers, and drew crowds from the surrounding country to hear him. In 1519, through his high reputation for learning, piety, and eloquence, and the active influence of his friend Oswald Myconius, *Z.* was appointed preacher at the cathedral of Zurich, and was thus brought into the centre of the political movement of Switzerland. His preaching produced immense excitement by its novelty; but while most were charmed, not a few were alarmed and angry. In the autumn of the same year he was attacked by the plague (known then as the "great death"), and it was reported that he was dead. He, however, recovered, and with a new vigor and devotedness, and fulness, resumed his work. In 1522 began the action of the court of Rome against the Reformation in Switzerland; the bishop of Constance, by letter to the chapter at Zurich, attempted to stop the preaching of *Z.* The latter replied in his *Architeles,* and the attempt failed. But an order of the Diet was soon after obtained, which prohibited preaching against the monks. About the same time *Z.* married Anna Reinhold, a widow, and mother of *Z.*'s beloved disciple and friend, Gerold. He did not make his marriage known

till two years later. Meanwhile enmity was growing into persecution, and the reformer was sometimes overwhelmed with the foreboding of evil to come, and the failure of his hopes. Early in 1523 a conference between the advocates and opponents of the new doctrines was held at Zurich, by order of the Great Council; but the discussions, which lasted three days, left the controversy as it was: the reformers arguing on the basis of Scripture, and their opponents from the canon law, and there being no first principles in common with them. Not long after the reformation was publicly established in Zurich, pictures and statues, &c., were taken out of the churches, and instead of the mass a simple form of celebrating the Lord's Supper was adopted. Education was provided for, and convents were suppressed, just regard being had to the interests of their inmates. In 1528, *Z.* attended the important conferences of Baden, and in 1529 that of Marburg, where he agreed on certain articles of faith with Luther and Melancthon. Two years later, the long suppressed enmity of the cantons which remained Catholic broke out in open war against Zurich and Berne. Delay, indecision, and half-heartedness among the citizens of Zurich made their cause hopeless; and at the battle of Cappel their handful of disorderly troops was easily destroyed or dispersed by the superior numbers and discipline of the Catholic army. *Z.* fell on that field, October 11, 1531. His body was discovered, burnt, quartered, and his ashes mingled with those of swine, and scattered to the winds. The works of *Z.* were published in 1581 in 3 vols. 4to.

Zwickau, (*tswik'-kou,*) a town of Saxony, on the Mulde, 60 m. S.W. of Dresden. *Manuf.* Woollens, cottons, and chemicals.

Zwittau, (*tswit'tou,*) a river of Austria, in Moravia, —A town of Moravia, 37 m. N.W. of Olmutz.

Zwolle (*zwol*), a fortified town of the Netherlands, C. of Overyssel, on the Zwarte Water. *Z.* was a free imperial city of the Hanseatic League. After the expulsion of the Catholics in 1580, it joined the States General. In 1672 it surrendered to Galen, the warrior bishop of Munster.

Zygadite, *n.* (*Min.*) A silicate of alumina and lithia, found in thin tabular prisms, and in twins like albite, and of a reddish or yellowish-white color, in the Harz.

Zygæ'na, *n.* (*Zoöl.*) A genus of fishes, fam. *Squalidæ*, which has the head flattened horizontally, with the sides much extended laterally. The Hammer-head Shark, *Z. malleus*, attains the length of twelve feet, and is bold and ferocious.

Zygodactyl'ic, Zygodac'tylous, *a.* (*Zoöl.*) Having the toes joined in pairs, as the parrot tribe.

Zygo'ma, *n.* [Gr., from *zygon*, a yoke.] (*Anat.*) The cavity under the zygomatic process of the temporal bone.

Zygomat'ic, *a.* (*Anat.*) Pertaining to the zygoma, or to the bony arch under which the temporal muscles pass.

Zygophyllaceæ, (*zi'go-fil-lā'se-ē,*) *n.* (*Bot.*) The Bean-caper or Guaiacum family, an order of plants, alliance *Rutales*, having the following essential character: — Herbs, shrubs, or trees, with opposite stipulate leaves, without dots. Calyx and corolla with a quaternary or quinary distribution; the former convolute in æstivation, the latter with unguiculate petals and imbricated. Stamens 8–10, hypogynous, usually arising from back of scales. Ovary 4–5-celled; style simple. Fruit 4- or 5-celled. Seeds few, with little or no albumen; radicle superior; cotyledons foliaceous. The plants of the order are generally distributed throughout the warm regions of the globe, but chiefly beyond the tropics. See Guaiacum, and Zygophyllum.

Zygophyl'lum, *n.* (*Bot.*) A gen. of plants, ord. *Zygophyllaceæ*. *Z. fabago*, the bean caper, derives its common name from the circumstance of its flower-buds being used in some parts of the world as substitutes for common capers. This plant is reputed to possess valuable anthelmintic properties.

Zymolog'ic, Zymolog'ical, *a.* Relating to zymology.

Zymol'ogist, *n.* One versed in zymology.

Zymol'ogy, *n.* [Gr. *zyme*, ferment, and *logos*, a discourse.] The doctrine of fermentation; a treatise on the fermentation of liquids: zymology.

Zymom'eter, Zymosim'eter, *n.* A zumometer; a Saccharometer, *q. v.*

Zymo'sis, *n.* [Gr., fermentation.] (*Med.*) An epidemic, endemic, or contagious affection.

Zymot'ic Diseases, *n.* [Gr. *zumoo*, I ferment.] (*Med.*) A designation recently introduced, and applied to diseases which are epidemic, endemic, or contagious, as well as such as result from the scarcity and the deterioration of the necessary kinds of food, or from parasitic animals. They are divided into four orders, — *miasmatic*, *enthetic*, *dietic*, and *parasitic*, of which fever, syphilis, scurvy, and worms, may be taken as the respective types.

Zythep'sary, *n.* [Gr. *zythos*, zythum, and *echo*, to boil.] A brewery.

Zy'thomierz, or Jitomir, a town of Russian Poland, cap. of the govt. of Volhynia, on the river Teterev, an affluent of the Dnieper, 80 m. S.W. of Kiev. Lat. 50° 15′ N., Lon. 28° 40′ E. *Manuf.* Cloth, mats, leather, &c. *Pop.* 33,717.

Zy'thum, *n.* [Lat.; Gr. *zythos.*] A kind of malt liquor.

Z.—SECTION II.

Zalin'ski, EDMUND LOUIS GRAY, soldier, was born in Kurnick, Prussian Poland, Dec. 13, 1849; removed to the U. S. in 1863; was educated at Syracuse; entered the Union army at the age of fifteen as volunteer aid-de-camp on the staff of Gen. Nelson A. Miles, remaining in his service until the close of the war; mustered out of the service in 1865, commissioned second-lieutenant, later promoted captain of artillery. He is well known in connection with the Zalinski pneumatic dynamite gun.

Zama (*zah'mah*). (*Anc. Geog.*) A city and fortress in Numidia, about 300 m. S.W. of Carthage, near which Hannibal was defeated by the Younger Scipio, 201 B. C. The tower of Hannibal's forces consisted of a small veteran army that had shared his fortunes for many years; most of the rest were of inferior quality, of many races, variously organized, and of suspicious fidelity. But his greatest deficiency was in cavalry, an arm with which he had repeatedly decided the victory in former battles. In Scipio's army, on the other hand, Numidians, under Masinissa, were present in overwhelming numbers. The onset of Hannibal's elephants, of which he had 80, was defeated and made worse than useless by the wise precautions of Scipio; the cavalry on his flanks were scattered by the furious charge of Masinissa and Lælius; his front line of mercenaries beaten back by the more numerous and better-disciplined Romans. His veteran infantry, hemmed in on all sides, fought with the courage of despair, and were cut to pieces. Hannibal having done everything, both before and during the battle, which could secure the victory, escaped with a few horsemen. Of the Carthaginians, 20,000 were left dead on the field, and an equal number taken prisoners. Of the victors, 2,000 fell in the action.

Zambesi (*zam-b'zi*), a large river of southeast Africa, ranking with the Congo and the Nile as a main channel of communication with the interior of the continent, its total length being about 1,600 miles, largely navigable, though the frequent cataracts and rapids reduce the navigable waters to stretches of 100 to 200 miles in length. Rising in the marshy country to the W. of Lake Bangweolo, it flows through Lake Dilolo, at the S.W. corner of the Congo Free State, about lat. 11° 40′ S., lon. 22° 20′ E. Thence it makes its way to the Indian Ocean, draining in its course more than 500,000 sq. m. of territory, and receiving numerous tributaries, the largest being the Loamma, Lonugwa, Kafue, and Shiré, the last, which connects it with Lake Nyassa, being navigable except at the Murchison Falls. Most notable of its cataracts is the Victoria Falls, 900 miles from the sea, and one of the grandest cataracts of the world. These falls were discovered and named by Livingstone in 1855, the native name being Mosivanunya. Here a huge fissure in the earth's surface crosses the course of the river, and the stream, 1,000 yards wide, pours vertically downward to a depth of 360 feet. Beyond this point the river is in part navigable for 700 miles. South of the falls it is navigable, with occasional interruptions, to the sea. The delta, 2,500 sq. m. in area, is traversed by four branches, mostly blocked by sand, the Chinde and Kongoni being the ones used by vessels. On the Zambesi are the important trading towns of Senna, 130 miles inland; Tete, 190 miles farther, a center of the gold and ivory trade; and Zumbo, 550 miles inland. At Mazaro, 60 miles from its mouth, the river is a mile wide, but its depth of channel declines to 4½ feet in the dry season, and navigation cannot be successfully and continuously conducted by vessels of more than about 18 inches draught. Ninety miles above Senna the swift current at the Lupati gorge checks navigation, and at Tete the Kebrabassa Falls break the channel. Like the Nile, the Zambesi has annual inundations which flood the country and cultivate many of the minor falls and rapids.

Zambe'sia. (*Geog.*) The name given to that portion of the British South African protectorate which is traversed by the Zambesi river, and often applied to to the whole country under the control of the British South Africa Company. South Zambesia (southward from the river) comprises Mashonaland, Matabeleland, Khama, and a part of Manica. North Zambesia extends from the river to Katunga, on Lake Tanganyika, and is bounded on the east by the west shore of Lake Nyassa. It also includes the Shiré Highlands. The South Africa Company obtained a charter for this district, formerly chiefly known as a hunting ground for large game, in October, 1889, the Dukes of Abercorn and Fife being president and vice-president, and Cecil J. Rhodes managing director. The energetic administration of the latter has won for the country the popular title of RHODESIA. The gold deposits of the Transvaal extend into this territory, in which are found relics of mining operations of some ancient civilized people, who have left remains of buildings and a very strong stone fortress known as Zimbabye, or Great Zimbabwe. There are now thriving towns at Salisbury, Victoria, and Umtali. This region was the seat of the Jameson raid into the South African Republic (1895–96), and of hotly contested conflicts with the natives.

Za'mia, *n.* (*Bot.*) A genus of plants, order *Cycadaceæ*, consisting of moderate-sized trees, having much of the appearance of palms, and in some particulars of ferns. They have stout, generally unbranched stems, terminated by tufts of thick pinnated leaves, often spiny at the margins or points. (Fig. 832.) The species are natives of Central America, the West Indies, the Cape of Good Hope, and southeastern Africa, where they frequently constitute a conspicuous feature in the vegetation. The stems of these plants contain an abundance of starchy matter, which is sometimes collected and used as arrowroot. *Z. tenuis* and *Z. furfuracea* are employed for this purpose in the Bahamas; while *Z. integrifolia*, or *countie*, the only cycad found in the U. S., has a short, mostly subterraneau stem, from which *Florida arrowroot* is obtained.

Zan'clidæ, *n.* (*Ichth.*) A small family of Oriental fishes, related to the brilliant coral-fishes (*Chætodontidæ*), and represented by a small species, *Zanclus cornutus*, having a horn on its head. For this, or some other reason, this little fish is held in so great reverence by Malay fishermen that they are accustomed, when it is caught in their nets, to bow to it, requesting its pardon, and gently return it to the water, notwithstanding the excellence of its flesh as food.

Zanes'ville, in *Ohio*, a city, cap. of Muskingum co., 59 m. E. of Columbus. It is largely engaged in manufacturing, having extensive encaustic tile works, brick works, woollen mills, cotton mills, hosiery factory, several engine shops and stove foundries, flour mills, rolling mills, glass works, potteries, and breweries. An active center of trade. *Pop.* (1897) 23,550.

Zang'will, ISRAEL, writer, was born in London, Eng., in 1864. As a boy in school he was the prize-taker; he taught for a time at Spitalfields, where he had formerly been a pupil. Later he abandoned teaching for journalism, making an effort to establish a serial of his own, called *Ariel, The London Puck*, but without success. He next published *The Bachelor's Club*, which at once attracted favorable notice. The next year he published his unique novel, *The Children of the Ghetto;* and from that day the fame and success of Zangwill were assured. He followed this with the *King of the Schnorrers* (1894) and *Ghetto Tragedies*. His novel *The Master* appeared in 1894. Under the caption *Without Prejudice*, he contributed to the *Pall Mall Magazine* a series of popular criticisms, and under the head of *Men, Women, and Books*, he wrote a similar column for the New York *Critic*.

Zante (*zant*, or *zon'te;* anc. *Zacynthus*), one of the Ionian Islands, at a short distance to the S. of Cephalonia, and to the W. of ancient Elis, in the Morea, or Peloponnesus; Lat. 37° 54′ N. *Ext.* 23½ m. long, and from 6 to 11 broad. It is the finest of the Ionian Islands, richly cultivated, and covered with villages, embosomed in olive plantations. *Climate.* Extremely hot in summer, but not unhealthy. *Prod.* Currants, olives, and other fruits of a warm latitude. *Pop.* (1897) 44,000.—ZANTE, the cap., on the eastern coast, is about 12 m. nearly W. of Cape Tornese, in the Morea. It is pleasantly situated at the foot of a small bay; and in its appearance it resembles an Italian town. Its harbor is capacious; and its environs are extremely pleasant and picturesque. It is the largest town in the Ionian Islands, and is the see of a Roman Catholic bishop. In Oct., 1841, it was nearly destroyed by an earthquake. *Pop.* (1897) 16,900.

Zapa'ta, in *Texas*, a S. co.; *area*, 1,370 sq. m.; bounded W. by Rio Grande del Norte. *Surface*, undulating; *soil*, fertile and adapted to stock raising. *Cap.* Carrizo. *Pop.* (1897) 4,150.

Zava'la, in *Texas*, a S.W. co.; *area*, 1,200 sq. m.; drained by Nueces river and some smaller streams. *Surface*, nearly level; *soil*, suited only for stock raising. *Cap.* Batesville. *Pop.* (1897) 1,280.

Ze'a, *n.* (*Bot.*) A genus of plant, order *Graminaceæ*, of which *Z. mays*, or maize, is the well-known and important cereal so largely grown in the United States of America, where it is generally known under the name of INDIAN CORN. See INDIAN CORN.

Zea'land (a province of Holland). See HOLLAND.

Zealand, the largest island in the Baltic Sea, and the most important province of Denmark, lies at the S. of the Cattegat; *area*, 2,675 sq. m. The soil is extremely fertile, and yields large crops of all kinds of grain, especially of barley. The rearing of cattle is also generally followed, and, with an extensive dairy produce, forms the great wealth of the state. The chief manufactures of Denmark are conducted in Z. The principal towns are the capital of the kingdom, Copenhagen; Roeskilde, the ancient seat of government; and Elsinore. It is also called SEE'LAND (Danish, *Sjelland*).

Zealand, New. An important colony of Great Britain, in the South Pacific Ocean, comprising three main islands and numerous islets. These are North Island, or New Ulster; South or Middle Island, or New Munster; and Stewart Island, or New Leinster. North and South Islands are long and narrow, the total length of the group being 1,100 miles; area, 106,240 sq. miles—that of North Island being 44,467, South Island 58,525, Stewart Island 665. They lie S.E. of Australia, 1,175 miles distant, and 850 miles from Tasmania, between latitude 34° 22′ and 47° 18′ S., and longitude 166° 27′ and 178° 34′ W. Several island groups in the South Pacific are attached to the colony, including the Chatham, Auckland, Kermadec, Campbell, Bounty, and Antipodes groups.—*Phys. Conditions.* North and South Islands are both mountainous, especially the latter, each being traversed by a great mountain chain, which divides them into eastern and western sides. Two-thirds of South Island is covered by mountains, whose culminating point is Mount Cook, 12,349 feet high. They possess great glaciers and give birth to numerous rivers, all having a rapid fall and being liable to sudden floods. North Island contains extensive plains of low elevation and great fertility, besides large areas of grassy hill country. Much of the best land is covered by luxuriant forests, which cover the mountains to a height of 4,000 feet. South Island, on the contrary, contains little timber, its mountains and lowlands being alike open and yielding excellent pasture. The result has been that the best lands of this island have been taken up, while vast tracts of fine land in North Island remain uncleared. The coast line presents numerous excellent harbors, particularly in the northern half of North Island, which is deeply indented by the sea.—*Geol.* The mountain-chains of New Zealand are of great antiquity, and its rock strata extend through all the geological ages, and are well marked by fossils. Volcanic action seems to have been long vigorous, though now much decreased. North Island possesses a wonderland resembling the Yellowstone Park in character, being remarkable for its boiling geysers, steaming fumaroles, sulphur basins, and hot lakes and pools, of great curative value for rheumatic complaints and skin diseases. The exquisite siliceous pink and white terraces of Rotomahana, once famous for their beauty, were utterly destroyed, in 1886, by a volcanic explosion of the neighboring Mt. Tarawera.—*Climate.* New Zealand possesses a very healthful and equable climate, though presenting great variety from its wide extension in latitude and its diversity of elevation. The air is constantly freshened by sea breezes, the country everywhere well watered, and prolonged droughts are unknown. Snow seldom falls in the lowlands, and quickly melts. The winter mildness allowing cattle and horses to be kept the year through in the fields.—*Fauna and Flora.* The native land animals of New Zealand are few, comprising but two species of bats, as examples of the mammalia. A few small lizards come next in importance. The domesticated animals of Europe have been introduced, among them rabbits, which have become a nuisance from their numbers. The birds formerly included the gigantic moas, and now embrace the wingless apteryx, several species of parrots, and many introduced birds, including the black swan of Australia. Bees have multiplied remarkably, and several fresh-water fishes have been introduced with success. The same is the case with European grasses and weeds, which alike grow luxuriantly. The native plants include immense tree-ferns, a valuable flax, grasses excellent for pasture, and various trees of much economic value, the most important being the great kauri-pine, which grows to a height of from 120 to 160 feet and a diameter of 5 to 12 feet, and is greatly used for spars.—*Min.* Gold is the most important mineral product, the total produce to date being valued at more than $250,000,000. Silver, lead, copper, manganese, and antimony are mined in small quantities. Coal is abundant and of good quality, the total amount mined to date being about 9,000,000 tons. Brown coal and lignite are abundant, and the smelting of the iron sand of North Island is of growing importance.—*Soil and Productions.* New Zealand is the best adapted of the Australasian colonies to agricultural and pastoral pursuits, two-thirds of its area being suited for these purposes, of which one-fifth part is taken up, largely under lease from the government. Enough wheat is grown for home use, oats are extensively grown, and barley and hay are important crops. The great peninsula north of Mauukau Harbor possesses a humid, semi-tropical climate, and here the fruits of the warmer latitudes grow in great perfection, figs, oranges, lemons, grapes, olives, &c., being abundantly raised. This region is the home of the kauri-pine, and supplies most of the kauri-gum brought to market. This substance, found, like amber, as a fossil, yields over 8,000 tons a year. It is used as a base for fine varnishes. Much attention is given to pastoral pursuits, and the dairy products are large and increasing. The colony possesses more than 18,000,000 sheep, has an annual wool product amounting to over $20,000,000, and ships large quantities of salted, preserved, and frozen meats.—*Other Industries.* Manufactures are increasing under the stimulus of high protective duties, and com-

prise woollen goods, hosiery, blankets, soap, leather, paper, and other materials needed for home use. There is an increasing volume of foreign trade. Of the exports (about $50,000,000), wool is much the most important article, then meat, gold, grain, and kaurigum. The imports amount to about $35,000,000. The railways, over 2,000 miles long, are nearly all State property, and the same is the case with the telegraph and telephone lines.—*Govt.* A governor appointed by the crown is at the head of the administration, and the legislature consists of a Legislative Council, with members appointed for life, and a House of Representatives, elected for 3 years. There is no distinction of sex in voting, female suffrage having been adopted in 1893. The islands are divided into provincial districts and counties, in which a complete system of local government exists. Wellington, the capital, has a population of 31,000. Auckland (*pop.* 51,287) is the largest city. The other chief towns are Dunedin, Christchurch, Napier, New Plymouth, Nelson, &c. Stewart Island has but a sparse population.—*Educ.* The education of the people has been carefully provided for, elementary education being free and compulsory. There are numerous higher schools, many of them well endowed. The University of New Zealand, established by royal charter, is only an examining body, with power to grant degrees. Affiliated with it are Otago University, Dunedin; Canterbury College, Christchurch; and University College, Auckland.—*Natives.* The Maories, the name given themselves by the native race, are of Polynesian stock, they claiming to have come to New Zealand 27 generations ago. They probably displaced an earlier and darker race. They are a well-shaped and often handsome people of olive-brown hue, brave, generous, and warlike in disposition. Tattooing, once common among them, has almost died out. Cannibalism was formerly prevalent, but has disappeared. They were formerly in a chronic state of warfare, but are now engaged in farming, raising large crops, and keeping great numbers of sheep, though not very industrious. They are careful to have their children educated, have a special franchise, and elect 4 members to the House of Representatives, while two of their chiefs are in the Legislative Council. Formerly 100,000 in number, they are now but 42,000, nearly all living in North Island.—*Hist.* These islands were discovered and named by Tasman, in 1642, but were first closely investigated and described by Captain Cook, in 1769 and later. Early in the 19th century whaling ships visited the coast for trade, and the natives, being supplied with guns, quickly diminished through their tribal wars. To stop this disorder the British government took possession of the islands in 1840. By a treaty with the chiefs the native title to the soil was guaranteed, and every acre sold since has been duly paid for. Missionaries converted the natives to Christianity and encouraged them to a more peaceful mode of existence. Between 1843 and 1869 a series of insurrections took place, but since the latter date peace has prevailed, the natives being given a voice in the government in 1872. The capital was at Auckland till 1865, when it was removed to Wellington. *Pop.* (1891) 626,658 whites, nearly all of British origin, 41,953 Maories.

Zee. The more common name now of the letter *Z*, at least in the U. S., where the old names *zed* and *izzard* are seldom used.

Zeit'geist, *n.* [Ger.] The spirit of the age; the intellectual and moral tendencies of the time.

Zelay'a, José Santos, soldier, was born at Managua, Nicaragua, about 1845; joined the army, and became a general in 1885, and was the head of the Liberal party. He took part in the revolt that overthrew President Sacaza in 1893; and under the new Constitution, promulgated in the summer of that year, *Z.* was elected President Sept. 17, 1893. He occupied the Mosquito territory in 1894; and in May, 1895, British forces took possession of the port of Corinto. This action was on account of the alleged murder of a British subject, and the port was held for a few days as security for the payment of an indemnity; upon the agreement of *Z.* to make the payment the British force was withdrawn.

Ze'ro, Ab'solute. (*Physics.*) The point of temperature at which a body is wholly deprived of heat, and at which a perfect gas would exert no pressure. Various experiments have resulted in determining this point at —274° C., the equivalent of —461° F. According to received theories, all heat is the result of motion, and where an absolute state of rest occurs, without pressure, the temperature finds an absolute zero. There is, of course, no known limit in the other direction, as increased energy of some sort may always increase temperature.

Zerrahn (*z'r-rän'*), Carl, orchestral conductor, was born in Mecklenburg, Germany, July 28, 1826; removed to the U. S. (1848) as flutist in the Germania Orchestra; became conductor of the Boston Handel and Haydn Society (1854). He conducted for many years the Harvard Symphony Concerts and the Worcester annual festivals, and numerous choral and orchestral societies in the vicinity of Boston. He was one of the directors of the Peace Jubilee at Boston in 1869 and 1872.

Ze'ta, *n.* The sixth letter of the Greek alphabet, having the sound of English *zd* or *dz*.

Zeta, *n.* [Lat., from Gr. *diaita*, dwelling.] (*Arch.*) A little closet or chamber; especially a room in a church over the porch where the sexton lived and kept the church documents.

Zie'back, in *South Dakota*, a S. W. co.; *area*, 1,040 sq. m.; bounded N. and W. by South Fork of the Cheyenne river. Grazing and mining are the chief industries.

Zimb (*zĭm*), *n.* (*Zoöl.*) A fly exceedingly destructive to cattle in Abyssinia. It has not been identified, but resembles and is related to the tsetse (*q. v.*) of South Africa. It attacks not only cattle, but wild game, even the elephant and rhinoceros. It is not found, however, in open, dry, and sandy regions. The *zebub* of the Hebrews (Is. vii. 18) is regarded by Biblical scholars as identifiable with this insect.

Zim'merman, Agnes, pianist and composer, was born at Cologne, Germany, July 5, 1847; she went to England in 1851, and at the age of nine became a student under Cipriani Potter and Steggall at the Royal Academy of Music, obtaining the King's scholarship in 1862, and making her first appearance at the Crystal Palace in 1863. Since that time she has steadily grown in popular favor as a pianist, and her editions of Mozart's and Beethoven's sonatas are considered standard, while her own compositions are well known.

Zi'onism, *n.* This name is given to a scheme, advocated by some Jews in Europe, principally writers with more or less reputation, proposing the migration of all the Jews in the world to Palestine. The idea is that by a return to Palestine in sufficiently large numbers they can reinstate themselves as a nation and become a power in the world. Some even go so far as to dream that in view of the strategical importance of Palestine as controlling the future overland short cut to India, via the Euphrates Valley, the Jews, once in possession of the country, could afford facilities of transport to such of the European countries as they chose to befriend and refuse access to others. The scheme is violently opposed by many influential Jews, who affirm that millions of Jews are far better off in the countries which they now inhabit than they could possibly be in Palestine, and they point out that those who dream that Palestine could become a strong and independent state ruled by Jews are reckoning without Russia and France, not to speak of the Sultan of Turkey. The whole discussion so far has been academic, and the population of Palestine has not been sensibly increased by the proposed movement. If any have been persuaded to migrate, they are nearly all poor Hebrews, of whom there are already too many in Palestine.

Zith'er, or **Zith'ern,** *n.* [Ger., from Lat. *cithara*.] (*Mus.*) A stringed instrument, a development of the ancient cithara, that became a favorite with the Alpine peasantry in the early part of the 19th century, and was introduced into England about 1850. It has a flat sounding-board with a large hole near the middle, and from 32 to 46 strings, of steel, brass, catgut, and silk, covered with fine silver or copper wire, and tuned by pegs at one end. Five strings are stretched over a fretted keyboard, and are used to play the melody, being picked or struck with a plectrum in the right hand and stopped with the fingers of the left. The rest, called accompaniment strings, are struck by the first three fingers, and, not being stopped, produce only the single note to which they are tuned. The instrument rests on a table with the keyboard nearest the performer.

Zo-, Zoo-. An initial compounding term, derived from the Gr. *zōon*, animal.

Zoanthro'pia, or **Zoan'thropy,** *n.* [Gr. *zōon*, animal, and *anthrōpos*, man.] (*Path.*) A kind of monomania, in which the patient fancies himself transformed into one of the lower animals.

Zoetrope (*zo'e-trōp*), or Wheel of Life, *n.* [From Gr. *zoe*, life, and *trophe*, aliment.] (*Optics.*) An optical toy, so named from its exhibiting pictures of objects as if endowed with life and activity. It is of interest as being a forerunner of the principle perfected in the kinetoscope. The results shown in this instrument depend, primarily, on the well-known fact that vision "persists" for a certain short period of time after the excitation of the visual ray. It follows from this principle that if a series of pictures, representing the different attitudes successively assumed by an object in completing a given movement, be presented to the eye so quickly that the visual impression of each picture shall continue until the incidence of the one next following, the object will remain constantly in view, and its various parts will appear to execute the movement delineated by the pictures. The mechanical means for effecting this result will be understood from Fig. 3103, which represents the zoetrope in its most popular, but by no means most excellent form. C, a cylinder of strong cardboard, 12 inches in diameter and 1¾ inches in depth, with a metal rim at the top, and fastened to a circular piece of wood, B. The latter is screwed at its center to a pivot, P, which moves freely within the upright of the stand, S, and forms a vertical axis, round which the cylinder may be made to revolve with any desired rapidity; *a*, thirteen equidistant apertures each ⅛ inch in width, and 3 inches long. Each series of pictures is printed on a strip of thick paper, 3½ inches in breadth, and 36 inches in length. In using the instrument, the light should come from above. Some novel results may be obtained by withdrawing the eye a few inches from the aperture, when the pictures are seen *as sensibly diminished in breadth*, the explanation of which is as follows: The longer the time of visibility, the greater will be the onward movement of the picture while under view; therefore if the left-hand side of the picture come first into view, by the time the advance of the aperture permits of the right-hand side being seen, the latter will have progressed *toward* the left, and it will accordingly be seen relatively nearer to the left side than is its natural position. And this compression, of course, takes effect over the whole of the picture.

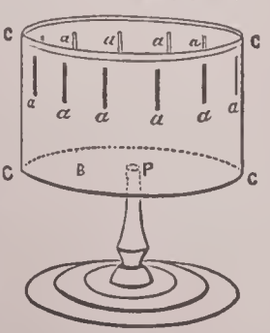


Fig. 3103.—Zoetrope.

Zo'ic, *a.* [Gr. *zoikos*.] Pertaining to, or characterized by, animals or animal life; especially in geology, applied to rocks that contain fossils, or bear evidence of coexistent animal life.

Zo'ism, *n.* [Gr. *zōē*, life.] The doctrine which holds that life originates from a specific principle, instead of being a mere resultant of combined forces.

Zo'la, Émile, novelist of the naturalistic school, was born in Paris, France, April 2, 1840, and educated at the Lycée St. Louis. Some of his early studies of Parisian low life were written for *Figaro*. He also wrote for *The Voltaire*. His first novel was *Contes à Ninon* (1863); others are *L'Assommoir*, and *Le Rêve*, which represent the two extremes of possibility in Zola's style. He repeatedly aspired to membership in the French Academy, but the conservative members obstinately refuse to admit him. In 1894 he published *Lourdes*, a novel that so offended the Roman Catholics that during a subsequent visit to Rome *Z.* was denied audience of the Pope. 1895 he published *Rome*, in which he described the [illegible]

Zonu'ridæ, *n. pl.* A family of small active tropical lizards, related to the "horned toade" (*q. v.*) of Western America. They are chiefly South African, where they are extremely numerous about rocky ledges in search of their insect-food.

Zoög'amy, *n.* [*Zoo*, and Gr. *gamos*, marriage.] (*Biol.*) Sexual generation; gamogenesis.

Zoögeog'raphy, *n.* (*Nat. Sci.*) The study of the distribution of animals over the surface of the earth, their migrations, &c.

Zoögy'roscope, *n.* An amplification of the *zoetrope* (*q. v.*), in which a series of successive photographs of an animal in motion are placed on a circular rotating glass, the photographs being alternately illuminated as the glass turns, throwing a single continuous ever-changing picture on a screen.

Zoöl'atry, *n.* [*Zoön*, and Gr. *latreia*, worship.] (*Compar. Relig.*) Animal-worship, or the adoration of a divinity in an animal; as in the crocodile-worship of the Egyptians, worship of the golden calf by the Hebrews, or the serpent-worship of Africans and North American Indians.

Zoön, *n.* [Gr.] (*Biol.*) The product of a fertilized ovum.—A developed individual of a compound animal.

Zoöprax'iscope, *n.* [*Zoö*, *praxis*, action, and *scope*.] See Stroboscope.

Zoöpraxog'raphy, *n.* [*Zoö*, *praxis*, action, and *graphy*.] The science which describes and illustrates the locomotion of animals.

Zoötech'nics, or **Zootech'ny,** *n.* [*Zoö* and *technē*, art.] The science which relates to the breeding and domestication of animals.

Zoöthop'sis, *n.* [Gr *zoo*, and *thopto*, to bury.] Premature burial of one supposed to be dead.

Zoril'la, *n.* (*Zoöl.*) A small mammal of South Africa (*Ictonyx zorilla*), related to the badgers and ratels, and to the American skunks. Its habits and appearance are skunk-like. It feeds upon small animals, and is frequently tamed and taught to catch mice in country houses; it also climbs trees and destroys bird's eggs and young. Like the skunk, too, it secretes within anal glands a liquor having an excessively offensive odor, which it may discharge under provocation to the dismay of every one within a long distance. The prevailing color of the glossy fur is black, with white bands and spots. A second species ranges northward into the Mediterranean region and Asia Minor.

Zu'luland, a British protectorate in South Africa north of Natal, and extending to St. Lucia Bay, and inland to the Transvaal. *Area*, 8,900 sq. m. Agriculture and cattle raising are the leading industries; gold is worked; and silver, lead, copper, tin, asbestos, and coal are found. The population comprises 160,000 Zulus and 600 whites, under the government of a resident commissioner at Ekowe. This forms but a small part of the country formerly held by the Zulus, a Kaffir tribe. The remainder has been absorbed in the Transvaal Republic. War broke out between the British and the chief Cetewayo, in 1878, beginning in disaster and ending in victory for the British. Difficulties with the Boers followed, and the remnant of Zululand was declared a British protectorate in 1887.

Zu'ñians, *n. pl.* (*Ethnol.*) A small tribe of American Indians, now numbering about 1,600, occupying a single pueblo situated upon a tableland near the Zuñi river, in northwestern New Mexico. Parts of this village of connected stone tenements are prehistoric, and the Zuñis were noted by the earliest Spanish travellers for their advance toward civilization in architecture, agriculture, the keeping of live-stock, pottery-making, and weaving. They are peaceable, and have long been self-supporting; while their curious customs and beliefs have of late attracted much attention, and been extensively written upon. Their language forms a stock entirely different from that of any other known tribe.

Zyg-, Zygo-. An initial compounding element derived from the Greek *zygon*, yoke.

PRONOUNCING VOCABULARY

OF

ENGLISH AND FOREIGN PROPER NAMES, ETC.,

CHARACTERIZED BY ORTHOEPIC PECULIARITIES OR DIFFICULTIES.

SPECIALLY PREPARED FOR

THIS WORK.

A.

Aalborg, ol'bŏrg.
Aalen, ah'lān.
Aalsmeer, ahls'mār.
Aam, aum.
Aar, ahr.
Aaran, ah'rŏw.
Aard, ahrd.
Aargau, ahr'gŏw.
Aarhuus, ŏr'hoos.
Aarlanderveen, ahr-lăn-dār-vān'.
Aaron, ā'rŏn.
Aarsens, ahr'sānz.
Aatyl, ah'tīl.
Aavora, ah-vo'rah.
Aba, ŏb'ŏh.
Ababdeh, ah-bahb'da.
Abaca, ăh'a-kah.
Abaciscus, ăb-a-sīs'kŭs.
Abaco, ah-bah'ko.
Abacot, ăb'a-kŏt.
Abacuius, a-băk'u-lŭs.
Abacus, ăb'a-kŭs.
Abada, ah-bah'dah.
Abaddon, a-băd'dŏn.
Abadiotes, ah-hăd-i'o-tēz.
Abadir, ăb'a-dŭr.
Abagnu, ăb'ah-gŭn.
Abaka, ah-bah'kah.
Abakansk, ah-bah-kănzk'.
Abancay, ah-bahn-ki'.
Abandon, *Fr.* a-hăn-dŏn(g)'.
Abano, ah-hah'no.
Abantes, ah-băn'tēz.
Abarim, ah-hăr-īm'.
Abaris, ah-bah'rīs.
Abasa, ah-hăs'ah.
Abase, a-bās'.
Abassi, a-hās'se.
Abatis, ăh'a-tīs.
Abator, a-bāt'ŏr.
Abatos, ah-bah'tŏs.
Abattoir, a-bāt-wŏr'.
Abattuta, ah-hăt-too'tah.
Abature, ăb'a-tūr.
Abanzit, ah-bo-ze'.
Abavo, ah-ba'vo.
Abba, ăb'bah.
Abbadie, ah-bah-de'.
Abbas, ăb-bahs'.
Abbassa, ăb-bah'sah.
Abbassides, ăb-băs'sīdz.
Abbatucci, ăb-bah-toot'che.
Abbé, ăb-ba'.
Abbeokuta, ăb-he-o-koo'tah.
Abbetibbe, ăb-be-tīb'be.
Abbeville, { *Fr.* ăh-veel'. *Eng.* ăb'be-vĭl.
Abbiategrasso, ah-be-ah-ta-grahs'so.
Abbitibbee, ăb-be-tīb'be.
Abbon, ah-bŏu(g)'.
Abbotsford, ăb'bŏts-fŭrd.
Abbreviatorie, ah-bra-ve-ah-to're.
Abbs, ăbz.
Abchasia, ăb-kăsh'e-a.
Abdal, ăh'dŭl.
Abdallah, ăb-dŭl'lah.
Abdallatif, ăb-dŭl-lah-tēf'.
Abdal-malek, ăb-dŭl-mah'lĕk
Abdalonimus, ăb-do-lŏn'e-mŭs.
Abdelavi, ăh-dŭl-ah've.
Abdera, ăh'dŭr-ah.
Abd-el-Kader, ăbd-ĕl-kah'-dŭr.
Abdias, ăb-dē'abs.
Abdomen, ăb-do'mĕn.
Abdominals, ăh-dŏm'e-nălz.
Abdominoscopy, ăb-dŏm-e-nŏs'ko-pe.
Abdul, ăb'dool.
Abdur, ăb'door.
Abecedary, a-be-se-da're.
Abecedarian, a-he-se-da're-ăn.
Abeel, a-bēl'.
Abel, a'bl, or a'bĕl.
Abelard, ah-ba-lahr'.
Abelia, a-bēl'yah.
Abelites, a'bĕl-īts.
Abelmosk, a'bĕl-mŏsk.
Abenan, ah'băn-ŏw.
Abencerages, ah-bān-tha-rah'ha.
Aben-ezra, ah-bān-ūz'rah.
Abensberg, ah'bāuz-bārg.
Aber, āh'ŭr.
Aberavon, ăb-ūr-a'vŏn.
Aberbrothwick, ăb-ŭr-brŏth'ĭk.
Abercrombie, ăb-ŭr-krŏm'be.
Aberdare, ăb-ŭr-dār'.
Aberdeen, ăb-ŭr-dēn'.
Aberdevine, ăb-ŭr-de-vīn'.
Aberfoil, ah'ŭr-foil.
Abergavenny, ăb-ŭr-ga-vĕn'-ne.
Aberli, ah-bār'le.
Abernethy, ăb-ŭr-nĕth'e.
Abert, a'bărt.
Aberuncator, ăb-e-rŭng'ka-tŏr.
Aberystwith, ăb-ŭr-ŭst'wĭth.
Abesta, ah-vĕst'ah.
Abex, ah'băks.
Abgillus, ăh-gil'lŭs.
Abhal, ahb'ahl.
Abhebbad, ăb-hăb-băd'.
Abiad Bahrel, ah-be-ahd bah'rāl.
Abiathar, ăb-i'ah-thahr.
Abib, ab'bĭb.
Abichite, a'bĭk-īt.
Abida-jebel, ah-be-dah-zha'-bāl.
Abies, a'bēz.
Abietic, ăb-e-et'ĭk.
Abietin, a-bi'e-tĭn.
Abietineæ, a-be-tĭn'e-e.
Abigail, ăb'e-gāl.
Abila, ah-be'lah.
Abildgaard, ah-hĭld'gŏrd.
Abilene, ăb-e-le'ne.
Abimelech, a-bĭm'e-lĕk.
Abingdon, ăb'ĭng-dŭn.
Abinger, ăb'ĭn-jūr.
Abington, ăb'ĭng-tŭn.
Ab initio, ăb e-nee'sh'yo.
Abiponians, ăh-e-po'ne-ănz.
Abiqua, ăh'e-kwaw.
Abisbal, ah-bēs-bahl'.
Abishai, a-bĭsb'a-i.
Abinzi, ah-be-oot'se.
Abkasia, ăb-kāsh'e-ah.
Ablaqueation, ăb-la-kwe-a'-shŭn.
Ablay, ăhb-lī'.
Ablegmina, ah-blĕg'me-nah.
Ablen, ăb'lĕn.
Ablepsy, ăb'lĕp-se.
Ablignrition, ăb-le-gu-rĭsh'-ŭn.
Abner, ăb'nŭr.
Abnet, ăb'uĕt.
Abnoba, ahb'no-bah.
Abo, ah'bo.
Aboite, ah'bo-īt.
Abolla, ah bŏl'lah.
Aboma, ah-bo'mah.
Abomasum, ăb-o-ma'sŭm.
Abomey, ăh-o-ma'.
Aboo, ah-boo'.
Aboo-arish, ah-boo-ah'reesh.
Aborigines, ăb-o-rĭj'i-nēz.
Abou Hanifah, ah'boo ah'-ne-fah.
Abou Hannes, ah'boo hăn'-nēz.
Abonkir, ah-boo-kēr'.
Abonlfeda, ah-bool'fa-dah.
Aboville, ah-bo-vēl'.
Abra, ah'brah.
Abrabanel, ahv-rah-vah-nāl'.
Abracadabra, ăb-ra-ka-dăh'-rah.
Abraham, a'brah-hăm.
Abrallos, ah-brah'lōz.
Abramis, ăb'rah-mĭs.
Abranchians, a-brăng'ke-ănz.
Abrantes, ah-brahn'tăz.
Abrasion, ăh-ra'zhŭn.
Abrasite, ăb'ra-sīt.
Abranm, a-brŏm'.
Abraxas, ah-brăks'ăs.
Abrenvoir, ah-hroo-vwŏr'.
Abroma, a-hro'mah.
Abronia, a-bro'ne-ah.
Abrotanum, ăh-ro-ta'nŭm.
Abrud-banya, ŏb-rood-bahn'-yah.
Abrus, a'hrŭs.
Abruzzo, ah-hroot'zo.
Absalom, ăb'sah-lŏm.
Abscission, ăb-sĭsh'ŭn.
Abscota, ăh-sko'tah.
Absimarus, ăh-sĭm'a-rŭs.
Absinthe, ăb-sĭnth'.
Absinthine, ăb-sĭnth'ĭn.
Absinthium, ăb-sĭn'the-ŭm.
Absis, ăb'sĭs.
Absorokas, ăh-so-ro'kăs.
Absque hoc, ăbs'kwe hoc.
Absque tali causa, ăbs'kwe ta'lī kaw'zah.
Abstersion, ăh-stŭr'shŭn.
Absurdum, ăb-sŭr'dŭm.
Abu, ah'boo.
Abu-Bekr, ah'boo-ba'kr.
Abul Fazl, ah'hool fahz'l.
Abuna, a-bu'na.
Abuta, ah-bu'tah.
Abutilon, ah-bu'te-lŏn.
Abydenus, ăh-e-de'nŭs.
Abydos, ah-be'dŏs.
Abyo, ah-he'yo.
Abyss, a-bĭs'.
Abyssinia, ăb-ĭs-sĭn'yah.
Acacalis, a-kăk'a-lĭs.
Acacia, a-ka'she-ah.
Acacius, a-ka'shŭs.
Academia, ăk-a-de'me-ah.
Academics, ăk-a-dĕm'ĭks.
Academy, a-kăd'e-me.
Acadia, ah-ka'de-ah.
Acadialite, ah-ka'de-ăl-īt.
Acajou, ăk'ah-joo.
Acaleph, ăk'ah-lĕf.
Acalycine, ah-kăl'e-sĭn.
Acalypha, ah-kăl'e-fah.
Acambou, ăk-ăm-boo'.
Acamptosomes, a-kămp'to-sūmz.
Acanny, ah-kăn'ne.
Acantha, a-kăn'thah.
Acanthaceæ, a-kăn-tha'se-e.
Acanthion, a-kăn'the-ŏn.
Acanthocephalans, a-kăn-tho-sĕf'ah-lănz.
Acanthocinus, a-kăn-thŏs'e-nŭs.
Acanthodactylus, a-kăn-tho-dăk'til-ŭs.
Acanthoderma, a-kăn-tho-dŭr'mah.
Acanthodes, a-kăn'thōdz.
Acantholimon, a-kan-tho'-le-mŏn.
Acanthonin, a-kăn'tho-nĭn.
Acanthophis, a-kăn'tho-fĭs.
Acanthopoda, a-kăn-thŏp'o-dah.
Acanthopterygii, a-kăn-thŏp-tūr-lj'e-e.
Acanthurus, ăk-ăn-thu'rŭs.
Acanthus, a-kăn'thŭs.
Acanus, ah-ka'nŭs.
Acanzii, ah-kăn'se-e.
A Capella, ah kah-pĕl'lah.
Acapulco, ăk-ab-pool'ko.
Acaridæ, a-kăr'e-de.
Acarnania, ăk-ăr-ua'ne-ah.
Acaroid, ăk'ăr-oid.
Acarus, ăk'a-rŭs.
Acasta, ah-kăs'tah.
Acatalepsia, a-kăt-ah-lĕp'-shah.
Acatharsia, ăk-ah-thăr'shah.
Acca Laurentia, ăk'kah lo-rĕn'shah.
Accad, ăk'kahd.
Accelerando, ăk-sĕl-ūr-ăn'do.
Accendones, ăk-sĕn-do'nēz.
Accentorinæ, ăk-sĕn-to-re'ne.
Acciaccatura, ăt-che-ăk-a-too'rah.
Acciaioli, ăt-chah-yo'le.
Accipenser, ak-se-pĕn'sŭr.
Accipitres, ăk-sĭp'e-tūrz.
Accipitrinæ, ăk-se-plt're-ne.
Accipitrine, ăk-se-plt'rĭn.
Accismus, ăk-sĭs'mŭs.
Accius, ăk'she-ŭs.
Accola, ăk'ko-lah.
Accolade, ăk-ko-lahd'
Accolti, ăk-kŏl'te.
Accomac, ăk'ko-măk.
Accompt, ăk-kownt'.
Accordion, ăk-kŏr'de-ŭn.
Accorso, ăk-kŏr'so.
Acconchement, ăk-koosh'-uĕn(g).
Accoucheur, ăk-koo'shoor.
Accouple, ăk-kŭp'l.
Accoutrements, ăk-koo't'r-mĕnts.
Accra, ăk'krah.
Accrescimento, ăk-krĕsh-mĕn'to.
Accrington, ăk'krĭng-tŭn
Accubitus, ăk-ku'be-tŭs.
Acceldama, ah-săl-dah'mah
Accentric, a-sĕn'trĭk.
Accephal, ăs'e-făl.

Acephala, a-sĕf'a-lah.
Acephalophores, a-sĕf-ah-lŏf'o-rēz.
Acer, a'sŭr.
Aceraceæ, a-sŭr-a'se-e.
Aceranus, a'sŭr-ăns.
Acerbi, a-sŭr'be.
Acerenza, ăt-cha-rān'zah.
Accric, a-sĕr'ik.
Acerinæ, a-sĕr'e-ne.
Acerno, ah-chār'no.
Acerra, {ah-sĕr'rahor. ah-chār'rah.
Acestes, uh-sēs'tēz.
Acetabulum, a-sĕt-ăb'u-lŭm.
Acetal, a-se'tăl.
Acetamide, a-se'tah-mīd.
Acetate, ăs'e-tāt.
Acetometer, ăs-e-tŏm'e-tŭr.
Acetone, ăs'e-tōn.
Acetose, ăs'e-tōz.
Acetous, a-se'tŭs.
Acetyle, ăs'e-til.
Ach, ahk.
Achabytos, ăk-ah-be'tŏs.
Achæa, ah-ke'yah.
Achæmenes, ah-ke-me'nēz.
Achæmenium, ah-ke'ne-ŭm.
Achæi, ah-ke'i.
Achæorum Statio, ăk-e-o'-rŭm sta'she-o.
Achaia, ah-ka'yah.
Achamia, ah-ka'ne-ah.
Achard, ah-shahr'.
Acharnæ, ah-kahr'ne.
Achates, ah-ka'tēz.
Achatina, ăk-ah-te'nah.
Ache, āk.
Achcen, ăt-chēn'.
Acheloides, ah-kĕl'oi-dēz.
Achelous, ăk-e-lo'ŭs.
Achenbach, ăh'kān-bahk.
Achenium, a-che'ne-ŭm.
Achenwall, ah'kān-vawl.
Achernar, a-kār'nahr.
Acheron, ăk'e-rŏn.
Acherontia, ăk-e-rŏn'shah.
Acherset, ăk'ŭr-sĕt.
Achersusia, ăk-ŭr-oo'zhah.
Achill, ăk'il.
Achillea, ăk-il-le'ah.
Achilles, a-kil'lēz.
Achimenes, ah-kim'e-nēz.
Achirite, ăk'ir-it.
Achlamydeous, ăk-lah-mid'-e-ŭs.
Achmet, ah'mād.
Achmin, ahk'mēn.
Achmite, ahk'mīt.
Achoury, ăk'ŏn-re.
Achor, a'kŏr.
Achras, a'krahs.
Achray, ăk-rai'.
Achromatic, ăk-ro-măt'ik.
Achromatism, a-krōm'a-tizm.
Achsai, ahk'sa.
Achtyrka, ahk-tŭr'kah.
Achyr, ah-keer'.
Achyranthes, ăk-e-răn'thez.
Aci, ah'che.
Acia, a'she-ah.
Acicula, a-sik'u-lah.
Acid, ăs'id.
Acidimetry, ă-se-dim'e-tre.
Aciduke, a-sid'u-le.
Aciform, a'se-fōrm.
Acilius Glabrio, a-sil'yŭs gla'bre-o.
Acinaceous, a-sin-a'she-ŭs.
Acinaciform, a-sin-ăs'e-fōrm.
Acinose, ăs'e-uōz.
Acinus, ăs'e-nŭs.
Acipenser, ăs-e-pĕn'sŭr.
Acis, ah'sis.
Aciurgy, ăs-e-ŭr'je.
Acken, ah'kān.
Aclides, ăk-li'dēz.
Aclinic, a-klin'ik.
Acme, ăk'me.
Acmite, ăk'mīt.
Acmonides, ăk-mŏn'i-deez.
Acne, ăk'ne.
Acnestis, ăk-nĕs'tis.
Acœmetæ, ăs-e-me'te.
Acolyte, ăk'o-lit.
Acouah, ah-ko'mah.
Aconcagua, ăk-on-kah'gwaw.
Aconitates, a-kŏn-e-ta'tēz.
Aconite, ăk'o-nīt.
Aconitine, a-kŏn'e-tin.
Acontcus, ah-kŏn'te-ŭs.
Acontia, a-kŏn'she-ah.
Acontius, a-kŏn'shŭs.
Acopic, a-kŏp'ik.
Acor, a'kor.
Acorus, ăk'o-rŭs.
Acosmia, a-kŏs'me-ah.
Acosta, ah-kŏs'tah.
Acotyledons, a-kŏt-e-le'dŏnz.
Acouchy, ah-koo'she.
Acoumeter, ah-koo'me-tŭr.
Acoustic, a-kow'stik.
Acqua, ak'kwah.
Acquapendente, ak-kwah-pĕn-dĕn'te.
Acquaria, ak-kwah're-ah.
Acquaviva, ăk-kwah-ve'vah.
Acqui, ak'kwe.
Acquia, ak-kwe'ah.
Acquiescence, ak-we-ĕs'sĕnz.
Acrasy, ăk'ra-se.
Acre, a'kŭr.
Acreage, a'kŭr-āj.
Acrelius, a-kre'le-ŭs.
Acri, ah'kre.
Acridii, ah-krid'e-e.
Acridophagi, ah-kre-dŏf'ah-je.
Acrisia, ăk-rizh'yah.
Acrites, ăk're-tēz.
Acroatic, ăk-ro-ăt'ik.
Acrobat, ăk'ro-băt.
Acrocarpi, ăk-ro-kăr'pe.
Acroceraunium, ăk-ro-se-raw'ne-ŭm.
Acrochordon, ăk-ro-kŏr'dŏn.
Acrochorinthus, ăk-ro-ko-rīn'thŭs.
Acrodus, ăk'ro-dŭs.
Acrogaster, ăk-ro-găs'tŭr.
Acrolein, ăk'ro-līn.
Acrogens, ăk'ro-jĕnz.
Acrolepisidæ, ăk-ro-le-pis'-e-de.
Acroliths, ăk'ro-lithz.
Acromion, ăk-ro'me-ŏn.
Acron, ah'krŏn.
Acronycal, a-krŏn'e-kl.
Acropolis, a-krŏp'o-lis.
Acropolita, ak-ro-pŏl'e-tah.
Acrostichum, a-krŏs'te-kŭm.
Acrotarsium, ăk-ro-tär'shŭm
Acroteri, ah-kro-ta're.
Acroterium, ăk-ro-te're-ŭm.
Acrothymion, ăk-ro-thīm'e-ŭn.
Acrotic, a-krŏt'ik.
Acrotomous, a-krŏt'o-mŭs.
Acta, ăk'tah.
Acta Diurna, ăk'tah de-oor'-nah.
Acta Sanctorum, ăk'tah sängk-to'rŭm.
Actæcie, ăk-te'e-e.
Actæa, ăk-te'ah.
Actæon, ăk-te'ŏn.
Actæus, ăk-te'ŭs.
Actia, ăk'te-ah.
Actinism, ăk'tin-izm.
Actinocamax, ăk-tin-o-ka'-măks.
Actinocrinites, ăk-tin-ŏk'-rin-īt.z.
Actinograph, ăk-tin'o-gräf.
Actinoid, ăk'tin-oid.
Actinolite, ăk-tin'o-lit.
Actinology, ăk-tin-ŏl'o-je.
Actinomeris, ăk-tin-ŏm'e-ris.
Actinometer, ăk-tin-ŏm'e-tŭr
Actinostome, ăk-tin'ŏs-tōm.
Actinote, ăk'tin-ōt.
Actis, ăk'tis.
Actium, ăk'shŭm.
Actius Navius, ăk'shŭs na've-ŭs.
Acton, ăk'tŭn.
Actopan, ăk'to-pahn.
Actorides, ăk-tŏr'e-dēz.
Actynolite, ăk-tin'o-lit.
Acuition, ăk-u-ish'ŭn.
Aculeus, a-ku'le-ŭs.
Acumina, a-ku'me-nah.
Acuna, ah-koo'nah.
Acusilans, ah-ku-sil'a-ŭs.
Acworth, ăk'wŭrth.
Ada, a'dah.
Adabaga, ah-dah-bah'gah.
Adafoodia, ah-dah-foo'de-ah.
Adaglo, a-da'jo.
Adair, a-dār'.
Adal, ah-dahl'.
Adam, ăd'ăm.
Adamantæa, ăd-ah-măn-te'ah.
Adamur, ah-dah'moor.
Adana, ah-dah'nah.
Adanson, ah-dăn-sŏn(g').
Adapis, ah-da'pis.
Adar, a'dahr.
Ad arbitrium, ădăr-bĭt're-ŭm
Adarme, ah-dār'me.
Adarsa, ah-dahr'sah.
Adatis, ăd'a-tis.
Adda, ăd'dah.
Addax, ăd'dăks.
Addendum, ăd-dĕn'dŭm.
Addieti, ăd-dik'ti.
Addington, ăd'ding-tŭn.
Addison, ăd'de-sŭn.
Adductor, ăd-dŭk'tŏr.
Adel, ah-dāl'.
Adelaide, ăd'e-laid.
Adelantado, ah-da-lăn-tah'do.
Adeling, ăd'ĕl-ing.
Adelites, ah'dāl-īt.z.
Adelman, ăd'al-now.
Adelopod, a-dĕl'o-pŏd.
Adelphi, a-dĕl'fe.
Adelpholite, a-dĕl'fo-līt.
Adelphous, a-dĕl'fŭs.
Adelsberg, ăd'ălz-bărg.
Adelung, ah'da-loong.
Ademar, ăd-e-mahr'.
Aden, a'dĕn.
Adenalgia, a-dĕn-ăl'je-ah.
Adenara, ah-dan-ah'rah.
Adenburg, ah'dān-boorg.
Adenkalessi, a'dĕn-kah-lĕs'se
Adenoid, ăd'e-noid.
Adenose, ăd'e-nōz.
Adenostylea, a-de-no-stīl'e-e.
Adenotomy, a-dĕn-ŏt'o-me.
Adeodatus, ăd-e-o-dah'tus.
Adeps, a'dĕps.
Aderbeitzan, ah-dār-bīt'zahn.
Adersbach, ah'dārz-bāk.
Ades, a'deez.
Adessenarians, a-dĕs-sin-a'-re-ănz.
Ad eundem, ad e-ŭn'dĕm.
Ad finem, ăd fi'nĕm.
Adhat-Eddoulat, ăd-aht-ĕd-doo'laht.
Adhelme, ăd'hĕlm.
Adhemar, ah-da-mahr'.
Adhesion, ăd-he'zhŭn.
Ad hominem, ăd hŏm'ĭn-ŭm.
Adiantum, a-de-ăn't ŭm.
Adiaphorites, a-de-a-fŏr'e-tēz
Adiaphorons, a-de-ăf'o-rŭs.
Adiapneastia, ăd-e-ăp-noos'-te-ah.
Adiarrhœa, ah-di-ăr-re'ah.
Adiathermic, ăd-i-a-thŭr'mĭk
Adieu, a-hdyoo'.
Adige, ah-de'ja.
Adimantus, ăd-e-măn'tŭs.
Adinfinitum, ăd ĭn-fĭn'e-tŭm
Adinole, ăd'ĭn-ōl.
Ad inquirendum, ăd ĭn-kwe-rĕn'dŭm.
Ad interim, ăd ĭn-te-rĭm.
Adipic, a-dip'ik.
Adipocerate, ăd-e-pŏs'e-rāt.
Adipocere, ăd'e-po-sēr.
Adipsy, ăd'ip-se.
Adirondack, ăd-e-rŏn'dăk.
Adive, ăd'e-ve.
Adjunta, ăd-jŭn'tah.
Adjutage, ăd'joo-tāj.
Adjutant, ăd'joo-tănt.
Adjygurh, ăd'je-goor.
Adiatus, ăd-la'tŭs.
Adler, ăd'lăr.
Ad libitum, ăd lĭb'e-tŭm.
Admah, ăd'mah.
Admargin ate, ăd-măr'jĭn-āt.
Admetus, ăd-me'tŭs.
Adminicle, ăd-mĭn'e-kl.
Admittatur, ăd-mĭt'ta-tŭr.
Admonitio Fustium, ăd-mo-nish'yo fŭs'te-ŭm.
Admonitioner, ăd-mo-ne'-shŏn-ŭr.
Adnascent, ăd-năs'sĕnt.
Adnata tunica, ad'na-tah tu'-ne-kah.
Adnatus, ăd'na-tŭs.
Adobe, ah-do'ba.
Adolphus, a-dŏl'fŭs.
Adoni, ah-do'ne.
Adoni Bezek, ah-do-ne ba'zăk.
Adonijah, ăd-o-ni'jah.
Adonis, a-do'nis.
Ador, a'dōr.
Adorea, ăd-o-re'ah.
Adorno, ah-dor'no.
Adour, ah'door.
Adowa, ăd'o-wah.
Ad pondus omnium, ăd pŏn'dŭs ŏm'ne-ŭm.
Ad quod dammum, ad kwŏd dăm'uŭm.
Adra, ahd'rah.
Adraupatam, ăd-ram-pah-tăm'.
Adramyti, ăd-răm'e-te.
Adrara, ah-drah'rah.
Adrasta, ah-dras'tah.
Adrastia, ah-drăs'te-ah.
Adrets, ah-dra'.
Adria, ah'dre-ah.
Adrian, a'dre-ăn.
Adriano, ah-dre-ah'no.
Adrianople, ah-dre-ăn-o'pl.
Adriatic, a-dre-at'ik.
Adroit, a-droit'.
Adscriptus Glebæ, ăd-skrīp'tŭs gle'be.
Adsidella, ăd-se-dĕl'lah.
Adularia, ăd-u-la're-ah.
Adule, ăd'yul.
Adullam, ah-dŭl'lăm.
Adulterine, a-dŭl'tŭr-īn.
Admupoor, ăd-ŭm-poor'.
Aduncity, a-dŭn'se-te.
Adustion, a-dŭst'yŭn.
Ad valorem, ăd va-lo'rĕm.
Adversa, ăd-vŭr'sah.
Adversaria, ăd-vŭr-sa're-ah.
Advocatus diaboli, ăd-vo-ka'tŭs di-ăb'o-le.
Ady, ah'de.
Adynamia, ăd-e-na'me-ah.
Adytum, ăd'e-tŭm.
Adze, ădz.
Æa, e'ah.
Æacus, e'ah-kŭs.
Ædidium, e-sid'yŭm.
Ædessa, e-dĕs'sah.
Ædile, e'dīl.
Æta, a-e'tah.
Ægades, e-gah'dēz.
Ægæ, e'je.
Ægæon, e-je'ŏn.
Ægagre, e'gah-gra.
Ægaleos, e-ga'le-ŏs.
Ægean, e-je'ăn.
Ægæus, e-je'ŭs.
Ægeus, e'jŭs.
Ægiale, e-ji'a-le.
Ægidius de columna, e-jĭd'e-ŭs de ko-lŭm'nah.
Ægilia, e-jĭl'e-ah.
Ægilops, e-jĭl'ŏps.
Æginæ, e-ji'nah.
Ægineta, e-jin-e'tah.
Eginhard, ĕg'ĭn-härd.
Ægiocus, e-gi'o-kŭs.
Ægis, e'jĭs.
Ægistus, e-jĭs'tŭs.
Ægirin, e'jŭr-ĭn.
Ægle, e'gle.
Egletes, e'gle-tēz.
Ægoceros, e-go'se-rŏs.
Ægophony, e-gŏf'o-ne.
Ægospotamos, e-gŏs-pŏt'a-mŏs.
Egyptiacum, e-jĭp-tī'a-kŭm.
Ægyptus, e-jip'tŭs.
Æl, ăl.
Elfric, ăl'frĭk.
Ælia, e'le-ah.
Ælianus, e-le-a'nŭs.
Ælius, e'le-ŭs.
Aello, a'ĕl-lo.
Ælst, ahlst.
Aelterve, ahl-tär'.
Æmilia, e-mēl'yah.
Æmiliaums, e-mĭl-e-a'nŭs.
Æmilius, e-mĭl'e-ŭs.
Æneas, e-ne'ăs.
Æneid, e-ne'id.
Aeng, ah'ăng.
Æolian, e-o'le-ăn.
Æolipile, e-ŏl'e-pīl.
Æolus, e'o-lŭs.
Æon, e'ŏn.
Æotana, e-o-tah'nah.
Æpinus, e-pi'nŭs.
Aer, a'ĕr.
Æra, e'rah.
Ærarium, e-ra're-ŭm.
Aerides, a'ŭr-ĭdz.
Aerie, a're.
Aerius, a-e're-ŭs.
Ærneu, ĕr'nāu.
Aerodynamics, a-ĕr-o-de-nam'ĭks.
Aeroe, ah'ro.
Aeroeskiobing, ah-ro-ski-o'-bäng.
Aerolite, a'ĕr-o-līt.
Aerolithology, a-ĕr-o-le-thŏl'o-je.
Aerometry, a-ĕr-ŏm'e-tre.
Aeronaut, a'ĕr-o-nawt.
Aeropathobia, a-ĕr-o-fo'be-ah.
Aerophyte, a'ĕr-o-fīt.
Aeroscopy, a-ĕr-ŏs'ko-pe.
Aerosite, a'ĕr-o-sīt.
Aerostat, a'ĕr-o-stāt.
Aerostation, a-ĕr-ŏs-ta'shŭn.
Aerschot, ahr'skŏt.
Aersens, ahr'sānz.
Æruginous, e-roo'je-nŭs.
Ærugo, e-roo'go.
Ærulus, e-roo'lŭs.
Aeruscatores, e-rŭs-kah'to-rēz.
Æschynite, ĕs'ke-mīt.
Æschines, ĕs'ke-nēz.
Æschrion, ĕs'kre-ŏn.
Æschylus, ĕs'ke-lŭs.
Æsculapius, ĕs-ku-la'pe-ŭs.
Æsculus, ĕs'ku-lŭs.
Æsop, e'sŏp.
Æsopus, e-so'pŭs.
Æsthetics, ĕs-thĕt'ĭks
Æstival, ĕs-tī'val.
Aetheogamous, a-e-the-ŏg'a-mŭs.
Æther, e'thŭr.
Æthiops, e'the-ŏpz.
Æthokirrin, e-thŏk'ĭr-rĭn.
Æthrioscope, e'thri-o-skōp.
Æthusa, e-thu'zah.
Ætiology, e-ti-ŏl'o-je.
Aetion, a-e'te-ŏn.
Aetites, a-e-ti'tēz.
Aetius, a-e'shŭs.
Ætobates, e-to-ba'tēz.
Ætolia, e-to'le-ah.
Afer, a'fŭr.
Affa, ăf'fah.
Affettuoso, ăf-fät-u-o'zo.
Affiche, ăf-fe'sha.
Affiatus, ăf-fia'tŭs.
Affogados, ăf-fo-gah'dōz.
Affre, ahfr.
Affreight, ăf-frāt'.
Affright, ăf-frīt'.
Affrontee, ăf-frŭnt-ee'.
Afghan, ăf'gahn.
Afghanistan, af-gahn'ēs-tahn.
Afiom, ah-fe-oom'.
A fortiori, a fôr-she-o're.
Afra, ah'frah.
Afragola, ah-frah-go'lah.
Afrancesados, ah-frän-sa-sah'dōz.
Afrania, ah-frah'ne-ah.
Afranius, a-fra'ne-ŭs.
Afreedis, ah-fre'dis.
Africa, ăf're-kah.
Afrikeah, ăf-re-ke'ah.
Afshars, ăf'shahrz.
Aftou, ăf'tŭn.
Afzul-Ghur, ăf-zool-goor'.
Aga, a'gah.
Agably, ăg'ah-ble.
Agades, ăg'ah-dēz.
Agadir, ăg'ah-deer.
Agag, a'găg.
Agahuatolite, ăg-ăl-măt'o-līt.
Agallega, ah-gal-la'gah.
Agallochum, a-gal-lo'chŭm.
Agalma, a-gal'mah.
Agama, a-ga'mah.
Agamæ, ag'a-me.
Agamedes, ăg-ah-me'dēz.
Agamemnon, ăg-ah-mĕm'nŏn
Agamenticus, ăg-a-mĕn'te-kŭs.
Agami, ăg'ah-me.
Agana, ah-gah'nah.
Aganippe, ăg-a-nip'pe.
Agapæ, ag'a-pe.
Agaparmonians, ăg-a-pe-mo'ne-ănz.
Agapanthus, ăg-a-păn'thŭs.
Agapetæ, a-ga'p'e-te.
Agaphite, ag'a-fīt.
Agapetus, ăg-a-pe'tŭs.
Agar, a'gar.
Agaricus, a-gar'e-kŭs.
Agaslas, a-ga'she-ăs.
Agasicles, a-gās'e-klēz.
Agassiz, ah-gäs'siz.
Agata, ăg'ah-ta.
Agate, ăg'at.
Agatha, ag'ah-thah.
Agatharchides, ăg-a-thär'-ke-dēez.
Agatharchus, ăg-a-thar'kŭs.
Agathis, ag'a-this.
Agathocles, a-gath'o-klēz.
Agathon, ah'gah-tŏn.
Agathophyllum, ăg-a-thŏf'-fe-lŭm.
Agathyrsus, ăg-a-thŭr'sŭs.
Agatize, ăg'a-tīz.
Agatton, ah-gat'tŏn.
Agave, a-ga've.
Agaveæ, a-ga've-e.
Agde, ahgd.
Agdeh, ahg'da.
Ageda, ah-ja'dah.
Agelaius, ah-je-li'ne.
Agelastus, a-je-lăs'tŭs.
Ageluoth, ăj'ĕl-nŏth.
Agen, ah-zhan(g').
Agenda, a-jĕn'dah.
Agenois, ah-zhan-waw'.
Agenor, a-ge'nŏr.
Agenoria, a-ge-no're-ah.
Ager, ah-zha'.
Agesander, ăj-e-săn'dŭr.
Agesilaus, a-jes-e-la'ŭs.
Agesipolis, ăj-e-sip'o-lis.
Agga, ăg'gah.
Agger, ăg'gär.
Aggershuys, ăg'gărs-hoos.
Aggeroe, ăg-gär-oo'a.
Aggersund, ăg gär-soond.
Aggerzeen, ăg gär-zān.
Aghaboe ăg'ah-bo.
Aghadoe, ăg'ah-do.
Aghrim, awh-rim'.
Agile, aj'il.
Agillochum, a-jil'lo-chŭm.
Agilulf, ăj'e-lŭlf.
Agincourt, ah-zhahn-koor'.
Agio, ah'je-o.
Agiotage, ah'je-o-tăj.

Agis, a'jĭs.
Agitato, ah-zhe-tah'to.
Aglaia, ăg-la'ya.
Aglaope, ăg-la'o-pe.
Aglasonn, ăg'lah-soon.
Aglet, ăg'lĕt.
Aglie, ah'gle.
Agnet, ăg'nĕt.
Agnadello, ahn-yah-dĕl'lo.
Agnall, ăg'năl.
Agnano, ahn-yah'no.
Agnes, ăg'nĕz.
Agnew, ăg'uū.
Agno, ăg'no.
Agnolo, ahn-yo'lo.
Agnomen, ăg-no'mĕn.
Agnoni, ahn-yo'ne.
Agnotherium, ăg-no-the're-ūm.
Agnus castus, ăg-nŭs kăs'tŭs.
Agnus Dei, ăg'nus de'i.
Agobard, ăg-o-bărd'.
Agogebic, a-gŏg'e-bĭk.
Agon, ah'gŏn.
Agones Capitolini, a-go'nēz ka-pĭt-o-li'ni.
Agonistes, ăg-o-nĭs'tēz.
Agonius, a-go'ne-ŭs.
Agonothetes, ăg-o-no-the'tēz.
Agonus, ah-go'nŭs.
Agoona, ah-goo'uah.
Agoracritus, ag-o-răk're-tŭs.
Agoræa, ăg-o-re'ah.
Agorens, ăg-o-re'ŭs.
Agosta, ah-gŏs'tah.
Agot, ah-go'.
Agonara, ah-goo-ah'rah.
Agouti, a-goo'te.
Agows, ahg'ooz.
Agra, a'grah.
Agreda, ah-gra'dah.
Agrestic, a-grĕs'tĭk.
Agricola, a-grik'o-lah.
Agricultnre, ăg-re-kŭl'tyŭr.
Agrigentum, ăg-re-jĕn'tŭm.
Agrimony, ăg're-mo-ne.
Agriopes, a'gre-o-pēz.
Agrippa, a-grĭp'pah.
Agrippina, ăg-grĭp-pī'nah.
Agronomy, a-grŏn'o-me.
Agrostere, a-grŏs'te-e.
Agrostemma, ăg-ro-stem'mah
Agrostis, a-grŏs'tĭs.
Agrostography, ăg-rŏs-tŏg'ra-fe.
Agua, ah'gwah.
Aguadilla, ah-gwah-dĕl'yah.
Aguas calientes, -kal-e-ān'-tāz.
Agua Fria, -fre'ah.
Ague, a'gū.
Agueda, ah-gwa'dah.
Agnesseau, ah-gās-so'.
Aguila, ah-ghe'lah.
Aguilar de la Frontera, ah-ghe-lar' da lah frŏn-ta'rah.
Agujari, ah-goo-yah're.
Agul, ah'gool.
Agulhas, ah-gool'yahz.
Agyleus, a-ge-le'ŭs.
Agylla, a-jĭl'lah.
Agynnians, a-jĭn'ne-ănş.
Agyrium, ah-je're-ŭm.
Ahab, a'hăb.
Ahanta, ah-ăn'tah.
Ahar, a'hahr.
Ahascragh, ah-ăs'krah.
Ahasuerus, a-hăs-u-e'rŭs.
Ahaus, ah-hows'.
Ahava, ah-hah'vah.
Ahaz, a'hăz.
Ahaziah, a-ha-zi'ah.
Ahiah, a-hi'ah.
Ahiezer, a-hi'e-zŭr.
Ahijah, a-hi'jah.
Ahimaaz, a-hĭm'a-ăz.
Ahimelech, a-hĭm'e-lĕk.
Ahinoam, a-hĭn'o-ăm.
Ahiolo, ah-yo'lo.
Ahira, a-hi'rah.
Ahithophel, a-hĭth'o-fĕl.
Ahlen, ah'lān.
Ahlwardt, ahl'oohărt.
Ahmedabad, ah-mĕd-a-băd'.
Ahmed Khan, ah'mĕd kahn.
Ahmednuggur, ah-mĕd-uŭg'gŭr.
Ahmedpoor, ah-mĕd-poor'.
Ahmed Shah el Abdaly, shah ĕl ăb'dah-le.
Ahmood, ah'mood.
Ahoghill, ah-ho'gĭl.
Aholibamah, a-hŏl-e-ba'mah.
Ahonai, ah-oo'ī.
Ahrberg, ahr'bărg.
Ahrian, ah're-an.
Ahriman, ah're-măn.
Ahrweiler, ahr-wī'lăr.
Ahnitzol, ah-weet'zohl.
Ahnn, ah'oon.
Ahus, ah-oos'.
Ai, ah'e.
Aias, ī'yahs.
Aichmalotarch, āk-măl'o-tahrk.
Aide-de-camp, ād-de-kŏn(g)'.
Aids, a'ĕdz.
Aigle, ī'gl.
Aignan, īn'yăn.
Aigrette, a-grĕt'.
Aigue-marine, āg-mah-rēn'.
Aigues-Mortes, āg-mōrt'.
Aiguille, a-geel'.
Aiguillettes, a-geel-lĕts'.
Aignillon, a-ge'yōu(g).
Aiguisée, a-gwe'sa.
Aiken, ā'kĕn.
Aikin, ā'kĭn.
Allantus, a-lăn'tŭs.
Ailettes, āl-lĕts'.
Aimoin, a-moin'.
Ain, ahn(g)'.
Ain-tab, ah-ēn-tahh'.
Ainsworth, ānz'wŭrth.
Aion, a'yŏn.
Airdrie, ār'dre.
Aire, ār.
Aisle, īl.
Aisne, īn.
Aisse, a-sa'.
Ait, āt.
Aitchbone, āch-hōn'.
Aitkin, āt'kĭn.
Aix, āks.
—la Chapelle, -lah shah-pĕl'.
—les Bains, -lāz bain.
Aizoon, i-zoou'.
Ajaccio, ah-yät'cho.
Ajalon, ah'zha-lŏn.
Ajan, ah-zhahn'.
Ajax, a'jăks.
Ajeho, i-ye-ho'.
Ajmere, ahj'mēr.
Ajuga, a-joo'gah.
Ajugeæ, a-joo'ge-e.
Ajuruoca, ah-zoo-roo-o'kah.
Ajutage, ăj'ū-tāj.
Akabah, ăk'ah-bah.
Akanticon, a-kăn'te-kŏn.
Akbar, ăk'bahr.
Akee, ah-kē'.
Akenside, a'kĕn-sīd.
Akerman, ah'kār-mahn.
Akhissar, ăk-hĭs'sahr.
Akhlat, ahk-läht'.
Aki, a'ke.
Akimbo, a-kĭm'bo.
Akiska, ah-kēs'kah.
Akka, ăk'kah.
Akootan, ah-koo'tahn.
Akrabbim, ăk-răb'bĭm.
Akreyri, ahk-ra're.
Akron, ăk'rŏn.
Akserai, ăk'sĕr-a-e.
Akshehr, ahk-shār'.
Aksoo, ăk'soo.
Aksu, ăk'soo.
Aktagh, ăk'tah.
Akteboli, ăk-tĕb'o-le.
Akwambu, ăk-wăm'boo.
Akzib, ăk'zeeh.
Akyab, ăk'e-ăh.
Al, ăl.
Ala, a'lah.
Alaba, ah-lah'bah.
Alabama, ăl-ah-bah'mah.
Alabastrum, al-a-bas'trŭm.
Alabat, ăl'a-bät.
Alabes, ăl'a-bēz.
Alachua, ăl'ah-kwaw.
Alacoque, ah'lah-kŏk.
Alacrane, ăl-ah-krăn'.
Alacta, a-lak'tah.
Aladagh, ăl-ah-dah'.
Aladan, ah-lah'dăn.
Alæa, a-le'ah.
Alæi, a-le'e.
A la Française, ah lah frŏu(g)-sa'.
Alaghey, ăl'ah-ga.
Alagon, ăl-ah-go'ah.
Alagou, ăl'ah-gou.
A la Grecque, ah lah grāk'.
Alain, ah-lăn'.
— Chartier, -shahr-te-a'.
— de l'Isle, -da lēl'.
Alais, ah-la'.
Alajuela, ah-la-oo-a'lah.
Alakananda, ăl-a-kah-năn'-dah.
Alala, a-la'la.
Alalia, a-la'le-ah.
Alalite, ăl'a-līt.
Alamance, ăl'a-mănş.
Alamania, ăl-a-ma'ue-ah.
Alamanes, ăl-a-ua'nĕz.
Alamas, ăl'ah-mahs.
Alameda, ah-lah-ma'dah.
Alamire, ah-lah-me'ra.
Alamo, ăl'ah-mo.
Alamode, ăl-a-mōd'.
Alamort, ah-la-mōrt'.
Alamos, ăl'a-mōz.
Alan, ăl'ăn.
A l'Anglaise, ah lăng-gla'.
Alangiaceæ, a-lăn-je-a'se-e.
Alanglum, a-lăn'je-ŭm.
Alani, a-la'ni.
Alania, a-la'ne-ah.
Alanine, ăl'a-nīn.
Alanthus, a-lăn'thŭs.
Alantine, a-lăn'tĭn.
A la Polacca, ah la po-lăk'kah.
Alaqua, ăl'a-kwaw
Alar, a'lăr.
Alara, ah-lah'rah.
Alaraf, ah-lah'răf.
Alarcon, ah-lăr-kōn'.
Alares, a-la'rēz.
Alaric, ăl'a-rĭk.
Alary, ăl'a-re.
Alas, a-läs'.
Alashari, ăl-ăsh'a-re.
Ala-Shehr, al-ah-shār'.
Alaska, a-läs'kah.
Alasmadon, a-läs'ma-dŏn.
Alassio, ah-läs'se-o.
Alatæ, a-la'te.
Ala-Tagh, ah-lah-tah'.
Alatamaha, ah-lät-a-mah-ah'.
Alate, a'lāt.
A latere, a lăt'ŭr-e.
Alaternus, ăl-a-tŭr'nŭs.
Alatri, ah-lah'tre.
Alatyr, ăl'a-teer.
Alanda, a-law'dah.
Alava, ah-lah'vah.
Alba, ăl'bah.
Alba-longa, ăl'bah-lŏng'gah.
Albacete, ăl-bah-tha'ta.
Albade Tormes, -da tōr'māz.
Alban, anl'băn.
Albanese, ăl-bah-nāz'.
Albani, ăl-bah'ne.
Albania, ăl-ba'ne-ah.
Albano, ăl-hah'no.
Albany, ăl'ba-ne.
Albarium, ăl-ba're-ŭm.
Albata, ăl-ba'tah.
Albategni, ăl-bah-ta'ne.
Albeit, awl-bē'it.
Albemarle, ăl-he-mărl'.
Albenga, ăl-băn'gah.
Albergati Capacelli, ăl-hār-gah'te kah-pah-chel'le.
Alberic, ăl'ba-rĭk.
Alberoni, ăl-ba-ro'ne.
Albert, ăl'bŭrt.
Alberti, ăl-bār'te.
Albertinelli, ăl-bār-tēu-ĕl'le.
Albertite, ăl'bŭrt-īt.
Albertus, ăl-hŭr'tŭs.
Albi, ăl-be'.
Albia, ăl'he-ah.
Albicore, ăl'be-kōr.
Albigenses, ăl-be-jĕn'sēz.
Albinism, ăl'be-nĭzm.
Albinos, ăl-hi'nōs.
Albinus, ăl-bī'uŭs.
Albion, ăl'he-ŏn.
Albiones, ăl'be-o-nēz.
Albite, ăl'bīt.
Albon, ahl-bŏn(g)'.
Alborn, ăl'bo-rah.
Alborak, ăl-bōr'ăk.
Alboran, ăl-bo'răn.
Albret, ăl-bra'.
Albucasa, ăl-boo-kah'sah.
Albucilla, ăl-bu-sĭl'lah.
Albuera, ăl-boo-a'rah.
Albufeira, ăl-boo-fa'e-rah.
Albufera, ăl-boo-fa'rah.
Albuginea, ăl-bu-jiu'e-ah.
Albugo, ăl-bu'go.
Albula, ăl-boo'lah.
Albumen, ăl-bu'mĕn.
Albuminoid, ăl-bu'mĭn-oid.
Albuquerque, ăl-boo-kār'ka.
Alburg, al'boorg.
Alburnum, ăl-bŭr'uŭm.
Albus Pagus, ăl'bŭs pa'gŭs.
Alby, ăl-be'.
Alcæus, ăl-se'ŭs.
Alcahest, ăl'kah-ĕst.
Alcaic, ăl-ka'ĭk.
Alcaid, ăl-kād'.
Alcala, ăl-kah'lah.
Alcalatraz, ăl-kah'la-trahz.
Alcalde, ăl-kăl'de.
Alcamenes, ăl-kăm'e-nēz.
Alcamo, ăl-kah'mo.
Alcaniz, ăl-kau-yēth'.
Alcantara, ăl-kăn-tăh'rah.
Alcantarilla, ăl-kăn-tah-rēl'-yah.
Alcaraz, ăl-kah-răth'.
Alcarraza, ăl-kah-rah'thah.
Alcazar, ăl-kah'thăr.
Alcedinidæ, ăl-se-dĭn'e-de.
Alcedo, al-se'do.
Alcestes, ăl-sēs'tēz.
Alcester, aulş'tŭr.
Alchemy, ăl'ke-me.
Alcibiades, ăl-se-hi'ah-dēz.
Alcides, ăl-si'dēz.
Alcidæ, ăl'se-de.
Alcimus, ăl'se-mŭs.
Alcinæ, ăl'se-ue.
Alcinous, ăl-sĭn'o-ŭs.
Alciope, ăl-si'o-pe.
Alciphron, ăl'se-frŭn.
Alcira, ăl-the'rah.
Alckmaar, ahlk-mahr'.
Alcmæon, ălk-me'ŏn.
Alcman, ălk'măn.
Alcmena, ălk-me'nah.
Alco, ăl'ko.
Alcona, ăl-ko'nah.
Alcoometer, ăl-ko-ŏm'e-tŭr.
Alcora, ăl-ko'rah.
Alcoran, ăl'ko-răn.
Alcove, ăl'kōv.
Alcoy, ăl-koi'.
Alcuin, ăl'kwĭn.
Alcyonacea, ăl-se-o-na'se-ah.
Alcyone, ăl-si'o-ue.
Alcyonia Palus, ăl-se-o'ne-ah pa'lŭs.
Alcyonidæ, ăl-se-ŏn'e-de.
Alcyonite, ăl'se-ŏn-īt.
Alcyonium, ăl-se-o'ne-ŭm.
Aldabra, ăl-da'brah.
Aldan, ahl'dahn.
Aldborough, ăld'bro.
Aldebaran, ăl-dĕb'a-răn.
Aldegrever, ăl-da-gra'vŭr.
Aldehyds, ăl'de-hīdz.
Aldelyd, ăl'de-līd.
Alden, anl'dĕn.
Alderley, aul'dŭr-le.
Alderney, aul'dŭr-ne.
Aldershot, aul'dŭr-shŏt.,
Aldie, aul'de.
Aldine, ăl'dīn.
Aldobrandini, ăl-do-hrăn-de'ue.
Aldovandus, ăl-do-văn'dŭs.
Aldstone, ăldz'tūn.
Aldus, ăl'dŭs.
Alea, a-le'ah.
Alectoromachy, a-lĕk-trŏm'-a-ke.
Alectrurinæ, a-lĕk-troo're-ne.
Alectryomancy, a-lĕk-tre-o-măn'se.
Alectura, ăl-ĕk-tū'rah.
Aleman, ah-la-mahn'.
Alemanni, ăl-e-măn'ne.
Alembert, -lŏn-bār'.
Alembic, a-lĕm'bĭk.
Alemtejo, ah-lahn(g)ta'zho.
Alençon, ah-lon(g)-son(g)'.
Aleuío, ah-la're-o.
Aleppo, ah-lĕp'po.
Alessandria, ăl-ĕs-săn'dre-ah.
Alessi, ah-läs'se.
Alessio, ah-lĕs'se-o.
Aletris, a-le'trĭs.
Aleurites, ăl'yoo-rītz.
Aleurometer, ăl-yoo-rŏm'e-tŭr.
Alentian, ah-loo'she-ahn.
Alexander, ăl-ĕks-ăn'dŭr.
Alexandretta, ăl-ĕks-ăn-drĕt'tah.
Alexandria, ăl-ĕks-ăn'dre-ah.
Alexandrine, ăl-ĕks-ăn'drĭn.
Alexandroosk, ah-lĕks-ăn-droosk'.
Alexipharmic, a-lĕks-e-făr'-mĭk.
Alexis, ăl-ĕks'ĭs.
Aleybey, ah-la'ba.
Alfar-Dagh, ăl-fahr-dahg'.
Alfaro, ăl-fa'ro.
Alfeld, al'fĕlt.
Alfenus, ăl-fe'nŭs.
Alfieri, ăl-fe-a're.
Alfonso, ăl-fŏn'so.
Alford, al'fŭrd.
Alfort, ăl-fōr'.
Alfred, al'frĕd.
Algæ, al'ge.
Algardi, ăl-gahr'de.
Algarinejo, ăl-gah-re-na'ho.
Algaroba, ăl-gah-ro'bah.
Algaroth, al'ga-rŏth.
Algarotti, ăl-gah-rōt'te.
Algarve, ăl-gahr'va.
Algebra, al'je-brah.
Algeçiras, ăl-ha-the'rahs.
Algemesi, ăl-ha-ma-se'.
Algenib, al'je-nĭb.
Algeria, ăl-je're-ah.
Algheri, ăl-ga're.
Algidum, al'je-dŭm.
Algiers, al-jērz'.
Algoa, al-go'ah.
Algol, al'gŏl.
Algoma, ăl-go'mah.
Algonquin, ăl-gŏn'kwĭn.
Algorab, al'go-răb.
Algorithm, al'go-rĭthm.
Algous, al'gŭs.
Alguazil, ăl-gah-zēl'.
Alhama, al-ah'mah.
Alhambra, ăl-ăm'brah.
Alhaurin, ăl-o'reen.
Alhucemas, ăl-oo-tha'mas.
Ali, ah'le.
Alicante, ăl-e-kănt'.
Alicata, ah-le-kah'tah.
Alice, al'ĭs.
Alicudi, ăl-e-kn'de.
Alidade, al'e-dād.
Alienation, āl-yĕn-a'shŭn.
Aliglmr, al-e-ghoor'.
Alignement, a-līn'mĕnt.
Alimeda, ah-le-ma'dah.
Alioth, a'le-ŏth.
Ali Pacha, ah'le paw'shaw.
Alipee, al-e-pē'.
Alipheria, al-e-fe're-ah.
Aliquant, ăl'i-kwănt.
Aliquot, ăl'i-kwŏt.
Alismaceæ, ăl-ĭs-ma'se-e.
Alison, ăl'e-sŭn.
Alitrunck, ăl'i-trŭngk.
Aliwal, ăl'e-wahl.
Alizarin, a-lĭz'a-rĭn.
Aljubarrota, ăl-zhoo-băr-ro'-tah.
Alkahest, ăl'ka-hĕst.
Al-kaisseria, -kāz-za're-ah.
Alkalescency, ăl-ka-lĕs'-sĕn-se.
Alkali, ăl'ka-le.
Alkanet, ăl'ka-nĕt.
Alkmer, ălk-mahr'.
Alkool, ăl-koo'ool.
Allah, ăl'lah.
Allahabad, ăl-lah-ah-hăd'.
Allamanda, ăl-läh-măn'dah.
Allantoin, ăl'lan-toin.
Allanturic, ăl-lăn-tu'rĭk.
Allass, ăl-läs'.
Allatoona, ăl-lah-too'nah.
Allecret, ăl'le-krĕt.
Allegan, ăl'le-găn.
Alleghany, ăl-le-ga'ne.
Allegranja, ah-la-grän'thah.
Allegretto, ăl-le-grĕt'to.
Allegri, ăl-la'gre.
Allegro, ăl-la'gro.
Allehgnnj, ăl-la-goonj'.
Alleluia, ăl-le-loo'yah.
Allemande, ăl-la-mŏnd'.
Allemontite, ăl-le-mŏu'tīt.
Allenstein, al'lăn-stīn.
Aller, ăl'lār.
Allerion, ăl-le're-ŏn.
Allia, al'le-yah.
Alliceæ, ăl'le-se.
Allier, ăl-le-a'.
Alligatnre, ăl-lĭg'a-tūr.
Alligazant, ăl'le-ga-zănt.
Allision, ăl-lizh'ŭn.
Allisonia, ăl-le-so'ne-ah.
Allium, ăl'le-ŭm.
Allna, ăl'lo-a.
Allobroges, ăl-lŏb'ro-jeez.
Allocatur, ăl-lo-ka'tŭr.
Allodium, ăl-lo'de-ŭm.
Allonge, ăl-lŏn-zha'.
Allopathy, ăl-lŏp'a-the.
Allophane, ăl'lo-fan.
Allotrophy, ăl-lŏt'ro-fe.
Alloxan, ăl-lŏks'an.
Alloxantin, ăl-lŏks-ăn'tĭn.
Allsborough, aulz'bŭr-ro.
Allston, aulz'tŭn.
Allumette, ăl-loo-mĕt'.
Alluvium, ăl-loo've-ŭm.
Allyl, ăl'lil.
Alma, ăl'mah.
Almacantar, ăl-ma-kăn'tahr.
Almaden, al-mah-dān'.
Almadie, ăl'ma-de.
Almagest, ăl'ma-jĕst.
Almagro, ăl-mah'gro.
Almagneral, ăl-mah-gwa'răl.
Almali, ăl-mah-le'.
Almamun, ăl-mah-moon'.
Almandite, ăl'măn-dīt.
Almanza, ăl-mahn'sah.
Almanzor, ăl-măn'soor.
Almeida, al-ma'e-dah.
Almena, ăl-me'nah.
Almendralejo, ăl-mān-drah-la'ho.
Almeria, ăl-ma're-ah.
Almo, ăl'mo.
Almodovar, ăl-mo-do'văr.
Almogia, al-mo-he'ah.
Almohades, al'mo-hadz.
Almonbury, awm'ŭu-bŭr-re.
Almond, aw'mŭnd.
Almoury, ăl'mŏn-re.
Almora, ăl-mo'rah.
Almoravides, ăl-mo'rah-vĭdz.
Alms, awmz.
Almnce, ōl'mŭs.
Almude, al-mūd'
Almuñecar, ăl-moon-ya'kăr.
Alna, ăl'nah.

Alnage, ăl'năj.
Alnus, ăl'nŭs.
Alnwick, ăn'nĭk.
Aloadin, a-lo-ah-dēn'.
Aloe, ăl'o.
Alæus, a-le'ŭs.
Alogians, a-lo'jē-ănz.
Aloin, al'oin.
Aloupra, ah-lŏm'prah.
Alona, a-lo'nah.
Alopecos, a-lŏp'e-sēz.
Alopecurus, a-lŏp-e-ku'rŭs.
Alopecy, a-lŏp'e-se.
Alora, ah-lo'rah.
Alosa, ah-lo'zah.
Alpaca, ăl-pāk'ah.
Alp-Arslan, ălp-ărz'lahn.
Alpenstock, ălp'ĕn-stŏk.
Alpenus, ăl-pe'nŭs.
Alpestrine, ăl-pĕs'trĭn.
Alpha, ăl'fah.
Alphæus, ăl-fe'ŭs.
Alphenic, ăl-fĕn'ĭk.
Alphlegin, ălp-la-gĕn'.
Alphonsin, ăl-fŏn'sĭn.
Alphonso, ăl-fŏn'so.
Alphos, ăl'fŏs.
Alpia, ăl'pe-ah.
Alpigene, ăl'pi-jēn.
Alpini, ăl-pe'ne.
Alpinia, ăl-pĭn'e-ah.
Alpujarras, ăl-poo-hăr'rahs.
Alquier, ăl'ke-yăr.
Alsace, ăl'sās.
Alsatia, ăl-sa'shah.
Alsegno, al-sān'yo.
Alsen, ahl'sen.
Alsfeld, ahlz'fĕld.
Alsh, (Loch,) lŏk-ălsh'.
Alsineæ, ăl-sĭn'e-e.
Alsirat, ăl-se'rāt.
Alsodeæ, ăl-so'de-e.
Alston, aulz'tŭn.
Alstrœmer, ahlz-troo'mŭr.
Alt, ault.
Altai, ăl-ta'e.
Altair, al-tār'.
Altaite, ăl-ta'ĭt.
Altamaha, ăl-tah-mah'aw.
Altamura, ăl-tah-moo'rah.
Altay, ăl-tī'.
Altdorf, ălt'dŏrf.
Altea, ăl-tē'ah.
Altena, ăl'ta-nah.
Altenburg, ăl'tăn-boorg.
Altendorf, ăl'tăn-dŏrf.
Altengaard, ăl'tan-gahrd.
Altenkirchen, ăl-tan-kĕrk'ĕn
Althæa, ăl-thē'ah.
Althæmenes, ăl-the-me'nēz.
Althorp, ăl'thŏrp.
Although, aul-tho'.
Altlugiaceæ, ăl-tĭn-je-a'se-e.
Altis, ăl'tĭs.
Altissimo, ăl-tees'se-mo.
Altmuhl, ălt'mŭl.
Alto, ăl'to.
Alton, aul'tŭn.
Altona, ăl'to-nah.
Altoona, ăl-too'nah.
Altorf, ăl'tŏrf.
Altrinchaun, ăl'trĭn-chăm.
Altstetten, ălt-stĕt'ten.
Altnras, ăl-too'rahz.
Alucitidæ, al-ū-sĭt'e-de.
Alula, ah-loo'lah.
Alumina, a-lū'me-nah.
Alumnus, a-lŭm'nŭs.
Alunite, ăl'ŭn-īt.
Alunogen, a-lū'no-jĕn.
Aluteres, a-lu'te-rēz.
Alva, ăl'vah.
Alvamarina, ăl-vah-mah-re'-nah.
Alvarado, ăl-vah-rah'do.
Alvarez de Luna, ăl-vah'-rāth da loo'nah.
Alvensleben, ăl'vănz-la'ben.
Alveolites, ăl've-o-lītz.
Alverstoke, ăl'vŭr-stōk.
Alvens, ăl've-ŭs.
Alvlano, ăl-ve-ah'no.
Alvine, al'vĭn.
Alviso, ăl-ve'so.
Alvito, ăl-ve'to.
Alwnr, ăl'woor.
Alycæus, ăl-e-se'ŭs.
Alymon, a-le'mŏn.
Alypius, a-lĭp'e-ŭs.
Alyssidæ, a-lĭs'se-de.
Alyssum, a-lĭs'sŭm.
Alyth, ăl'ĭth.
Alzey, ăl'za.
Amaddednlat, ăm-ăd-dĕd'du-lăt.
Amadeus, ăm-ah-da'ŭs.
Amadlah, ah-ma'de-ah.
Amadina, ăm-a-dī'nah.
Amadis de Gaula, ăm'ah-dis de gau'lah.
Amador, ăm-a-dŏr'.
Amadou, ăm'a-doo.
Amak, ah'mak.
Amakosa, ăm-ah-ko'zah.
Amakntau, ăm-a-ku-tăn'.
Amal, ah'mahl.
Amalarie, a-măl'a-rĭk.
Amalekites, a-măl'e-kītz.
Amalfi, ah-măl'fe.
Amalgama, a-măl'ga-mah.
Amalia, a-ma'le-ah.
Amalic, a-măl'ĭk.
Amalrie, a-măl'rĭk.
Amalthæa, a-măl'the-ah.
Amana, ăm'a-nah.
Amand, ah-mŏn'.
Amanda, a-măn'dah.
Amandine, ăm'ăn-dĭn.
Amarantaceæ, ăm-ăr-ăn-ta'-se-e.
Amanitine, a-măn'e-tĭn.
Amantea, ăm-ăn-te'ah.
Amannensis, a-măn-n-ĕn'sĭs.
Amapalla, ăm-a-păl'yah.
Amapouda, ăm-a-poo'dah.
Amara, a-mah'rah.
Amarante, ăm-a-răn'ta.
Amaranthine, ăm-a-răn'thĭn
Amarlah, ăm-a-ri'ah.
Amaribo, ăm-ah-re'bo.
Amarnpura, ah-mah-roo-poo'-rah.
Amaryllidaceæ, ăm-a-rĭl-le-da'se-e.
Amaryllis, ăm-a-rĭl'lĭs.
Amarynthus, ăm-a-rĭn'thŭs.
Amasa, ăm'ah-sah.
Amasai, ăm-a-sa'i.
Amaslah, ăm-ah-si'ah.
Amasieh, ah-mah'se-ah.
Amassette, ăm-ăs-sĕt'.
Amasthenic, ăm-ăs-thĕn'ĭk.
Amatembu, ăm-ah-tĕm'boo.
Amateur, ăm'a-tŭr.
Amathus, a-ma'thus.
Amati, ah-mah'te.
Amatlan, ah-măt'lahn.
Amato, ah-mah'to.
Amatrici, ăm-ah-tre'che.
Amaurosis, ăm-au-ro'sĭs.
Amaury, ah-mo-re'.
Amansite, ăm'aw-sīt.
Amaxichi, ah-maks-e'ke.
Amaziah, ăm-a-zi'ah.
Amazons, ăm'a-zŏnz.
Amaznla, ăm-a-zu'lah.
Ambages, ăm-ba'jēz.
Ambalaga, ăm-bal'a-gah.
Ambarvalia, ăm-bar-va'le-ah.
Ambatiki, ăm-bät'e-ke.
Ambato, ăm-bah'to.
Ambe, ăm'be.
Ambelakia, ăm-be-la'ke-ah.
Amberger, ăm'bărg-ūr.
Ambergris, ăm'bŭr-grĭs.
Ambert, ăm'bār.
Ambign, ăm'be-goo.
Ambilevous, ăm-bĭl'e-vŭs.
Amblorix, ăm-bi'o-rĭks.
Ambitus, ăm'be-tŭs.
Ambletense, ăm-bla-tooz'.
Amblygon, ăm'ble-gŏn.
Amblygotine, ăm-blĭg'o-tĭn.
Amblyrhynchus, ăm-ble-rĭng'kŭs.
Amboise, ăm-bwaw'.
Amboor, ăm-boor'.
Amboy, ăm-boi'.
Amboyna, ăm-boi'nah.
Ambozes, ăm-bo'zāz.
Ambracius, ăm-bra'shŭs.
Ambreine, ăm'bre-in.
Ambrim, ăm'brĭm.
Ambriz, ăm-brēz'.
Ambrizette, ăm-bre-zĕt'.
Ambrocia, ăm-bro'shah.
Ambrosix, ăm-brwaw'.
Ambrose, ăm'brōz.
Ambrosia, ăm-bro'zhah.
Ambrosius, ăm-bro'zhŭs.
Ambrotype, ăm'bro-tīp.
Ambry, ăm'bre.
Ambryssus, ăm-brĭs'sŭs.
Ambsace, ămz'ās.
Ambulacra, ăm-bu-lah'krah.
Ameillon, a-mā-lŏn'.
Amelanchier, ăm-e-lăng'ke-ŭr.
Ameles, ăm'e-lēz.
Amelia, a-me'le-ah.
Amende, a-mŏngd'.
Amenia, a-me'ne-ah.
A mensa et thoro, a mĕn'-sah ĕt tho'ro.
Ament, ăm'ĕnt.
Amentaceæ, ăm-en-ta'she-e.
Amentia, a-mĕn'shah.
Amerbach, ăm'er-bäk.
America, a-mĕr'e-kah.
Americus Vespucius, a-mĕr'e-kŭs ves-pu'she-ŭs.
Amerkote, ah'mer-kōt.
Amersfort, ah'mŭrs-fŏr.
Amersham, ăm'ŭr-shăm.
Ames, ămz.
Amestratus, a-mĕs'tra-tŭs.
Ametabolia, ăm-ĕt-a-bo'le-ah.
Amethie, ăm-e-the'.
Amethyst, ăm'e-thĭst.
Amga, ăm'gah.
Amhara, ăm-hah'rah.
Amherst, ăm'fŭrst.
Amia, a'me-ah.
Amianthum, a-me-ăn'thŭm.
Amiba, ăm'e-bah.
Amlea, ah-me'kah.
Amiec, ăm'ĭs.
Amilda, a-mi'dah.
Amide, ăm'ĭd.
Amidine, ăm'e-dĭn.
Amiens, ah'me-ĕns.
Amilene, ăm'e-lēn.
Amirante, ăm-e-răn'tah.
Amiterumm, ăm-e-tār'nŭm.
Amjherra, ăm-zhăr'rah.
Amla, ăm'lah.
Amlal, ăm-lī'.
Amlnch, ăm'look.
Amma, ăm'mah.
Ammalapoor, ăm-măl-ah-poor'.
Ammelide, ăm'me-līd.
Ammeline, ăm'me-lĭn.
Ammer, ăm'mŭr.
Ammersehwihr, ăm-mär-shvēr'.
Ammianus, ăm-me-a'nŭs.
Ammiollte, ăm'me-o-līt.
Ammitok, ăm'me-tŏk.
Ammocetes, ăm-mo'se-tēz.
Ammodyte, ăm'mo-dīt.
Ammoline, ăm'mo-lĭn.
Ammonia, ăm-mo'ne-ah.
Ammonites, ăm'mŏn-īts.
Ammonins, ăm-mo'ne-ŭs.
Ammothea, ăm-mo-the'ah.
Ammunition, ăm-mu-nĭsh'-ŭn.
Amnesia, ăm-ne'zhah.
Amnion, ăm'ne-ŏn.
Amœba, ăm-e-bah'.
Amol, ah'mōl.
Amomales, a-mŏm'a-lēz.
Amomum, a-mo'mŭm.
Amon, a'mŏn.
Amor, a'mŏr.
Amoret, ăm'o-rĕt.
Amorgo, ah-mŏr'go.
Amorite, ăm'o-rīt.
Amorosa, ăm-o-ro'zah.
Amoroso, ăm-o-ro'zo.
Amorphism, a-mŏr'fĭzm.
Amorphozoa, a-mŏr-fo-zo'ah.
Amos, a'mŏs.
Amotion, a-mō'shŭn.
Amour, ah-moor'.
Amoy, ah-moi'.
Ampelidæ, ăm-pĕl'e-de.
Ampeline, ăm'pe-lĭn.
Ampelis, ăm'pe-lĭs.
Ampelite, ăm'pe-līt.
Ampelopsis, ăm-pe-lŏp'sĭs.
Ampere, ăm-pār'.
Amphi, ăm'fe.
Amphiaraus, ăm-fi'a-rānz.
Amphibia, ăm-fĭb'e-ah.
Amphibole, ăm-lĭb'o-le.
Amphibology, ăm-fe-bŏl'o-je.
Amphibrach, ăm'fe-brāk.
Amphicarpæa, ăm-fe-kar'-pe-ah.
Amphicyon, ăm-fĭk'te-ŭn.
Amphigene, ăm'fe-jēn.
Amphila, ăm'fe-lah.
Amphimacer, ăm-fĭm'a-sŭr.
Amphion, ăm'fe-ŏn.
Amphipoda, ăm-fĭp'o-dah.
Amphipolis, ăm-fĭp'o-lĭs.
Amphisbænidæ, ăm-lis-be'-ne-de.
Amphiscii, ăm-fĭs'se-i.
Amphitheatre, ăm-fe-the'a-tŭr.
Amphitoites, ăm-fĭt'o-ītz.
Amphitrite, ăm-fe-tri'tē.
Amphitryon, ăm-fĭt'ri-ŏn.
Amphimma, ăm-fe-yoo'mah.
Amphodelite, ăm-fo'de-līt.
Amphora, ăm'fo-rah.
Amplepnix, ŏm-pla-pwe'.
Amplexicaul, ăm-plĕks'e-kawl.
Ampulla, ăm-pŭl'lah.
Ampullaria, ăm-pŭl-la're-ah.
Amputation, ăm-pu-ta'shŭn.
Amphyx, ăm'pĭks.
Amrau, ăm'rau.
Amrawutti, ăm-rah-voot'te.
Amritsir, ăm-rĭt'sŭr.
Amsonia, ăm-so'ne-ah.
Amstel, ăm'stĕl.
Amsterdam, ăm'stŭr-dăm.
Amstetten, ăm'stĕt-tĕn.
Amtzell, ămt-zĕl'.
Amulins, a-mu'le-ŭs.
Amuratli, ah-moo-raht'.
Amusette, ăm-u-zĕt'.
Amygdalate, a-mĭg'da-lāt.
Amygdaloid, a-mĭg'da-loid.
Amylamine, a-mĭl'a-mĭn.
Amyle, ăm'ĭl.
Amyline, ăm'e-lĭn.
Amyot, ah-me-o'.
Amyridaceæ, ăm-ĭr-e-da'se-e.
Amyrine, ăm'ĭr-ĭn.
Amyris, ăm'e-rĭs.
Ana, a'nah.
Anabara, ăn-ah-bah'rah.
Anabasidæ, ăn-a-bās'e-de.
Anabasis, a-năb'a-sĭs.
Anabrosis, ăn-a-bro'sĭs.
Anacamptic, ăn-a-kămp'tĭk.
Anableps, ăn'a-blĕps.
Ana Capri, ah'nah kah'pre.
Anacardium, ăn-a-kär'de-ŭm
Anacatharsis, ăn-a-ka-thär'-sĭs.
Anacharsis, ăn-ah-kär'sĭs.
Anachronism, ăn-ăk'ro-nĭzm
Anachnana, ah-nah-koo-ah'-nah.
Anacletus, ăn-ah-kle'tŭs.
Anacolnthon, ăn-a-ko-lŭ'-thŏn.
Anaconda, ăn-a-kŏn'dah.
Anacreon, a-nak're-ŭn.
Anadiplosis, ăn-a-dle-plo'sĭs.
Anadrom, ăn'a-drŏm.
Anadyr, ăn-ah-dĕr'.
Anæmia, a-ne'me-ah.
Anæsthesia, ăn-ĕs-the'zhah.
Anagallidæ, ăn-a-găl'le-de.
Anaglyphie, ăn-a-glĭf'ĭk.
Anagni, an'ah-gwe.
Anagoge, ăn-a-go'je.
Anagraph, ăn'a-grăf.
Anagros, ăn'ah-grōs.
Analmac, ăn-ah-wawk'.
Analcite, a-năl'sīt.
Analects, ăn'a-lĕktz.
Analepsis, ăn-a-lĕp'sĭs.
Analogy, a-năl'o-je.
Analysis, a-năl'e-sĭs.
Analytic, ăn-a-lĭt'ĭk.
Anam, ăn'ăm.
Anambas, ah-năm'bäs.
Anamirapasnm, a-năm-ĭr-ah-pa'sŭm.
Anamnesis, ăn-ăm-ne'sĭs.
Anamorphosis, ăn-a-mŏr'fo-sĭs.
Anamosa, ăn-a-mo'zah.
Anamur, ăn-a-moor'.
Ananassa, ăn-a-năs'sah.
Ananias, ăn-a-nī'ăs.
Anapa, ah-nah-pah'.
Anaphora, a-năf'o-rah.
Anaphrodisia, ăn-ah-fro-de'-zhah.
Anaplerotic, ăn-a-ple-rŏt'ĭk.
Anarchy, ăn'ărk-e.
Anarrhicus, ăn-ăr-rī'kŭs.
Anarthrous, ăn-ăr'thrŭs.
Anas, a'năs.
Anastasia, ăn-ăs-ta'zhah.
Anastasius, ăn-ăs-ta'zhŭs.
Anastomosis, a-năs-to-mo'sĭs.
Anastrophe, a-năs'tro-fe.
Anatherna, a-năth'e-mah.
Anatidæ, a-năt'e-de.
Anatinæ, a-năt'e-ne.
Anatocism, a-năt'o-sĭzm.
Anatolia, ăn-a-to'le-ah.
Anatolico, ăn-ah-to-le'koh.
Anatomy, a-năt'o-me.
Ananxite, a-nauks'ĭt.
Anava, ah-nah'vah.
Anavelhana, ăn-ah-văl-ah'-nah.
Anaxagoras, ăn-ăks-ăg'o-rahs
Anaximander, ăn-ăks-e-măn'dŭr.
Anaxlmenes, ăn-ăks-ĭm'e-nēz
Anbert Kend, ăn'bŭrt kănd.
Anbury, ăn'bŭr-e.
Ancastur, ăng'kăs-tŭr.
Anceuis, on(g)-sa-nē'.
Anchises, ăng-kī'sēz.
Ancholme, ănsh'ŏm.
Anchor, ăngk'ŏr.
Anchovy, ăn-cho've.
Anchusine, ăng'ku-sĭn.
Anchylose, ăng'ke-lōz.
Ancient, ān'shĕnt.
Ancile, ăn-sī'le.
Ancillon, ăn-se'yŏn(g).
Ancillary, ăn'sĭl-la-re.
Ancipital, ăn-sĭp'e-tăl.
Ancobar, ăng-ko-bär'.
Ancon, ăn'kŏn.
Ancona, ăn-ko'nah.
Anconens, ăn-ko-ne'ŭs.
Ancony, ăn'ko-ne.
Ancre, ŏn(g)'kr.
Ancrum, ăng'krŭm.
Ancud, ahn'kood.
Ancus Martins, ăn'kŭs mär'-she-ŭs.
Ancyloceras, ăn-se-lŏs'e-răs.
Aneylus, ăn-se'lŭs.
Andad, ăn'dahd.
Andalncite, ăn-dah-lū'zīt.
Andalusia, ăn-dah-lū'zhah
Andaman, ăn'dah-măn.
Andante, ăn-dăn'te.
Andantino, ăn-dăn-te'no.
Andelys, ŏn(g)-da-le'.
Andennes, ŏn(g)-dăn'.
Andernach, ăn'd'r-nahk.
Andersen, ăn'der-sĕn.
Anderson, ăn'dŭr-sŭn.
Andes, ăn'dēz.
Andecite, ăn'dĕz-īt.
Andiron, ănd'ī-ŭrn.
Andorno, ăn-dŏr'no.
Andorra, ăn-dŏr'rah.
Andonille, ŏn(g)-doo-e-a'.
Andover, an'do-vŭr.
Andracio, ăn-drah'se-o.
Andral, ŏn(g)-drahl'.
Andranatomy, ăn-drah-năt'-o-me.
André, ăn-dra'.
Andrea, ăn-dra'ah.
Andreas, ăn-dra'ăs.
Andreasberg, ăn'drāz-bairg.
André-de-Cubsac, on(g)-dra'da-koob-zahk'.
Andreossi, ăn-dra-ŏs'se.
Andrew, ăn'droo.
Andria, ăn'dre-ah.
Andrienx, ŏn(g)-dre-oo'.
Androelus, ăn'dro-klŭs.
Androgyne, ăn-drŏj'e-ne.
Androides, ăn'dro-ĭdz.
Andromache, ăn-drŏm'ah-ke
Andromeda, ăn-drŏm'e-dah.
Andron, ăn'drŏn.
Andronicus, ăn-drŏn'e-kŭs.
Andropetalous, ăn-dro-pet'-a-lŭs.
Androphagi, ăn-drŏf'a-ji.
Andropogon, ăn-drŏp'o-gŏn.
Andros, ăn'drŏs.
Andro-sphinx, -sfĭngkz.
Androus, ăn'drŭs.
Andujar, ăn-doo'hahr.
Anduze, ăn(g)-doo'za.
Anegada, ah-na-gah'dah.
Anelectrode, ăn-e-lĕk'trōd.
Anemic, a-nĕm'ĭk.
Anemometer, a-nĕm-ŏm'e-tŭr
Anemone, a-nĕm'o-ne.
Anemoscope, a-nĕm'o-skōp.
Anencephalus, a-nĕn-sĕf'a-lŭs.
Aner, a'nŭr.
Aneroid, ăn'e-roid.
Anet, ah-na'.
Aneurin, ăn'yoo-rĭn.
Aneurism, ăn'yoo-rĭzm.
Angelet, ăn'jĕl-ĕt.
Angelica, ăn-jĕl'e-kah.
Angelina, ăn-je-le'nah.
Angelo, ăn'ja-lo.
Angelus, ăn'je-lŭs.
Angermannland, ŏng'är-mahn-lahnd'.
Angermunde, ŏng'är-moond.
Angerona, ăn-je-ro'nah.
Angers, ŏn(g)-zha'.
Anghiara, ang-ge-ah'rah.
Angina, ăn-jī'nah.
Angiocarpous, ăn-je-o-kär'-pŭs.
Angiomonospermous, ăn-je-o-mo-no-spŭr'mŭs.
Angiotomy, ăn-je-ŏt'o-me.
Angle, ăng'gl.
Anglesea, ăng'gl-sē.
Anglican, ăng'gle-kăn.
Anglicé, ăng'gle-sa.
Anglicism, ang'gle-sĭzm.
Anglo, ăng'glo.
Angola, ăng-go'lah.
Angora, ăng-go'rah.
Angornon, ăn-gor'nŏv.
Angostura, ăn-gŏs-too'rah.
Angonlême, ŏn(g)-goo-lăm'.
Angommois, ŏn(g)-goo-mwaw'
Angra, ahn'grah.
Anguilla, ăng-gweel'yah.
Anguineal, ăn-gwin'e-al
Angnillula, ăng-gwil'lu-lah.
Angnis, ăng'gwĭs.
Angus, ăng'gŭs.
Anhalt, abn'ahlt.
Anholt, ahn'ohlt.
Anhydrite, ăn-hī'drīt.
Anidæi, ăn-e-de'i.
Ani, a'ni.
Anil, ăn'ĭl.
Anile, ăn'ĭl.
Aniline, ăn'i-lĭn.
Anima, ăn'e-mah.

Animalculum, ăn-e-măl'ku-lŭm.
Animas, ăn'e-măs.
Anime, ăn'e-me.
Animé, ăn-e-ma'.
Animiue, ăn'e-mĭn.
Animism, ăn'i-mĭzm.
Anion, a'ne-ŏn.
Anisamide, ăn'e-săm-īd.
Anisaniline, ăn-e-săn'e-lĭn.
Anise, ăn'ees.
Anisette, ăn-e-sĕt'.
Anisomeric, ăn-e-so-mĕr'ĭk.
Añjar, ăn'jahr.
Anjengo, aw-jĕn'go.
Anjou, ŏn-zhoo'.
Ankerite, ăng'kŭr-īt.
Anklam, ahngk'lăm.
Ankle, ăng'kl.
Ankobar, ăngko'băr.
Ankoi, ăng'koi.
Annabergite, ăn-nah-bărg'īt.
Annaghdown, ăn'nah-down.
Annamboe, ăn-năm-boo'.
Annamooka, ăn-nah-moo'kah.
Annapolis, ăn-năp'o-lĭs.
Annates, ăn'nāts.
Annawan, ăn'na-wŏn.
Anne, ăn.
Annealing, ăn-nēl'ĭng.
Annecy, ahn-se'.
Anne-de-la-Perade, ahn-da-lah-pa-rahd'.
— de-la-Pocatière, -po-kah-te'ăr.
— des-Plaines, -da-plān'.
— du-Machiche, -mah-shēsh'
— du-Nord, -doo-nŏr'.
Annelidæ, ăn-nĕl'e-de.
Annellata, ăn-nĕl-la'tah.
Anniversary, ăn-ne-vĕr'sa-re.
Anno Domini, ăn-no dŏm'e-ni
Anno Mundi, -mŭn'di.
Annona, ăn-no'nah.
Annonay, ăn-no-ua'.
Annotto, ăn-nŏt'to.
Annsburg, ănz'bŭrg.
Annularis, ăn-nu-la'rĭs.
Annulosa, ăn-nu-lo'sah.
Annunciation, ăn-nŭn-she-a'shŭn.
Anoa, a-no'ah.
Anobium, a-no'be-ŭm.
Anode, ăn'ōd.
Anodonta, ăn-o-dŏn'tah.
Anodyne, ăn'o-dīn.
Anolis, a-no'lĭs.
Anomaly, a-nŏm'a-le.
Anomia, a-no'me-ah.
Anomorhomboid, ăn-a-mo-rŏm'boid.
Anonoura, ăn-o-moo'rah.
Anona, a-no'nah.
Anonaceæ, ăn-o-na'se-e.
Anonymous, a-nŏn'e-mŭs.
Anoopshehr, ah-noop-shār'.
Anoplotheriuu, ăn-o-plo-the're-ŭm.
Anoplura, ăn-o-ploo'rah.
Anopsy, ăn'ŏp-se.
Anorexy, ăn'o-rĕk-se.
Anorthite, ăn'ŏr-thīt.
Anosmia, a-nŏs'mĭe-ah.
Anoxidic, ăn-ŏks-ĭd'ĭk.
Anquetil, ŏuk-tăl'.
Anselm, ăn'sĕlm.
Anser, ăn'sĕr.
Anseriuæ, ăn-sĕr'e-ne.
Anserine, ăn'sŭr-ĭn.
Ansou, ăn'sŭn.
Ansouia, ăn-so'ne-ah.
Anspach, ahns-pahk'.
Answer, ăn'sŭr.
Anta, ăn'tah.
Antacid, ănt-ăs'ĭd.
Antæus, ăn-te'ŭs.
Antakia, ăn-tah-ke'ah.
Antalkali, ănt-al'ka-li.
Antalon, ăn'ta-lŏn.
Antanaclasis, ăn-ta-na-kla'-sĭs.
Antanagoge, ăn-ta-uah-go'je.
Antaphrodisiac, ăn-tah-fro-dĭz'e-ak.
Antar, ăn'tahr.
Antarctic, ănt-ărk'tĭk.
Antares, ăn-ta'rēz.
Antarthritic, ănt-ăr-thrĭt'ĭk.
Antatrophic, ăn-ta-trŏf'ĭk.
Antavares, ăn-tah-va'rēz.
Anteal, ăn'te-ăl.
Antecœnium, ăn-te-se'ue-ŭm.
Antediluviau, ăn-te-di-lū'-ve-ăn.
Antefixœ, ăn-te-fĭks'e.
Antelopeæ, ăn-te-lo'pe-e
Antenna, ăn-tĕn'ua.
Antennaria, ăn-tĕn-na're-ah.
Antenor, ăn-te'nŏr.
Antenuptial, ăn-te-nŭp'shăl.
Antepaschal, -păs'kăl.
Antepenult, -pe-nŭlt'.
Antequera, ăn-ta-ka'rah.
Anteros, ăn'te-rŏs.
Antes, ăn'teez.
Anthelion, ănt-hēl'yŭn.
Anthelmintic, ăn-thĕl-mĭn'-tĭk.
Anthemideæ, ăn-the-mĭd'e-o.
Anthemis, ăn'the-mĭs.
Anthemius, ăn-the'me-ŭs.
Antheridia, ăn-thŭr-ĭd'yah.
Anthesis, ăn-the'sĭs.
Anthesteria, ăn-thĕs-te're-ah.
Anthiarine, ăn-thĭ'a-rĭu.
Anthicidae, ăn-thĭs'e-de.
Anthidium, ăn-thĭd'yŭm.
Anthochæra, ăn-tho-ke'rah.
Anthocyane, ăn-tho-si'a-ue.
Anthodium, ăn-tho'de-ŭm.
Anthology, ăn-thŏl'o-je.
Antholysis, ăn-thŏl'e-sĭs.
Anthomania, ăn-tho-ma'ne-ah.
Anthon, ăn'thŭn.
Anthony, ăn'to-ue.
Anthophyllite, ăn-thŏf'ĭl-līt.
Anthorisu, ăn-tho-rĭzm.
Anthosiderite, ăn-tho-sĭd'-ŭr-īt.
Anthoxantine, ăn-thŏks-ăn'-tĭn.
Anthozoa, ăn-tho-zo'ah.
Anthracite, ăn'thra-sīt.
Anthracotherium, ăn-thra-ko-the're-ŭm.
Anthranilic, ăn-thra-nĭl'ĭk.
Anthrax, ăn'thraks.
Anthreuidæ, ăn-thrĕn'e-de.
Anthropolite, ăn-thrŏp'o-līt.
Anthropometry, ăn-thro-pŏm'e-tre.
Anthropomorphite, -po-mŏr'fīt.
Anthropophagy, ăn-thro-pŏf'a-je.
Anthus, ăn'thŭs.
Anti, ăn'ti.
Antiarine, ăn-ti'a-rĭn.
Antias, ăn'te-as.
Antibacchius, ăn-te-băk-ki'-ŭs.
Antibes, ŏn-teeb'.
Antibrachial, ăn-te-brāk'e-ăl
Antichronism, ăn-tĭk'ro-nĭzm.
Antichthon, ăn-tĭk'thŏn.
Anticor, ăn'te-kŏr.
Anticosti, ăn-te-kŏs'te.
Anticous, ăn'te-kŭs.
Antietam, ăn-ti-e-tăm'.
Antigone, ăn-tĭg'o-ne.
Antigonus, ăn-tĭg'o-nŭs.
Antigraph, ăn'te-grăf.
Antigua, ăn-te'gwah.
Antihelix, ăn-te-he'lĭks.
Antilles, ăn-tĕlz'.
Antimetabole, ăn-te-mĕt'a-hŏl.
Antimony, ăn'te-mo-ne.
Antinomianism, ăn-te-no'-me-ăn-ĭzm.
Antinous, ăn-tĭn'o-ŭs.
Antioch, ăn'te-ŏk.
Antiochus, ăn-ti'o-kŭs.
Antiope, ăn-ti'o-pe.
Antioquia, ăn-te-o'kwe-ah.
Antipædobaptist, ăn-tĭp-e-do-băp'tĭst.
Antiparos, ăn-tĭp'a-rŏs.
Antipater, ăn-tĭp'ah-tĕr.
Antipathy, ăn-tĭp'a-the.
Antiperistasis, ăn-te-pe-rĭs'-ta-sĭs.
Antiphlogistic, ăn-te-flo-jĭs'-tĭk.
Antiphony, ăn-tĭf'o-ne.
Antiphrasis, ăn-tĭf'ra-sĭs.
Antipodes, ăn-tĭp'o-dēz.
Antiptosis, ăn-tip-to'sĭs.
Antipyretic, ăn-te-pe-rĕt'ĭk.
Antique, ăn-teek'.
Antiquity, ăn-tĭk'we-te.
Antirrhinum, ăn-tĭr-rī'uŭm.
Antisana, ăn-te-sah'nah.
Antiscians, ăn-tĭsh'e-ănz.
Antiseptic, ăn-te-sĕp'tĭk.
Antispasmodic, ăn-te-spăz-mŏd'ĭk.
Antispast, ăn'te-spăst.
Antistatis, ăn-tĭs'ta-sĭs.
Antistheues, ăn-tĭs'the-nēz.
Antistrophe, ăn-tĭs'tro-fe.
Anti-Taurus, ăn-te-taw'rŭs.
Antithesis, ăn-tĭth'e-sĭs.
Antitragus, ăn-tĭt'ra-gŭs.
Antitropous, ăn-tĭt'ro-pŭs.
Antium, ăn'she-ŭm.
Antivari, ăn-te-vah're.
Antlia, ănt'le-ah.
Antœci, ăn-te'she.
Antoine, ăn-twawn'.
Antommarchi, ăn-tŏm-măr'-ke.
Antonelli, ăn-to-nĕl'le.
Antonia, ăn-to'ne-ah.
Antoniu, ăn'to-nĭu.
Antoniuus, ăn-to-nĭ'nŭs.
Antoninasia, ăn-tŏn-o-ma'-zhah.
Antrim, ăn'trĭm.
Antucco, ăn-tuok'ko.
Antwerp, ănt'wŭrp.
Anubis, a-nu'bĭs.
Anus, a'nŭs.
Anville, ahn-vēl'.
Anxiety, ăngz-i'e-te.
Any, ĕn'e.
Anzin, ahn-zahn'.
Aonia, a-o'ne-ah.
Aosta, ah-ŏs'tah.
Apaches, ah-pah'chāz.
Apagogical, ăp-a-gŏg'ĭk-ăl.
Apalachicola, ăh-pah-lah-che-ko'lah.
Apam, ah-pahm'.
Apamana, ăp-ah-mah'mah.
Apanormia, ah-pah-nŏr'me-ah.
Apari, ah-pah're.
Apatelite, a-păt'e-līt.
Apathy, ăp'a-the.
Apatite, ăp'a-tīt.
Apelles, a-pĕl'lēz.
Apennines, ăp'ĕn-nīnz.
Apepsy, a-pĕp'se.
Aper, a'pŭr.
Apetalæ, a-pĕt'a-le.
Apex, a'pĕks.
Aphaniptera, ăf-a-nĭp'te-rah.
Aphanite, a'făn-īt.
Aphelion, a-fēl'yŭn.
Apheresis, a-fĕr'e-sĭs.
Aphis, a'fĭs.
Aphlogistic, ăf-lo-jĭs'tĭk.
Aphodidæ, a-fo'de-de.
Aphony, ăf'o-ne.
Aphorism, ăf'o-rĭsm.
Aphractus, a-frăk'tŭs.
Aphrodisia, ăf-ro-dĭz'yah.
Aphrodite, ăf-ro-dī'te.
Aphrophora, ăf-ro-fo'rah.
Aphthæ, ăf'the.
Aphthong, ăf'thŏng.
Aphthonite, ăf'thŏn-īt.
Aphtitalite, ăf-tĭt'a-līt.
Aphyllous, a-fĭl'lŭs.
Apiaceæ, a-pe-a'se-e.
Apicius, a-pĭsh'yŭs.
Apidæ, a'pe-de.
Apiine, a'pe-ĭn.
Apiocriuus, a-pe-o-kri'nŭs.
Apios, a'pe-ŏs.
Apis, a'pĭs.
Apistes, a-pĭs'tēz.
Apium, a'pe-ŭm.
Aplectrum, a-plĕk'trŭm.
Aplustre, a-plŭs'tŏr.
Apocalypse, a-pŏk'a-lĭps.
Apociuum, a-po'se-nŭm.
Apocopate, a-pŏk'o-păt.
Apocope, a-pŏk'o-pe.
Apocrypha, a-pŏk're-fah.
Apocynaceæ, a-po-sĭn-a'se-e.
Apodal, ăp'o-dăl.
Apodosis, ăp-o-do'sĭs.
Apogee, ăp'o-je.
Apograph, ăp'o-grăf.
Apolda, a-pŏl'dah.
Apollinarius, a-pŏl-le-na're-ŭs.
Apollo, a-pŏl'lo.
Apollonius, a-pŏl-lo'ne-ŭs.
Apollyon, a-pŏl'le-ŏn.
Apologue, ăp'o-lōg.
Apology, a-pŏl'o-je.
Aponeurosis, a-pŏn-u-ro'sĭs.
Apophasis, a-pŏf'a-sĭs.
Apophlegmatic, ăp-o-flĕg-măt'ĭk.
Apophthegm, ăp'o-thĕm
Apophyge, a-pŏf'e-je.
Apophyllite, a-pŏf'ĭl-līt.
Apophysis, a-pŏf'e-sĭs.
Apoplexy, ăp'o-plĕks-e.
Aporia, a-po're-ah.
Aposiopesis, a-pō-se-o-pe'sĭs.
Apostasy, a-pŏs'ta-se.
A posteriori, a pŏs-te-re-o're.
Apostle, a-pŏs'sl.
Apostrophe, a-pŏs'tro-fe.
Apotheca, a-pŏth'e-kah.
Apotheeium, a-po-the'shŭm.
Apotheosis, ăp-o-the'o-sĭs.
Apothesis, a-pŏth'e-sĭs.
Apotome, a-pŏt'o-me.
Apozem, ăp'o-zĕm.
Appal, ăp-pawl'.
Appalachian, ăp-pab-la'che-ăn.
Appanoose, ăp-pah-noos'.
Apparatus, ăp-pa-ra'tŭs.
Apparel, ăp-păr'el.
Apparitor, ăp-păr'e-tŏr.
Appellant, ăp-pĕl'lănt.
Appendicle, ăp-pĕn'de-kl.
Appendix, ăp-pĕn'dĭks.
Appeuzell, ăp-pănt-zāl'.
Apperception, ăp-pŭr-sĕp'-shŭn.
Appian, ăp'pe-ăn.
Appiani, ăp-pe-ah'ne.
Appin, ăp'pĭn.
Appius, ăp'pi-ŭs.
Appleby, ăp'pl-be.
Appledore, ăp-pl-dōr'.
Appletou, ăp'pl-tŭn.
Appliancy, ăp-plī'ăn-se.
Appoggiatura, ăp-pŏd-jah-too'rah.
Appomattox, ăp-po-măt'tŏks.
Apportionment, ăp-pōr'-shŭn-mĕnt.
Apposition, ăp-po-zĭsh'ŭn.
Appreciation, ăp-pre-she-a'-shŭn.
Apprentice, ăp-prĕn'tĭs.
Appropinque, ăp-pro-pĭnk'.
Appropriation, ăp-pro-pre-a'shŭn.
Appui, ăp-pwe'.
Appulsion, ăp-pŭl'shŭn.
Apraxin, ah-prahks'ĭn.
A priori, a pri-o're.
Apropos, ah-pro-po'.
Apsheron, ăp'shŭr-ŭn.
Apsis, ăp'sĭs.
Apsley, ăps'le.
Aptenodytes, ăp-tĕn'o-dīts.
Aptera, ăp'tŭr-ah.
Apteryx, ăp'tŭr-ĭks.
Aptitude, apt'e-tūd.
Aptote, ăp'tōt.
Apuleius, ăp-u-le'ŭs.
Apulia, ah-pu'le-ah.
Apure, ah-poor'.
Apurimac, ah-poo're-măk.
Apus, a'pŭs.
Apyretic, a-pĭr-ĕt'ĭk.
Apyrexy, ăp-e-rĕks'e.
Aqua, a'kwah.
— fortis, -fōr'tĭs.
— marina, -ma-re'nah.
Aquambo, ah-kwŏm'bo.
Aquapim, ah'kwah-pĕm.
Aqua Regiua, a'kwah re-ji'-nah.
— Regis, -re'jĭs.
Aqnariuu, a-kwa're-ŭm.
Aquasco, ah-kwăs'ko.
Aquatics, a-kwăt'ĭks.
Aquatint, a'kwah-tĭnt.
Aqua Tofana, -to-fah'nah.
— vitæ, -vi'te.
Aqueduct, ăk'we-dŭkt.
Aquelaou, ăk-kwa'la-ŏn.
Aqueous, a'kwe-ŭs.
Aquetta, ah-kĕt'tah.
Aquia, ăk'we-ah.
Aquifoliaceæ, a-kwe-fo-le-a'-se-e.
Aquila, ăk'we-lah.
Aquileia, ăk-we-la'yah.
Aquilegia, ăk-we-le'je-ah.
Aquiliuæ, ăk-wĭl'i-ne.
Aquiline, ăk'we-lĭn.
Aquilon, ăk'we-lŏn.
Aquilotes, ăk-we-lo'tēz.
Aquinas, a-kwi'năs.
Aquino, ah-ke'no.
Aquiras, ah-kwe'răs.
Aquire, ah-kwe-ra'.
Aquitaine, ăk-ee-tahn'.
Ara, ah'rah.
Arab, ăr'ăb.
Araba, ăr'ah-bah.
Arabau, ăr-ah-bahn'.
Arabauate, ah-rah-băn'ăt.
Arabat, ăr'a-băt.
Arabazari, a-răb-ah-zah're.
Arabella, ăr-a-bĕl'lah.
Arabesque, ăr'a-hĕsk.
Arabia, ah-ra'be-ah.
Arabgir, ăr-ăb-geer'.
Arab-Hissar, ăr-ăb-hees'sahr.
Arabine, ăr'ăb-ĭn.
Arabis, ăr'a-bĭs.
Arabism, ăr'a-bĭzm.
Arabistan, ăr-ăb-ĭs'tăn.
Arable, ăr'a-bl.
Araby, ăr'a-be.
Aracan, ăr'a-kăn.
Aracari, ăr-a-kah're.
Araceæ, a-ra'se-e.
Arachis, ăr'a-kĭs.
Arachnidæ, a-răk'ni-de.
Arachnidau, a-răk'ni-dan.
Arachnoid, a-răk'noid.
Arad, ah-rahd'.
Aradeo, ăr-ah-da'o.
Araeostyle, a're-o-stīl.
Araeosystyle, a-re-o-sĭs'tĭl.
Arafat, ăr'a-făt.
Arafuras, ab-rah-foo'răs.
Arago, ah'rah-go.
Aragon, ăr'ah-gŏn.
Aragona, ăr-ah-go'nah.
Aragonite, ăr'a-gŏn-īt.
Araguay, ăr'ah-gwa.
Araignée, ăr-rān'ya.
Arainæ, a-ra'e-ne.
Arak, ah'răk.
Arakhova, ăh-răk-o'vah.
Aral, ah'răl.
Arales, ah-ra'lēz.
Aralia, ah-ra'le-ah.
Araliaceæ, ah-ra-li-a'se-e.
Araucæa, ăr-a-me'ah.
Araucaghauch, ăr-ah-mah-a-nĕk.
Aramaic, ăr-a-ma'ĭk.
Aramaukutan, ăr-ah-ma-koo'-tăn.
Aramayona, ăr-ah-ma'yo-nah.
Arauco, ah-rah'mo.
Arau, ah'răn.
Araucay, ah-răng'kī.
Aranda de Ducro, ah-răn'-dah da dwe'ro.
Araneidæ, a-răn'ĭ-de.
Aranha, ah-ran'yah.
Araujuez, ah-răn-hwĕth'.
Aransas, ah-răn'săs.
Arantac, ah-răn'tăk.
Arauy, ŏr'ŏn.
Arapahoe, ah-răp'a-hō.
Arapaima, ăr-a-pī'ma.
Araparcs, ah-rah-pah'rēz.
Arapijo, ah-rah-pe'yo.
Araqui, ah-rah-ke'.
Araraugua, ăr-ah-răng'gwah.
Ararat, ăr'ah-răt.
Aras, ah'rahs.
Aratus, a-ra'tŭs.
Araucauia, ah-raw-ka'ne-ah.
Araucaria, ah-raw-ka're-ab.
Arauco, ah-row'ko.
Arauré, ab-row'ra.
Araxes, a-răks'ēz.
Arbalestlua, ăr-băl-ĕs-ti'nah.
Arbela, ăr-be'lah.
Arbitration, ăr-bĭt-ra'shŭn.
Arboe, ăr-bo'.
Arboga, ăr-bo'gah.
Arbogastes, ăr-bo-găs'tēz.
Arbois, ăr-bwaw'.
Arbola-brea, ăr'bo-lah-hre'ah.
Arboretum, ăr-bo-re'tŭm.
Arbroath, ăr'brŏth.
Arbuscle, ăr'bŭs-sl.
Arbuthnot, ăr-bŭth'nŏt.
Arbutine, ăr'bu-tĭu.
Arbutus, ăr-bu'tŭs.
Arca, ăr'kah.
Arcadia, ăr-ka'de-ah.
Arcadius, ăr-ka'de-ŭs.
Arcanum, ăr-ka'nŭm.
Arcesilaus, ăr-sĕs-e-la'ŭs.
Archæology, ăr-ke-ŏl'o-je.
Archaism, ăr'ka-ĭzm.
Archangel, ărk-ān'jĕl.
Archdeacon, arch-dē'kn.
Archegosaurus, ăr-ke-go-saw'rŭs.
Archelaus, ăr-ke-la'ŭs.
Archemora, ăr-ke-mo'rah.
Archenholz, ăr'kĕn-hŏlts.
Archetype, ăr'ke-tīp.
Archeus, ăr-ke'ŭs.
Archibald, ăr'che-bawld.
Archidamus, ăr-ke-da'mŭs
Archidona, ăr-ke-do'nah.
Archil, ăr'kĭl.
Archilocus, ăr-kĭl'o-kŭs.
Archimandrite, ăr-ke-măn'-drīt.
Archipelago, ăr-ke-pĕl'a-go.
Architecture, ăr'ke-tĕkt-yoor
Architrave, ăr'ke-trāv.
Archives, ăr'kīvz.
Archivolt, ăr'ke-vŏlt.
Archon, ăr'kŏn.
Archytas, ăr-kī'tăs.
Arcis-sur-Aube, ăr-se-sŭr-ōb'.
Arcograph, ărk'o-grăf.
Arcole, ăr-ko'la.
Arçon, ăr-sŏn(g)'.
Arcos, ăr'kŏs.
Arcot, ăr'kŏt.
Arctia, ărk'te-ah.
Arctic, ărk'tĭk.
Arctiidæ, ărk-te'i-de.
Arctostaphylos, ărk-to-stăf'-e-lŏs.
Arcturus, ărk-tu'rŭs.
Ardagh, ăr-dah'.
Ardbear, ărd-bār'.
Ardbraccan, -brăk'kăn.
Ardcavan, -kăv'an.
Ardebyl, ăr-da-bĕl'.
Ardêche, ăr-dāsh'.
Ardee, ăr-dē'.
Ardeidæ, ăr-de'e-de.
Ardeniæ, ăr-de'ne-e.

Ardelan, ăr'de-lăn.
Ardfert, ărd'fûrt.
Ardnageehy, ărd-nah-ge'he.
Ardnaglass, ărd-nah-glăs'.
Ardnamurchan, ărd-nah-mûr'kăn.
Ardoch, ăr'dŏk.
Ardoye, ăr-doi'.
Ardpatrick, ărd-păt'rĭk.
Ardree, ăr-drē'.
Ardres, ărd'r.
Ardrossan, ăr-drŏs'săn.
Ardsallagh, ărd-săl'lah.
Ardskeagh, ărd-ska'.
Are, (*Fr.*) ahr.
Area, a're-ah.
Areca, ah-re'kah.
Arecife, ah-ra-se'fa.
Arenaceous, ăr-e-na'shŭs.
Arenaria, ăr-e-na're-ah.
Arendal, ah'rän-dahl.
Arenis de Mar, ah-ra'nēs da
Arenose, ăr'e-nōz. [mahr'.
Arensburg, ah'ranz-boorg.
Areola, a-re'o-lah.
Areometer, a-re-ŏm'e-tûr.
Areopagus, ăr-e-ŏp'a-gŭs.
Arequipa, ah-ra-ke'pah.
Aretæus, a-re-te'ŭs.
Arethusa, ăr-e-thu'zah.
Aretin, ah-ra-tēn'.
Aretino, ah-ra-te'no.
Arevalo, ah-ra-vah'lo.
Arezzo, ah-rĕt'so.
Artvedsonite, ahrf'vād-sŏn-īt.
Argæus, ăr-ge'ŭs.
Argal, ăr'găl.
Argali, ăr'ga-li.
Argand, ăr-gŏu'.
Arganu, ăr'gŏm.
Argelander, ăr-ga-lahn'dûr.
Argemone, ăr-jĕm'o-ne.
Argens, ăr-zhŏn'.
Argenson, ăr-zhŏn-sŏn'.
Argent, ar'jĕnt.
Argenta, ăr-zhän'tah.
Argentan, ăr-zhŏn-tŏn(g)'.
Argentane, ăr'jĕn-tāu. [ŭm.
Argentarium, ăr-jĕn-ta're-
Argentenil, ăr-zhan-tool'.
Argentine, ar'jĕn-tīn.
Argentite, ăr'jĕn-tīt.
Argenton-sur-Crense, ăr'-zhŏn-tŏn(g)-soor-krooz'. [de'i.
Argentum Dei, ar-jĕn'tŭm
Argentvive, ăr-zhŏn'vēv.
Argile, ăr'geel.
Argo, ăr'go.
Argolis, ăr'go-lĭs.
Argonaut, ăr'go-nawt.
Argos, ăr'gŏs.
Argostoli, ăr-gŏs'to-le.
Argosy, ăr'go-se.
Argot, ăr'go.
Argnelles, ăr-gwăl'yăs.
Arguin, ahr'gwin.
Argyle *and* **Argyll,** ăr-gīl'.
Argyro-Castro, ăr'ghe-ro-kăs'-
Aria, ah're-ah. [tro.
Ariadne, a-re-ăd'ne.
Ariano, ah-re-ah'no.
Arians, a're-ănz.
Arica, ah-re'kah.
Arichat, ah-re-shaht'.
Aricine, ăr'e-sin.
Ariege, ah-re-ăzh'.
Ariel, a're-ĕl.
Aries, a're-ēz.
Arietta, ah-re-ĕt'tah.
Aril, ăr'il.
Arimanes, a-rĭm'a-nēz.
Arinos, ah-re'nōs.
Arion, a'ri-ŏn.
Arioso, ah-re-o'zo.
Ariosto, ah-re-ŏs'to.
Arise, a-rīz'.
Arispe, ah-rēs'pa.
Arista, ah-rēs'tah.
Aristæus, ăr-is-te'ŭs.
Aristarchus, ăr-is-tăr'kŭs.
Aristate, a-rĭs'tāt.
Aristides, ăr-is-ti'dēz.
Aristippus, ăr-is-tip'pŭs.
Aristobulus, a-ris-to-bu'lŭs.
Aristocracy, ăr-is-tŏk'ra-se.
Aristogiton, ăr-is-to-ji'tŏn.
Aristolochia, ăr-is-to-lo'ke-ah
Aristophanes, ăr-is-tŏf'ah-
Aristotle, ăr-is-tŏt'l. [nēz.
Arithmetic, a-rith'me-tĭk.
Arius, a're-ŭs.
Arizona, ăr-e-zo'nah.
Arkadelphia, ărk-a-dĕl'fe-ah.
Arkansas, ăr-kăn'săs.
Arksutite, ărk'su-tīt.
Arkwright, ărk'rīt.
Arles, ărlz.
Arlington, ăr'lĭng-tŭn.
Arlon, ăr-lŏn(g)'.
Armada, ăr-ma'dah.
Armadillo, ăr-ma-dĭl'lo.
Armagh, ăr-mah'.
Armagnac, ăr-măn-yăk'.
Armature, ărm'a-tûr.
Armeolola, ărm-ko-lo'lah.
Armenia, ăr-me'ne-ah.
Armentières, ăr-mŏn(g)-te-ăr'
Armeria, ăr-me're-ah.
Armet, ăr'ma.
Armiger, ăr'me-jûr.
Armilla, ăr-mil'lah.
Armillary, ăr-mĭl'la-re.
Arminianism, ăr-mĭn'yăn-
Arminius, ăr-mĭn'e-ŭs. [izm.
Armistice, ăr'mis-tis.
Armoire, ăr-mwaw'.
Armorica, ăr-mŏr'e-kah.
Armory, ăr'mo-re.
Armoy, ăr-moi'.
Armstrong, ărm'strŏng.
Army, ăr'me.
Arnauld, ăr-no'.
Arnauts, ahr-nowts'.
Arnay-le-Duc, ăr-na-la-dook'.
Arndt, ahrnt.
Arne, ahrn.
Arnee, ăr-ne'.
Arnheim *and* **Arnhem,** ărn-
Arnica, ăr'ne-kah. [hĭm'.
Arnicine, ăr'ne-sin.
Arnim, ăr'nĭm.
Arnis, ăr'nĭs.
Arno, ăr'no.
Arnold, ăr'nolt.
Arnolfi, ăr-nŏl'fe.
Arnott, ăr'nŏt.
Arnould, ăr-noo'.
Arnsberg, arnz'bărg.
Arnstadt, ărn'stăt.
Aruswalde, arnz-vaul'da.
Arnulf, ăr'nŭlf.
Arokszallas, ah-rŏk-sahl'lăsn.
Arolsen, ah'rŏl-sän.
Aroma, a-ro'mah.
Aronia, a-ro'ne-ah.
Arpad, ăr'pahd.
Arpeggio, ăr-pĕd'jo.
Arpent, ăr'pĕnt.
Arpino, ăr-pe'no.
Arqua, ăr-kwah'.
Arquebuse, ăr'kwe-bŭs.
Arquerite, ăr'kwe-rīt.
Arques, ahrk.
Arrack, ăr'răk.
Arrah, ăr-rah'.
Arraignment, ăr-rān'mĕnt.
Arran, ăr'răn.
Arrannore, ăr-răn-mōr'.
Arras, ăr-rahs'.
Array, ăr-ra'.
Arreboe, ăr'ra-bo-a.
Arrêt, ăr-rā'.
Arrhidæus, ăr-re-de'ŭs.
Arrhythmy, ăr'rĭth-me.
Arria, ăr're-ah.
Arrianus, ăr-re-a'nŭs.
Arriaza, ăr-re-ah'thah.
Arrière, ăr-re-ăr'.
Arris, ăr'rĭs.
Arroba, ăr-ro'bah. [dēs-mŏn(g)'.
Arrondissement, ăr-rŏn(g)-
Arroquhar, ăr'ro-kwăr.
Arrow, ăr'ro.
Arroyo, ăr-roi'yo.
Arru, ăr-roo'.
Arsaces, ăr-sa'sēz.
Arsacides, ăr-săs'e-dēz.
Arsenic, ăr'se-nĭk. [sĭd'ŭr-īt.
Arsenlosiderite, ăr-se-ne-o-
Arsenolite, ăr-sēn'o-līt.
Arsenopyrite, ăr-sēn-o-pe-
Arsinöe, ăr-sīn'o-e. [ri'te.
Arson, ăr'sŭn.
Arta, ăr'tah.
Artabanus, ăr-ta-ba'nŭs.
Artasires, ăr-tah-si'rēz.
Artata, ăr-tah'tah.
Artavasdes, ăr-tah-văs'dēz.
Artaxerxes, ăr-tăks-ŭrks'ēz.
Artemis, ăr'te-mĭs.
Artemisia, ăr-te-mish'ya.
Arteriotomy, ăr-te-re-ŏt'o-me
Artery, ăr'tŭr-e.
Artesian, ăr-te'zhăn.
Artevelde, ăr-ta-vĕl'da.
Arthritis, ăr-thrī'tĭs.
Arthrodia, ăr-thro'de-ah.
Arthrodynia, ăr-thro-dĭn'e-
Arthur, ăr'thŭr. [ah.
Artichoke, ăr'te-chōk.
Article, ăr'te-kl.
Articulata, ăr-tĭk-u-la'tah.
Artifice, ăr'te-fīs.
Artillery, ăr-tĭl'lĕr-e.
Artisan, ăr'te-zăn. [se-e.
Artocarpaceæ, ăr-to-kăr-pa'-
Artocarpus, ăr-to-kăr'pŭs.
Artois, ăr-twaw'.
Artvin, ărt'vĭn.
Arn, ah-roo'.
Arum, a'rŭm.
Arundel, ăr'ŭn-dĕl.
Arundo, a-rŭn'do.
Arura, a-roo'ra.
Aruspice, ăr'ŭs-pĭs.
Arve, ahrv.
Aryan, a're-ăn.
Arytenoid, a-rĭt'e-noid.
Arzamas, ăr-za'măs.
Arzano, ăr-zah'no.
Arzignano, ăr-zĭn-yah'no.
As, ăs.
Asa, a'sah.
Asafœtida, a-sah-fĕt'e-dah.
Asaph, ăs'ăf.
Asaphus, ăs'a-fŭs.
Asarabacca, ăs-a-ra-băk'kah.
Asarin, ăs'a-rĭn.
Asarite, ăs'ăr-īt.
Asarum, ăs'a-rŭm.
Asben, ăs'bān.
Asbestos, ăs-bĕs'tŏs.
Asboline, ăs'bo-lĭn.
Asbury, ăs'bŭr-e.
Ascalon, ăs'ka-lŏn.
Ascanius, ăs-ka'ne-ŭs.
Ascaris, ăs'ka-rĭs.
Ascension, ăs-sĕn'shŭn.
Asceticism, ăs-sĕt'e-sizm.
Asch, ahsh. [boorg.
Aschaffenburg, ăsh-ăf'făn-
Aschersleben, ăsh-ărz-la'bān
Asci, ăs'se.
Ascians, ăsh'yănz.
Ascidiæ, ăs-sid'e-e.
Ascidium, ăs-sid'yŭm.
Ascites, ăs-sī'tēz.
Asclepias, ăs-kle'pe-ăs.
Ascoli, ăs'ko-le. [no.
— di Satriano, -de sah-tre-ah'-
Ascomycetes, ăs-ko-mīs'e-tēz
Aseription, ăs-krĭp'shŭn.
Ascyrum, ăs'se-rŭm.
Asdoud, ăs-dood'.
Aselli, ah-săl'le.
Aseneth, ăs'e-năth.
Asexual, a-sĕks'u-ăl.
Ashango, ăsh-ăng'go.
Ashantee, ăsh-ăn-tē'.
Ashbourne, ăsh'bûrn.
Ashburnham, ăsh'bŭrn-ăm.
Ashburton, ăsh'bŭr-tŏn.
Ashby, ăsh'be.
Ashe, ăsh.
Ashira, ah-shi'rah.
Ashkenaz, ăsh'ke-năz.
Ashlar, ăsh'lăr.
Ashley, ăsh'le.
Ashnole, ăsh'mōl.
Ashrnff, ăsh'roof.
Ashtabula, ăsh-ta-bu'lah.
Ashtaroth, ăsh'ta-rŏth.
Ashton, ăsh'tŭn.
Asia, a'zhah.
Asiago, ah-se'ah-go.
Asiarch, a'zhe-ărk.
Asilidæ, a-sĭl'e-de.
Asilus, a-sī'lŭs.
Asinelli, ah-se-nĕl'le
Asinine, ăs'e-nĭn.
Asitia, a-sĭsh'yah.
Asius, a'se-ŭs.
Askew, ăs'kū.
Askoe, ăsk'o-a.
Aslan, ăs'lăn.
Asmannshausen, ăs-mănz-how'z'n.
Asmodeus, ăs-mo'de-ŭs.
Asnières, ăs-ne-ăr'.
Asodes, a-so'dēz.
Asola, ah-so'lah.
Asomatous, a-sŏm'a-tŭs. [mŏs.
Aspalasomos, ăs-pah-la'so-
Aspalathus, ăs-păl'a-thŭs.
Asparagine, ăs-păr'a-jĭn.
Asparagus, ăs-păr'a-gŭs.
Aspartates, ăs-păr'ta-tēz.
Aspasia, ăs-pa'zhah.
Aspe, ăs'pa.
Aspen, ăs'pĕn.
Aspergillus, ăs-pĕr-jĭl'lŭs.
Asperity, ăs-pĕr'e-te.
Asperu, ăs'pārn.
Aspersion, ăs-pûr'shŭn.
Aspetti, ăs-pĕt'te.
Asphalt, ăs'fălt.
Asphodel, ăs'fo-dĕl.
Asphyxia, ăs-fĭks'e-ah.
Aspidium, ăs-pĭd'e-ŭm.
Aspidura, ăs-pe-du'rah.
Aspinwall, ăs'pĭn-wawl.
Aspirant, ăs'pe-rănt.
Aspleninm, ăs-ple'ne-ŭm.
Asportation, ăs-pōr-ta'shŭn.
Aspropotamo, ăs-pro-pŏt'ah-
Asquint, a-skwĭnt'. [mo.
Assaeou, ăs'sa-kŏn.
Assafadi, ăs-sah-fah'de.
Assagai, ăs'sa-ga.
Assal, ăs-sa'e. [mŏn(g).
Assainissement, ăs-săn-ēs'-
Assam, ăs'săm.
As-Samaani, ăs-sah-mah'ne.
Assanar, ăs-sah-măr'.
Assas, ăs-săs'.
Assassins, ăs-săs'sĭnz.
Assaye, ăs-sai'.
Assche, ăs'ka.
Asseerghur, ăs'seer-goor.
Assenede, ăs-sĕn'a-da.
Assens, ăs'sănz.
Asseola, ăs-sa-o'lah.
Assertion, ăs-sûr'shŭn.
Assessor, ăs-sĕs'sŏr.
Assets, ăs'sĕtz.
Asshur, ăsh'ûr.
Assideans, ăs-sĭd'e-ănz.
Assiento, ăs-se-ăn'to.
Assign, ăs-sīn'.
Assignat, ăs'ĭn-yah.
Assiguec, ăs-se-ne'.
Assinego, ăs-se-na'go.
Assiniboine, ăs-sĭn'e-boin.
Assinie, ăs-se-ne'.
Assisi, ăs-se'se.
Assize, ăs-sīz'.
Association, ăs-so-she-a'shŭn.
Assonan, ăs-soo'wăn.
Assnagement, ăs-swāj'mĕnt.
Assnetude, ăs'swe-tūd.
Assumpsit, ăs-sŭm'sĭt.
Assumption, ăs-sŭm'shŭn.
Assurance, ăs-shoor'ănz.
Assus, ăs'sŭs.
Assyut, ăs'sĭnt.
Assyria, ăs-sĭr'e-ah.
Astacolite, ăs-tăk'o-līt.
Astacus, ăs'ta-kŭs.
Astarte, ăs-tăr'te.
Astasiæa, ăs-ta'zhe-ah.
Asteism, ăs'te-izm.
Asterabad, ăs-tĕr-a-băd'.
Asteraceæ, ăs-tĕr-a'se-e.
Asteriadæ, ăs-te-rī'a-de.
Asterisk, ăs'tĕr-isk.
Asterism, ăs'tĕr-izm.
Astern, a-stûrn'.
Asteroid, ăs'tĕr-oid.
Asteroideæ, ăs-tĕr-oid'e-e.
Asterophyllite, ăs-tĕr-ŏf'-
Asthenia, ăs-the'ne-ah. [fĭl-īt.
Asthma, ăs'mah.
Asti, ăs'te. [tĭzm.
Astigmatism, ăs-tĭg'mah-
Aston, ăs'tŭn.
Astor, ăs'tŏr.
Astorga, ăs-tŏr'gah.
Astoria, ăs-to're-ah.
Astrabad, ăs-trah-băd'.
Astracamite, ăs'trah-kah-mīt
Astracan, ăs-trah-kăhn'.
Astræa, ăs-tre'ah.
Astragal, ăs'tra-găl.
Astragalus, ăs-tra-ga'lŭs.
Astrakhan, ăs-trah-kăhn'.
Astralite, ăs'trăl-īt.
Astriction, ăs-trĭk'shŭn.
Astringency, ăs-trĭn'jĕn-s
Astrognosy, ăs-trŏg'no-se.
Astroides, ăs-tro'e-dēz.
Astroite, ăs'tro-īt.
Astrolabe, ăs'tro-lāb.
Astrology, ăs-trŏl'o-je.
Astrometer, ăs-trŏm'e-tûr.
Astroscope, ăs'tro-skōp.
Astur, ăs-toor'.
Asturias, ăs-too're-ăs.
Astyages, ăs-ti'ah-jēz.
Asylum, a-sī'lŭm.
Asymptote, ăs'ĭm-tōt.
Asyndeton, a-sĭn'de-tŏn.
Atabal, ăt'ah-băl.
Atabapo, ăt-ah-bah'po.
Atacama, ăt-ah-kah'mah.
Atacamite, ah-tăk'ah-mīt.
Atahualpa, ah-tah-hwawl'pah
Atalanta, ăt-a-lăn'tah.
Atalaya, ăt-ah-la'yah.
Ataraipu, ăt-ah-ri-poo'.
Atascosa, ăt-ăs-ko'sah.
Ataui, ah-too'we.
Ataxia, a-tăks'e-ah.
Atbara, ăt-bār'ah. [yah.
Atchafalaya, ăch-ah-fah-la'-
Atchar, ăch'ahr.
Atche, ăch'e.
Atchison, ăch'e-sŭn.
Atco, ăt'ko.
Ate, a'te.
Atelene, ăt'e-lēn.
Ateles, ăt'e-lēz.
Atelier, ăt-le-a'.
Atelo, a-te'lo.
A tempo, ah tăm'po.
— giusto, -joos'to.
Ateshga, a-tĕsh'gah.
Atessa, ah-tăs'sah.
Atenchns, a-tū'kŭs.
Atfich, ăt-fe'.
Ath, aht.
Atha, ăth'ah.
Athabaska, ăth-a-băs'kah.
Athaliah, ăth-ah-lī'ah.
Athamantine, ăth-a-măn'tĭn.
Athanasia, ăth-ah-na'zhah.
Athanasius, ăth-ah-na'zhŭs.
Athanor, ăth'a-nŏr.
Athar, ăt'tahr.
Atheism, a'the-ĭzm.
Athel, ăth'l.
Athelney, ăth'l-ne.
Athelstan, ăth'l-stăn.
Athenæum, ăth-e-ne'ŭm.
Atheuagoras, ăth-e-năg'o-răs
Athenais, ăth-e-na'ĭs.
Athenodorus, a-thĕn-o-do'rŭs
Athenry, ăth-ĕn-re'.
Atheus, ăth'ĕnz.
Atherina, a-thŭr-i'nah.
Athermanous, a-thŭr'ma-nŭs
Atheropogon a-thŭr-ŏp'o-gŏn
Atherstone, ăth'ŭr-stŏn.
Atherton, ăth'ŭr-tŭn.
Athis, a'thĭs.
Athlete, ăth'lēt.
Athleticism, ăth-lĕt'e-sizm.
Athlone, ăth-lōn'.
Athol, ah'thŏl.
Athos, ăth'ŏs.
Athwart, a-thwŏrt'.
Athy, ăth'ī.
Athynia, a-thĭn'yah.
Atia, a'she-ah.
Atibaia, ăt-e-ba'yah.
Atina, ah-te'nah.
Atitlan, ăh-te-tlahn'.
Atkinson, ăt'kĭn-sŭn.
Atlanta, ăt-lăn'tah.
Atlantes, ăt-lăn'tēz.
Atlantic, ăt-lăn'tĭk.
Atlantides, ăt-lăn'ti-dēz.
Atlas, ăt'lăs.
Atlixco, ăt-leks'ko.
Atmidoscope, ăt-mĭd'o-skōp.
Atmosphere, ăt'mo-sfēr.
Atoka, ah-to'kah.
Atoll, ah-tŏl'.
Atolmia, a-tŏl'me-ah.
Atolph, ăt'ŏlf.
Atom, ăt'ŏm. [iks.
Atomechanics, ăt-o-me-kăn'-
Atomism, ăt'om-izm.
Atondo y Antillon, ah-tŏn'-
Atone, a-tōn'. [do e ăn-tēl'yŏn.
Atony, ăt'o-ne.
Atooi, ah-too-we'.
Atossa, a-tŏs'sah.
Atonquia, a-tŏn'ke-ah.
Atragene, ăt'ra-jēn.
Atramentum, ăt-ra-mĕn'tŭm
Atrani, ah-trah'ne.
Atrato, ah-trah'to.
Atrens, a'tre-ŭs.
Atri, ah'tre.
Atridæ, ăt're-de.
Atripalda, ăt-re-păl'dah.
Atriplex, a-trĭp'lĕks.
Atrium, a'tre-ŭm.
Atrocity, a-trŏs'i-te.
Atropa, ăt'ro-pah.
Atrophy, ăt'ro-fe.
Atropine, ăt'ro-pĭn.
Atropos, a'tro-pŏs.
Atrypa, ăt're-pah.
Atta, ăt'tah.
Attaeca, ăt-tăk'kah.
Attainture, ăt-tānt'yoor.
Attakapas, ăt-tăk'ah-păs.
Attakembo, ăt-tah-kĕm'bo.
Attala, ăt'ta-lah.
Attalea, ăt-ta-le'ah.
Attalus, ăt'ta-lŭs.
Attam, ăt-tăm'.
Attelabidæ, ăt-te-lăb'e-de.
Attempt, ăt-tĕmt'.
Attentates, ăt-tĕu'tăts.
Attention, ăt-tĕn'shŭn.
Atterbury, ăt'tĕr-bŭr-e.
Attermoiement, ăt-tĕr-moi'-
Attersee, ăt-tur-se'. [e-mĕnt.
Attica, ăt'te-kah.
Atticism, ăt'te-sizm.
Attiens, ăt'te-kŭs.
Attila, ăt'te-lah. [z'n.
Attinghausen, ăt-tĕng-how'-
Attitude, ăt'te-tūd.
Attleborough, ăt'tl-bŭr-ro.
Attock, ăt'tŏk.
Attoor, ăt-toor'.
Attorney, ăt-tûr'ne.
Attraction, ăt-trăk'shŭn
Attri, ăt-tre'.
Attrition, ăt-trĭsh'ŭn.
Attwood, at'wŭd.
Atures, ah-too'răz.
Atypic, a-tĭp'ĭk.
Au, ow.
Aubagne, o-băn'.
Aubaine, o-bān'.
Auban, o'băn.
Aube, ōb.
Aubenas, ōb-na'.
Aubepine, o-ba-pahn'.
Auber, o-bār'.
Auberge, o-bărj'. [ba'ya.
Aubert du Bayet, ō-bār doo
Aubervilliers, o-bār-ve'yār.
Au besoin, o ba-swah'.
Aubeterre, ōb-tār'.
Aublere, o-be-ai'.
Aubigné, bān-ya'.
Aubigny, bān-ye'.
Aubin, o-băn'.
— du Cormier, -doo kŏr-me-a'.
Aubonne, o-bŏn'.
Aubrey, aw'bre.
Aubrietia, aw-bre'shah.
Aubriot, o-bre'o.
Aubry, o-bre'.
Auburu, aw'bŭrn.
Aubusson, boo-tŏn(g)'.
Auch, ōsh.
Auchmuty, ah'moo-te.
Auckland, awk'lănd.
Auction, awk'shŭn.
Aucuba, aw'kn-bah.
Audacity, aw-dăs'i-te.
Audæus, aw-de'ŭs.
Aude, ōd.
Audenarde, o-dăn-ărd'.
Audians, aw-de'ănz.

Audience, aw'de-ĕns.
Audita querela, aw'de-tah kwe-re'lah.
Audition, aw-dĭsh'ŭn.
Audius, aw'de-ŭs.
Audley, awd'le.
Audouin, o-doo-ăn'.
Audrain, o-drăn'.
Audubon, o'doo-bŏn(g). [gär.
Augenbrugger, ŏw'ĕn-broog-
Auerbach, ŏw'ĕr-bäk.
Auerstadt, ŏw'er-staht.
Au fait, o fa'.
Auge, o-zha'.
Augeas, aw-je'ăs.
Augelite, aw'je-līt.
Auger, aw'gĕr.
Augereau, ōzh-ro.
Anget, o-zha'.
Augeon, awg-goon'.
Aughrim, aw-grĭm'.
Aught, awt.
Aughun, aw'goon.
Augier, o-zhe-a'.
Augila, aw-ji'lah.
Augite, aw'jīt.
Auglaize, aw-glāz'.
Au Gres, o gra'.
Augsburg, ŏwgz'boorg.
Augur, aw'gŭr.
Augusta, aw-gŭs'tah. [boorg.
Augusteuborg, ow-goos'tăn-
Augustine, au-gŭs'tĭn.
Augustowo, ow-goos-to'vo.
Augustus, aw-gŭs'tŭs.
Auk, awk.
Aula Regia, aw'lah re'je-ah.
Aularian, aw-la're-ăn.
Auldearn, awld'ŭrn.
Auletta, aw-lĕt'tah.
Aulic, aw'lĭk.
Aulich, ow'lik.
Aulis, aw'lĭs.
Aullagas, owl-yah'găs.
Aulne, ōn.
Aulostoma, aw-lŏs'to-mah.
Aulus Gellius, aw'lŭs jĕl'le-ŭs
Aumâle, o-mahl'.
Aumé, o-ma'.
Aumont, o-mŏn(g)'.
Anuis, o-ne'.
Annoy, o-nwaw'.
Aunt, ănt.
Auraria, aw-ra're-ah.
Auray, o-rai'.
Aurelius, aw-re'le-ŭs.
Aureola, aw-re'o-lah.
Aureus, aw're-ŭs.
Aurich, ŏw'rĭk.
Auricle, aw're-kl.
Auricula, aw-rĭk'u-lah.
Auriferous, aw-rĭf'ĕr-ŭs.
Aurigæ, aw-ri'gah.
Aurigny, o-rēn-ye'.
Aurillac, o-re-yäk'.
Auriol, o're-ŏl.
Auriphrygiate, aw-re-frĭj'-e-āt.
Auriscope, aw're-skōp.
Aurocephalous, aw-ro-sĕf'a-
Aurochs, aw'rŏks. [lŭs.
Aurora, aw-ro'rah.
Aurungzebe, o-rŭng-zăb'.
Au Sable, o sah'bl.
Ausonius, aw-so'ne-ŭs.
Auspice, aws'pis.
Aussa, ows'sab.
Austerlitz, ŏws'tŭr-lĭts.
Austin, aws'tĭn.
Australasia, aws-trăl-a'zhah.
Australia, aws-tra'le-ah.
Austria, aws'tre-ah.
Autanga, aw-taw'gah.
Auteuil, o-twĕl'. [te.
Authenticity, aw-thĕn-tĭs'e-
Autobiography, aw-to-bi-ŏg'ra-fe.
Autochthon, aw-tŏk'thŏn.
Autocracy, aw-tŏk'ra-se.
Auto da Fé, aw-to dah fa.
Autograph, aw'to-grăf.
Autolycus, aw-tŏl'e-kŭs.
Automaton, aw-tŏm'a-tun.
Autophoby, aw-tŏf'o-bo.
Autopsy, aw'tŏp-se. [ah-ke'.
Autrefois-acquit, o'tr-fwaw-
Autumn, aw'tŭm.
Autun, o-toon'.
Auvergne, o-vărn'.
Aux-Cayes, o-ka'.
Auxerre, o-sär'.
Auxiliary, awg-zĭl'ya-re.
Auxonne, ok-sŏn'.
Ava, ah'vah.
Avaiauche, äv'a-länsh.
Avalos, ah'vah-lŏs
Avant, ah-vŏn(g)'.
Avares, a-va'rĕz.
Avarice, ăv'ăr-ĭs.
Avaric, ăv'ab-re.
Avatar, äv-a-tabr'.
Avatcha, ab-vät'chah.
Aveiro, ab-vī'ro.
Avelliuo, ab-vĕl-ye'no.
Ave Maria, ab've ma-ri'ah.
Avena, a-ve'nah.
Avenches, ah-väush'.
Avenor, ăv'e-nŏr.
Aventaille, äv'ĕn-tāl.
Aventine, ah'vĕn-tīn.
Avenue, ăv'e-nū.
Avenzoar, ăv-ăn-zo'ăr.
Average, ăv'ŭr-āj.
Averno, a-vair'no.
Averrhoes, ah-vĕr'ro-ĕz.
Averruncator, ăv-ĕr-rŭng'-
Aversa, ah-vĕr'sab. [ka-tŏr.
Aversion, a-vŭr'shŭn.
Avery, a'vŭr-e.
Avesnes, ah-vān'.
Avestad, ah-vĕs-tahd'.
Aveyron, ah-va-ron(g)'.
Avezzano, ab-vĕt-sah'no.
Aviano, ab-ve-ah'uo.
Aviary, a've-a-re.
Avicenna, ăv-e-sĕn'nah.
Avicularia, a-vĭk-u-la're-ah.
Avigliano, ah-vēl-yah'no.
Avignon, ah-vēn-yŏn(g)'.
Avila, ah-ve'lah.
Avis, a'vĭs *or* ah'vĭs.
Avitus, a-vī'tŭs.
Aviz, ah-vēz'.
Avlona, äv-lo'nah.
Avoca, a-vo'kab.
Avocat, ăv-o-kab'.
Avoirdupois, ăv-ŭr-doo-poiz'. *Fr.* av-wawr-doo-pwaw'.
Avou, a'vŏn.
Avoset, ăv-o-sĕt'.
Avoyelles, ăv-oi-ĕlz'.
Avrauches, ăv-rŏnsb'.
Avulsion, a-vŭl'shŭn.
Awesome, aw'sŭm.
Awry, a-rī'.
Axelson, ăk'sāl-sŏn.
Axholme, ăks'ŏm.
Axiom, ăks'e-ŭm.
Axle, ăks'l.
Axum, ăk-soom'.
Aye-Aye, ai'ai.
Ayacucho, ī-ab-koo'cho.
Ayamonte, ī-ah-mŏn'ta.
Ayant Cause, ī-yŏn(g) ko-za'.
Ayesha, ī'a-shab.
Aylmer, āl'mŭr.
Aymon, ī-mŏn'.
Ayoias, ah-yo'lās.
Ayotla, ī-ōt'lah.
Ayr, air.
Ayrao, i-ra'yo.
Aysene, ās'kū.
Aythya, āth'yah.
Aytoun, a'toon.
Ayuntamiento, ah-yoon-tah-me-ān'to.
Azalea, a-za'le-ah.
Azara, ab-thab'rah.
Azcoitia, ăth-koi'sbe-ah.
Azeglio, ăd-zāl'yo.
Azerbijan, ăz-ŭr-be-jahn'.
Azevedo, ah-za-va'do.
Azimuth, ăz'i-mŭth.
Azof, ăz'ŏv.
Azoic, a-zo'ĭk. [me-ah.
Azoodynamia, a-zoo-de-na'-
Azores, ăz-ōrz'.
Azote, a-zōt'.
Azotea, ah-zo-te'ah.
Azpeytia, ăz-pa'sbe-ah.
Azrael, ăz'rāl.
Aztecs, ăz'tĕks.
Azure, a'zboor.
Azygos, ăz'e-gŭs.
Azzano, ăt-sah'no.

B.

Baagoe, bo'go-a.
Baal, ba'al.
Baasha, ba'a-shah.
Baba, bah'bah.
Babahoyo, bä'bah-o'yo.
Babbage, băb'bāj.
Babeuf, bah-bŭf'.
Babiana, băb-e-a'nah.
Babillement, bah-be-ye-
Babine, bab-bēn'. mŏn(g)'.
Bâbism, bahb'ĭzm.
Baboon, băb-oon'.
Babuyanes, bab-boo-yab'nēz.
Babylonia, băb-e-lo'ne-ah.
Baby roussa, băb-e-roos'sah.
Bacalhao, bäk-ăl-ah'e-o. [re-ät.
Baccalaureate, băk-ka-law'-
Baccarat, bäk-kah-rah'.
Bacchanal, bäk'ka-năl.
Bacchantes, bäk-kăn'tēz.
Bacchiglione, bäk-kēl-yo'na.
Bacchius, bäk'ke-ŭs.
Baccinides, bäk-kĭ'dēz.
Bacchus, bäk'kŭs.
Bacciferous, bäk-sĭf'ŭr-ŭs.
Baccio della Porta, bät'cho dĕl'la pōr'tah.
Bacciochi, bät-cho'ke.
Bach, babk.
Bacharach, bahk'ah-räk.
Bachaumont, bab-sho-
Bache, bāch. [mŏn(g)'.
Bachelor, băcb'e-lŏr.
Backergnuge, bäk-är-goon'je
Backshish, bäk'shēsh.
Bacolor, bäk-o-lōr'.
Bacon, ba'kŭn. [dro-gär.
Bacs-Badrogher, bäch-bo'-
Baetriana, bäk-tre-a'nah.
Baeule, bäk'yool.
Badagry, bab-dăg'ro.
Badajos, bäd-ah-hōs'.
Badakshau, bab-dawk-shahn'
Badalocchio bab-dab-lŏk'ke-o
Badaloua, bäd-ah-lo'nah.
Badamny, bäd-o-mee'.
Baden, bab'd'n.
Badger, bäj'ŭr.
Badiaga, bäd-e-ah'gah.
Badigeon, ba-dij'ŭn.
Badinage, bäd'ĭn-ahzh.
Badiolato, bäd-o-lah'to.
Bæhr, bahr.
Baeua, bah-a'nah.
Baepeudi, bah-a-pān'de.
Baer, bär.
Baeza, bah-a'thah.
Baffin, bäf'fĭn.
Bagatelle, bäg-a-tĕl'.
Bagaudæ, ba-gän'de.
Bagdad, bäg'dăd.
Baggala, bäg'gah-lah.
Baggesen, bahg'ga-sĕn.
Bagnara, bän-yah'rah.
Bagnères, bän-yär'.
Bagnio, bän'yo. [shänz.
Bagnoleusians, bän-yo-lĕn'-
Bagnoli, bän-yo'lo.
Bagnols, bän-yōl'.
Bagration, bah-grah-te-ōn'.
Baguette, ba-gĕt'.
Bagulcot, bäg-ool-kŏt'.
Bagur, ba-goor'.
Bahamas, bah-a'măz.
Bahar, ba-hahr'.
Bahawulpoor, bhawl-poor'.
Bahia, bab-e'ah.
Bahrein, bah-rān'.
Baiæ, bī'e.
Baikai, bī'kahl.
Bailey, ba'le.
Bailleul, bah-yoo'.
Baillie, ba'le.
Baillou, bah-yŏn(g)'.
Bailly, bah-ye'.
Bain-Marie, bān-mah-re'.
Bairam, bī'răm.
Baird, bārd.
Baireuth, bī'roit.
Baitool, bī-tool'.
Baja, bob'yoh.
Bajadia, bah-ah'dah.
Bajazet, bah-yab-zĕd'.
Bajocco, ba-yŏk'ko.
Bajour, bab-zhoor'.
Bakhuysen, bäk-hoi'zān.
Bakony, bah-ko'ne.
Bakou, bab-koo'.
Baktchiseral, bäk-she-sa-ra'.
Bala, bāl'ah.
Balaam, ba'lăm.
Balachna, ba-läk'nah.
Balænidæ, ba-lĕn'e-de.
Balaghaut, bäl-ah-gŏt'.
Balaguer, bah-lah-gär'.
Balak, ba'lak.
Balaklava, bäl-a-klah'vah.
Baiauinus, bāl-a-ni'nŭs.
Balauites, ba'lăn-īts.
Balauophoraceæ, ba-lăn-o-
Balanus, bāl'a-nŭs. [fo-ra'se-e.
Balas, bāl'ăs.
Balassa, bŏl-ŏsh'sho.
Balaton, bah-lo-tŏn.
Balaustine, ba-lawz'tĭn.
Balbec, bahl'bĕk.
Balbi, bāl'be.
Balblnus, bāl-bi'nŭs.
Balboa, bāl'bo-ah.
Balbriggan, bāl-brĭg'găn.
Baibuties, bāl-bū'tēz.
Balcouy, bāl'ko-ue.
Bald, bawld.
Baldachin, bāl'da-kĭn.
Baldric, bawl'drĭk.
Baldwin, bawld'wĭn.
Balearic, bal-a-ăr'ĭk.
Baleen, ba-lēn'.
Balfe, bälf.
Balfour, bāl'foor.
Balfroosh, bāl-froosh'.
Bali, bah'le.
Baliol, ba'le-ŏl.
Balistidæ, ba-lĭs'te-de.
Balize, bab-lēz'.
Balk, bawk.
Balkau, bahl-kăn'.
Balkh, bahlk.
Ball, bawl.
Ballast, bāl'lăst.
Ballatoon, bāl-lah-toon'.
Ballcustadt, bāl'lān-stĕt.
Ballerina, bāl-la-re'nah.
Baliet, bāl-la'.
Ballina, bāl-e-nah'.
Ballista, bāl-lĭs'tah.
Balllum, bāl'le-ŭm.
Ballota, bal-lo'tah.
Ballotade, bāl-lo-tād'.
Ballou, bāl-loo'.
Balm, bawm.
Balme, bahlm.
Balmoral, bāl-mo'răl.
Balneum, bāl'ne-ŭm.
Balsa, bāl'sah.
Balsam, bawl'săm.
Balsamodendron, bawl-
Balta, bāl'tah. [săm-o-dĕn'dron.
Baltic, bawl'tĭk.
Baltimore, bawl'te-mōr.
Baltschik, bablt-shĕk'.
Balue, bab-loo'.
Balustrade, bāl'ŭs-trād.
Balzac, bāl-zăk'.
Balzariue, bāl'zah-rēn.
Bambalio, bām-ba'le-o.
Bambarra, bām-bār'rah.
Bambino, bām-be'no.
Bamboccio, bām-bŏt'cho.
Bamboo, bām-boo'.
Bambouk, bām-book'.
Bambusa, bām-bu'sah.
Bampoora, bām-poor'ah.
Banagher, bău'ah-ŭr.
Banana, bah-năh'nah.
Banat, bah-nät'.
Banbury, bān'bŭr-e.
Banca, bāng'kah.
Banda, bān'dah.
Bandana, bān-dăn'nah.
Bandeau, bān'do.
Bandel, bān'dāl.
Bandello, bău-dĕl'lo.
Bande-noire, bānd-nwaw'.
Bandera, bān-da'rah.
Banderole, bān'de-rōl.
Bandinelli, bān-de-nĕl'le.
Bandore, bān-dōr'.
Banewort, bān'wŭrt.
Bangalore, bāug-a-lōr'.
Banghy, bāng'ge.
Bangle, bāug'gl.
Bangkok, bān-kŏk'.
Bangor, bāng'gŭr.
Bangue, bāng.
Banian, bān'yān.
Banlas, ba'ne-as.
Banim, ba'nīm. [sĭn'.
Banjermassin, bān-yŭr-măs-
Bankrupt, bāngk'rŭpt.
Banlieue, bān-le-oo'.
Bannerol, bān'nŭr-ōl.
Banns, bānz.
Banquet, bāngk'wĕt.
Banquette, bahn-kĕt'.
Banquo, bāu'kwo.
Bantam, bān'tăm.
Bantry, bān'tre.
Banya, bān'yah.
Baobab, ba'o-bāb.
Baphia, bāf'e-ah.
Baphometus, bāf'o-me-tŭs.
Baptisia, bāp-tĭz-yah.
Baptism, bāp'tĭzm.
Barabbas, ba-răb'bās.
Baraguay d'Hilliers, bāh-rab-gā de-ye-a'.
Baraitche, bah-răch'.
Barak, ba'rak.
Baralipton, băr-a-lĭp'tŭn.
Barante, bah-rŏnt'.
Barataria, băr-a-ta're-ah.
Barbaceua, bär-bah-sa'nah.
Barbacoas, bär-bah-ko'ās.
Barbadoes, bär-ba'dōz.
Barbara, bär'bah-rah.
Barbaro, bär'bah-ro.
Barbarossa, bär-bah-rŏs'sah.
Barbaroux, bär-bab-roo'.
Barbary, bär'bŭr-e.
Barbastio, bär-bäst'yo.
Barbauldi, bär-bo'.
Barbazan, bär-bah-zŏn'.
Barbecue, bär'be-kū.
Barbe-Marbois, bärb-mahr-bwaw'.
Barbès, bär-bāz'.
Barbesieux, bär-ba-ze-oo'.
Barbette, bär-bĕt'.
Barbier, bär-be-a'.
Barbosa, bär-bo'sah.
Barbotine, bär'bo-tēn.]
Barbour, bär'boor.
Barbuda, bär-boo'dah.
Barbule, bär'bŭl.
Barcarolle, bär-kah-rōl'.
Barceloua, bär-sa-lo'nah.
Barclay, bär'kla.
Bardiesanists, bär-dēs'a-nĭsts
Bardiglione, bar-dēl-yo'ne.
Bardolph, bär'dŏlf.
Bardsey, bärd'ze.
Barèges, bah-rāzh'.
Baregine, bär'e-jĭn.
Bareilly, bar-a'le.
Barentz, bah'rĕnts.
Barfleur, bär-flŭr'.
Barga, bär'gah.
Barge, bärj.
Bari, bah're.
Barlie, bär-ēl'.
Barilla, ba-rĭl'lah.
Barfng, bā'rĭng.
Baritone, bär'e-tōn.
Barium, ba're-ŭm.
Barkal, bahr'kahl.
Barkok, bär'kŏk.
Bar-le-Duc, bär-la-dook'.
Barletta, bär-lĕt'tah.
Barley, bär'le.
Barlow, bär'lo.
Barmacide, bär'mah-sĭd.
Barmouth, bar'mŭth.
Barnabas, bär'na-bās.
Barnacle, bär'na-kl.
Barnard, bär'närd.
Barnaul, bär-nŏl'.
Baruave, bär-nahv'.
Barnegat, bär-ne-găt'.
Barnes, bärnz.
Barnevelit, bär'na-vĕlt.
Barnsley, bärnz'le.
Barnstable, bärn'sta-bl.
Baroach, bah-rŏch'.
Barocelo, bah-rōt'cho.
Barochc, bah-rōsb'.
Baroco, ba-ro'ko.
Baroda, bah-ro'dab.
Barograph, bär'o-grăf.
Baromachometer, bär-o-ma-kŏm'e-tŭr.
Barometer, ba-rŏm'e-tŭr.
Barometrograph, bär-o-mĕt'ro-grăf
Baronet, bär'ŏn-et.
Baronius, bab-ro'ne-ŭs.
Barosma, bab-rŏs'mab.
Barouche, ba-roosb'.
Barouchet, ba-roo-shĕt'.
Barozzi, bah-rŏt'se.
Barque, babrk'. [me'to.
Barquesimeto, bär-ka-se-
Barra, bär'rah.
Barracan, bär'ra-kăn.
Barracoon, bär-ra-koon'.
Barracouta, bär-ra-koo'tah.
Barraudite, bär'răn-dīt.
Barras, bah-rah'.
Barratry, bär'ra-tre.
Barré, bär-ra'.
Barreau, bär-ro'.
Barri, bar're.
Barricade, bär-re-kād'.
Barrie, bär're.
Barriugton, bär'rĭng-tŭn.
Barrot, bah-ro'.
Barrow, bär'ro.
Barry, bär'ro.
Barsabas, bär'sa-bās.
Barsac, bär'säk.
Bart, bahr.
Barteusteln, bär-tān-stīn'.
Bartfa, bärt'fo.
Barthélemy, bär-tāl-me'.
Bartholomew, bär-thŏl'o-mū
Bartin, bär'tēn.
Bartizau, bär'te-zān.
Burtlett, bärt'lĕt.
Bartoliui, bär-to-le'ne.
Bartram, bär'trăm.
Baruch, ba'rŭk.
Barvalde, bär'văl-da.
Baryta, ba-rī'tah. [sĭt.
Barytocalcite, ba-rī-to-kăl'-
Barytone, bär'e-tōn.
Barytum, ba-rī'tŭm.
Basaiti, bah-sah'e-te.
Basalt, ba-sawlt'.
Basanite, ba'săn-īt.
Bas-bleu, baw-bloo'.
Bas-chevaiier, -shĕv-ah-le-a'.
Bascinet, bās'se-nĕt.
Bascule, bas'kūl.
Baselia, ba-sĕl'lah.
Bashee, bah-she'. [zooks.
Bashi Bazouks, bāsb-e bah'-
Bashkirs, bāsb'kērz.
Basil, bāz'il.
Basiliaus, ba-zĭl'yānz.
Basilica, ba-zĭl'e-kah.
Basilicon, ba-zĭl'e-kŏn.
Basilisk, bāz'i-lĭsk.
Basilius, ba-sĭl'e-us.
Basin, ba'sn.
Basingstoke, ba'sĭng-stŏk.
Basiocestruu, ba-zho-sĕs'-
Basisolute, ba-sĭs'o-lūt. [trŭm.
Baskahegan, bās-kah-e'găn.
Basle, babl.
Basuage de Beauval, bah-nazh' da bo-vabl'.
Basque, bāsk.
Basquina, bās-ke'nah
Bass, bās *or* bās.
Bassano, bās-sah'no.

Bassein, bās-sān′.
Basseterre, bās-tār′.
Bassetto, bah-sĕt′to.
Bassl, bās′se.
Bassinet, bās′se-nĕt.
Bassompierre, bah-sŏn-
Bassoon, bās-soon′. [pe-ār′.
Bassora, bās′so-rah.
Basso-rellevo, bās′so-re-le′vo
Bassorin, bās′so-rĭn.
Basta, bās′tah.
Bastarnæ, bās-tār′ne.
Baste, bāst.
Bastia, bās-te′ah.
Bastiat, bās-te-ah′.
Bastide, bās-tēd′.
Bastille, bās-teel′.
Bastion, bāst′yŭn.
Basyle, bās′īl.
Batatas, bah-tah′tās.
Batangas, bah-tahn′gās.
Batavia, bah-ta′ve-ah.
Batavii, ba-ta′ve-i.
Batch, bāch.
Batcau, bah-to′.
Bathori, bah′to-re.
Bathos, ba′thŏs.
Bathseba, bāth-se′bah.
Bathurst, bāth′ŭrst.
Bathyllus, ba-thĭl′lŭs.
Bathymetry, ba-thĭm′e-tre.
Batindah, bah-teen′dah.
Batinsckotl, bah′tins-kŏf.
Batou, bah-tōn(g)′.
Batoum, bah-toom′.
Batrachia, ba-tra′ke-ah.
Batrachomyomachy, bāt-ra-ko-me-ŏm′a-ke.
Batshian, bāt-she-ān′.
Batta, bāt′tah.
Battalia, bāt-tāl′yah.
Battalion, bāt-tāl′yŭn.
Battaszek, bāt-tās-sĕk′.
Batten, bāt′tn.
Battersea, bāt′tŭr-se.
Battery, bāt′tĕr-e.
Batthyany, bŏt′yahn-ye.
Battue, bāt′twe.
Batture, bāt-tūr′.
Battuta, bāt-tu′tah.
Batu Khan, bah-too′ kahn′.
Batz, bahtz.
Baubee, baw-be′.
Bauble, baw′bl.
Baucis, baw′sĭs.
Baudet, bo-da′.
Baudisserie, bān-dĭs′sŭr-ĭt.
Bauer, bow′ŭr.
Bauge, bōzh.
Baugé, bo-zha′.
Bauhinia, bow-hĭn′yah.
Baulcah, baw′le-ah.
Baulite, baw′līt.
Baumgarten, bowm-gär′tăn.
Baur, bow′ŭr.
Bautain, bo-tahn′.
Bautru, bo-troo′.
Bautzen, bowt′sān.
Banxite, bawks′īt.
Bavaria, bah-va′re-ah.
Bavaroy, bāv-ah-roi′.
Baveaux, bah-vo′.
Bavin, bāv′ĭn.
Bavins, ba′ve-ŭs.
Baxter, bāks′tŭr.
Bayadere, ba-ya-dēr′.
Bayard, bah-yär′.
Bayazid, bah-yah-zēd′.
Bayeux, bah-yoo′.
Bayldonite, bāl′dŭn-īt.
Bayle, bāl.
Baylen, bī-lān′.
Bayley, ba′le.
Bayonet, ba′o-nĕt.
Bayonne, bah-yŏn′.
Bayou, bī′oo.
Bayrenth, bī′roit.
Bays, bāz.
Baza, bah′zah.
Bazaar, ba-zahr′.
Bazaine, bah-zān′.
Bazalgette, bāz′ăl-gĕt.
Bazas, bah-zah′.
Bazoche, bah-zōsh′.
Bdellium, dĕl′yŭm.
Bdellometer, dĕl-lŏm′e-tŭr.
Beach, bēch.
Beacon, be′kn.
Bead, bēd.
Beadle, be′dl.
Beagle, be′gl.
Beak, bēk.
Beale, bēl.
Beam, bēm.
Bean, bēn.
Bear, bār.
Beard, bērd.
Bearer, bār′ŭr.
Bearn, ba-ahr′.
Beasley, bēz′le [shŭn.
Beatification, be-ăt-e-fi-ka′-
Beatitude, be-ăt′i-tūd.
Beatrice, be′a-trĭs.
Beattie, bē′te.
Beau, bo.
Beaucaire, bo-kār′.
Beaufort, bo′fŏrt *or* bō′fŏr.
Beaugency, bo-zhŏn(g)-se′.
Beauharnais, bo-ahr-na′.
Beaujeu, bo-zhoo′.
Beaulieu, bō-yoo′.
Beaumarchais, bo-mahr-sha′
Beaumaris, bo-mŏr′rĭs.
Beau monde, bo-mŏnd.
Beaumont, bo-mŏnt′ or bo-
Beaune, bōn. [mŏn(g)′.
Beaupréau, bo-pra-oo′.
Beauregard, bo-ra-gär′.
Beaurepaire, bo-ra-pār′.
Beauty, bū′te.
Beauvais, bo-va′.
Beaux-esprits, bōz-ĕs-pre′.
Beaver, be′vŭr.
Bebeerine, be′bĕr-ĭn.
Becafico, bĕk-ah-fe′ko.
Becalming, be-kawm′ĭng.
Becanse, be-kawz′.
Beccaria, bĕk-kah′re-ah.
Beccles, bĕk′klz.
Becher, bĕk′ăr.
Bechstein, bĕk′stīn.
Becket, bĕk′ĕt.
Beckford, bĕk′fŭrd.
Beckley, bĕk′le.
Beckmann, bĕk′măn.
Becquerel, bĕk-rĕl′.
Bective, bĕk′tiv.
Bedaggle, be-dăg′gl.
Bedarieux, bĕd-ah-re-oo′.
Bedazzle, be-dăz′zl.
Bedel, be′dl.
Bedew, be-dū′.
Bedford, bĕd′fŭrd.
Bedight, be-dīt′.
Bedlzeu, be-dĭz′n.
Bedmar, bād-mahr′.
Bedminster, bĕd′mĭn-stŭr.
Bedouins, bed-o-wēnz′.
Bedraggle, be-drăg′gl.
Bedye, be-dī′.
Beechen, bēch′n.
Beecher, bē′chŭr.
Beechey, bē′che.
Beef-steak, -stāk.
Beelzebub, bēl′ze-bŭb.
Beerbhoom, bēr-boom′.
Beersheba, bēr-she′bah.
Bees, bēz.
Beesley, bēz′le.
Beeskow, ba′skŏv.
Beestings, bēst′ĭngz.
Beethoven, ba′to-vän.
Beetle, be′tl.
Befall, be-fawl′.
Befort, ba-fōr′.
Bega, ba′gah.
Begard, ba-gahr′.
Begem, be-jĕm′.
Beghards, ba-gärdz′.
Begharmi, ba-gahr′me.
Beglerbeg, bĕg′lŭr-bĕg.
Begnaw, be-naw′.
Begonia, be-go′ne-ah.
Begtashi, bĕg-tăsh′e.
Begniues, ba-geenz′.
Begum, be′gŭm.
Behalf, be-hahf′.
Behave, be-hāv′.
Behem, ba′hĭm.
Behemoth, be′he-mŏth.
Behenic, ba′ĕn-ĭk.
Behn, bĕn.
Behring, ba′rĭng.
Beila, bī′lab.
Beith, bēth.
Beitullah, bī-tool′lah.
Beja, ba′zhah.
Bejapoor, be-jah-poor′.
Bejar, ba-hahr′.
Bekah, be′kah.
Beke, bēk.
Belabor, be-la′bŭr.
Belcher, bĕl′chŭr.
Belchité, bĕl-che′ta.
Belcaguer, be-le′gŭr.
Belem, ha-lān(g)′.
Bel-esprit, bĕl-ĕs-pre′.
Belfast, bĕl-fāst′.
Belfort, bĕl-fōr′.
Belfry, bĕl′fre.
Belgæ, bĕl′je.
Belgaum, bĕl-gaŭm.
Belgard, bĕl-gärt.
Belglojoso, bĕl-jo-yo′so.
Belglum, bĕl′je-ŭm.
Belgrade, bĕl-grād′.
Belgravia, bĕl-gra′ve-ah.
Belial, be′le-ăl.
Belie, be-lī′.
Belief, be-lēf′.
Belinda, be-lĭn′dah.
Belisarius, bĕl-e-sa′re-ŭs.
Belize, ba-leez′.
Belknap, bĕlk′năp.
Belladonna, bĕl-lah-dŏn′nah.
Bellay, bĕl-la′.
Belle, bĕl.
— -Alliance, -ăl-le′ŏns.
—-de-nuit, -da-nwe′.
Bellcek, bĕl-lēk′.
Bellefonte, bĕl′fŏnt.
Bellegarde, bĕl-gärd′.
Bellemonte, bĕl′mŏnt.
Bellerophon, bĕl-lĕr′o-fŏn.
Belles Lettres, bĕl-lĕt′tr.
Belleville, bĕl-vĭl′.
Bellevue, bĕl-voo′.
Belley, bĕl-la′.
Bellicose, bĕl′le-kōs.
Belligerent, bĕl-lĭj′ŭr-ĕnt.
Bellini, bĕl-le′ne.
Bellona, bĕl-lo′nah.
Bellot, bĕl-lo′.
Bellows, bĕl′lōz.
Bells, bĕlz.
Bellano, bĕl-loo′no.
Belmont, bĕl-mŏnt′.
Belmonte, bĕl-mŏn′ta.
Belœil, bĕl-ēl′.
Beloit, be-loit′.
Belomancy, bĕl-o-măn′se.
Beloochee, bĕl-oo-che′. [tăn′.
Beloochistan, bĕl-oo-chĭs-
Beloptera, be-lŏp′te-rah.
Below, be-lo′.
Belper, bĕl′pŭr.
Belshazzar, bĕl-shăz′zăr.
Belsnnce, bĕl-soons′.
Beltane, bĕl′tān.
Belturbet, bĕl-tŭr′bĕt.
Beluga, be-loo′gah.
Belus, be′lŭs.
Belvedere, bĕl′ve-dēr.
Belvisiaceæ, bĕl-vĭz-e-a′se-e.
Belzoni, bĕl-zo′ne.
Bem, bĕm.
Bema, be′mah.
Bemaul, be-mawl′.
Bembecidæ, bĕm-bĕs′e-de.
Bembex, bĕm′bĕks.
Bembididæ, bĕm-bĭd′e-de.
Bembo, bĕm′bo.
Bemini, bĕm′e-ne.
Bemol, be′mŏl.
Benaiah, be-nai′yah.
Benares, bĕn-ah′rēz.
Benbow, bĕn′bo.
Bencher, bĕnch′ŭr.
Bencoolen, bĕn-koo′lān.
Bendemann, bĕn′da-măn.
Bender, bĕn′dĕr.
Bene, bĕn′e.
Beneath, be-ŭēth′.
Benedek, ba′na-dĕk.
Benedicite, bĕn-e-dĭs′i-te.
Benedict, hĕn′e-dĭkt.
Benedictine, bĕn-e-dĭkt′ĭn.
Benediction, bĕn-e-dĭk′shŭn.
Benefaction, bĕn-e-făk′shŭn.
Benefice, bĕn′e-fĭs. [to.
Bene-placito, ba′na-plah′che-
Benetier, bĕn-e-tēr′.
Benevento, bĕn-e-vĕn′to.
Benevolence, be-nĕv′o-lĕns.
Benezet, bĕn-e-zĕt′.
Bengal, bĕn-gawl′.
Bengazy, bĕn-gah′ze.
Bengel, bĕng′ĕl.
Bengnela, bĕn-ga′lah.
Beni, ba-ne′.
Benicarlo, bĕn-e-kär′lo.
Benicia, be-nĭsh′yah.
Benign, be-nīn′.
Benin, bĕn-ēn′.
Benison, bĕn′e-zn.
Benjamin, bĕn′ja-mĭn. [stīn.
Benneckenstein, bĕnk′ĕn-
Benningsen, bĕn′nĭng-săn.
Bennington, bĕn′nĭng-tŭn.
Benown, bĕn-ōm.
Benserade, bŏn-sa-rahd′.
Bensheim, bĕns′hīm.
Benson, bĕn′sŭn.
Bentham, bĕn′thăm.
Bentinck, bĕn′tĭngk.
Bentivoglio, bĕn-te-vŏl′yo.
Bentley, bĕnt′le.
Benton, bĕn′tŭn.
Benty, bĕnt′e.
Benumb, be-nŭm′.
Benvennto, bĕn-va-noo′to.
Benzamide, bĕn-zăm′īd.
Benzic, bĕn′ze.
Benzine, bĕn-zēn′.
Benzoic, bĕn-zo′ĭk.
Benzoin, bĕn-zoin′.
Benzole, bĕn-zōl′.
Bequeath, be-kweeth′.
Bequest, be-kwĕst′.
Beranger, ba-rōn(g)-zha′.
Berar, ba-rar′.
Berat, bĕr-ăt′.
Berann, ba-rown′.
Berbers, bĕr′bĕrz.
Berberales, bĕr-bĕr′a-lēz.
Berberine, bĕr′bĕr-ĭn.
Berbice, bĕr-beece′.
Bercy, bĕr-se′.
Berdiansk, bĕr-de-ahnsk′.
Berditchef, bĕr-de-chĕv′.
Bereans, be-re′ănz.
Bereave, be-reev′. [ănz.
Berengarians, ba-rĕn-ga′re-
Berenger, ba-rōn(g)-zha′.
Berenice, bĕr-a-nī′se.
Beresford, bĕr′ĕs-fŭrd.
Beresina, bĕr-a-zēn′ah.
Berg, bairg.
Bergamo, bĕr′gah-mo.
Bergamot, bĕr-ga-mŏt′.
Bergen, bĕr′gän.
Berger, bār′gŭr.
Berghem, bärg′hĕm.
Bergmehl, bārg-māl′.
Beriberi, bĕr-e-be-re′.
Berina, ba-re′nah.
Berja, bĕr′hah.
Berkeley, bärk′le.
Berks, bärks.
Berlichingen, bĕr-lĭk-ĭng′ān
Berlin, bĕr-leen′.
Berlioz, bĕr-le-o′.
Bermeo, bĕr-ma′o.
Bermondsey, bĕr′mŭn-se.
Bermuda, bĕr-moo′dah.
Bernacle, bĕr′na-kl.
Bernadotte, bĕr-nah-dŏt′.
Bernalillo, bĕr-nah-lĭl′lo.
Bernard, { bĕr′närd. *Fr.* bĕr-nahr′.
Bernardin, bĕr′năr-dĭn.
Bernau, bĕr′now.
Bernay, bĕr-na′.
Bernburg, bārn′boorg.
Berne, bĕrn.
Bernhard, bĕrn′hărt.
Berni, bĕr′ne.
Bernier, bĕr-ne-a′.
Bernini, bĕr-ne′ue.
Bernis, bĕr-nās′.
Bernouilli, bĕr-noo-ye′.
Bernstadt, bĕrn′staht.
Bernstorff, bĕrn′stŏrf.
Berquin, ber-kahn′.
Berrien, bĕr′re-ĕn.
Berry, bĕr-re′.
Berryer, bĕr-re-a′.
Bers, bărz.
Berserker, bĕr′sĕr-kĕr.
Berth, bŭrth.
Bertha, bĕr′thah.
Berthier, bĕr-te-a′.
Berthollet, bĕr-to-la′.
Bertie, bĕr′te.
Bertin, bĕr-tahn′.
Bertimoro, bĕr-te-no′ro.
Bertram, bĕr′trăm.
Bertrand, bĕr-trŏn′.
Bervic, bĕr-vĕk′.
Berwick, ber′rĭk.
Beryl, bĕr′ĭl.
Berzelius, bĕr-ze′le-ŭs.
Besançon, ba-zŏn(g)-sŏn(g)′.
Besiege, be-seej′.
Besou, be′zŏm.
Bessarabia, bĕs-sah-ra′be-ah.
Bessarion, bĕs-sa′re-ŏn.
Bessel, bĕs′săl.
Bessemer, bĕs′sa-mĕr.
Bessières, ba-se-ai′.
Bestial, bĕst′yăl.
Beta, be′tah.
Betel, bē′tl.
Betelgnese, be-tĕl′gŭz.
Bethel, bĕth′ĕl.
Bethencourt, ba-tŏn(g)-koor′.
Bethesda, be-thĕz′dah.
Bethlehem, bĕtb′le-ĕm.
Bethnal, bĕth′năl.
Beth-Peor, bĕth-pe′ŏr.
Bethsaida, bĕth-sa′dah.
Bethshemesh, bĕth-she′mĭsh
Bethune, be-thoon′. (*Fr.* ba-
Beton, be-tŏn(g)′. toon′.)
Betonica, be-tŏn′e-kah.
Betrothal, be-trŏth′ăl.
Betsey, bĕt′ze.
Bettini, bĕt-te′ne.
Bettongia, bĕt-ton′je-ah.
Betula, bĕt′u-lah.
Betwah, bĕt′waw.
Bendantite, bu′dăn-tīt.
Benlah, bu′lah.
Benst, boist.
Beverage, bĕv′ĕr-ăj.
Beverley *and* **Beverly,** { bĕv′ĕr-le.
Bevy, bĕv′e.
Bewdley, būd′le.
Bewray, be-ra′.
Bexar, ba-har′.
Bey, ba.
Beyra, ba-e′rah.
Beyrout, ba′root.
Bezant, be-zānt′.
Beza, be′zah.
Beziers, ba-ze-a′.
Bezoar, be′zōr.
Bezonian, be-zo′ne-ăn.
Bezontian, be-zon′she-ăn.
Bhamo, bhah-mo′.
Bhang, bahng.
Bhatgong, baht′gŏng.
Bhangnlpore, bōg-le-poor′.
Bhooj, booj.
Bhopanl, bo-pawl′.
Bhurtpore, bŭrt-poor′.
Biafra, be-ăf′rah.
Bialystock, be-ăl′e-stŏk.
Blauca, be-ăn′kah.
Bianchini, be-ăn-ke′ne.
Biard, be-ăr′.
Biarritz, be-ăr-rĭtz′.
Bias, bi′ăs.
Bibacious, bi-ba′shŭs.
Bibbiena, bĕb-be-a′nah,
Bibbo, bĭb′bo.
Biberach, be′bĕr-ăk.
Bibio, bĭb′e-o.
Bible, bī′bl.
Biblicism, bĭb′le-sĭzm.
Bibliography, bĭb-le-ŏg′ra-fe
Bibliophilism, bĭb-le-ŏf′i-lĭzm.
Bibliotheca, bĭb-le-o-the′kah.
Bibnlous, bĭb′yu-lŭs.
Bicarinate, bi-kăr′ĭn-ăt.
Bice, bīs.
Biceps, bī′sĕps.
Bichat, be-shah′.
Bicuspid, bi-kŭs′pid.
Bicycle, bī′se-kl.
Bidassoa, be-dăs-so′ah.
Biddeford *or* **Bideford,** bĭd′de-fŭrd.
Bidens, bī′dĕnz.
Bidet, be-dĕt′.
Bieberite, be′bĕr-īt.
Bielefeld, be′la-fĕlt.
Bielgorod, be-ĕl-go-rŏd′.
Biella, be-ĕl′lah.
Bienne, be-ăn′.
Biennial, bi-ĕu′ne-al.
Bieus, be-ahn(g)′.
Bienville, be′ahn-vĭl.
Bier, bĕr.
Bifid, bī′fĭd.
Bifurcation, bī-fŭr-ka′shŭn.
Biga, bi′gah.
Bigamy, bĭg′a-me.
Bigaroon, bĭg-a-roon′.
Bigelovia, bĭg-a-lo′ve-ah.
Bigelow, bĭg′a-lo.
Bigeminate, bī-jĕm′ĭn-ăt.
Biggleswade, bĭg′glz-wād.
Bight, bīt.
Bignon, bēn-yŏn(g)′.
Bignonia, bĭg-no′ne-ah.
Bigorre, be-gōr′.
Bigot, bĭg′ŏt.
Bijanagur, beej-nah-goor′.
Bijnec, beej-nē′.
Bijon, be-zhoo′.
Bijngate, bi-joo′găt.
Bilabiate, bi-la′be-ăt.
Bilan, be-lŏn(g)′.
Bilander, bĭl′an-dĕr.
Bilbao, bĭl-bah′o.
Bilboqnet, bĭl-bo-ka′.
Bilderdyk, bĕl′dār-dĭk.
Bildstein, bĕlt′stīn. [reed.
Biledulgerid, be-lĕd-ool-je
Bilge, bĭlj.
Biliary, bĭl′e-a-re.
Bilifulviu, bĭl-e-fŭl′vĭn.
Bilin, be-lēn′.
Bilingual, bi-lĭng′gwăl.
Bilious, bĭl′e-ŭs.
Biliphein, bĭl′e-fĭn.
Billardiera, bĕl-lärd-ya′rah.
Billaud-Varennes, be-yo-vah-rĕn′.
Billbergia, bĭl-bārg′e-ah.
Billerica, bĭl′lĕr-e-ka.
Billiards, bĭl′yärdz.
Billion, bĭl′yŭn.
Billon, be-yŏn(g)′.
Billow, bĭl′lo.
Biloxi, be-lŏks′e.
Bilsa, beel′sah.
Bilsen, bĕl′sān.
Bilston, bĭlz′tŭn.
Bimana, bī-ma′nah.
Bimedial, bi-me′de-ăl.
Binabola, bīn-a bo′lah.
Binarsenlate, bīn-ăr-se′ne-ăt.
Binary, bi′na-re.
Binche, bĕnsh.
Bindrabund, bĭn-drah-bŭnd.
Bingen, bĭng′ĕn.
Bingham, bĭng′ăm.
Bingley, bĭng′le.
Binnacle, bĭn′na-kl.
Binomial, bi-no′me-ăl.
Binoxide, bī-nŏks′īd.
Biobio, be-o-be′o. [lks.
Biodynamics, bi-o-de-năm′-
Biogenesis, bi-o-jĕn′e-sĭs.
Biography, bi-ŏg′ra-fe.
Biolytic, bi-o-lĭt′ĭk.
Blot, be′o.
Biped, bī′pĕd.
Biplicate, bĭp′le-kāt.
Biquintile, bi-kwĭn′tĭl.
Birch, bŭrch.
Bireme, bī′rēm.
Biren, be′rān.
Birkenhead, bŭr′kn-hĕd.
Birman, bŭr′măn.
Birmingham, bŭr′mĭng-ăm.
Birnam, bŭr′năm.
Biron, be-rōn(g)′.
Bironsa, be-roo′sah.
Birr, bŭr.
Birt, bŭrt.
Birth, bŭrth.
Bis, bĭs.
Bisaccia, be-săt′chah.
Biscay, bĭs′ka.
Bisceglia, be-shāl′yah.
Bischwiller, beesh-vĭl-ĕr′.
Biscotin, bĭs′ko-tin.
Biscuit, bĭs′kĭt.
Biseet, bi-sĕkt′.
Bisetose, bĭs′e-tōz.

Bismarck-Schœnhausen bĭz'märk-shoon-how'zn.
Bisnuillah, bĭs-mĭl'lah.
Bismuth, biz'muth.
Bison, bī'sŏn.
Bisque, bisk.
Bissextile, bĭs-sĕks'tĭl.
Bistoury, bĭs'too-re.
Bistre, bis'tŭr.
Bislurres, bis-toorz'.
Bisztritz, bĭs'trits.
Bitche, bĕtch.
Bithynia, bī-thĭn'e-ah.
Bitouto, be-too'to.
Bitumen, be-tu'mĕn.
Bivouac, bĭv'wăk.
Bixa, bik'sah.
Bizarre, be-zahr'.
Bizerta, be-zĕr'tah.
Blain, blān.
Blair, blĕr.
Blanc, blŏn(g).
Blanchard, blănsh'ărd.
Blanche, blănsh.
Blanco, blăng'ko.
Blandford, blănd'fŭrd.
Blankenburg, blăngk'en-
Blanqui, blŏn-ke'. [boorg.
Blanquilla, blăng-kēl'yah.
Blarney, blär'ne.
Blaspheme, blăs-feem'.
Blastema, blăs-te'mah.
Blastoderm, blăs'to-dŭrm.
Blaye, bla.
Blazon, bla'zn.
Blea, ble.
Bledsoe, blĕd so.
Bleecker, bleek'ŭr.
Blemish, blĕm'ĭsh.
Blende, blĕnd.
Blenheim, blĕn'hīm.
Blennerville, blĕn'nŭr-vĭl.
Blennorrhœa, blĕn-nŏr-re'ah.
Blepharis, blĕf'a-rĭs. [to'sĭs.
Blepharoptosis, blĕf-a-rŏp-
Blephilia, ble-fĭl'yah.
Blére, bla-ra'.
Blessington, blĕs'sĭng-tŭn.
Bleu, bloo.
Bleyne, blām.
Blighia, blī'ge-ah.
Blight, blīt.
Blindage, blīnd'āj.
Blink, blĭugk.
Bloch, blŏk.
Blockade, blŏk-ād'.
Blockleshaw, blŏk'l-shăw.
Blockley, blŏk'le.
Blois, blwaw'.
Blonde, blŏnd.
Blondel, blŏn-dĕl'.
Blount, blŭnt.
Blouse, blowz.
Blown, blŏn.
Blücher, bloo'kär.
Bluchers, bloo'chŭrz.
Bludgeon, blŭd'jŭn.
Bluey, bloo'e.
Blumenbach, bloo'măn-băk.
Blyth, blīth.
Boa, bo'ah.
Boadicea, bo-ăd-e-se'ah.
Boalsburg, bōlz'bŭrg.
Boanerges, bo-ah-nŭr'jēz.
Boar, bŏr.
Board, bŏrd.
Boatswain, bo'sn.
Boavista, bo-ah-vēs'tah.
Boaz, bo'ăz.
Bobbinet, bŏb-be-nĕt'.
Bob-o-link, bŏb'o-lingk.
Bobrov, bo-brŏv'.
Bobruisk, bo-broo-ĭsk'.
Boca, bo'kab.
Bocaina, bo-ka'nah.
Bocardo, bo-kär'do.
Bocatorium, bo-kah-to're-ŭm
Boccа, bŏk'kah.
Boccaccio, bo-kät'cho.
Boccanera, bŏk-kah-na'rah.
Bocchetta, bŏk-kĕt'tah.
Bœcius, bŏk'she-ŭs.
Bochina, bŏk'e-nah.
Bochold, bŏk'ōlt.
Bochum, bŏk'ŭm.
Bodega, bo-da'gah.
Bodice, bŏd'ĭs.
Bodleian, bŏd-le'ăn.
Bodmin, bŏd'mĭn.
Body, bŏd'e.
Boece, boĭss.
Bœotia, be-o'sbah.
Boerhaave, bŏr'hăhy.
Boethius, bo-e'the-ŭs.
Bœttiger, boot'gär.
Bœuf, bŭf.
Boggle, bŏg'gl.
Bogle, bo'gl.
Bognor, bŏg'nŏr.
Bogodoukhol, bo-go-doo-kŏv'
Bogoroditsk, bo-go-ro-dĭtsk'.
Bogota, bo-go-tah'.
Bogue, bōg. [lah.
Bogwangoia, bōg-wăng-go'-
Bohemia, bo-he'me-ah.
Bohun, boon.
Boiardo, bo-yär'do.
Boidæ, bo'i-de.
Boieldieu, bwahl-de-oo'.
Boii, boi'o.
Bois, bwaw'.
Boisée, bwaw'sa.
Boisterous, boiz'tŭr-ŭs.
Bojador, bo-yah-dŏr'.
Bojano, bo-yah'noh.
Bokhara, bo-kah'rah.
Bolabola, bo-lah-bo'lah.
Bolanos, bo-lah'nōs.
Bolbec, bōl-bĕk'.
Bolchow, bōl'kŏv.
Bolderberg, bōl'dār-bārg.
Bolection, bo-lĕk'shŭn.
Boleslas, bo-lĕs'lăs.
Boletus, bo-le'tŭs.
Boli, bo'le.
Bolinao, bo-le-na'yo.
Bolinas, bo-le'nahs.
Bolingbroke, bōl'ĭng-brook.
Bolis, bo'lĭs.
Bolivar, bŏl'e-vär.
Bolivia, bo-lĭv'e-ah.
Bolkhov, bŏl-kŏv'.
Boll, bōl.
Bollène, bŏl-lān'.
Bollinger, bŏl'lĭn-jŭr.
Bologna, bo-lōn'yah.
Bolor-Tagh, bo-lōr-tahg'.
Bolsas, bŏl'săs.
Bolsena, bŏl-su'nah.
Bolster, bōl'stŭr.
Bolton, bōl'tŭn.
Boltonia, bōl-tō'ne-ah.
Bolus, bo'lŭs.
Bomarsund, bo-mär-soond'.
Bomb, bŭm.
Bomba, bŏm'bah.
Bombardier, bŭm-bär-dēr'.
Bombax, bŏm'bāks.
Bombay, bŏm-ba'.
Bombazette, bŭm-ba-zĕt'.
Bombazine, bŭm-ba-zēn'.
Bomberniekel, bŭm-bĕr-
nĭk'l.
Bombycidæ, bŏm-bĭs'e-de.
Bomilcar, bo-mĭl'kär.
Bom-Jardin, bŏn(g)-jahr-
— Jesus, -zhu'soos. [dĕn(g)'.
— Succesco, -sook-sās'so.
Bon, bŏn. (*Fr.* bŏn(g).)
Bona, bo'nah.
Bonacea, bo-nāk'kah.
Bona Dea, bo'nah de'ah.
Bona Fides, bo'nah fi'dēz.
Bonald, bo-nahl'.
Bonaparte, bo'nah-pahrt.
Bona Roba, bo'nah ro'bah.
Bonassus, bo-năs'sŭs.
Bonavista, bŏn-ah-vĭs'tah.
Bon-bon, bŏn(g)-bŏn(g)'.
Bonchamp, bŏn-shŏn'.
Bondou, bŏn-doo'.
Bonefro, bo-na'fro.
Bongracc, bŏn'grās.
Bonheur, bo-noor'.
Bon Homme, bŏn ŏm'.
Boni, bo'ne.
Bonifacc, bŏn'e-fās.
Bonifacio, bo-ne-fah'cho.
Bonitorm, bŏn'e-fŏrm.
Bonito, bo-ne'to.
Bon-mot, bŏn(g)-mo'.
Bonn, bŏn.
Bonne, bŏn'.
Bonnean, bo-no'.
Bonne-bouche, bŏn(g)-boosh'
Bonneehose, bŏn-shōz'.
Bonne Femme, bŏn fĕm'.
Bonner, bŏn'nŭr.
Bonneval, bŏn-vahl'.
Bonnivard, bon-ne-vahr'.
Bono, bo'no.
Bonomi, bo-no'me.
Bonorva, bo-nŏr'vah.
Bonsecours, bŏn-sa-koor'.
Bonthain, bŏn-tīn'.
Bon-ton, bŏn(g)-tŏn(g)'.
Bonum Magnum, bo'nŭm
măg'nŭm.
Bon-vivant, bŏn(g)-ve-vŏn(g)'.
Boodroom, boo-droom'.
Boondee, boon'de.
Boone, boon.
Boorhanpoor, boo-rhan-poor'
Booroogird, boo-roo-jĕrd'.
Boort, bŏrt.
Bootan, boo-tahn'.
Boötes, bo-o'tēz.
Boothia, booth'e-ah.
Booton, boo-tŏn'.
Boppart, bŏp'pärt.
Bora, bo'rah.
Boracbio, bo-rät'cho.
Boracle, bo-răs'ĭk.
Boracite, bo'ra-sīt.
Borage, bŭr'rĕj.
Borassus, bo-răs'sŭs.
Borax, bo'răks.
Borborema, bŏr-bo-ra'mah.
Boreer, bŏr'sŭr.
Borda, bŏr'dah.
Bordage, bŏrd'āj.
Bordentown, bŏrd'ĕn-town.
Bordelais, bŏr-da-la'.
Bordone, bŏr-do'na.
Bordure, bŏrd'yŭr.
Boreas, bo're-ăs.
Borecole, bŏr'kōl.
Borelli, bo-rel'le.
Borgia, bŏr'jah.
Borgiles, bŏrg'ĭtz.
Borgo, bŏr'go.
Borissol, bo-re'sŏv. [glĕbsk'.
Borissoglebsk, bo-rĭs-so-
Borkhum, bŏr'koom.
Borne, bŏrn.
Borneo, bŏr'ne-o.
Bornholm, bŏrn'hōlm.
Bornou, bŏr-noo'.
Borodino, bŏr-o-de'no.
Borofluoric, bo-ro-floo-ŏr'ĭk.
Boron, bo'rŏn.
Borough, bŭr'ro.
Borovsk, bo-rŏvsk'.
Borrellians, bŏr-rĕl'yănz.
Borrisokane, bŏrris-o-kān'.
Borrisoleigh, bŏr-rĭs-o-lee'.
Borromeo, bŏr-ro-ma'o.
Borrow, bŏr'ro.
Borrowstounness, bo-nĕss'.
Borsella, bŏr-sĕl'lah.
Borsehod, bŏr'shŏt.
Borussi, bo-rŭs'se.
Boruret, bo'roo-rĕt.
Bory, bo-re'.
Borysthenes, bo-rĭs'the-nēz.
Bos, bŏs.
Bosa, bo'sah.
Boseawen, bŏs'kah-wĕn.
Boscobel, bŏs'ko-bĕl. [kah'se.
Bosco Tre Case, bŏs'ko tra
Bosio, bo'se-o.
Bosjesmans, bŏs'yăz-mănss.
Boskoi, bŏs'koi.
Bosna-Serai, bŏs-nah-sŭr-ī'.
Bosnia, bŏs'ne-ah.
Bosom, boo'zŭm, *or* bŭz'zum.
Boson, bo'sŏn.
Bosphorus, bŏs'fo-rŭs.
Bosque, bŏsk.
Bosquet, bŏs-ka'.
Bossage, bŏs'sĕj.
Bostanji, bŏs'tănd-je.
Boston, bŏs'tŏn.
Bostrichus, bŏs'trĭk-ŭs.
Boswell, bŏz'wĕl.
Bosworth, bŏz'wŭrth.
Boszra, bŏs'srah.
Botany, bŏt'a-ue.
Botargo, bo-tär'go.
Botetourt, bŏt'e-toort.
Both, bōt *and* bŏth.
Bothnia, bŏth'ne-ah. [dĕn'drŏn.
Bothrodendron, bŏth-ro-
Bothwell, bŏth'wĕl.
Botryehium, bo-trĭk'e-ŭm.
Botryogene. bŏt're-o-jēn.
Botryoid, bŏt're-oid.
Bolrytis, bo-trī'tĭs.
Bottа, bŏt'tah.
Botticellis, bŏt-te-chĕl'le.
Bottle, bŏt'tl.
Bottoury, bŏt'tŏm-re.
Botuliform, bo-tu'le-fŏrm.
Botzen, bŏt'sän.
Bouchain, boo-shahn(g)'.
Bouchardat, boo-shahr-dah'.
Bouches, boosh. [vĕl-lo'ma.
Bouet-Willaumez, boo-a'-
Bongainville, boo-găn-vĕl'.
Bougel, boo'zha.
Bongli, bo.
Bought, bawt.
Bougie, boo'zhe.
Bouillaud, boo-yo'.
Boulli, boo-ĭl'le *or* bool-ye'.
Bouillon, boo-yŏn(g)'. [ya'.
Bonlainvilliers, boo-lăn-ve-
Boulder, bōl'dŭr.
Bonle, bool.
Bonlevard, bool'vahr.
Boulogne, boo-loĭn'.
Boultel, bōl'tel.
Boulton, bōl'tŭn.
Bouquet, boo-ka'.
Bourbon, boor-bŏn(g)'.
Bourdaloue, boor-dah-loo'.
Bourdon, boor-dŏn(g)'.
Bourgas, boor'ghăz.
Bourg, boorg.
Bourgeois, } *Eng.* bŭr-jois';
} *Fr.* boor-zhwaw'.
Bourgeoisie, boor-zhwaw'ze.
Bourgeon, bŭr'jŭn.
Bourges, boorzh.
Bourgeull, boor-gŭl'.
Bourgogne, boor-gōn'.
Bourgoin, boor-gwahn'.
Bourgignonists, boor-gĕn'-
Bourlos, boor'lŏs. [yŏn-ĭstz.
Bournmont, boor-mŏn(g)'.
Bourne, bŏrn *or* burn.
Bournonite, boor'nŏn-īt.
Bourrelet, boor're-la.
Bourrienne, boo-ro-ĕn'.
Bourtange, boor-tŏnzh'.
Boussa, boos'sah. [dŭn.
Boustrophedon, boo-strŏf'e-
Bout, bowt.
Bouvier, boo-veer', or boo-ve-a'.
Bovate, bo'vāt.
Bovey, bo've.
Bovine, bo'vīn.
Bovino, bo-ve'no.
Bow, bō *and* bou.
Bowditch, bo'dĭch.
Bowdoin, bo'dĭn.
Bowdoinham, bo'd'n-ham.
Bowdon, bo'dŏn.
Bower, bou'ŭr.
Bowides, bo'eedz.
Bowie, bo'e.
Bowline, bo'lĭn.
Bowls, bōlz.
Bowring, bou'rĭng.
Bowse, bous.
Bowsprit, bo'sprĭt.
Bowtell, bo'tĕl.
Boxtel, bŏks'tĕl.
Boyaca, bo-yah'kah.
Boyard, boi'ăr.
Boyau, boi'o.
Boydton, boĭd'tŭn.
Boyer, bwab-ya'.
Boyle, boil.
Boylston, boil'stŭn.
Boyne, boin.
Bozrah, bŏs'rah.
Bozzaris, bŏt-sah'rĭs.
Bozzolo, bŏt-so'lo. [sŏn(g)'.
Brabançonne, brah-băn-
Braceate, brāk'kāt.
Braeciano, brät-chah'no.
Bracelet, brās'lĕt.
Brachelytra, brāk-o-li'trah.
Brachial, bra'ke-ăl.
Brachiopoda, brāk-e-ŏp'o-dah.
Brachinm, bra'ke-ŭm.
Brachycephalous, brāk-e-
sĕf'a-lŭs.
Brachylogy, brah-kĭl'o-je.
Brachyura, brāk-e-oo'rah.
Brackenridge, brāk'ĕn-rĭdj.
Brackleshaw, brāk'lz-ăm.
Bracon, bra'kŏn.
Braet, brākt.
Braddock, brăd'dŭk.
Bradford, brăd'fŭrd.
Bradley, brăd'le.
Bradshaw, brăd'shau.
Brady, bra'de.
Bradypoda, brăd-e-po'dah.
Brae, bra.
Braga, brah'gah.
Braganza, brah-gahn'sah.
Braggadocio, brăg-gah-do'-
Bragi, bra'ge. [she-o.
Brahe, brah'a.
Brahilow, brah-e'lŏv.
Brahma, brah'mah. [poot'rah.
Brahmapootra, brah-mah-
Brail, brāl.
Brainerd, bra'nŭrd.
Braise, brāz.
Bramah, bra'mah.
Bramante, brah-măn'te.
Bramidæ, brăm'e-de.
Brampton, brăm'tŭn.
Brancas-Lauragnais, brŏn-kah'-lo-rab-gwai'.
Branchiæ, brăng'kē-e.
Branchiopoda, brăng-ke-ŏp'-
o-dah.
Branchiostegi, brăng-ke-ŏs'-
Branco, brăng'ko. [te-je.
Brandenburg, brăn'dăn-
Brandon, brăn'dŭn. [boorg.
Brandy, brăn'de.
Branford, brăn'fŭrd.
Brank, brăngk.
Bransle, brăn'sl.
Brantôme, brŏn-tōm'.
Brasenia, brah-se'ne-ah.
Brashear, brăsh'ĕr.
Brasidas, brās'e-dăs.
Brasier, bra'zhŭr.
Brasses, brās'sĭz.
Brassica, brās'se-kah.
Brattice, brăt'tis.
Brattleboro, brăt't'l-bŭr-ro.
Braunite, brown'īt.
Braunsberg, browuz'bărg.
Bravado, bra-va'do.
Bravo, brah'vo.
Bravura, brah-voo'rah.
Brawn, brawn.
Braxton, brăks'tŭn.
Brayera, bra'e-rab.
Brazier, bra'zhŭr.
Brazil, brah-zĭl'.
Braziletto, brah-zĭl-lĕt'to.
Brazitos, brah-ze'tŏs.
Brazoria, brah-zo're-ah.
Brazos, brab'zŏs.
Brazza, brät'sah.
Bread, brĕd.
Break, brāk.
Breakfast, brĕk'fāst.
Breath, brĕth.
Breathe, brēth.
Breccia, brĕt'chah.
Brechin, brĕch'ĭn.
Breckinridge, brĕk'n-rĭdj.
Brecon, brĕk'ŏn.
Breda, bra-dah'. [mŏn(g)'.
Bredouillement, bra-doo-ye-
Bredow, bra'do.
Brée, bra.
Breeches, brĭch'ĭz.
Breede, breed.
Bregenz, bra-gĕntz'.
Breguet, bra-ga'.
Brehar, bra'hăr.
Brehat, bra ah'.
Brehon, bre'hŏn.
Breisach, brī'zahk.
Breisgau, brīce'gow.
Breitenfeld, brī'tĕn-fĕlt.
Bremen, brĕm'ĕn.
Bremer, bre'mŭr.
Breneau, brĕn-o'.
Brenner, brĕn'nŭr.
Brennus, brĕn'nŭs.
Brenta, brĕn'tah.
Brentidæ, brĕn'te-de.
Brescia, brĕsh'e-ah.
Breslau, brĕs'lŏw.
Bressay, brĕs-sa'.
Brest, brĕst.
Bretagne, bra-talın'.
Bretigny, bra-teen-ye'.
Breton de Los Herreros, bra-tŏn da lōs ĕr-ra'rŏs.
Brettice, brĕt'tĭs.
Bretwalda, brĕt-wŏl'dah.
Brenghel, broo'gĕl.
Brennnerite. brŭn'nĕr-īt.
Breviped, brĕv'e-pĕd.
Brevity, brĕv'e-te.
Brewer, broo'ŭr.
Brewis, broo'ĭs.
Brewster, brooz'tŭr.
Brexiaceæ, brĕk-se-a'se-e.
Brezlline, bre-zĭl'ĭn.
Brian, brī'ăn.
Briançon, bre-ŏn(g)-sŏn(g)'.
Briansk, bre-ănsk'.
Briareus, bri-a're-ŭs.
Bribe, brīb.
Brieole, bre-kōl'.
Briequebec, brĕk-bĕk'.
Bridget, brĭj'ĕt.
Bridlington, bŭr'lĭng-tŭn.
Bridoon, bre-doon'.
Brief, breef.
Brieg, brēg.
Briel, brēl.
Brienne, bre-ĕn'.
Brienz, brē'ĕnts.
Brier, brī'ŭr.
Brieue, bre-ook'.
Brigade, bre-gād'.
Brigand, brĭg'ănd.
Brlgantine, brĭg'ăn-tīn.
Brigham, brĭg'ăm.
Brighton, brīt'ŭn.
Brignals, brēn-ya'.
Brignoles, brcen-yōl'.
Brihuega, bre-wa'gah.
Brillante, brĭl-lăn'te.
Brilliant, brĭl'yănt.
Brillon, bre'lŏn.
Brindisi, brĕn'de-se.
Brindle, brĭn'dl.
Brindley, brĭnd'le.
Brink, bringk.
Brinley, brĭn'le.
Brinvilliers, brăn-ve-ye-a'.
Briony, brī'o-ne.
Brionde, bre-ood'.
Brlsbane, brĭz'bān.
Briscoe, brĭs'ko.
Briseis, bri-se'ĭs.
Brisket, brĭsk'ĕt.
Brisson, bre-sŏn'.
Brissot, bre-so'.
Bristle, brĭs'l.
Bristol, brĭs'tŏl.
Brisure, bre-zhoor'.
Britain, brĭt'ăn.
Britannia, bre-tăn'yah.
Britannuleus, bre-tăn'ne-kŭs.
British, brĭt'ĭsh.
Briton, brĭt'ŏn.
Brittany, brĭt'tab-ne.
Brittle, brĭt'tl.
Britzska, brĭs'kah.
Brive-la-Gaillarde, brēv
Brixen, brĭks'ĕn. [la-ga-yahr'.
Brixham, brĭks'ăm.
Briza, brī'zah.
Brizure, bre-zhoor'.
Broach, brŏch.
Brodd, brawd.
Broadalbin, brawd-ăl'bĭn.
Broeade, bro-kād'.
Broeage, bro'kāj.
Broeards, brŏk'ärdz.
Broeatel, bro'ka-tĕl.
Broecoli, brŏk'ko-le.
Brochantite, brŏk'ăn-tīt.
Brochette, bro-shĕt'.
Brochure, bro-shoor'.
Broeken, brŏk'kĕn.
Brodhead, brŏd'hĕd.
Brodie, bro'do.
Brody, bro'de.
Broek, brook.
Brolferio, brŏf-fa're-o.
Brogan, bro'gän.
Brogile, brŏl-ya'.
Brogue, brōg.
Broider, broid'ŭr.
Brokerage, bro'kŭr-āj.
Bronia, bro'mah. [rīt.
Bromargyrite, bro-măr'je-

Bromatology, bro-ma-tŏl'o-je
Bromberg, brom'bărg.
Bromelia, bro-me'le-ah.
Bromine, bro'mĭn.
Bromoform, brŏm'o-fŏrm.
Brompton, brŏm'tŭn.
Bromsgrove, brŭmz'grōv.
Bromuret, brŏm'yoo-ret.
Bromwich, brŭm'ĭj.
Bronchitis, brŏng-kī'tĭs.
Bronchocele, brŏn'cho-sēl.
Bronchophony, brŏn-chŏf'-
Bronchus, brŏng'kŭs. [o-ne.
Brongniart, brŏn-ne-ăr'.
Bronn, brŏn.
Bronsou, brŏn'sŭn.
Brouté, brŏn'ta.
Brontolite, brŏn'to-līt.
Brontozoum, brŏn'to-zoom.
Broux, brŏngkz.
Bronze, brŏnz.
Brooch, brōch.
Brooke, brook.
Brookline, brook'līn.
Brooklyn, brook'lĭn.
Broseley, brōz'le.
Brostinum, bro-sī'mŭm.
Brosses, brŏss.
Brothel, brŏth'l.
Brother, brŭth'ŭr.
Broughaun, broom.
Broughtou, braw't'n.
Broussa, broos'sah.
Broussais, broos-sa'. [shah.
Broussonetia, broos-so-ne'-
Browning, brown'ĭng.
Browse, browz.
Broxtou, brŏks'tŭn.
Bruat, broo-ah'.
Brnce, broos.
Brucea, broo-se'ah.
Bruchus, broo'kŭs.
Brucite, broo'sīt.
Bruck, brook.
Bruckenau, brook'ĕn-ow.
Bruges, broo zhz *or* broozh.
Brum, broo'ĭn.
Bruise, brooz.
Bruit, broot.
Brumaire, broo-mār'.
Brume, broom.
Brummel, brŭm'ml.
Brunai, broo-na'.
Brundusium, brŭn-doo'se-ŭm
Brune, broon.
Brunehaut, broon-ho'.
Brunel, broo-nĕl'.
Brunette, broo-nĕt'.
Bruniaceæ, broo-ne-a'se-e.
Brunn, broon. [ke.
Brunnelleschi, broo-nĕl-lĕs'-
Brunnen, broon'nĕn.
Brunnow, brŭn'nŏf.
Bruno, broo'uo.
Brunswick, brŭnz'wĭk.
Brussa, broos'sah.
Brussels, brŭs'sĕlz.
Bruta, broo'tah.
Brutou, broo't'n.
Brutus, broo'tŭs.
Bryaceæ, bri-a'se-e.
Bryant, bri'ănt.
Brygmus, brĭg'mŭs.
Bryhullda, brŭn-hĭl'dah.
Bryonia, bri-o'ue-ah.
Bryony, bri'o-ne.
Bryophillum, bri-ŏf'ĭl-lŭm.
Bryozoa, bri-o-zo'ah.
Bryum, bri'ŭm.
Brzesc Litewski, bhzĕsts le-tĕv'ske.
Brzezan, bhza-zhahn'.
Buache, boo-ăsh'.
Bubble, bŭb'bl.
Bubo, bū'bo.
Bubonocele, bu-bŏn'o-sēl.
Buccal, bŭk'kăl.
Buccaneer, bŭk-ka-neer'.
Buccellation, bŭk-sĕl-la'shŭn
Buccina, bŭk-sī'nah.
Bucciuum, bŭk'sj-nŭm.
Bucentaur, boo-sĕn'tawr.
Bucephalus, bu-sĕf'a-lŭs.
Bucer, boot'sŭr.
Buceridæ, bu-sĕr'e-de.
Buch, book.
Buchau, bŭk'ăn.
Buchanan, bŭk-an'ăn.
Bucharest, boo'kah-rĕst.
Bucholzite, book öl-zīt.
Buchu, bū'chu.
Buckeye, bŭk'ī.
Buckhannon, bŭk-hăn'nŭn.
Buckie, bŭk'e.
Buckinghau, bŭk'ĭng-ăm.
Buckle, bŭk'l.
Buckuer, bŭk'nŭr.
Buckra, bŭk'rah.
Buckstone, bŭk'stūn.
Buckwheat, bŭk'hwēt.
Bucolic, bu-kŏl'ĭk.
Bucrania, bu-kra'ne-ah.
Buda, bu'dah.
Buddha, bood'dah.
Buddhism, bood'ĭzm.
Buddlea, bŭd-le'ah.
Bude, būd.
Budget, bŭj'ĕt.
Budweis, bood'wis.
Buell, bu'ĕl. [vĕn-too'rah.
Buenaventura, bwa-nah-
Buena Vista, bwa-nah vees'tah
Buen Ayré, bwĕn ī'a.
Bueños Ayres, bo'nŏs a'rīz.
Buet, boo-a'.
Buffalo, bŭf'fa-lo.
Bullo, boof'fo.
Bullon, boo-fŏn'.
Bafloou, bŭf-foon'.
Bufonite, bu'fŏn-īt.
Buford, bū'fŭrd.
Bugeaud, boo-zho'.
Bugenhagen, boo'gĕn-ah-gĕn
Bugia, boo-je'ah.
Bugle, bū'gl.
Bugloss, bū'glŏs.
Buhl, bool.
Buhr, bŭr.
Build, bĭld.
Bujalance, boo-hah-lān'tha.
Bukharia, bu-ka're-ah.
Bukowina, boo-ko-ve'nah.
Bulbodium, bŭl-bō'de-ŭm.
Bulbogemma, bŭl-bo-jĕm'-
Bulbul, bool'bool. [mah.
Bulgaria, bool-ga're-ah.
Bulgariu, bool-gah'rĭn.
Bulge, bŭlj.
Bulimia, bu-lĭm'e-ah.
Bulkhead, bŭlk'hĕd.
Bullace, bŭl'lăs.
Bullantio, bŭl-lăn'she-o.
Bullary, bŭl'la-re.
Bulletin, bŭl'le-tĭn.
Bullinger, bool'lĭng-ŭr.
Bullion, bŭl'yŭn.
Bülow, boo'lo.
Bulsaur, bŭl-sawr'.
Bultow, bŭl'tō.
Bulwer, bool'wŭr.
Bumbelo, bŭm-be'lo.
Bumble, bŭm'bl.
Bumelia, bu-me'le-ah.
Bumpkin, bŭm'kĭn.
Bnncombe, bŭng'kŭm.
Buncrana, bŭn-krah'nah.
Bundelcund, bŭn-dĕl-kŭnd'.
Bundle, bŭn'dl.
Bundoran, bŭn-do'răn.
Bungalow, bŭng'ga-lo.
Bungay, bŭng'ga.
Bunge, boong'a.
Bungle, bŭng'gl.
Bunion, bŭn'yŭn.
Bunker, bŭng'kŭr.
Bunsen, boon'sĕn.
Bunting, bŭnt'ĭng.
Buntline, bŭnt'lĭn.
Bunyan, bŭn'yăn.
Bunzlau, boonts'low.
Buol-Schauenstein, boo'ol-show'ĕn-stīn.
Buonarotti, bo-nah-rŏt'te.
Buoy, boi.
Buprestris, bu-prĕs'trĭs.
Buphaga, bu-fah'gah.
Buratite, bu'ra-tit.
Burckhardt, boork'härt.
Burdach, boor'dăk.
Burde-Ney, boor-da-na'.
Burdeu, bŭr'dn.
Burdett, bŭr-dĕt'.
Burdock, bŭr'dŏk.
Burdwan, bŭrd-wŏn'.
Bureau, bu'ro.
Burette, bu-rĕt'.
Burgage, bŭrg'ăj.
Burganet, bŭr'ga-nĕt.
Burgee, bŭr'je.
Burgeo, bŭr'jo.
Burgeon, bŭr'jŭn.
Bürger, bŭr'gair. [mĭs'tŭr.
Burgermeister, bŭr-gair-
Burgess, bŭr'jĕs.
Burggrave, bŭrg'grāv.
Burgher, bŭrg'ŭr.
Burglar, bŭrg'lăr.
Burgos, boor'gŏs.
Burgoyne, bŭr-goin'.
Burgundy, bŭr'gŭn-de.
Burial, bĕr're-ăl.
Buridan, bŭr'e-dahn.
Burin, bu'rĭn.
Burleigh, bŭr'le.
Burleson, bŭrl'sŭn.
Burlesque, bŭr-lĕsk'.
Burletta, bŭr-lĕt'tah.
Burlingame, bŭr'lĭng-gām.
Burlington, bŭr'lĭng-tŭn.
Burmah, bŭr'mah.
Burmeister, boor'mĭs-tŭr.
Burnes, bŭrnz.
Burnett, bŭr'nĕt.
Burney, bŭr'ne.
Burnley, bŭrn'le.
Burnoose, bŭr'noos.
Burnonf, bŭr-noof'.
Burnside, bŭrn'sid.
Burow, boo'ro.
Burriana, boor-re-ah'nah.
Burrill, bŭr'rĭl.
Burritt, bŭr'rĭt.
Burrow, bŭr'ro.
Burry, bŭr'e.
Bursæ Mucosæ, bŭr'se mu-
Bursar, bŭr'sar.
Bursch, boorsh. (shaft
Burscheuschaft, boorsh'en
Bursera, bŭr'se-rah.
Burslem, bŭrz'lĕm.
Burthen, bŭr'thn.
Burton, bŭr't'n.
Burwha, bŭr'woh.
Bury, bĕr're.
Busachino, booz-ah-ke'no.
Busca, booz'kah.
Bushire, boo-shēr'.
Business, bĭz'nĕs.
Busiris, bu-sī'rĭs.
Busseron, bŭs'sŭr-ŏn.
Bussi, or **Bussy,** boo-se'.
Bustamente, boos-tah-mĕn'ta
Bustamite, bŭs'tăm-īt.
Bustle, bŭs'l.
Busy, bĭz'e.
Butcher, bŭch'ŭr.
Bute, būt.
Buteo, bu-te'o.
Butic, bu'tĭk.
Butomaceæ, bu-to-ma'se-e.
Buttahatchie, bŭt-tah-ach'e.
Butte, būt.
Buttedes Morts, būt-da-mōr'
Butteris, bŭt'tŭr-ĭs.
Buttevant, bŭt-te-văn'.
Button, bŭt't'n.
Butts, bŭtz.
Butyl, bū'tĭl.
Butyrine, bu-tĭr'ĭn.
Buxeous, bŭks'e-ŭs, *or* bŭk'-
Buxos, bŭks'os. [shŭs.
Buxton, bŭks'tŭn.
Buy, bī.
Buzançais, boo-zŏn(g)-sa'.
Byard, bī'ărd.
Bye, hī.
Byrd, bŭrd.
Byrne, bĭr.
Byrgius, bŭr'je-ŭs.
Byron, bī'rŭn
Byrrhus, bĭr'rŭs.
Byssaceous, bĭs-sa'she-ŭs.
Byssolite, bis'so-līt.
Byzantine, bĭz'ăn-tĭn.
Byzantium, be-zăn'te-ŭm.

C.

Caaba, kah-a'bah.
Cabagan, kah-bah'găn.
Cabal, ka-bāhl'.
Cabala, kăb'a-lah.
Caballeria, kăb-ăl-ya're-ah.
Cabaret, kăb'ah-ra.
Cabarrus, kah-bah-roos.
Cabatuan, kah-bah-too'ahn.
Cabeca, kah-ba'kah.
Cabes, kāb'ēs.
Cabet, kah-ba'.
Cabezou, kah-ba-thŏn'.
Cabinda, kah-beeu'dah.
Cabinet, kăb'ĭn-ĕt.
Cabiri, ka-bī'rī.
Cable, ka'bl.
Cabob, ka-bŏb'.
Cabocheu, ka-bŏsht'.
Cabo Frio, kah'bo fre'o.
Caboubaceæ, ka-bōm-ba'se-e.
Cabool or **Cabul,** kāb-ool'.
Caboose, ka-boos'.
Cabot, kab'ŏt. (*Fr.* kah-bo'.)
Cabotage, kāb'o-tāj.
Cabral, kah-brahl'.
Cabrera, kah-bra'rah.
Cabriole, kăb're-ōl.
Cabriolet, kăb-re-o-la'.
Cacæmia, kak-e'me-ah.
Cacatua, kak-a'le-ah.
Cacao, ka'ko *or* ka-ka'o.
Caccia, kăt'chah.
Caceres, kah tha'rĕs.
Cachalot, kăsh'a-lŏt.
Cachao, kah-shn'o.
Cachar, kăsh'ahr.
Cache, kăsh.
Cachectic, ka-kĕk'tĭk.
Cachemire, kăsh-meer'.
Cachet, kăsh'a.
Cachexia, ka-kĕk'shah.
Cacholong, kăsh'o-lŏng.
Cachuca, kah-choo'kah.
Cacique, ka-seek'.
Cackle, kăk'l.
Cacochymy, kăk'o-kĭm-e.
Cacodæmon, kăk-o-de'mŏn.
Cacodyle, kak'o-dĭl.
Cacoethes, kăk-o-e'thēz.
Cacophony, ka-kŏf'o-ne.
Cacotechny, kak-o-tĕk'ne.
Cactaceæ, kăk-ta'se-e.
Cactus, kăk'tŭs.
Cacus, ka'kŭs.
Cadastre, kah-dăs'tŭr.
Caddah, kăd'dah.
Caddo, kăd'do.
Cade, kād.
Cadence, ka'dĕns.
Cadeuza, kah-dĕn'sah.
Cader Idris, kăd'r Id'rĭs.
Cadet, ka-det.
Cadge, kāj.
Cadi, ka'de.
Cadiz, ka'dĭz. (*Sp.* kah'deeth.)
Cadmium, kăd'me-ŭm.
Cadoudal, kah-doo-dahl'.
Caduceus, ka-du'se-ŭs.
Caducibranchiates, kăd-u-se-brang'ke-āts.
Caducity, ka-du'se-te.
Cadwallader, kăd-wŏl'la-dŭr.
Cæcal, se'kăl.
Cæcias, se'se-ăs.
Cæcilia, se-sĭl'e-ah.
Cæcum, se'kŭm.
Caeduon, kaid'mŏn.
Caeu, kŏn(g)'.
Cænozoic, se-no-zo'ĭk.
Caer, kār.
Caerleon, kār-le'ŏn.
Caernarvon, kar-nahr'vŏn.
Cæsalpinia, se-sal-pĭn'yah.
Cæsar, se'zahr.
Cæsarea, sĕs-a-re'ah.
Cæsium, se'she-ŭm.
Cæstus, sĕs'tŭs.
Cæsura, se-shoo'rah.
Cæteris paribus, se'tŭr-ĭs păr'e-bŭs.
Café, kăf'a. [păr'e-bŭs.
Caffeine, kăf-fe'ĭn.
Caffraria, kăf-fra're-ah.
Caffre, kaf'fŭr.
Caffristan, kaf-fŭr-ĭs-tahn'.
Catila, kăf'e-lah.
Cagayan, kah-gah'yăn.
Cage, kāj.
Cagliari, kăl-yah're.
Cagliostro, kăl-yŏs'tro.
Cagnola, kan-yo-lah'.
Cahawba, kah-aw'bah.
Cahier, kah-e-ya'.
Cahir, kahr.
Cahireiveen, kahr-se-veen'.
Cahoes, ka-hoz'.
Cahokia, ka-ho'ke-ah.
Cahoot, ka-hoot'.
Cahors, kah-ŏr'.
Caiaphas, ka'e-fahs.
Caicos, ka'kŏs.
Caille, kah-ya'.
Cailliaud, kah-e-yo'.
Cailloma, kăl-yo'mah.
Caillou, kăl-loo'.
Caimacan, ka-mah-kahn'.
Cain, kān.
Cainan, kān'ăn.
Cainites, kān'ītz.
Cainozoic, kāu-o-zo'ĭk.
Caique, kah-eek'.
Ça ira, sah-e-rah'.
Caird, kārd.
Cairn, kārn.
Cairo, kī'ro.
Caisson, kās'sŏn.
Caithness, kāth'nĕs.
Caius, ka'yŭs.
Cajanus, kah-ja'uŭs.
Cajaput or **Cajeput,** kah'-zhah-poot.
Cajazzo, kah-zăt'so.
Cajetan, kah-ya-tahn'.
Cajole, ka-jōl'.
Calabar, kah-lah-bär'.
Calabash, kal'a-băsh.
Calaboose, kăl-a-boos'.
Calabozo, kah-lah-bo'so.
Calabria, kah-la'bre-ah.
Caladium, ka-la'de-ŭm.
Calahorra, kah-lah-ŏr'rah
Calais, kah-la'. [grōs tĭs.
Calamagrostis, kal-a-mah-
Calamanco, kal-a-mang'ko.
Calambour, kal'am-boor.
Calamianes, kah-lah-me-ah'-nĕs.
Calamine, kăl'a-mīn.
Calamity, ka-lăm'e-te.
Calamus, kăl'a-mŭs.
Calando, kah-lăn'do.
Calanus, kah-la'nŭs.
Calappa, kah-lap'pah.
Calas, kah-läs'.
Calash, ka-lăsh'. [bĕl-lo'tah.
Calatabellota, kah-lah-tah-
Calatafimi, -fe'me.
Calatagiroue, -zhe-ro'na.
Calatañazor, -ah-thŏr'.
Calatanisetta, kah-lah-tăn-e-zĕt'tah.
Calatayud, kah-lah-tah-yood'.
Calathium, ka-la'the-ŭm.
Calatrava, kah-lah-trah'vah.
Calaveras, kăl-ah-va'răs.
Calcaneum, kăl-ka'ne-ŭm.
Calcasieu, kăl-kah-sū'.
Calcavella, kăl-kah-vĕl'lah.
Calceolaria, kăl-se-o-la're-ah.
Calc, kălk.
Calciferite, kăl-sĭf'ŭr-īt.
Calcigrade, kăl'se-grād.
Calcimine, kăl'se-mĭn.
Calcine, kal'sĭn.
Calcium, kăl'se-ŭm.
Calculus, kăl'ku-lŭs.
Calcutta, kăl-kŭt'tah.
Caldarium, kăl-da're-ŭm.
Caldas, kăl'dahs.
Calder, kawl'dŭr.
Calderon, kăl-da-rŏn'.
Caldron, kawl'drŭn.
Caldwell, kawld'wĕl.
Caleb, ka'lĕb.
Caleche, kah-lăsh'.
Caledonia, kăl-e-do'ne-ah.
Caledonite, kăl'e-dŏn-īt.
Calefaction, kăl-e-făk'shŭn.
Calembourg, kăl'ĕm-boor.
Calender, kăl'ĕn-dĕr.
Calends, kăl'ĕndz.
Calendula, ka-lĕn'dn-lah.
Calenture, kăl'ĕn-tŭr.
Calescence, ka-lĕs'sĕns.
Calf, kahf.
Calhoun, kăl-hoon'.
Cali, kah'le.
Calibre, kăl'e-bŭr.
Calicut, kal'e-kŭt.
Calidasa, kah-le-dah'sah.
California, kăl-e-fôr'ne-ah.
Caligation, kăl-e-ga'shŭn.
Caligula, kah-lig'u-lah.
Calipash, kăl-e-păsh'.
Calipers, kăl'e-pŭrz.
Caliph, ka'lĭf or kah'lĭf.
Callippus, ka-lĭp'pŭs.
Calisthenics, kăl-is-thĕn'ĭks.
Calix, ka'lĭks.
Calixtus, kah-lĭks'tŭs.
Caliyuga, kah-le-oo'gah.
Calk, kawk.
Calkin, kăl'kĭn.
Calla, kăl'lah.
Callaghan, kăl'lăh-ăn.
Callao, kăl-yah'o.
Callapooya, kăl-lah-poo'yah.
Callaway, kăl'lah-wa.
Callcott, kawl'kŭt.
Callianee, kăl-le-a-ne'.
Callichthys, kăl-lĭk'thĭs.
Callicratidas, kăl-le-krăt'e-
Callidium, kăl-lĭd'yŭm. [dăs.
Calligonum, kăl-lĭg'o-nŭm.
Calligraphy, kal-lig'ra-fe.
Callimachus, kal-lĭm'a-kŭs.
Callimanco, kăl-le-măng'ko.
Calling, kawl'ĭng.
Callinger, kăl-lĕn-geer'.
Callinicus, kăl-le-nī'kŭs.
Callinus, kăl-lī'nŭs.
Calliope, kăl-lī'o-pe.
Callistephus, kal-lĭs'te-fŭs.
Callisthenes, kăl-lĭs'the-nēz.
Callitrichaceæ, kăl-le-trĭk-
Callitris, kăl-lī'trĭs. [a'se-e.
Callosa, kăl-lo'sah.
Callosity, kăl-lŏs'e-te.
Callot, kah-lo'. [ulks.
Callotechnics, kăl-lo-tek'-
Callow, kăl'lo.
Calm, kahm.
Calmar, kahl'mär.
Calmet, kăl-ma'.
Calmucks, kal'mŭks.
Calne, kahn.
Calography, kah-lŏg'ra-fe.
Calomel, kăl'o-mĕl.
Calonne, kah-lŏn'.
Calophyllum, ka-lŏf'ĭl-lŭm.
Calopogon, ka-lŏp'o-gŏn.
Caloric, kab-lŏr'ĭk.
Calorimeter, kăl-o-rĭm'e-tŭr.
Calor Mordicans, ka'lor mŏr'de-kănz.
Calosoma, kăl-o-so'ne-ah.
Calotropis, kăl-ot'ro-pĭs.
Calotte, kah-lŏt'.
Calotype, kăl'o-tīp.
Caloyers, kah-loi'erz.
Calpe, kăl'pe.
Calpee, kal-pē'.
Calpurnia, kal-pŭr'ne-ah.
Calquing, kawk'ĭng. [tah.
Caltanisetta, kal-tăn-e-zĕt'-
Caltha, kăl'thah.
Calumba, kăh-lŭm'bah.
Calumet, kăl'ŭ-mĕt.
Calumny, kăl'ŭm-ne.
Calvados, kăl-vah-dōs'.
Calvart, kahl'vahrt.
Calvary, kăl'va-re.
Calve, kahv.
Calventura, kăl-văn-too'rah.
Calverl, kăl'vŭrt.
Calvi, kăl've.
Calville, kăl'vĭl.
Calvin, kăl'vĭn.
Calx, kălks.
Calybio, kah-lĭb'e-o.
Calyceraceæ, kăl-ĭs-ŭr-a'se-e.
Calycifloræ, kăl-e-sĭf'lo-re.

Calycle, kăl'e-kl.
Calydon, kăl'e-dŏn.
Calymene, kal-e-me'ne.
Calypso, kah-lip'so.
Calyptorrynchus, kăl-ip-tor-ring'kŭs.
Calyptræidæ, kăl-ip-tre'e-de.
Calystegia, kăl-is-te'je-ah.
Calyx, ka'liks.
Camacho, ka-mah'cho. [ănz.
Camaldulians, kăm-ăl-du'le-
Camapuan, kah-mah-pwawn'.
Camarauca, kah-mah-raw'kah
Camara, kah-mah'rah.
Camargo, kah-măr-go'.
Camargne, kah-mahrg'.
Camarilla, ka-mah-rĭl'yah.
Camassia, ka-măsh'yah.
Cambaeérès, kŏn-bah-sa-rĕs'.
Cambay, kăm-ba'.
Cambiaso, kăm-be-ah'so.
Cambium, kăm'be-ŭm.
Cambodia, kăm-bo'de-ah.
Camborne, kăm'bŏrn.
Cambratine, kăm'bra-tĭn.
Cambray, kŏn-hra'.
Cambria, kăm'bre-ah.
Cambric, kăm'brĭk.
Cambridge, kăm'brij.
Cambronne, kŏn-bron'.
Cambyses, kăm-bī'seez.
Camden, kăm'd'n.
Camellia, ka-mĕl'le-ah.
Camelopard, kăm'ĕl-o-părd.
Camelot, kăm'e-lŏt.
Camera, kăm'e-rah.
Cameraria, kăm-e-ra're-ah.
Camerino, kăm-a-re'no.
Camerlingo, kăm-ăr-leeng'go
Cameron, kăm'ŭr-ŏn.
Cameroons, kăm-ŭr-oonz'.
Cameta, kăm'e-tah.
Camilla, kah-mĭl'lah.
Camisade, kăm-e-sād'.
Camisards, kăm'e-sărdz.
Camœnæ, kăm-e'ne.
Camoens, kah-mo'ĕnz.
Camogli, kah-mōl'ye.
Camolin, kăm'o-lĭn.
Camomile, kăm'o-mīl.
Camonflet, kăm'ŏn-fla.
Campagna, kăm-palın'yah.
Campalgu, kăm-păn'.
Campan, kŏn-pŏn'.
Campana, kăm-pah'nah.
Campanales, kăm-pān'a-lēz.
Campanella, kăm-pah-nĕl'lah
Campanha, kăm-palın'ah.
Campanile, kăm-pa-ne'la.
Campannla, kăm-păn'n-lah.
Campbell, kăm'l *or* kăm'bl.
Campeachy, kăm-pēch'e.
Campestral, kăm-pĕs'tral.
Camphansen, kămp-how'zn.
Camphine, kăm'fēn.
Camphire, kăm'fīr.
Camphogens, kămf'o-jĕnz.
Camphor, kăm'fŭr.
Camphrone, kăm'frōn.
Camphuysen, kămp-hī'zn.
Campion, kăm'pe-ŏn.
Campistron, kăm-pees'trŏn.
Campo Formio, kăm'po fôr - me-o. [nēz.
Campomanes, kăm-po-ma'-
Campo Santo, kăm'po săn'to.
Campton, kămp'tŭn.
Campus Martius, kăm'pŭs mär'she-ŭs. [lŏt'ro-pŭs.
Campylotropous, kăm-pe-
Camus, kah'mŭs.
Cana, ka'nah.
Canaan, ka'năn.
Canada, kăn'a-dah.
Canadian, ka-na'de-ăn.
Canaille, kah-nāl'.
Canal, kah-nāl'.
Canale, kah-nah'la.
Canalis, kah-na'lis. [gwah.
Canandaigua, kăn-ăn-da'-
Canara, kah-nah'rah.
Canaries, kah-na'rēz.
Canaris, kah-nah'ris.
Canarium, kah-na're-ŭm.
Canary, kah-na're.
Canaster, kah-năs'tŭr.
Canceale, kŏn-kahl'.
Can-can, kăn-kăn'.
Cancel, kăn'sĕl.
Cancellaria, kăn-sĕl-la're-ah.
Cancelli, kăn-sĕl'le.
Cancer, kăn'sŭr.
Cancrold, kăng'kroid.
Candaee, kăn'dah-se.
Candahar, kăn-dah-ăr'.
Candanles, kăn-daw'lēz.
Candeish, kăn-dāsh'. [brŭm.
Candelabrum, kăn-de-la'-
Canderos, kăn-da'rŏs.
Candia, kăn'de-ah.
Candle, kăn'dl.
Candolle, kŏn-dol'.
Candy, kăn'de.
Canea, kah-ne'ah.
Canemah, kăn'e-mah.
Canephoræ, kăn-ĕf'o-re,
Canescent, ka-nĕs'sĕnt,
Canes Venatici, ka'nēz ve-năt'e-se.
Cangallo, kahn-gāl'yo.
Canientti, kah-ne-kăt'te.
Canicula, ka-nĭk'u-lah.
Canldæ, ka'ne-de.
Canine, ka-nīn'.
Canino, kah-ne'no.
Canis, ka'nĭs.
Canisteo, kăn-ĭs-te'o.
Canker, kăng'kŭr.
Cannabis, kan'na-bĭs.
Cannæ, kăn'ne.
Cannelures, kăn'nl-yoorz.
Cannes, kahn'.
Canning, kăn'nĭng.
Cannonche, kăn-nŏn-che'.
Cannstadt, kahn'staht.
Cannular, kăn'nū-lăr
Cano, kah'no.
Canoe, ka-noo'.
Canon, kăn'ŏn.
Cañon, kăn'yōn.
Canonici, ka-nŏn'e-se.
Canoochee, kah-noo'che.
Canopus, kah-no'pŭs.
Canopy, kăn'o-pe.
Canossa, kah-nŏs'sah.
Canova, kah-no'vah.
Canoxinite, kăn'ŏk-sĭn-īt.
Canso, kăn'so.
Canstatt, kahn'stăt.
Cantabile, kăn-tăb'e-le.
Cantabri, kan'ta-bre. [yăn.
Cantabrigian, kăn-ta-brij'-
Cantacnzenns, kăn-tah-ku-
Cantal, kŏn(g)'tahl. [ze'nŭs.
Cantalupe, kăn-ta-loop'.
Cantankerous, kăn-tăng'-
Cantaro, kăn-tah'ro. [kŭr-ŭs.
Cantaliver, kăn'ta-lĕv-ŭr.
Cantata, kăn-ta'tah.
Cantatrice, kăn-ta-tre'che.
Canteen, kăn-tēn'.
Cantemir, kăn-ta-mēr'.
Canterbnry, kăn'tĕr-bŭr-re.
Canterii, kăn-te're-i.
Cantharidæ, kăn-thăr'e-de.
Cantharns, kăn'tha-rŭs.
Canticle, kăn'te-kl.
Cantii, kăn'te-ī.
Cantinlère, kăn-teen-yăr'.
Cantire, kăn-tīr'.
Cantle, kăn'tl.
Canto, kăn'to.
Canton, kăn-tŏn'.
Cantonment, kăn'tŏn-mĕnt.
Cantoon, kăn-toon'.
Cantù, kăn-too'.
Cannek, kăn'tŭk.
Cannla, kăn-yoo'lah.
Caunte, kah-nūt' *or* knoot.
Canvass, kăn'văs.
Canzone, kăn-zo'na.
Canzonet, kăn-zo-nĕt'.
Caontchonc, koo'chook.
Capable, ka'pa-bl.
Cap-a-pie, kăp-ah-pe'.
Caparison, kah-păr'e-sŏn.
Capetigne, kăp-fēg'.
Capel, kăp'ĕl.
Capella, kah-pĕl'lah.
Caper, ka'pŭr.
Capernaum, ka-pŭr'na-ŭm.
Capesterre, kăp-ĕs-tăr'.
Capet, ka'pĕt.
Capias, ka'pe-ăs.
Capibara, kah-pīb'a-rah.
Capillaire, kăp-il-yăr'. [mĕnt.
Capillament, kah-pĭl'lah-
Capita, kăp'e-tah.
Capitanata, kăp-e-tăn-ah'tah.
Capitan, kăp'e-tăn.
Capite Censi, kăp'e-te sĕn'se.
Capitularies, kah-pĭt'ū-la-
Capivi, kah-pe've. [reez.
Capiz, kah-pēce'.
Capnomor, kăp'no-mŏr.
Capoeh, kah-poosh'. [ah.
Capo d'Istria, kah'po dĭs-tre'-
Capon, ka'pŭn.
Caporcianite, kah-pŏr'shăn-īt
Capote, kah-pōt'.
Cappadocia, kăp'pa-do'she-ah
Cappagh, kăp'pah. [a'se-e.
Capparidaceæ, kăp-pa-rĭd-
Capparis, kăp'pa-rĭs.
Cappoqnin, kăp-po-kwĭn'.
Capra, ka'prah.
Capreolate, kăp're-o-lāt.
Capreolus, kăp-re-o'lŭs.
Caprera, kăp-ra'rah.
Capri, kah'pre.
Capriccio, kah-prēt'cho.
Capriccioso, kah-prēt-che-
Caprice, ka-prees'. [o'so.
Capricorn, kăp'ri-kŏrn. [se-e.
Caprifoliaceæ, kăp-re-fo-la'-
Caprimulgideæ, kăp-re-
Caprlole, kăp're-ōl. [mūl'je-de.
Capriped, kăp're-pĕd.
Capronys, kăp'ro-mĭs-
Capryl, kăp'rĭl.
Capsali, kăp'sah-le.
Capsella, kăp-sĕl'lah.
Capsienm, kăp'se-kŭm.
Capsize, kăp-sīz'.
Capsule, kăp'sūl.
Captation, kăp-ta'shŭn.
Caption, kăp'shŭn.
Captions, kăp'shŭs.
Captive, kăp'tiv.
Captnre, kăp'tŭr.
Capna, kah-poo'ah.
Capnchin, kăp-u-shēn'.
Capulet, kăp'ū-lĕt.
Caput, ka'pŭt.
Capybara, kah-pīb'a-rah.
Carabidæ, kah-răb'e-de.
Carabine, kăr'a-bīn.
Caracalla, kăr-ah-kăl'lah.
Caracara, kăr-ah-kah'rah.
Caracas, kah-rah'kăs.
Caracci, kah-răt'che.
Caraek, kăr'ak.
Caractacus, kah-răk'tah-kŭs.
Caracoli, kăr'a-cōl-e.
Carafa, kah-răf'fah.
Caragheen, kăr'ah-een.
Caraglio, kah-rahl'yo.
Caraites, kah-ra'i-tēz.
Carambole, kăr'ăm-bōl.
Caramel, kăr'a-mĕl.
Caranx, ka'răngks.
Carapace, kăr'a-pās.
Carat, kăr'ăt.
Caravaca, kah-rah-vah'kah.
Caravaggio, kah-rah-văd'jo.
Caravansary, kăr-a-văn'sa-re
Caravellas, kah-rah-vĕl'lăs.
Caraway, kăr'a-wa.
Carbamide, kăr'bām-īd.
Carbazotic, kăr-ba-zōt'ĭk.
Carbide, kăr'bīd.
Carbolic, kăr-bōl'ĭk.
Carbonarl, kăr-bŏn-ah're.
Carbnncle, kăr'bŭng-kl.
Carbnret, kăr'hu-rĕt.
Carbyle, kăr'bīl.
Carcajente, kăr-kah-hĕn'ta.
Carcajon, kăr'ka-joo.
Carcassonne, kăr-kăs-sŏn'.
Careel, kăr'sĕl.
Carceres, kăr'sŭr-eez.
Carcinology, kăr-sĭn-ŏl'o-je.
Cardamine, kăr'da-mĭn.
Cardan, kăr'dahn.
Cardenas, kăr-da'nahs.
Cardiac, kar'de-ak.
Cardlalgla, kăr-de-ăl'je-ah.
Cardigan, kăr'de-găn.
Cardioid, kăr'de-oid.
Cardiometry, kăr-de-ŏm'e-tre
Carditis, kăr-dī'tis.
Cardinm, kăr'de-ŭm.
Carduccio, kăr-doot'cho.
Cardnus, kăr'du-ŭs.
Care, kĕr.
Careen, ka-rēn'.
Caress, ka-rĕs'.
Caret, ka'rĕt.
Carey, ka're.
Carheil, kah-rīl'.
Caria, ka're-ah.
Cariaco, kah-re-ah'ko.
Cariati, kah-re-ah'te.
Carib, kăr'ĭb.
Caribbee, kăr-ĭb-be'.
Caribou, kăr'e-boo.
Carica, ka-re'kah.
Caricature, kăr'e-ka-tūr.
Caries, ka're-ēz.
Carignano, kah-rēn-yah'no.
Carillon, kah-re-yŏn(g)'.
Carimata, kăr-e-mah'tah.
Carina, kah-re'nah.
Carini, kah-re'ne.
Carinola, kah-re-no'lah.
Carinthia, kah-rĭn'the-ah.
Cariole, kăr'e-ōl.
Cariosity, ka-re-ŏs'e-te.
Caripe, kah-re'pa.
Carissa, ka-rĭs'sah.
Carle, kărl.
Carlen, kăr-lān'.
Carleton, kărl'tŭn.
Carlina, kăr-le'nah.
Carlings, kăr'lingz.
Carisbrooke, kăr'ĭs-brook.
Carlisle, kăr-līl'.
Carlists, kăr'listz.
Carloman, kăr'lo-măn.
Carlovinglans, kăr-lo-vĭn'-
Carlovitz, kăr'lo-vĭts. [je-ănz.
Carlsbad, kărlz'băd.
Carlserona, kărlz-kroo'nah.
Carlsruhe, kărlz'roo. [kah.
Carlndovica, kăr-loo-do've-
Carlyle, kăr-līl'.
Carmagnole, kăr-măn-yōl'.
Carmichael, kăr'mī-kūl.
Carminative, kăr-mĭn'a-tĭv.
Carmine, kăr'mīn.
Carmona, kăr-mo'nah.
Carnac, kăr'năk.
Carnaria, kăr-na're-ah.
Caruarvon, kăr-năr'vŏn.
Carnatic, kăr-năt'ĭk.
Carnation, kăr-na'shŭn.
Carneades, kăr-ne'a-deez.
Carnelian, kăr-nēl'yăn.
Carnifex, kăr'ne-fĕks.
Caruiola, kăr-ne-o'lah.
Carnivora, kăr-nĭv'o-rah.
Carnot, kăr-no'.
Carob, kăr'ŏb.
Caroche, ka-rōsh'.
Carolan, kăr'o-lăn.
Carolina, kăr-o-li'nah.
Carolinian, kăr-o-lĭn'yăn.
Carondelet, kah-rŏn'de-lĕt.
Carony, kăr'o-ne.
Caroteel, kăr-o-tĕl'.
Carotid, kah-rŏt'ĭd.
Carouse, kah-rowz'.
Carpathian, kăr-pa'the-ăn.
Carpel, kăr'pĕl.
Carpentaria, kăr-pĕn-ta're-ah
Carpentras, kăr-pŏn(g)-trahs'
Carpentry, kăr'pĕn-tre.
Carpholite, kăr'fo-līt.
Carphology, kăr-fŏl'o-je. [bīt.
Carphosiflbite, kăr-fŏs'til-
Carpino, kăr-pe'no.
Carpocrates, kăr-pŏk'ra-tēz.
Carquinez, kăr-ke'nēz.
Carrageen, kăr'ra-gēn.
Carrara, kăr-rah'rah.
Carrel, kah-rĕl'.
Carriage, kăr'rij.
Carriek, kăr'rik.
Carrier, *Eng.* kăr're-ŭr. *Fr.* kăr-ya'.
Carrière, kah-re-ya'.
Carrigaholt, kăr'rig-a-hōlt.
Carritunk, kăr're-tŭngk.
Carrom, kăr'rŏm.
Carronade, kăr-rŏn-ād'.
Carroty, kar'rŏt-e.
Carson, kăr'sŭn.
Cartago, kăr-tah'go.
Carte, kărt.
Cartel, kăr'tĕl.
Carteret, kăr'tŭr-ĕt.
Cartesian, kăr-te'zhăn.
Carthage, kăr'thij.
Carthagena, *Sp.* kăr-tah-ha'-nah ; *Eng.* kăr-tah-je'nah.
Carthusian, kăr-thu'zhăn.
Cartier, kăr-te-a'.
Cartilage, kăr'ti-lăj.
Carton, kăr-toon'.
Cartouch, kăr-tooch'.
Cartonche, kăr-toosh'.
Cartridge, kăr'trij.
Cartwright, kărt'rīt.
Carnncle, kăr'ŭng-kl.
Carnpano, kah-roo-pah'no.
Carns, ka'rŭs.
Cary, ka're. [fīl-la'se-e.
Caryophyllaceæ, ka-re-o-
Caryatides, kăr-e-ăt'e-dēz.
Caryocar, kăr-e-o'kăr.
Caryopsis, kăr-e-ŏp'sĭs.
Casale, kah-sah'la. [se'mah.
Casamassima, kăs-sah-măs-
Casanare, kah-sah-nah'ra.
Casanova, kah-sah-no'vah.
Casas Grandes, kah'săs grăn'-
Caseabel, kăs'ka-bĕl. [dĕs.
Cascade, kăs-kād'.
Casearilla, kăs-ka-rĭl'lah.
Casearel, kăs-kah-vĕl'.
Caseine, ka-se'in.
Casern, ka'zŭrn.
Caserta, kah-sŭr'tah.
Caseville, kăs'vĭl.
Casey, ka'se.
Cashel, kăsh'l.
Cashew, kah-shoo'.
Cashmere, kăsh-mēr'.
Casilinum, ka-sĭl'yŭm.
Casimir, kăs'se-mēr.
Casino, kah-se'no.
Casoria, kah-so're-ah.
Caspé, kăs'pa.
Caspian, kăs'pe-ăn.
Casque, kăsk.
Cassandra, kăs-săn'drah.
Cassation, kăs-sa'shŭn.
Cassava, kăs'sa-vah.
Cassay, kăs-sa'.
Cassel, kăs-sĕl'.
Casseqniare, kăs-se-ke-ah're.
Cassia, kăsh'uh.
Cassida, kăs'se-dah.
Cassimere, kăs'se-mēr.
Cassinl, kăs-se'ne.
Cassiodorus, kăs-se-o-do'rŭs.
Cassiopeia, kăs-se-o-pe'e-ah.
Cassis, kăs'sees.
Cassiterite, kăs-sĭt'ūr-īt.
Cassins, kăsh'yŭs.
Cassolette, kăs-so-lĕt'.
Cassopolis, kăs-sŏp'o-lĭs.
Cassowary, kăs'so-wa-re.
Cassytaceæ, kăs-se-ta'se-e.
Castalia, kăs-ta'le-ah.
Castanet, kăs-ta-nĕt'.
Castaños, kăs-tăn'yŏs.
Castanea, kăs-ta'ne-ah.
Caste, kahst.
Casteggio, kăs-tĕd'jo. [mah'ra.
Castellamare, kăs-tĕl-ah-
Castellana, kăs-tĕl'yah'nah.
Castellazzo, kăs-tĕl-lăt'so.
Castellon, kăs-tĕl'yŏn.
Castelnau, kăs-tĕl-no'.
Castigatlou, kăs-te-ga'shŭn.
Castiglione, kăs-tĕl-yo'na.
Castile, kăs-teel'.
Castilleja, kăs-tĭl-ya'ho.
Castillon, kăs-te-yŏn(g)'.
Castine, kăs-tēn'.
Castle, kăs'l.
Castoreum, kăs-to're-ŭm.
Castration, kăs-tra'shŭn.
Castrato, kăs-trah'to.
Castres, kăst'r.
Casual, kăzh'yoo-ăl.
Casuist, kăzh'yoo-ist. [tn'i-tŭs.
Casus Fortuitus, ka'sŭs fôr-
Catacanstics, kăt-a-kawz'tĭks
Catachresis, kăt-a-kre'sĭs.
Cataclysm, kăt'a-klizm.
Catacomb, kăt'a-kōm.
Catadioptric, kăt-a-di-ŏp'trĭk
Catalalque, kăt'a-falk.
Catagraph, kăt'a-grăf.
Catalan, kăt'a-lăn.
Catalepsis, kăt-a-lĕp'sĭs.
Catalogue, kăt'a-lŏg.
Catalonia, kăt-ah-lo'ne-ah.
Catalpa, ka-tăl'pah.
Catalysis, ka-tăl'e-sĭs.
Catamaran, kăt-a-ma-răn'.
Catamenia, kăt-a-me'ne-ah.
Catamite, kăt'a-mīt. [ah'nĕs.
Catanduanes, kah-tan-doo-
Catania, kah-tah'ne-ah.
Catanzaro, kah-tăn-zah'ro.
Cataplasm, kăt'a-plăzm.
Cataract, kăt'a-răkt.
Catarrh, ka-tahr'.
Catastasis, ka-tăs'ta-sĭs.
Catastrophe, ka-tăs'tro-fe.
Catawba, kah-tau'bah.
Catbalogan, kăt-bah-lo'găn.
Catch, kăch. [kăm-bra-se'.
Catean-Cambresis, kah-to'-
Catechism, kăt'e-kĭzm.
Catechn, kăt'e-shoo.
Catechnmen, kăt-e-ku'mĕn.
Category, kăt'e-go-re.
Catenary, kăt'e-na-re.
Caterpillar, kăt'er-pĭl-lăr.
Cates, kāts.
Cathari, ka-tha're.
Catharine, kăth'ăr-ĭn.
Catharpin, kăt-hărp'ĭn.
Catharsis, kah-thär'sĭs.
Cathedral, ka-the'drăl.
Catheretic, kăth-e-rĕt'ĭk.
Cathetometer, kăth-e-tŏm'e-
Cathode, kăth'ŏd. [tŭr.
Catholic, kăth'o-lĭk.
Catholicism, ka-thŏl'e-sĭzm.
Catiline, kăt'e-lĭn.
Catinat, kah-te-nah'.
Cato, ka'to.
Catodon, ka-to'dŏn.
Catoosa, kah-too'sah.
Catoptries, ka-tŏp'trĭks.
Catrimani, kah-tre-mah'ne.
Catskill, kătz'kĭl.
Catsnp, kĕch'ŭp.
Cattarangus, kăt-tah-raw'gŭs
Cattaro, kăt-tah'ro.
Cattegat, kăt-te-găt'.
Cattle, kăt'tl.
Catnllns, kah-tŭl'lŭs.
Caucasian, kaw-ka'zhăn.
Caucasns, kaw'kah-sŭs.
Caucus, kaw'kŭs. [kwi'nah.
Canda Equina, kaw'dah e-
Caudal, kaw'dăl.
Caudebec, kōd-bĕk'.
Candicula, kaw-dĭk'u-lah.
Candinm, kaw'de-ŭm
Candle, kaw'dl. [wah'gah.
Canghnawaga, kaw-nah-
Caulaincourt, ko-lăn-koor'.
Caulescent, kaw-lĕs'sĕnt.
Caulicle, kaw'le-kl.
Caulicnlus, kaw-lĭk'u-lŭs.
Canliflower, kaw'le-flow'ŭr.
Caulis, kaw'lĭs.
Caulk, kawk.
Cauma, kaw'mah.
Caumbe, kawm'be.
Cans, ko.
Cause, kawz.
Causeway, kaw'ze.
Causidical, kaw-zĭd'e-kăl.
Caussade, ko-sahd'.
Caussidière, ko-se-de-a'.
Canstic, kawz'tĭk.
Cautery, kaw'tŭr-e.
Cantion, kaw'shŭn.
Cava, ka'vah.
Cavaignac, kah-van-yăk'.
Cavaillon, kah-va-yŏn(g)'.
Cavalcante, kah-văl-kăn'ta.
Cavalier, kăv-a-lēr'.
Cavalry, kăv'ăl-re.
Cavan, kăv'ăn.
Cavanas, kah-vah'năs.
Cavass, kah-văs'.
Cavatina, kăv-ah-te'nah.
Cavazion, kah-va'zhŭn.
Caveat, ka've-ăt. [o n.
Cavendish, kăv'n-dĭsh or kan'-
Cavern, kăv'ŭrn.
Cavery, kaw'vŭr-e.
Cavesson, kăv'e-zŏn.
Cavetto, kah-vĕt'to.
Caviar, kăv'e-ăr.
Cavicornia, kăv-e-kŏr'ne-ah.

Cavil, kăv'ĭl.
Cavité, kăv-e-ta'.
Cavity, kăv'e-te.
Cavour, kah-voor'.
Cawnpore, kawn-poor'.
Caxamarca, kah-hah-măr'kah
Caxias, kah shē'ăs.
Caxton, kăks'tŭn.
Cayambe, kī-ăm'be.
Cayenne, kī-ĕn'.
Cayes, ka.
Caylus, ka-loos'.
Cayman, ka'măn *or* kī'măn.
Caymito, kī-me'to.
Cayo, kī'o.
Cayuga, kah-yoo'gah.
Cazalla, kah-thăl'yah.
Cazembe, kah-zĕm'be.
Cazenovia, kăz-ĕn-o've-ah.
Cazique, kah-zeek'.
Cazorla, kah-thŏr'lah.
Cazotte, kah-zŏt'.
Ceanothus, se-ăn'o-thŭs.
Ceara, se-ah-rah'.
Cease, seece.
Cebes, sc'bēz.
Cebidæ, sĕb'e-de.
Cebrionidæ, sĕb-re-ŏn'e-de.
Cecidomya, sēs-e-dŏm'e-ah.
Cecil, sēs'ĭl, *or* sĭs'ĭl.
Cecity, se'se-te.
Cecropia, se-kro'pe-ah.
Cecrops, se'krŏps.
Cecutienev, se-kn'shĕn-se.
Cedar, se'dăr.
Cedilla, se-dĭl'lah.
Cedrine, se'drĭn.
Cedrus, se'drŭs.
Cefalu, cha-fah-loo'.
Cehejin, tha-ha-hēn'.
Ceiling, sēl'ĭng.
Celakovsky, cha-lah-kŏv'ske.
Celandine, sĕl'ăn-dīn.
Celano, cha-lah'no.
Celastrus, se-lăs'trŭs.
Celature, sĕl'a-tūr.
Celbridge, sĕl'brĭj.
Celebes, sĕl'e-hēs.
Celebrity, se-lĕb're-te.
Celeres, sĕl'e-reez.
Celerity, se-lĕr'e-te.
Celestine, sĕl'ĕs-tĭn.
Celery, sĕl'ŭr-e.
Celestial, se-lĕst'yăl.
Celiac, se'le-ăk.
Celibacy, sĕl-e-ha'se.
Celidography, sĕl-e-dŏg'ra-fe
Celina, se-lī'nah.
Cella, sĕl'lah.
Cellamare, chĕl-lah-mah'ra.
Cellarage, sĕl'lăr-āj.
Cellarino, chĕl-lah-re'no
Cellarius, sĕl-lah're-ŭs.
Celle, tsĕl'la.
Cellini, chĕl-le'ne.
Cellular, sĕl'lu-lăr.
Cellule, sĕl'yool.
Celosia, se-lo'zhah.
Celsius, sĕl'se-ŭs.
Celt, sĕlt.
Celtæ, sĕl'te.
Celtiberi, sĕl-te-be're.
Cement, se-mĕnt'.
Cemetery, sĕm'e-ta-re.
Cenchrus, sĕng'krŭs.
Cenci, chĕn'che.
Cenis, sa'ne.
Cenobite, sĕn'o-hīt.
Cenotaph, sĕn'o-tăf.
Cenozoic, sĕn-o-zo'ĭk.
Censual, sĕn'shoo-ăl.
Censure, sĕn'shoor.
Census, sĕn'sŭs.
Centaur, sĕn'tawr.
Centavo, sĕn-ta'vo.
Centena, sĕn-ta'nah.
Centenary, sĕn'te-na-re.
Centesimo, sĕn-tĕs'e-mo. [tŭs.
Centicipitous, sĕn-te-sip'e-
Centigrade, sĕn'te-grād.
Centigramme, sĕn-te-grăm'.
Centilitre, sĕn-te-le'tr.
Centiloquy, sĕn-tĭl'o-kwe.
Centime, sŏn-tēm'.
Centipede, sĕn'te-pēd.
Cent Jours, sŏnt zhoor'.
Centner, sĕnt'nŭr.
Centonism, sĕn'to-nĭzm.
Centralia, sĕn-tra'le-ah.
Centre, sĕn'tŭr.
Centripetal, sĕn-trĭp'e-tăl.
Centriscus, sĕn-trĭs'kŭs.
Centropolis, sĕn-trŏp'o-lĭs.
Centumvir, sĕn-tŭm'vĭr.
Centurion, sĕn-tn're-ŏn.
Century, sent yoo-re.
Cephalaigy, sĕf'ăl-al-je.
Cephalanthus, sĕf-a-lăn'thŭs
Cephalitis, sĕf-a-lī'tĭs.
Cephalonia, sĕf-ah lo'ne-ah.
Cephalopoda, sĕf-a-lŏp'o-dah.
Cephalotribe, sĕf'a-lo-trīb.
Cephalus, sĕf'ah-lŭs.
Cepheus, se'fe-ŭs.
Cephisus, se-fī'sŭs.
Ceraceous, se-ra'shŭs.
Cerago, se-ra'go.
Cerambyx, se-răm'bĭks.
Ceramen, sĕr'a-mĕn.
Ceramic, se-răm'ĭk.
Cerasium, se-ra'zhŭm.
Cerastium, se-răst'yŭm.
Cerate, sĕr'ăt.
Ceramics, se-raw'nĭks.
Cerberus, sŭr'bŭr-ŭs.
Cercis, sŭr'sĭs.
Cerdic, kĕr'dĭk.
Cere, sĕr.
Cereal, se're-ăl.
Cerebellum, sĕr-e-bĕl'lŭm.
Cerebrum, sĕr'e-hrŭm.
Cerement, sĕr'mĕnt.
Cereopsis, sĕr-e-ŏp'sĭs.
Ceres, se'rēz.
Cerine, se'rĭn.
Cerinthians, se-rĭn'the-ănz.
Ceriph, sĕr'if.
Cerite, se'rīt.
Cerium, se're-ŭm.
Cernous, sŭr'nŭs.
Cerolein, sĕr-o-le'ĭn.
Ceroma, se-ro'mah.
Cerosine, sĕr'o-sĭn.
Cerotic, se-rŏt'ĭk.
Ceroxylon, se-rŏks'e-lŏn.
Cerro, ser'ro.
Certain, sŭr'tĭn.
Certes, sŭr'tēz.
Certhiadæ, sŭr-thī'a-de.
Certificate, sŭr-tĭf'e-kāt.
Certiorari, sŭr-she-o-ra're.
Certitude, sŭr'te-tūd.
Cerumen, se-roo'mĕn.
Cerusc, se'roos.
Cervantes, thĕr-vahu'tĕz.
Cervera, thĕr-va'rah.
Cervidæ, sŭr've-de.
Cervin, sĕr-vahu(g)'.
Cervus, sŭr'vns.
Ceryle, se'rĭl.
Cesarotti, cha-sah-rŏt'te.
Cesena, cha-sa'nah.
Cespedes, thĕs-pa'dĕs.
Cespitous, sĕs'pe-tŭs.
Cessation, sĕs-sa'shŭn.
Cessio Bonorum, sĕs'sho bŏu-o'rŭm.
Cession, sĕsh'ŭn.
Cesspool, sĕs'pool.
Cestoidæ, sĕs-to'e-de.
Cestracion, sĕs-tra'shŭn.
Cestrum, sĕs'trŭm. [trŭst.
Cestui que trust, sĕs'twe ka
Cetacea, se-ta'sc-ah.
Cetraria, sc-tra're-ah
Cette, sĕt.
Cetyle, se'tĭl.
Ceuta, the-oo'tah.
Ceylon, se'lŏn *or* se-lŏn'.
Cezimbra, sa-zēm'brah.
Chabasic, chăh'a-sĭk.
Chablis, shah-hle'.
Chabrias, ka-bre'ăs. [yăs.
Chachapoyas, chah-cha-po'-
Chaco, chah'ko.
Chacone, chah-ko'na.
Chadda, chăd'dah.
Chæronea, kĕr-o-ne'ah.
Chætodon, ke'to-dŏn.
Chafing, chāf'ĭng.
Chagres, chah'grĕs.
Chagrin, sha-grĭn'.
Chaillot, sha-ye-o'.
Chailly, sha-yoo'.
Chair, chĕr.
Chaise, shāz. [tŏnzh'.
Chaix d'Est Ange, sha-da-
Chaka, chah'kah.
Chalaza, kah-lah'zah.
Chalcedony, kăl'se-do-ne.
Chalcidæ, kăl'se-de.
Chalcis, kăl'sĭs.
Chalcography, kăl-kŏg'ra-fe.
Chaldæa, kal-de'ah.
Chalet, shah-la'.
Chalice, chăl'ĭs.
Chalk, chawk.
Challenge, chăl'lĕnj.
Chalmers, chaw'mŭrz.
Chalons, shah-lŏn(g)'.
Chalus, shah-loos'.
Chalybeate, ka-lĭb'e-ăt.
Cham, kam.
Chamade, shah-mād'.
Chamærops, kăm'e-rŏps.
Chamber, chām'bŭr.
Chamberlain, chām'bŭr-lĭn.
Chambertin, shŏn-bār-tahn(g)'.
Chambery, shŏn-ha-re'.
Chambly, shŏn-hle'.
Chambord, shŏn-hŏr'.
Chambre, shōm'hr.
Chambrel, kam'brĕl.
Chameleon, ka-me'le-ŏn.
Chamfort, shŏn-fŏr'.
Chamfrain, chām'frān.
Chamilly, shah-me-ye'.
Chamisso, shah-me-so'.
Chamois, shaw'me or sha-moi'.
Chamomile, kăm'o-mīl.
Chamond, shah-mŏn(g)'.
Chamouni, shah-moo-ne'.
Champ, shŏn(g).
Champagne, { *Eng.* shăm-pān'. *Fr.* shŏn-pahn'.
Champaign, shām-pān'.
Champerty, shām'pŭr-te.
Champignon, shŏn-pēn-yŏn(g)'.
Champlain, shām-plān'.
Champmeslé, shŏn(g)-ma-la'.
Champollion, shŏn-po-le-
Chancay, chahn-kī'. [ŏn(g)'.
Chancellor, chăn'sĕl-lŏr.
Chancre, shăng'kr.
Chandelier, shăn-de-leer'.
Chandernagore, shăn-dur-
Chandore, shăn-dōr'.[nah-gōr'.
Chandos, chăn'dŏs.
Changarnier, shŏn-gār-ne-a'.
Chang-choo-foo, chăng-choo-foo'.
Change, chānj. [choo-foo'.
Chang-Mai, chăng-ma'e.
Channahatchee, chăn-năh-ătch'e.
Channing, chăn'nĭng.
Chanson, shon'sŏn.
Chantal, shŏn-tahl'.
Chantibun, shon-ta-boon'.
Chantilly, shŏu-te-ye'.
Chantrey, chăn'tre.
Chao-tchou, cha-o-choo'.
Chaparal or **Chapparal,** chah-pah'răl.
Chapeau, shah-po'.
Chapelain, shahp-lān'.
Chaperon, shăp'ĕr-ŏu.
Chapfallen, chŏp'fauln.
Chapin, cha'pĭn.
Chapiter, chăp'e-tŭr.
Chaplain, chăp'lĭn.
Chappaqua, chăp'pah-kwah.
Chaps, chŏpz.
Chaptal, shăp-tahl'. [pĕk'.
Chapultepec, shah-pool-ta-
Character, kăr'ăk-tŭr.
Charade, sha-rād.
Charadeidæ, ka-răd'e-de.
Charbon, shar'hŏn.
Charcoal, chăr'kōl.
Chardin, shăr'dĭn.
Chardon, chăr'dŏn.
Charente, shah-rŏnt'. [tŏn(g)'.
Charenton, shah-rŏn(g)-
Charette, shah-rĕt'. [dăf-făr'.
Chargé d'affaires, shăr-zha
Charism, ka'rĭzm.
Charité, shăr-e-ta'.
Charites, kăr'e-tēz.
Chariton, shah're-tŏn.
Charivari, shah-re-vah-re'.
Charlatan, shăr'la-tăn.
Charlemagne, shăr-la-măn.
Charle-mont, { *Eng.* chăr'le-mŏnt. *Fr.* shăr-la-mŏn(g)'.
Charleroi, shăr-la-rwaw'.
Charles, *Eng.* chahrlz, *Fr.* shahrl.
Charlevoix, shăr-la-vwah'.
Charlotte, shăr'lŏt.
Charolais, shah-ro-la'.
Charon, ka'rŏn.
Charras, shahr-răs'.
Charron, shah-rŏn(g)'.
Charta, kăr'tah.
Charte, shahrt.
Charter, chăr-tŭr'.
Chartier, shăr-te-a'.
Chartometer, chăr-tŏm'e-tŭr.
Chartres, shărt'r.
Chartreuse, shar-trūz'.
Charybdis, ka-rĭb'dĭs'.
Chasles, shahl.
Chasm, kăzm. [loo-lo-hah'.
Chasseloup-Laubat, shahs-
Chassepot, shăs-po'.
Chasseur, shăs-soor'.
Chassie, shăs'se.
Chaste, chāst.
Chastelard, shaht-lahr'.
Chastellux, shah-ta-looks'
Chastise, chăs-tīz'.
Chastity, chăs'te-te.
Chasuble, chăz'ū-bl.
Chateau, shah-to'.
Chateaubriand, or **Chateaubriant,** -bre-ŏn(g)'.
Chateaudun, shah-to-dŭn(g)'
Chateau-Gontier, -gŏu-te-a'
— Haut-Brion, -ho-bre-ŏn(g)'.
— Lafitte, -lah-fĕt'.
— Latour, -lah-toor'.
— Margaux, -măr-go'.
— Ponsat, -pŏn-sa'.
Chateauroux, shah-to-roo'.
Chateau Thierry, -te-a-re'.
Châtel, shah-tăl'.
Chatelain, shah-ta-lān'.
Châtelet, shah-ta-la'.
Chatellerault, shah-tĕl-ro'.
Chatenay, shah-ta-na'.
Chatenois, shah-ta-nwaw'.
Chatham, chăt'ăm.
Chatillon, shah-te-yŏn(g)'.
Chatoyant, shah-toi'ănt. [che.
Chattahoochee, chăt-tah-oo'-
Chattanooga, chăt-tah-noo'-
Chattel, chăt'tl. [gah.
Chatterton, chăt'tŭr-t'n.
Chattooga, chăt-too'gah.
Chaucer, chaw'sŭr.
Chaudière, sho-de-yār'.
Chaulieu, sho-le-oo'.
Chauncey, chawn'se.
Chautauqua, shah-taw'kwah.
Chauveau-Lagarde, sho-vo-lah-gărd'.
Chaux-de-Fond, sho-da-fŏn'.
Chaves, shah'vĕs.
Chayanta, chī-ăn'tah.
Chazy, cha'ze.
Cheadle, chē'dl.
Cheap, cheep.
Cheboygan, she-boi'găn.
Checauqua, she-kaw'kwah.
Chedabucto, shĕd-ah-bŭk'to.
Cheduba, che-doo'bah.
Cheetah, che'tah.
Cheever, che'vŭr.
Chef, shĕf.
—d'œuvre, sha-dōvr'.
Chegre, che'gr.
Chehalis, che-ha'lĭs.
Cheiranthus, ki-răn'thŭs.
Cheiroptera, kī-rŏp'te-rah.
Che-kiang, che-ke-ăug'.
Chelæ, ke'le.
Chelidon, kĕl'e-dŏn.
Chelmsford, chĕlmz'fŭrd.
Chelonia, ke-lo'ne-ah.
Chelsea, chĕl'se.
Cheltenham, chĕlt'năm.
Chemicals, kĕm'ĭk-ălz.
Chemiglyphic, kĕm-e-glĭf'ĭk.
Chemin de ronde, sha-mahn-
Chemise, she-meez'. [da-rŏnd'.
Chemisette, shĕm-e-zĕt'.
Chemistry, kĕm'ĭst-re.
Chemnitz, kĕm'nĭts.
Chemung, che-mŭng'.
Chenango, che-năng'go.
Chenaub, che-năb'. [tah'nah.
Chengwatana, shĕng-wah-
Chenica, chĕu'e-kah.
Chenier, sha-ne-a'.
Chenille, she-neel'.
Chenook, che-nook'. [ŭm.
Chenopodium, ke-no-po'de-
Cheops, ke'ŏps.
Chepillo, cha-pēl'yo.
Chepstow, chĕp'sto.
Cheque, chĕk.
Chequy, chĕk'e.
Cher, shār.
Cherasco, ka-răs'ko.
Cherbourg, shār-hoor'.
Cherbury, chŭr'bŭr-e.
Cheribon, shĕr'e-bŏn.
Cherokee, chĕr-o-ke'.
Cheroot, che-root' *or* she-root'.
Chersiphron, kĕr'se-frŏn.
Chersonese, kĕr-so-ne'se.
Chernbini, ka-roo-he'ne.
Cherusci, ke-rŭs'ki.
Chervil, chŭr'vĭl.
Chesapeake, chĕs'a-peek.
Cheshire, chĕsh'ŭr.
Chester, chĕs'tŭr.
Chestnut, chĕs'nŭt.
Chetaghee, che-tach'e.
Chetvert, or **Chetwert,** chĕt'wŭrt. [frēz'.
Cheval-de-frise, sha-văl-da-
Chevalier, shĕv-a-leer'.
Cheviot, chĕv'e-ŏt.
Chevrette, shĕv-rĕt'.
Chevreul, sha-vrool'.
Chevrense, sha-vroos'.
Chevron, shĕv'rŏn.
Chevy Chase, chĕv'e chās.
Chew, choo.
Cheyenne, shī-ĕn'.
Chiau, ki'au.
Chiapa, che-ah'pah. [mŏn'ta.
Chiaramonte, ke-ah-rah-
Chiaro-oscuro, ke-a'ro-ŏs-koo'ro.
Chiastolite, ke-ăs'to-lit.
Chiavari, ke-ah-vah're.
Chibouque, che-hook'.
Chicacole, sĭk-ah-kōl'.
Chicago, she-kaw'go.
Chicane, she-kān'.
Chichen, che-chĕn'. [ŏm'e-ne.
Chickahominy, chĭk-ah-
Chickamauga, chĭk-ah-maw'gah.
Chickasaw, chĭk'a-saw.
Chico, chee'ko,
Chicopee, chĭk-o-pe'.
Chicory, chĭk'o-re.
Chicot, she-ko'. [gah.
Chictawaga, chĭk-tah-wah'-
Chieftain, chēf'tăn.
Chieri, ke-a're.
Chieti, ke-a'te.
Chiffonier, shĭf-fŏn-ēr'.
Chigoe, che'go.
Chihuahua, che-wah'wah.
Chilblain, chĭl'hlān.
Childe, child.
Childebert, shĕl-da-hār'.
Childeric, shĕl-da-rēk'.
Chill, chĭl'le.
Chiliagon, chĭl'e-a-gŏn.
Chillambaram, chĭl-lăm-bah-răm'.
Chillicothe, chĭl-le-kŏth'e.
Chillingworth, chĭl'lĭng-
Chillon, she-yŏn(g)'. [wŭrth.
Chilmarry, chĭl-mah're.
Chiloe, chĕl-o-a'.
Chiltern, chĭl'tŭrn.
Chimæridæ, kĭ-mĕr'e-de.
Chimaphila, kĭm-ăf'e-lah.
Chimay, she-ma'.
Chimb, chĭm. [tho.
Chimborazo, chĕm-ho-rah'-
Chimera, ke-me'rah.
Chimney, chĭm'ne. [măn'thŭs.
Chimomanthus, chĭm-o-
Chimpanzee, chĭm-păn'ze.
China, chī'nah.
Chinaub, chĭn-ōb'.
Chincapin, chĭngk'a-pĭn.
Chincha, chĕn'chah.
Chinchilla, chĭn-chĭl'lah.
Chincough, chĭn'kŏf.
Chingleput, chĭng-gl-pŭt'.
Chink, chĭngk.
Chinon, she-nŏn(g)'.
Chintz, chĭnts.
Chioggia, ke-ŏd'jah.
Chionanthus, ki-o-năn'thŭs.
Chione, ki'o-ne.
Chioppine, chŏp-peen'.
Chios, ki'ŏs.
Chippenham, chĭp'năm.
Chippewa, chĭp'pe-wah.
Chiquimula, che-ke-moo'lah.
Chiquitos, che-ke'tōs.
Chiriqui, che-re-ke'.
Chirk, chŭrk.
Chirography, ki-rŏg'ra-fe.
Chirogymnast, ki-ro-jĭm'-
Chiron, ki'rŏn. [năst.
Chironectes, ki-ro-nĕk'tēz.
Chironomy, ki'rŏn'o-me.
Chiropodist, ki-rŏp'o-dĭst.
Chirotes, ki-ro'tēz.
Chirp, chŭrp.
Chirrup, chĭr'rŭp.
Chirurgy, kĭr'ŭr-je.
Chisel, chĭz'l.
Chiswick, chĭz'ĭk.
Chitore, chĭt-ōr'.
Chittagong, chĭt-tah-gŏng'.
Chitterlings, chĭt'tr-lĭngz.
Chittim, kit'tim.
Chium, ki'ŭm.
Chlusa, ke-oo'sah.
Chivalry, shĭv'ăl-re.
Chivasso, ke-văs'so.
Chives, chīvz.
Chladni, klăd'ne.
Chlamys, kla'mĭs.
Chlapowsky, klah-pŏv'ske.
Chlopicki, klo-pĭts'ke.
Chlorate, klo'rāt.
Chloride, klo'rīd.
Chlorine, klo'rĭn.
Chloroform, klo'ro-fŏrm.
Chlorophane, klo'ro-făn.
Chlorophyl, klo'ro-fil.
Chlorosis, klo-ro'sĭs.
Chloroxylon, klo-rŏks'e-lŏn.
Chmielnicki, kme-ĕl-nĭts'ke.
Choate, chōt.
Chock, chŏk.
Choco, cho'ko.
Chocolate, chŏk'o-lāt.
Choctaw, chŏk'tau.
Chœrilus, kĕr-e'lŭs.
Choir, kwĭr.
Choiseul, shwah-sool'.
Chokeedar, cho-ke-dahr'.
Choledoch, ko'le-dŏk.
Cholera, kŏl'e-rah.
Cholesterine, ko-lĕs'tŭr-ĭn.
Choliamb, ko'le-ămb.
Cholula, cho-loo'lah.
Chondrine, kŏn'drĭn. [tŭr.
Chondrometer, kŏn-drŏm'e-
Chondropterygians, kŏn-drŏp-te-rĭj yănz.
Chondrus, kŏn'drŭs.
Chonos, cho'nŏs.
Chontales, chŏn-tah'lĕs.
Choose, chooz.
Chopin, { *Eng.* chŏp'ĭn. *Fr.* sho-pahn'.
Choragic, ko-răj'ĭk.
Choragus, ko-ra'gŭs.
Choral, ko'răl.
Chord, kŏrd.
Chordee, kŏr-de'.
Chorea, ko're-ah. [fe.
Choreography, ko-re-ŏg'ra-
Chorens, ko-re'ŭs.
Choriamb, ko're-ămb
Chorion, ko're-ŏn.
Chorley, chŏr'lc.
Chorography, ko-rŏg'ra-fe.
Choron, sho-rŏn(g)'.
Chorus, ko'rŭs.
Chose, chooz.
Chosroes, kŏs'ro-ēz.
Chouans, shoo-ăn'.
Chough, chŭf.
Chouteau, shoo-to'
Chowan, cho'wăn.
Chowder, chow'dŭr. [tĭks.
Chrematistics, kre-mah-tĭs'-
Chrcotechnics, kre-o-tĕk'-nĭks.

Chrestomathy, krĕs-tŏm'a-
Chrism, krĭzm. [the.
Christ, krīst.
Christendom, krĭs'n-dŭm.
Christian, krĭst'yăn.
Christiana, krĭs-te-ah'nah.
Christiania, krĭs-te-ah'ne-ah.
Christianstad, krĭs'te-ăn-stät
Christina, krĭs-te'nah.
Christinos, krĕs-te'nōz.
Christmas, krĭs'măs.
Christopher, krĭs'to-fŭr.
Chroastaces, kro-ăs'ta-sēz.
Chromaties, kro-măt'ĭks.
Chrome, krōm.
Chromium, kro'me-ŭm.
Chromograph, kro'mo-grăf.
Chronic, krŏn'ĭk.
Chronicle, krŏn'e-kl.
Chronogram, krŏn'o-grăm.
Chronometer, kro-nŏm'e-tŭr
Chronoscope, kro'no-skōp.
Chrysalis, krĭs'a-lĭs.
Chrysaniline, krĭs-ăn'ĭ-lĭn.
Chrysanthemum, kre-săn'-the-mŭm.
Chrysididæ, kre-sĭd'e-de.
Chrysippus, kre-sĭp'pŭs.
Chrysochlore, krĭs'o-klōr.
Chrysography, krĭs-ŏg'ra-fe.
Chrysolite, krĭs'o-līt. [e-de.
Chrysomelidæ, krĭs-o-mĕl'-
Chrysoprase, krĭs'o-prāz.
Chrysostom, krĭs-ŏs'tŏm.
Chrysotype, krĭs'o-tīp.
Chuapa, choo-ah'pah.
Chuckatuk, chŭk'a-tŭk.
Chuckle, chŭk'l.
Chucnito, choo-kwe'to.
Chuenpee, choo-ĕn-pe'. [se-ri'.
Chuganseral, choo-gahn-
Chuhahoma, choo-hah-o'mah.
Chulnwau, choo-loo-wahn'.
Chumbul, chŭm'bŭl.
Chumpawut, chŭm-pah-wŭt'.
Chunam, choo'năm.
Chunargur, choo-nar-goor'.
Chunchos, choon'chōs.
Chunk, chŭngk.
Chupat, choo-paht'. [bäm'bah.
Chuquibamba, choo-ke-
Chuquisaca, choo-ke-sah'kah.
Chur, koor.
Churchill, chŭrch'ĭl.
Churubusco, choo-roo-boos'ko
Chusan, choo-sahn'.
Chute, shoot.
Chyle, kil.
Chylifaction, kĭl-e-făk'shŭn.
Chylous, kī'lŭs.
Chyme, kīm. [shŭn.
Chymification, kĭm-i-fe-ka'-
Cialdini, chäl-de'ne.
Cibao, se-bah'o.
Cibber, sĭb'bŭr.
Cibolo, se-bo'lo.
Cibotium, si-bo'she-ŭm.
Cicada, se-ka'dah.
Cicatrice, sĭk'a-trĭs.
Cicatricle, sĭk'a-trĭk-l.
Cicely, sĭs'e-le.
Cicero, sĭs'e-ro.
Cicerone, chĕ-che-ro'ne.
Cichorium, sĭk-o're-ŭm.
Cicindela, se-sĭn'de-lah.
Cicisbeo, che-chĭs'ba-o.
Cicuta, se-ku'tah. [pe'ah-dōr.
Cid Campeador, thēd kăm-
Cider, sī'dŭr.
Ci-devant, se-da-vŏn(g)'.
Cienfuegos, se-ăn-fwa'gōs.
Cieza, thē-a'thah.
Cigar, se-gär'.
Cigarette, sĭg-ăr-ĕt'.
Cilia, sĭl'e-ah.
Cilicia, se-lĭsh'yah.
Cillosis, sĭl-lo'sĭs.
Cimabue, chee-mah-boo'a.
Cimar, si'mär.
Cimarosa, che-mah-ro'zah.
Cimbri, kĭm'bri.
Cimeter, sim'e-tŭr.
Cimex, si'mĕks.
Cimicifuga, sĭm-e-sĭf'u-gah.
Cimmerii, kĭm-me're-i.
Cimolite, sĭm'o-līt.
Cimon, si'mŏn.
Cinaloa, se-nah-lo'ah.
Cinchona, sĭn-cho'nah.
Cincinnati, sĭn-sĭn-nah'te.
Cincline, sĭn'klĭn-e.
Cinconia, sĭn-ko'ne-ah.
Cinconidæ, sĭu-kōn'e-de.
Cinco-Señores, sĕn'ko-sän'-
Cincture, sĭngk'tŭr. [yŏrz.
Cincas, sĭn'e-ăs.
Cineraria, sĭn-e-ra're-ah.
Cingalese, sĭng'ga-lez.
Cingulum, sĭng gu-lŭm.
Cinna, sĭn'nah.
Cinnabar, sĭn'na-bär.
Cinnamon, sĭn'na-mŏn.
Cinq-Mars, săngk-mahr'.
Cinque, sĭngk, *or* sangk.
Cinquecento, chĭngk-we-
Cintra, sĕn'trah. [chen'to.
Ciotat, se o-tah'.
Cipher, sī'fŭr.
Cipolin, sĭp'o lĭn.
Cippus, sĭp-pŭs.
Circar, sŭr'kär.
Circassia, sŭr-kăsh'yah.
Circe, sŭr'se.
Circensial, sŭr-sĕn'shăl.
Circinus, sŭr-sī'nŭs.
Circium, sŭr'she-ŭm.
Circle, sŭr'kl.
Circuit, sŭr'kĭt.
Circulus, sŭr'ku-lŭs.
Circumcession, sŭr-kŭm-
sĕsh'ŭn. [sĭzh'ŭn.
Circumcision, sŭr-kŭm-
Circumduction, sŭr-kŭm-
dŭk'shun.
Circucester, sŭr'sĭs-tŭr.
Cirque, sŭrk.
Cirrigrade, sĭr're-grād.
Cirrus, sĭr'rŭs.
Cirsocele, sŭr'so-sēl.
Cisalpine, sis-ăl'pĭn.
Cisco, sĭs'ko.
Cisean, se-so'.
Cispadane, sĭs'pa-dān.
Cist, sĭst.
Cistercians, sĭs'tŭr'shănz.
Cistern, sĭs'tŭrn.
Citadel, sĭt'a-dĕl.
Citation, si-ta'shŭn.
Cithara, sĭth'a-rah.
Citiole, sĭt'e-ōl.
Citizen, sĭt'e-zĕn.
Citrate, sĭt'rāt.
Citron, sĭt'rŭn.
Città Vecchia, chĭt-tah vĕk'-
Cittern, sit'tŭrn. [ke-ah.
Cindad Real, the-oo'dăd rōd-re'go
— Rodrigo, the-oo'dad rōd-re'go
Civet, sĭv'ĕt.
Civiale, se-ve-ah'la.
Civic, sĭv'ĭk.
Civilization, sĭv-e-le-za'shŭn.
Civita Vecchia, che've-tah
Clachan, klăk'ăn. [vĕk'ke-ah.
Clackamas, klăk'ah-măs.
Cladonia, kla-do'ne-ah.
Clagenfurth, klăg-an-foort'.
Claiborne, kla'börn.
Clairant, klār-o'.
Clairon, kla-rŏn(g)'.
Clairvaux, klār-vo'.
Clairvoyance, klār-voi'ăns.
Clamatores, klăm'a-tōrz.
Clamor, klăm'ŭr.
Clandestine, klăn-dĕs'tĭn.
Clank, klăugk.
Clanwilliam, klăn-wĭl'yăm.
Claquato, klah-kah'to.
Claque, klăk.
Clara, kla'rah.
Claremont, klār-mŏnt'.
Clarencienx, klār-ĕn-soo'.
Clarendon, klăr'ĕn-dŭn.
Clarens, klah-rŏn(g)'.
Claret, klăr'ĕt.
Clarichord, klăr'e-kōrd.
Clarinda, kla-rĭn'dah.
Clarinet, klăr'e-nĕt.
Clarion, klăr'e-ŏn.
Clarkia, klărk'e-ah.
Clatsop, klăt'sŭp. [rān'.
Claude Lorraine, klōd lōr-
Claudianus, klaw-de-a'nŭs.
Claudius, klaw'de-ŭs.
Clause, klawz.
Clausel, klo-zĕl'.
Clausen, klow'zĕn.
Clausure, klawz'ŭr.
Claverack, klāv'r-ăk.
Clavichord, klāv'e-kōrd.
Clavicle, klāv'e-kl.
Claviger, klāv'e-jŭr.
Clavus, kla'vŭs.
Claymore, kla'mōr.
Claytonia, kla-to'ne-ah.
Clazomenæ, klăz-o-me'ne.
Cleause, klēuz.
Cleanthes, kle-ăn'thēs.
Cleaveland, kleev'lănd.
Cleburne, kle'bŭrn.
Cledge, klĕj.
Clematis, klĕm'a-tĭs.
Clemence, klă'mŏns'.
Clemency, klem'ĕn-se.
Clement, klĕm'nt.
Clementi, kla-mĕn'te.
Clementine, klĕm'n-tn.
Cleobulus, kle-o-bu'lŭs.
Cleonbrotus, kle-ŏm'bro-tŭs
Cleomenes, kle-ŏm'e-nēz.
Cleon, kle'ŏn.
Cleopas, kle'o-păs.
Cleopatra, kle-o-pa'trah.
Cleostratus, kle-ŏs'trah'tŭs.
Clepsydra, klĕp-si'drah.
Clergy, klŭr'je.
Clerical, klĕr'i-kl.
Clerisy, klĕr'e-se.
Clerk, klärk *or* klŭrk.
Clermont, { *Eng.* klŭr-mŏnt'. *Fr.* klār-mŏn(g)'.
Cleronomy, kle-rŏn'o-me.
Clethra, klĕth'rah.
Cleveland, kleev'lănd.
Clevenger, klĕv'n-jŭr.
Cleves, kleevz.
Clew, kloo.
Cliché, kle-sha'.
Clichy, kle-she'.
Client, klī'ĕnt.
Climacteric, klī-măk'tŭr-ĭk.
Climatology, klī-ma-tŏl'o-je.
Climax, klī'măks.
Climb, klīm.
Clinanthium klī-năn'the-ŭm
Clinias, klĭn'e-ăs.
Clinic, klĭn'ĭk.
Clinique, klĭn-eek'.
Clink, klĭngk.
Clinquant, klĭng'kănt.
Clinton, klĭn'tŭn.
Clio, klī'o.
Clipper, klĭp'pŭr.
Clique, klēk.
Clisthenes, klĭs'the-nēz.
Clitheroe, klĭth'r-o.
Clitoris, klĭ'to-rĭs.
Clive, klīv.
Cloaca, klo-a'kah.
Cloak, klōk.
Clodomir, klŏd'o-meer.
Cloister, kloiz'tr.
Clonfert, klŏn-fŭrt'.
Clonmel, klŏn-mĕl'.
Clootz, klōts.
Cloquet, klo-ka'.
Closet, klŏz'ĭt.
Closure, klo'zhŭr.
Clothaire, klo-tăr'
Clothes, klōz.
Clotho, klo'tho.
Cloud, klowd.
Cloud (Saint), săn-kloo.
Clough, klŭf.
Clontierville, kloot'yŭr-vĭl.
Clovis, klo'vĭs.
Cloyne, kloin.
Cluny, kloo'ne.
Clusia, klū'se-ah.
Clwyd, kloo'ĭd.
Clyde, klīd.
Clymer, klī'mŭr.
Clypeate, klĭp'e-āt.
Clysmic, klĭz'mĭk.
Clyster, klĭs'tŭr. [trah.
Clytemnestra, klĭt-ĕm-nĕs'-
Cnicus, nī'kŭs.
Cnidium, nĭd'e-ŭm.
Coacervate, ko-ăs'ŭr-vāt.
Coach, kōch.
Coadjutor, ko-ad-joo'tŏr.
Coagulation, ko-ăj-ū-la'shŭn.
Coahuila, ko-ah-hwe'lah.
Coak, kōk.
Coalesce, ko-ăl-ĕs'.
Coalition, ko-a-lish'ŭn.
Coamings, kōm'ĭngz.
Coanza, ko-ăhn'zah.
Coarse, kōrs.
Coast, kōst.
Coati, ko-a'te. [ăl'ko.
Coatzacoalco, ko-ăt-zah-ko-
Coax, kōks.
Cobæa, ko-be'ah.
Cobalt, ko'bawlt.
Cobble, kŏb'bl. [kŏn'te.
Cobbossecontee, kŏh-ho-se-
Cobentzel, ko-bĕnt'sl.
Cobija, ko-be'hah.
Coble, kōb'l.
Coblentz, ko'blĕnts.
Cobourg, ko'bŭrg.
Cobra de Capello, ko'brah
Cobre, kō'br. [de ka-pĕl'lo.
Coca, ko'kah.
Cocaigne, kŏk'ăn.
Coccelans, kŏt-sa'yănz.
Cocciferous, kŏk-sĭf'ŭr-ŭs.
Coccolite, kŏk'ko-lĭt.
Coccostens, kok-kŏs'te-ŭs.
Cocculus, kŏk'kŭ-lŭs.
Coccyx, kŏk'sĭks.
Coccyzus, kŏk-sĭ'zŭs. [bah.
Cochabamba, ko-chah-bäm'-
Cochecton, ko-chĕk'tŭn. [nah.
Cochin-China, kŏch'ĭn-chi'-
Cochineal, kŏch'e-nēl.
Cochlea, kŏk'le-ah.
Cochlite, kŏk'līt.
Cochrane, kŏk'răn.
Cocinic, ko-sĭn'ĭk.
Cockatrice, kŏk'a-trĭs.
Cockburn, ko'bŭrn.
Cockerel, kŏk'r-ĕl.
Cockle, kŏk'l.
Cockney, kŏk'ne.
Cocles, ko'klēz.
Cocoa, ko'ko.
Cocoeæ, ko-ko'e.
Cocoon, ko-koon'.
Cocos, ko'kŏs.
Coctile, kŏk'tĭl.
Coction, kŏk'shŭn.
Cocytus, ko-sī'tŭs.
Coda, ko'dah.
Coddle, kŏd'dl.
Codeine, ko-de'ĭn.
Codetta, ko-dĕt'tah.
Codger, kŏj'ŭr.
Codicil, kŏd'e-sĭl.
Codille, ko-dĭl'.
Codorus, ko-do'rŭs.
Codrington, kŏd'rĭng'tŭn.
Codrus, ko'drŭs.
Coe, ko.
Cœle-Syria, se'le-sĭr'e-ah.
Cœloeline, se-lo'e-lin.
Cœlum, se'lŭm.
Coemption, ko-ĕm'shŭn.
Cœnaculum, se-nak'u-lŭm.
Cœnesthesis, se-nes-the'sis.
Coercion, ko-ŭr'shŭn.
Cœur d'Alene, kŭr-dah-lāu'.
Coffachique, kŏf-fah-chĕk'.
Coffee, kŏf'fe.
Cogency, ko'jĕn-se.
Coggle, kŏg'gl.
Cogitation, kŏj-e-ta'shŭn.
Cognac, kŏn-yäk'.
Cognition, kŏg-nĭsh'ŭn.
Cognomen, kŏg-no'mĕn.
Cohahuita, ko-ah-hwe'lah.
Cohasset, ko-hăs'ĕt.
Cohesion, ko-he'zhŭn.
Cohocton, ko-hŏk'tŭn.
Cohoes, ko'hōz.
Cohorn, ko'hŏrn.
Coiffure, koif'fŭr.
Coigne, koin.
Coila, koi'lah.
Coimbatoor, ko-ĭm-bah-toor'.
Coimbra, ko-ĕm'brah.
Coire, kwahr.
Coition, ko-ĭsh'ŭn.
Cojutepec, ko-hoo'ta-pāk.
Colander, kŭl'ăn-dŭr.
Colarin, ko-lär'ĭn.
Colbert, kŏl-bär'.
Colberg, kŏl'bărg.
Colburn, kŏl'bŭrn.
Colchagua, kŏl-chah'gwah.
Colchester, kŏl'chĕs-tŭr.
Colchicum, kŏl'che-kŭm.
Colchis, kŏl'kĭs.
Colcothar, kŏl'ko-thăr.
Colditz, kŏl'dĭts.
Coleoptera, ko-le-ŏp'tŭr-ah.
Coleraine, kŏl-rān'.
Coleridge, kŏl'rĭj.
Colfax, kŏl'faks.
Colibri, kŏl'e-bre.
Colic, kŏl'ĭk.
Coliguy, ko-lĕn-ye'.
Colima, ko-le'mah.
Colin, kŏl'ĭn.
Coliseum, kŏl-e-se'ŭm.
Colitis, ko-lī'tĭs.
Collapse, kŏl-lăps'.
Collateral, kŏl-lăt'ŭr-ăl.
Collation, kŏl-la'shŭn.
Collé, kŏl'la.
Colleague, kŏl'leeg.
Collectanea, kŏl-lĕk-ta'ne-ah.
College, kŏl'lĕj.
Collegiants, kŏl-le'je-ănts.
Colleton, kŏl'le-tŭn.
Collier, kŏl'yĕr.
Collinear, kŏl-lĭn'e-ăr.
Colliugual, kŏl-lĭn'gwăl.
Collinsonia, kŏl-lĭn-so'ne-ah.
Colliquament, kŏl-lĭk'wa-
Collision, kŏl-lĭzh'ŭn. [mĕnt.
Collodion, kŏl-lo'de-ŏn.
Collogne, kŏl-lōg'.
Colloquy, kŏl'lo-kwe.
Colloredo, kŏl-lo-ra'do.
Collot d'Herbois, kŏl-lo dĕr-
bwaw'.
Collusion, kŏl-lū'zhŭn.
Collyrium, kŏl-lĭr'e-ŭm.
Colman, kŏl'măn.
Colmar, kŏl'mär.
Colne, kōn.
Colocasia, kŏl-o-ka'zhah.
Colocotronis, ko-lo-ko-tro'nĭs
Colocynth, kŏl'o-sĭnth.
Cologne, ko-lōn'.
Cololite, kŏl'o-lĭt.
Colombia, ko-lŭm'be-ah.
Colombo, ko-lŭm'bo.
Colon, kō'lŏn *and* ko-lōn'.
Colonel, kŭr'nl. [shŭn.
Colonization, kŏl-ŏn-i-za'-
Colonna, ko-lŏn'nah.
Colonnade, kŏl-ŏn-nād'
Colony, kŏl'o-ne.
Colophene, kŏl'o-fēn.
Colophony, ko-lŏf'o-ne. [dah.
Coloquintida, kŏl-o-kwĭn'te-
Color, kŭl'ŭr.
Colorado, kŏl-o-rah'do.
Colosse, ko-lŏs'se.
Colossians, ko-lŏs'shănz.
Colporteur, kŏl-pōrt'ŭr.
Colquitt, kŏl'kwĭt.
Colton, kōlt'n.
Colubridæ, ko-lū'bre-de.
Colugnape, kŏl-oo-gwah'pa.
Columbarium, kŏl-ŭm-ba're-
Columbia, ko-lŭm'be-ah. [ŭm.
Columbine, kŏl'ŭm-bĭn.
Column, kŏl'ŭm.
Colure, ko-lūr'.
Colusa, ko-lū'sah.
Colville, kŏl'vĭl.
Colymbidæ, ko-lĭm'be-de.
Colza, kŏl'zah.
Coma, ko'mah.
Comal, ko-măl',
Comana, ko-mah'nah.
Comanche, ko-mănch *or* ko-
măn'cha.
Comarum, ko-ma'rŭm.
Comayagua, ko-mi-ah'gwah.
Comb, kōm.
Combahee, kŏm-bah-e'.
Combe, kōm *or* koom.
Combermere, kŭm'bŭr-mĕr.
Combine, kŏm-bīn'.
Comboloio, kōm-ho-lo'yo.
Comboocommu, kŏm-boo-
ko'nŭm.
Combourg, kŏm-boor'. [se-e.
Combretaceæ, kŏm-bre-ta'-
Combustible, kŏm-bŭs'te-bl.
Combustion, kŏm-bŭst'yŭn.
Come, kŭm.
Comedy, kŏm'e-de.
Comestibles, ko-mĕs'te-blz.
Comet, kŭm'ĭt *or* kŏm'ĕt.
Comlit, kŭm'flt.
Comfort, kŭm'fŭrt.
Comines, ko-mēn'.
Comité, kŏm-e-ta'.
Comitia, kŏ-mĭsh'yah.
Comity, ko'me-te.
Commendam, kŏm-mĕn'dăm.
Commerce, kŏm'mŭrce.
Commercy, kŏm-mär-se'.
Commerson, kom-mär-sŏn'.
Commissariat, kŏm-mĭs-sa'-
re-ăt.
Commission, kŏm-mĭsh'ŭn.
Commissure, kŏm-mĭs'shoor.
Commodus, kŏm'mo-dŭs.
Commotion, kŏm-mo'shŭn.
Commove, kŏm-moov'.
Commune, kŏm'mūn.
Communion, kŏm-mūn'yŭn.
Communipaw, kŏm-mūn-e-
Comnenus, kŏm-ne'nŭs. [pau'.
Como, ko'mo.
Comorin, kŏm'o-rĭn.
Comorn, ko'mŏrn.
Comoro, kŏm'o-ro.
Comose, kŏ'mōz.
Companion, kŏm-păn'yŭn.
Company, kŭm'pa-ne.
Comparison, kŏm-păr'e-zn.
Compass, kŭm'păs.
Compassion, kŏm-păsh'ŭn.
Compatible, kŏm-păt'e-bl.
Compendium, kŏm-pĕn'de-
Compiègne, kŏm-pe-ăn'. [ŭm.
Completion, kŏm-ple'shŭn.
Complexus Musculus, kŏm-plĕks'ŭs mŭs'ku-lŭs.
Complicity, kŏm-plĭs'e-te.
Compline, kŏm'plĭn [teu'shăn.
Complutensian, kŏm-ploo-
Composite, kŏm'pŏz-ĭt. [ŭn.
Composition, kŏm-po-zĭsh'-
Compos Mentis, kŏm'pŏs
mĕn'tĭs.
Compostella, kŏm-pŏs-tĕl'lah.
Composto, kŏm-pŏs'to.
Composure, kŏm-po'zhŭr.
Compote, kŏm-pōt'.
Comprador, kŏm'prah-dŏr.
Compromise, kŏm'pro-mīz.
Compton, kŏm'tŭn.
Comptroller, kŏn-trōl'lŭr.
Compunction, kŏm-pŭngk'-
Comte, kŏmt. [shŭn.
Comus, ko'mŭs.
Con amore, kŏn ah-mo're.
Conation, ko-na'shŭn.
Conceal, kŏn-sēl'.
Conceição, kŏn-sa-sŏwn(g)'.
Conceit, kŏn-seet'.
Conceive, kŏn-seev'.
Concepcion, kŏn-thĕp'the-on.
Conceptacle, kŏn-sĕp'ta-kl.
Conception, kŏn-sĕp'shŭn.
Concern, kŏn-sŭrn'.
Concert, kŏn'sŭrt.
Concertante, kŏn-sĕr-tăn'ta.
Concertina, kŏn-sŭr-te'nah.
Concerto, kŏn-sŭr'to.
Concession, kŏn-sĕsh'ŭn.
Conch, kŏngk.
Concha, kŏn'chah.
Conchagua, kŏn-chah'gwah.
Conchifer, kŏngk'e-fĕr.
Conchology, kŏn-kŏl'o-je.
Conchucos, kŏn-choo'kŏs.
Concierge, kŏn-sărj'.
Conciliabule, kŏn-sĭl'e-a-būl.
Concini, kŏn-che'ne.
Concinnity, kŏn-sĭn'ne-te.
Concise, kŏn-sīs'.
Conclusion, kŏn-kloo'zhŭn.
Concordat, kŏng-kŏr'dăt.
Concubinage, kŏn-ku'be-năj.
Concupiscence, kŏn-ku'pĭs-
sĕns.
Concussion, kŏn-kŭsh'ŭn.
Condé, kŏn-da'.
Condemn, kŏn-dĕm'.
Condigu, kŏn-dīn'.
Condiflac, kŏn-de-yäk'.
Condition, kŏn-dĭsh'ŭn.
Condom, kŏn'g)-dŏn(g)'.
Condorcet, kŏn-dŏr-sa'.
Condottierl, kŏn-dŏt-ya're.
Conduit, kŏn'dĭt.

Condyle, kŏn'dĭl.
Conecuh, ko-ne'kah.
Conegliano, ko-nāl-yah'no.
Conemaugh, kŏn-e-maw'.
Conestoga, kŏn-ēs-to'gah.
Conesus, ko-ne'sŭs.
Conewango, kŏn-e-wăng'go.
Confalon, kŏu'fah-lŏn.
Conferva, kŏn-fûr'vah. [shŭn.
Conflagration, kŏn-flah-gra'-
Conflation, kŏn-fla'shŭn.
Confront, kŏn-frŭnt'.
Confucius, kŏu-fu'shŭs.
Confuse, kŏn-fūz'.
Congaree, kŏng-gah-re'.
Conge, kŏnzh.
Congeries, kŏn-je're-ēz.
Congestion, kŏn-jĕst'yŭn.
Congius, kŏu'je-ŭs.
Congleton, kŏng'gl-tŭn.
Congou, kŏng'goo.
Congreve, kŏng'grēv.
Congruity, kŏu-groo'e-te.
Conhocton, kŏn-hŏk'tŭn.
Coni, ko'ne.
Conidia, ko-nĭd'yah.
Coniferæ, ko-nĭf'e-re.
Coniroster, ko-ne-rŏs'tŭr.
Conium, ko'ne-ŭm.
Conjecture, kŏn-jĕkt'yŭr.
Conjunct, kŏn-jŭnkt'.
Conklin, kŏngk'lĭn.
Connaught, kŏn'nawt.
Connecticut, kŏn-nĕt'e-kŭt.
Connection, kŏn-nĕk'shŭn.
Connemara, kŏn-ne-mah'rah.
Connesauga, kŏn-ne-saw'gah.
Connoisseurship, kŏn-nois'-mŏn(g)'.
Connoisseur, kŏn-nĭs-soor'.
Connubial, kŏn-nu'be-ăl. [ŭm.
Conocardium, ko-no-kär'de-
Conococheague, kŏn-o-ko-chēg'.
Conohelix, kŏn-o-he'lĭks.
Conops, ko'nŏps.
Conquer, kŏng'kŭr.
Conquest, kŏngk'wĕst.
Conradin, kŏn'răd-ĭn.
Consanguinity, kŏn-săng-gwĭn'e-te.
Conscience, kŏn'shenz.
Conscience (Henry), kŏn-
Conscions, kŏn'shŭs. [se-ŏns'.
Conscript, kŏn'skrĭpt.
Consegnina, kŏn-se-ge'nah.
Consequence, kŏu'se-kwĕnz.
Conservation, kŏn-sŭr-va'-shŭn.
Conservatoire, kŏn-sär-vah-
Conserve, kŏn-sûrv'. [twahr'.
Consign, kŏn-sīn'.
Consignee, kŏn-sīn-ē'.
Console, kŏn-sōl'.
Consols, kŏn'slz.
Con Sordini, kŏn sŏr-de'ne.
Conspicuity, kŏn-splk'ŭ-e-te.
Conspiracy, kŏn-spĭr'a-se.
Constable, kŭn'sta-bl.
Constance, kŏn'stăns.
Constantia, kŏn-stăn'she-ah.
Constantine, kŏn-stăn-tīn'.
Constantinople, kŏn-stăn-te-no'pl.
Constantius, kŏn-stăn'shŭs.
Constitucion, kŏn-ste-too'the-ōn.
Constitution, kŏn-ste-tu'shŭn
Constringe, kŏn-strĭnj'. [sbŭn.
Construction, kŏn-strŭk'-
Consuetude, kŏn-swe'tūd.
Consume, kŏn-sūm'.
Consumption, kŏn-sŭm'shŭn
Contagion, kŏn-ta'jŭn.
Contarini, kŏn-tah-re'ne.
Contempt, kŏn-tĕmt'.
Contentny, kŏn-tĕnt'ne.
Conti, kŏn'te.
Contiguity, kŏn-te-gu'e-te.
Contingency, kŏn-tĭn'jĕn-se.
Continue, kŏn-tĭn'yoo.
Contortion, kŏn-tôr'shŭn.
Contour, kŏn-toor'.
Contraband, kŏn'tra-bănd.
Contrabasso, kŏn-trah-bäs'so.
Contralto, kŏn-träl'to.
Contrary, kŏn-tra're. [vah.
Contrayerva, kŏu-trăh-hĕr-
Contreras, kŏn-tra'räs.
Contretemps, kŏn-tr-tŏn(g)'.
Contrusion, kŏn-troo'shŭn.
Contuse, kŏu-tūz'. [sĕuz.
Convalescence, kŏn-va-lĕs'-
Convection, kŏu-vĕk'shŭn.
Convention, kŏn-vĕn'shŭn'.
Converge, kŏn-vŭrj'. [shŭn.
Conversation, kŏn-vûr-sa-
Conversazione, kŏn-vär-sät-
Converse, kŏn-vûrse'. [se-o'ne.
Conversion, kŏn-vûr'shŭn.
Convert, kŏn'vûrt, *and* kŏn-
Convey, kŏn-va'. [vûrt'.
Conviet, kon'vĭkt, *and* kŏn-
Convive, kŏn'veev. [vĭkt'.
Convocation, kŏn-vo-ka'shŭn.
Convolute, kŏn'vo-lūt.
Convolvulus, kŏn-vŏl'vu-lŭs.
Convoy, kŏn'voi.
Convulsions, kŏn-vŭl'shŭnz.
Conway, kŏn'wa.
Cony, ko'ne.
Conyers, kŏn'yŭrz.
Conyngham, kŭn'nĭng-ăm.
Coolbaugh, kool'baw.
Coolie, koo'le. [wätch-e.
Coosawhatchie, koo'sah-
Copaiba, ko-pa'bah.
Copais, ko-pa'ĭs.
Copan, ko-pän'.
Copeck, ko'pĕk.
Copenhagen, kōp'n-ha'gn.
Copernicus, ko-pŭr'ne-kŭs.
Cophosis, ko-fo'sĭs.
Copiah, ko-pe'ah.
Copiapo, ko-pe-ah-po'.
Copious, ko'pe-ŭs.
Copley, kŏp'le.
Copperas, kŏp'pŭr-ăs.
Coppet, kŏp-pa'.
Coppice, kŏp'pĭs.
Coprophagus, kŏp-rŏf'a-gŭs.
Copse, kŏpz.
Copula, kŏp'u-lah.
Copy, kŏp'e.
Coquago, ko-kwah'go.
Coquetry, ko'kĕt-re.
Coquette, ko-kĕt'.
Coquille, ko-keel'.
Coquimbo, ko-keem'bo.
Coracias, ko-ra'shăs.
Coracite, kŏr'a-sīt.
Coracle, kŏr'a-kl.
Coral, kŏr'al.
Corallorhiza, kŏr-al-lo-rī'zah
Coram non judice, ko'ram nŏn jū'de-se.
Coranach, kŏr'a-năk.
Corbach, kŏr'bäk.
Corbean, kŏr-bo'.
Corbeil, kŏr-bĕl'.
Corbie, kŏr'be.
Corchorus, kŏr'ko-rŭs.
Corcoran, kŏr'ko-răn.
Corcovado, kŏr-ko-vah'do.
Corcyra, kŏr-sĭ'rah.
Corday, kŏr-da'.
Cordeliers, kŏr-de-leerz'.
Cordial, kŏrd'e-ăl.
Cordillera, kŏr-dĕl-ya'rah.
Cordova, kŏr'do-vah.
Corduroy, kŏr-doo-roĭ'.
Cordwainer, kŏr'dĭn-ûr.
Corea, ko-re'ah.
Corelli, ko-rĕl'le.
Corentyn, ko-rĕn'tĭn.
Coreopsis, ko-re-ŏp'sĭs.
Coresus, ko-re'sŭs.
Corfu, kŏr-foo'.
Coriaceous, ko-re-a'shŭs.
Coriandum, ko-re-ăn'dŭm.
Corigliano, ko-reel-yah'no.
Coringa, ko-rĭng'gah.
Corinna, ko-rĭn'nah.
Corinth, kŏr'ĭnth.
Coriolanus, ko-re-o-la'nŭs.
Corium, ko're-ŭm.
Cormeuin, kŏrm-nahn'.
Cormophytes, kŏr-mŏf'e-tēz.
Cormorant, kŏr'mo-rănt.
Cornaro, kŏr-nah'ro.
Cornea, kŏr'ne-ah.
Corneille, kor-na'ye.
Cornelia, kŏr-ne'le-ah.
Cornell, kŏr-nĕl'.
Coruemuse, kŏrn-mūz'.
Corneous, kŏr'ne-ŭs.
Cornetcy, kŏr'uĕt-se.
Coruice, kŏr'nĭs.
Cornopean, kŏr-no'pe-ăn.
Cornucopia, kŏr-nu-ko'pe-ah.
Cornwall, kŏrn'wawl.
Cornwallis, kŏrn-wŏl'lĭs.
Corocore, kŏr'o-kōr.
Corollary, kŏr'ŏl-la-re.
Coromandel, kŏr-o-măn'dĕl.
Coronach, kŏr'o-năk.
Coronamen, kŏr-o-na'mĕn.
Coronation, kŏr-o-na'shŭn.
Coroner, kŏr'o-nŭr.
Coronule, kŏr'o-nūl.
Corporal, kŏr'po-răl.
Corporation, kŏr-po-ra'shŭn.
Corporeal, kŏr-po're-ăl.
Corposant, kŏr'po-zant.
Corps, kŏr.
— d'Armée, -dăr-ma'. [măt'ĕk'.
— Diplomatique, dē-plo-
Corpse, kŏrps. [krĭs'te.
Corpus-Christi, kŏr'pŭs-
Corpuscle, kŏr'pŭ-sl.
Correct, kŏr-rĕkt'.
Correggio, kŏr-rĕd'jo.
Corrèze, kŏr-răz'.
Corridor, kŏr're-dŏr.
Corrientes, kŏr-re-ĕn'tĕz.
Corrigendum kŏr-re-jĕn'dŭm
Corroborant, kŏr-rŏb'o-rănt.
Corroslon, kŏr-ro'zhŭn.
Corrupt, kŏr-rŭpt'.
Corsage, kŏr'säj.
Corsair, kŏr'sär.
Corselet, kŏrs'lĕt.
Corsica, kŏr'se-kah.
Cortege, kŏr'tăzh.
Cortes, kŏr'tĕs.
Cortez, kŏr-tĕs'.
Cortical, kŏr'te-kăl.
Cortusa, kŏr-too'zah.
Corunna, ko-rŭn'nah.
Coruscation, ko-rŭs-ka'shŭn.
Corvée, kŏr-va'.
Corvette, kŏr-vĕt'.
Corvidæ, kŏr've-de.
Corvine, kŏr'vĭn.
Corvisart, kŏr-ve-zahr'.
Corvo, kŏr'vo.
Corybantes, kŏr-e-băn'tēz.
Coryceum, kŏr-e-se'ŭm.
Corydon, kŏr'e-dŭn.
Corylaceæ, kŏr-e-la'se-e.
Corymb, kŏr'ĭmb.
Coryphée, kŏr-e-fa'.
Corypheus, kŏr-e-fe'ŭs.
Coryza, ko-rī'zah.
Cosenza, ko-sän'sah.
Coshocton, kŏsh-ŏk'tŭn.
Cosinage, kŭz'u-ĕj.
Coslin, kŏs-lēn'.
Cosmetic, kŏz-mĕt'ĭk.
Cosmic, kŏz'mĭk.
Cosmogony, kŏz-mŏg'o-ne.
Cosmopolitan, kŏz-mo-pŏl'e-tăn.
Cosmorama, kŏz-mo-rah'mah
Cosmos, kŏz'mŏs.
Coso, ko'so. [sahk'.
Cossé-Brissac, kŏs'sa-brē-
Cosseir, kŏs-sēr'. [zahr'.
Cossimbazar, kŏs-sĭm-bah-
Costamboul, kŏs-tăm-bool'.
Costa Rica, kŏs'tah re'kah.
Coster, kŏs'tŭr.
Costive, kŏs'tĭv.
Costume, kŏs-tūm, *or* kŏs'tūm.
Cotabambas, ko-tah-băm'bäs
Coteau, ko-to'.
Cotentin, ko-tăn-tahn'.
Coterie, ko-te-re'.
Cotes, kōt.
Coticular, ko-tĭk'u-lăr.
Cotillion, ko-tĭl'yŭn.
Cotopaxi, ko-to-pahk'se.
Cotqueau, kōt'kwēn.
Cotswold, kŏts'wōld.
Cotta, kŏt'tah.
Cottbus, kŏt'boos.
Cottonocracy, kŏt-t'n-ŏk'ra-se
Cotuit, ko-tūt'.
Cotuy, ko-tŏ'.
Cotyledon, kŏt-e-le'dŏn.
Couagga, kwäg'gah.
Couchant, kooch'ant.
Couchee, koo'she.
Coucy, koo-se'.
Coudres, koo'dr.
Cougar, koo'gär.
Congh, kŏf. [rōz'.
Couleur de rose, koo-lūr da
Coulisse, koo-lees'.
Coulomb, koo-lōn(g)'.
Conlter, kōl'tŭr.
Coumarine, koo'mah-reen.
Council, kown'sĭl.
Counterfeit, kown'tŭr-fĭt.
Country, kŭn'tre.
Conp, koo.
Coupé, koo-pa'.
Coupee, koo-pe'.
Couple, kŭp'l.
Coupon, koo'pŏn(g).
Courage, kûr'ĕj.
Courant, koo-rănt'.
Courbaril, koor'ba-rĭl.
Courbevoie, koorb-vwah'.
Courche, koorsh.
Conrier, koo're-ûr.
Courier (Paul), koo-re-a'.
Courland, koor'länd.
Course, kōrs.
Courtableau, koor-tah-blo'.
Courtaud, koor-to'.
Courteous, kûrt'e-ŭs.
Courtesy, kûrt'se.
Courtier, kûrt'yŭr.
Courtenay, kûrt'ne.
Courtrai, koor-tra'.
Cous-cous, kow'z'-kowz.
Cousin, kŭz'n.
Cousin (Victor), koo-zahn'.
Coussinet, koos'se-na.
Coustou, koos-too'.
Coutance, koo-tŏns'.
Conteau, koo-to'.
Couthon, koo-tŏn(g)'.
Coutts, koots.
Cove, kōv.
Covenant, kŭv'e-nănt.
Coventry, kŭv'u-tre.
Cover, kŭv'r.
Covercle, kŭv'r-kl.
Covertnre, kŭv'ûrt-ûr.
Covet, kŭv'ĭt.
Covey, kŭv'e.
Covode, ko-vōd'.
Cowes, kowz.
Coweta, kow-e'tah.
Cowley, kŏ'le.
Cowlitz, kow'lĭts.
Cowper, kow'pŭr *or* koo'pŭr.
Coxcie, kŏk'se.
Coxcomb, kŏks'kōm.
Coxe, kŏks.
Coxendix, kŏks-ĕn'dĭks.
Coxsackie, kŏk-săk'ke.
Coyne, koin.
Coyote, koi-ōt'.
Coypu, koi-poo'.
Coysevox, kwahz-vŏks'.
Coyza, koĭ'zah.
Coz, kŭz.
Cozen, kŭz'n.
Cozy, ko'ze.
Crabbe, krăb.
Cracidæ, krăs'e-de.
Crackle, krăk'l.
Cracovienne, krah-ko-ve-ĕn'.
Cracow, krah'ko.
Craig, krāg.
Cramoisie, krah-moi'ze.
Crampton, krămp'tŭn.
Cranach, krah'näk.
Cranage, krān'ĕj.
Cranium, kra're-ŭm.
Crank, krăngk.
Cranmer, krăn'mŭr.
Cranston, krănz'tŭn.
Cruntara, krăn-tah'rah.
Craone, krah-ōn'.
Crapaudine, krăp'aw-dēn.
Crapulent, krăp'u-lĕnt.
Crasis, kra'sĭs.
Crassinidæ, krăs-sĭn'e-de.
Crassitude, krăs'se-tūd.
Crategus, kra-te'gŭs.
Cratch, krăch.
Crater, kra'tŭr.
Craterus, kra-te'rŭs.
Cratippus, kra-tĭp'pŭs.
Cranuch, krănch.
Cravat, krah-văt'.
Craven, kra'vn.
Crawford, kran'fûrd.
Crayon, kra'ŏn.
Crazy, kra'ze.
Creance, kre'ăns.
Crease, krees.
Creation, kre-a'shŭn.
Creature, krēt'yŭr.
Crebillon, kra-be-yŏn(g)'.
Crecy, kra'se.
Credendum, kre-dĕn'dŭm.
Credit, krĕd'ĭt. [fon(g)se-a'.
Credit Foncier, kra-de-
—Mobilier, -mo-be-ye-a'.
Credo, kre'do.
Credulity, kre-dū'le-te.
Crefelt, kra-felt'.
Creighton, krī'tn.
Cremaillere, kra-mā-yăr'.
Crematiou, kre-ma'shŭn.
Crémieux, kra-me-oo'.
Cremocarp, krĕm'o-kärp
Cremona, kra-mo'nah.
Cremor, kre'mŏr.
Crenellate, krĕn'ĕl-lāt
Crenelle, kre-nĕl'.
Creole, kre'ōl.
Creon, kre'ŏn.
Creosote, kre'o-sōt.
Crepitas, krĕp'e-tăs.
Crepitation, krĕp-e-ta'shŭn.
Crepusenlar, kre-pŭs'ku-lăr.
Crescendo, krĕs-sĕn'do.
Crescent, krĕs'sĕnt.
Crescentia, krĕs-sĕn'shah.
Crescive, krĕs'sĭv.
Cressona, krĕs-so'nah.
Cresylic, kre-sĭl'ĭk.
Cretaceous, kre-ta'shŭs.
Crete, kre'te.
Cretin, kra-tahn'.
Crense, kroos'.
Creux, kroo.
Crevasse, kra-văs'.
Crêvecœur, krāv-kŭr'.
Crevet, krĕv'ĕt.
Crevillente, kra-veel'ĕn-te.
Crew, kroo.
Cribbage, krĭb'bĕj.
Cribriform, krĭb-re-fôrm.
Crichton, krī'tn.
Cricket, krĭk'it.
Crillon, kre-yŏn(g)'.
Crimea, krĭm-e'ah.
Crimple, krĭm'pl.
Crimson, krĭm'zn.
Crinenm, krĭng'kŭm.
Cringe, krĭnj.
Cringle, krĭng'gl.
Crinkle, krĭng'kl.
Crinoline, krĭn'o-lĭn.
Crioceris, krī-o'sŭr-ĭs.
Cripple, krĭp'pl.
Crisis, krī'sĭs.
Crispin, krĭs'pĭn.
Criterion, krī-te're-ŏn.
Critlmum, krĭth'mŭm.
Critias, krish'e-ăs.
Critique, kre-teek'.
Croat, kro'at.
Croatia, kro-a'she-ah.
Croceous, kro-se'ŭs.
Crochet, kro-sha'.
Crocidolite, kro-sĭd'o-līt.
Crockery, krŏk'ŭr-e.
Crockett, krŏk'ĭt.
Crocodile, krŏk'o-dīl.
Crocoíte, kro'ko-ĭt.
Crœsus, kre'sŭs.
Croghan, kro'hăn.
Croissant, krois-sănt'.
Croix, krwaw'.
Croker, kro'kŭr.
Cromarty, krŏm'ăr-te.
Cromlech, krŏm'lĭk.
Cromwell, krŏm'wel *or* krŭm
Cronstadt, kron'stät'. [wĕl
Croodle, kroo'dl.
Croquet, kro-ka'.
Crosby, krŏz'be.
Crosette, kro-zĕt'.
Crosier, kro-zhŭr.
Crotalaria, krōt-a-la're-ah.
Crotalum, krōt'a-lŭm.
Crotchet, krŏch'ĕt.
Croton, kro'tn.
Crotophaginæ, krŏt-o-fa'jĭn-e
Crotoy, kro-toĭ'.
Croup, kroop.
Cronpier, kroo'pe-ŭr.
Crout, krowt.
Crowell, kro'ĕl.
Croxton, krŏks'tŭn.
Croydon, kroĭ'dn.
Crozier, kro'zhŭr.
Crozophora, kro-zŏf'ŭr-ah.
Crucial, kroo'she-ăl.
Crucible, kroo'se-bl.
Crucifix, kroo'se-fiks.
Crucite, kroo'sĭt.
Cruddle, krŭd'dl.
Crudity, kroo'de-te.
Cruickshauk, krook'shängk.
Cruise, krooz.
Crumb, krŭm.
Crumble, krŭm'bl.
Crumple, krŭm'pl.
Cruorine, kroo'o-rĭn.
Crura, kroo'rah.
Crusade, kroo-sād'.
Crusca (Accademia della)
Crusoe, kroo'so. [kroos'kah.
Crustaceæ, krŭs-ta'se-e.
Cruz, krooz.
Cryolite, krī'o-līt.
Crypt, krĭpt. [brăng'kĭa.
Cryptobranchus, krĭp-to-
Cryptogamia, krĭp-to-ga'-me-ah.
Cryptology, krĭp-tŏl'o-je.
Crystal, krĭs'tăl. [lŏg'ra-fe.
Crystallography, krĭs-tăl-
Csoma de Körös, so'mah da
Ctenoides, te-no'e-dēz. [ko'rŏs.
Ctenophoræ, te-nŏf'o-re.
Ctesibius, te-sĭb'e-ŭs.
Cuba, kū'bah.
Cubahatchee, kū-bah-ăch'e
Cubaqua, ku-bah'kwah.
Cubature, ku'ba-tŭr.
Cubebs, kū'bĕbs.
Cubica, ku'be-kah.
Cubit, kū'bĭt.
Cuckold, kŭk'ōld.
Cuckoo, kook'oo.
Cuculidæ, ku-kū'le-de.
Cucumber, kū'kŭm-bŭr.
Cucurbit, ku-kŭr'bĭt.
Cucuta, ku-kū'tah.
Cuddapah, kood'dah-pah.
Cuddle, kŭd'dl.
Cudge, kŭj.
Cudworth, kŭd'wŭrth.
Cuenca, kwĕn'kah. [kah.
Cuernavaca, kwĕr-nah-vah'-
Cuerpo, kwĕr'po.
Cufic, ku'fĭk.
Cui bono, kū-ĭ bo'no.
Cuirassier, kwe-ras-seer'.
Cuish, kwĭsh.
Cuisine, kwe-zeen'.
Cujas, koo-zhäs'.
Culage, kūl'ĕj.
Culdees, kŭl'deez.
Cul de sac, kūl da săk'.
Culebra, ku-le'brah.
Culiacan, koo-le-ah-kän'.
Culicidæ, ku-lis'e-de.
Cullen, kŭl'ln.
Cullion, kŭl'yŭn.
Culloden, kŭl-lo'dn.
Culmen, kŭl'mĕn.
Culpable, kŭl'pa-bl.
Culpepper, kŭl'pĕp-pŭr.
Culture, kŭlt'yŭr.
Culverin, kŭl'vŭr-ĭn.
Cumæ, ku'me.
Cumana, koo-mah-nah'. [ko'ah.
Cumanacoa, koo-mah-nah-
Cumberland, kŭm'bŭr-land.
Cumbersome, kŭm'bŭr-sŭm.
Cumbrian, kŭm'bre-ăn.
Cumfrey, kŭm'fre.
Cuminic, ku-mĭn'ĭk.
Cumu-cirro-stratus, ku-mu-sĭr'ro-stra'tŭs.
Cumulus, kū'mu-lŭs.
Cunabula, kū-ăb'u-lah.
Cunctation, kŭngk-ta'shŭn.
Cundinamarca, koon-de-nah-măr'kah.
Cuneiform, ku-ne'ĭ-fôrm.
Cunette, ku-nĕt'.
Cunha, koon'yah.
Cunningham, kŭn'nĭng-am,

Cunoniaceæ, ku-no-ne-a'se-e.
Cuntline, kŭnt'lĭn.
Cupania, ku-pa'ne-ah.
Cupboard, kŭb'bŭrd.
Cupel, kū'pĕl.
Cupid, kū'pĭd.
Cupola, kū'po-lah.
Cupressus, ku-prĕs'sŭs.
Cuprite, kū'prit. [plŭm'bĭt.
Cuproplumbite, ku-pro-
Cupule, kū'pūl.
Curable, kūr'a-bl.
Curaçoa, kū-rah-so'.
Curaëy, kū'ra-se.
Curassow, kū-răs'sŏw.
Curatrix, ku-rā'trĭks.
Curcumine, kŭr'ku-mĭn.
Curdle, kŭr'dl.
Cure, { *Eng.* kūr. / *Fr.* koo-ra'.
Curfew, kŭr'fū.
Curiatii, ku-re-a'she-i.
Curico, koo-re'ko.
Curious, kū're-ŭs.
Curitibia, koo-re-teeb'yăh.
Curlew, kŭr'lū.
Curmudgeon, kŭr-mŭd'jŭn.
Currency, kŭr'rĕn-se.
Curricle, kŭr're-kl.
Curriculum, kŭr-rĭk'ū-lŭm.
Currier, kŭr're-ŭr.
Curry, kŭr're.
Cursores, kŭr-so'rēz.
Curtail, kŭr-tāl'.
Curtana, kŭr-tah'nah.
Curtilage, kŭr'te-lăj.
Curtius, kŭr'te-ŭs.
Curule, kū'rool.
Curvature, kŭr'va-tŭr.
Curvello, koor'vĕl-lo.
Curvirostra, kŭr-ve-rŏs'trah.
Cuscutaceæ, kŭs-ku-ta'se-e.
Cushat, koosh'ăt.
Cushion, koosh'ŭn.
Cushites, kŭsh'īts.
Cuspis, kŭs'pis.
Cussawago, kŭs-sah-wah'go.
Custine, koos-tēn'.
Custody, kŭs'to-de. [bre've-ŭm.
Custos brevium, kŭs'tŏs
Custozza, kŭs-tŏd'zah.
Cutaneous, ku-ta'ue-ŭs.
Cutch Gundava, kŭch goon-
Cuthbert, kŭth'bŭrt. [dah'vah.
Cuticle, kū'te-kl.
Cutis, kū'tĭs.
Cuttle, kŭt'tl.
Cuvette, kū-vĕt'.
Cuvier, koo-ve-a'.
Cuxhaven, kooks-ah'fĕn.
Cuyaba, koo-yah'bah.
Cuyahoga, kī-ah-oh'gah.
Cuyler, kī'lŭr.
Cuyp, koip.
Cuzco, koos'ko.
Cyamelide, si-ăm'e-līd.
Cyanic, si-ăn'ĭk.
Cyanine, si'ăn-in.
Cyanogen, si-ăn'o-jĕn.
Cyanometer, si-ăn-ŏm'e-tŭr.
Cyanosis, sī-a-no'sis.
Cybele, sĭb'e-le.
Cycadeceæ, sī-ka-de'se-e.
Cyclades, sĭk'lah-dēz.
Cycle, sī'kl.
Cyclamen, sĭk'la-mĕn.
Cyclograph, sī'klo-grăf.
Cycloid, sī'kloid.
Cyclometry, sī-klŏm'e-tre.
Cyclone, sī'klōn.
Cyclops, sī'klŏps.
Cyclostome, sī'klo-stōm.
Cydonia, si-do'ne-ah.
Cyesiology, si-e-sĭl'o-je.
Cygnet, sĭg'nĕt.
Cygnus, sĭg'nŭs.
Cylinder, sĭl'ĭn-dŭr.
Cyma, sī'mah.
Cymbal, sĭm'băl.
Cymanche, se-năng'ke.
Cynanthropy, se-năn'thro-pe
Cynarchtomachy, sĭn-ărk-tŏm'a-ke.
Cynarrhodium, sĭn-ăr-ro'de-
Cynic, sĭn'ĭk. [ŭm.
Cynodon, sĭn'o-dŏn.
Cynomis, se-no'mis.
Cynorexia, sĭn-o-rĕk'shah.
Cynoscephalæ, sĭn-ŏs-sĕf'ah-
Cynosure, sĭn'o-zhoor. [le.
Cynthia, sĭn'thc-ah.
Cyophoria, si-o-fo're-ah.
Cyphonism, sĭf'o-nĭzm.
Cypress, sī'prĕs.
Cyprian, sĭp're-ăn. [dŏn'te-de.
Cyprinodontidæ, sip-rin-o-
Cypriot, sĭp're-ŏt. [ŭm.
Cypripedium, sĭp-re-pe'de-
Cypsela, sĭp'se-lah.
Cyrenaics, sĭr-e-na'lks.
Cyrene, si-re'ne.
Cyril, sĭr'il.
Cyropedium, sĭr-o-pe'de-ŭm.
Cyrtostyle, sŭr'to-stīl.
Cyrus, sī'rŭs.
Cysicus, sĭs'e-kŭs.
Cyst, sĭst.
Cystocele, sĭs'to-sēl.
Cythera, sĭth-e'rah.
Cytisine, sĭt'e-sĭn. [mah.
Cytoblastema, sĭt-o-hlăs-
Czacki, chăts'ke.
Czar, zahr.
Czarina, zah re'nah.
Czarowitz, zahr'o-vĭts.
Czartoryski, chăr-to-vĭs'ka
Czaslau, chăs'lŏw.
Czermak, chĕr'măk.
Czernowitz, chĕr'no-vits.
Czerny, chĕr'ne.

D.

Daalder, dahl'dăr.
Dabble, dăb'bl.
Daberath, dăb'e-răth.
Da Capo, dah kah'po.
Dacca, dăk'kah.
Dace, dās.
Dacla, da'she-ah.
Dacier, dah-se-a'.
Dacoit, dah-koit'.
Dacrydium, dăk-rĭd'yŭm.
Dacryoma, dăk-re-o'mah.
Dactyl, dăk'tĭl.
Dado, da'do.
Dadyl, da'dĭl.
Dædalus, de'dah-lŭs.
Daffodil, dăf'fo-dĭl.
Daggle, dăg'gl.
Daghestan, dăh-ghĭs-tăn'.
Dagobert, dăg-o-hăr'.
Dagon, da'gŏn.
Daguerre, dah-gair'.
Dahl, dăl.
Dahlgren, dăl'grĕn.
Dahlia, da'le-ah.
Dahlonega, dah-lŏn'e-gah.
Dahomey, dah-o'me.
Daily, da'le. [măr.
Dair el Kamar, dăr ĕl kah'-
Dairy, da're.
Dais, da'ĭs.
Dàk, dawk.
Dakota, dah-ko'tah.
Dalberg, dăl'bărg.
D'Albert, dăl-bair'.
Dalecarlia, dăh-le-kăr'le-ah.
Dalhousie, dăl-hoo'ze.
Dalia, da'le-ah.
Dalkey, dăl'ke.
Dalles, dăhlz.
Dalliance, dăl'le-ăns.
Dalmatia, dăl-ma'she-ah.
Dalry, dawl're.
Dalrymple, dah-rŭm'pl.
Dal Segno, dăl sān'yo.
Dalston, dawls'tŭn.
Dalton, dawl'tŭn.
Damage, dăm'ăj.
Damagran, dăm'ah-grahn.
Damar, dah măr'.
Damaras, dah-măr'ăs.
Damascene, dăm'as-sēn.
Damascus, da-măs'kŭs.
Damaskeen, dăm'ăs-keen.
Damasus, dăm'ah-sŭs.
Damiani, da-me-ah'ne.
Damiens, dăh-me-ăn'.
Damietta, dăm-e-ĕt'tah.
Dammara, dăm'mah-rah.
Damnation, dam-na'shŭn.
Damocles, dăm'o-klēz.
Damon, da'mŭn.
Dampier, dăm'pēr.
Damsel, dăm'zĕl.
Damson, dăm'zn.
Dana, da'nah.
Danae, dăn'ah-e.
Danaides, da-na'e-dēz.
Danaus, dan'a-ŭs.
Danbury, dăn'bŭr-re.
Danby, dăn'be.
Dancette, dăn-sĕt'.
Dancing, dăn'sĭng.
Dancourt, dŏn-koor'.
Dandelion, dăn'de-lī-ŭn.
Dandle, dan'dl.
Dandolo, dăn'do-lo.
Dandridge, dăn'drĭj.
Dandy, dan'de.
Danegelt, dăn'gĕlt.
Dangeau, dŏn-zho'.
Danger, dān'jŭr.
Dangerfield, dāng'gŭr-fēld.
Dangle, dăng'gl.
Daniel, dăn'yĕl.
Danish, dān'ĭsh.
Dannebrog, dăn'ne-brŏg,
Dannecker, dan'nĕk-ŭr.
Dannewerk, dăn'ne-vărk.
Dansker, dan'skŭr.
Dante, dăn'ta.
Danton, dŏn-tŏn'.
Dantzig, dănt'sig.
Danube, dăn'ūb.
Danvers, dăn'vŭrz.
Danville, dăn'vĭl.
Dauuria, dah-oo're-ah.
Daphne, dăf'ne.
Daphnis, dăf'nĭs.
Dapple, dăp'pl.
Darabgherd, dah-răh-gărd'.
D'Arblay, dăr-bla'.
Darboy, dăr-boi'.
Darby, dar'be.
Dardanelles, dăr'dah-nĕlz.
Dardanus, dăr'da-nŭs.
Darfour, dahr-foor'.
Darien, dah're-ĕn.
Darius, da-ri'ŭs.
Darmstadt, dahrm'stăt.
Dartford, dărt'fŭrd.
Dartmouth, dărt'mŭth.
Daru, dah-roo'.
Darwin, dăr'wĭn.
Dasent, da'sĕnt.
Dashkoff, dăsh'kŏf.
Das Mortas, dăs mŏr'tăz.
Dasymeter, da-sĭm'e-tŭr.
Dasyuridæ, da-sĭn're-de.
Data, da'tah.
Dataria, dah-ta're-ah.
Datolite, dăt'o-līt.
Datura, dah-tu'rah.
Daub, dawb.
Daubenton, do-bŏn-tŏn'.
D'Aubigné, do-bēn-ya'.
D'Aubigny, do-bēn-ye'.
Dauchite, daw'kĭt.
Daughter, daw'tŭr.
Dauner, dŏw'mŭr.
Daun, dŏwu.
Dauphin, daw'fĭn.
Dauphiné, do-fe-na'.
Dauphine, daw-fēn'.
Dauria, daw're-ah.
Davenant, dăv'n-ănt.
Davenport, dăv'n-pŏrt.
Davidson, da'vid-sŭn.
Davies, da'vēz.
Davila, dah've-lah.
Davis, da'vis.
Davit, da'vit.
Davoust, dah-voo'.
Davy, da've.
Dawk, dauk.
Dayaks, dī'ăks.
Dayton, da'tŭn.
Dazzle, dăz'zl.
Deacon, de'ku.
Deaf, dĕf.
Deak, da-ăk'.
Deal, dēl.
Dearborn, dēr'bŏrn,
Dearth, dŭrth.
Death, dĕth.
Debacle, de-ba'kl.
Debase, de-bās'.
Debauch, de-bawsh'.
De bene esse, de be'ne ĕs'se.
Debenture, de-bĕnt'yoor.
De Bernard, da hăr-năr'.
Debit, dĕb'it. [nĭz.
Debituminize, de-be-tu'me-
Déblai, da-bla'.
Debonair, dĕb-o-năr'.
Deborah, deb'o-rah.
Debouchure, da-boo-shoor',
Debreczin, da-brĕt'sĭn.
Débris, da-bre'.
Debruised, de-hroozd'.
Debt, dĕt.
Debut, da-boo'.
Débutante, dā-boo-tŏnt',
Decachord, dĕk'a-kord,
Decade, dĕk'ād.
Decagon, dĕk'a-gŏn.
Decagynia, dĕk-a-jĭn'e-ah.
Decahedron, dĕk-ah-ē'drŏn.
Decalitre, dĕk-ah-le'tr.
Decalogue, dĕk'a-lŏg.
Decamerone, de-kăm'e-rōn.
Decametre, dĕk-ah-ma'tr.
Decamps, da-kŏn'g)'.
Decangular, dek-ang'gu-lăr.
Decanter, de-kaut'ŭr.
Decaphyllous, de-kăf'fĭl-us.
Decapitation, de-kăp-e-ta'-
Decapolis, de-kăp'o-lĭs. [shŭn.
Decastich, dĕk'a-stĭk.
Decastyle, dĕk'a-stīl.
Decatur, de-ka'tŭr.
Decean, dĕk'kăn.
Decease, de-sees'.
Decebalus, de-sĕb'ah-lŭs.
Deceit, de-seet'.
December, de-sĕm'hŭr. [lăr.
Decemlocular, de-sĕm-lŏk'u-
Decemvir, de-sem'vŭr.
Decency, de'sen-se.
Decennium, de-sĕn'ne-ŭm.
Deception, de-sĕp'shŭn.
Decertation, de-sŭr-ta'shŭn.
Dechenite, dĕk'n-īt.
Decillion, de-sĭl'yŭn.
Decimal, dĕs'e-măl.
Decimus, dĕs'e-mŭs.
Decipher, de-sī'fŭr.
Decision, de-sizh'ŭn.
Decius, de'shŭs.
Declension, de-klĕn'shŭn.
Declivity, de-klĭv'e-te.
Decoction, de-kŏk'shŭn.
Decolor, de-kŭl'lŭr.
Decompose, de-kŏm-pōz'.
Decorah, da-ko'rah.
Decorous, dĕk'o-rŭs.
Decorum, de-ko'rŭm.
Decosta, da-kŏs'tah.
Decoy, de-koi'.
Decrement, dĕk're-mĕnt.
Decrescendo, da-kre-shĕn'do.
Decrescent, de-krĕs'sĕnt.
Decretal, de-kre'tăl.
Decuple, dĕk'yoo-pl.
Decurion, de-kū're-ŏn.
Decussation, de-kŭs-sa'shŭn.
Dedham, dĕd'ăm.
Deduction, de-dŭk'shŭn.
Deemster, dĕm'stŭr.
Deësis, de-e'sĭs.
De facto, de făk'to.
Defeasance, de-fēz'ăns.
Defecate, dĕf'e-kāt.
Defect, de-fekt'.
Deference, dĕf'ŭr-ĕns.
Defiand, da-fŏn'.
Deficiency, de-fĭsh'ĕn-se.
Deficit, dĕf'e-sit.
Deflection, de-flĕk'shŭn.
Defluvium, de-flū've-ŭm.
Defoe, de-fō'.
Deformity, de-fŏrm'e-te.
Defterdar, dĕf'tŭr-dahr.
Defunct, de-fŭngkt'.
Degenerate, de-jĕn'ŭr-āt.
Deggendorff, dăg'gu-dŏrf.
Deglutition, de-gloo-tish'ŭn.
Degnezli, dĕn-yiz-le'.
Dehisce, de-his'.
Dehors, de-hŏrz'.
Deicide, de'e-sīd.
Deidesheim, dī-dĕz-hīm'.
Deign, dān.
Dei Gratia, de-i gra'she-ah.
Deinotherium, dī-no-the'-
Deiopeia, dī-o-pe'yah. [re-ŭm.
Deir, dăr.
Deism, de'ĭzm.
Dejanira, dĕj-ah-ni'rah.
Dejection, de-jĕk'shŭn.
Déjeuner, da-zhoo-na'.
De jure, de ju're.
De la Bêche, da lah bāsh'.
Delacroix, d'lah-krwah'.
Delatield, dĕl'a-fēld.
Delagoa, dĕl-ah-go'ah.
Delambre, da-lŏmbr'.
De Lancy, de lān'se.
Delangle, d'lŏngl.
Delano, dĕl-ah'no.
Delapsation, de-lăp-sa'shŭn.
Delaroche, d'lah-rŏsh'.
Delavigne, d'lah-vān'.
Delaware, dĕl'ah-wahr.
Del credere, dĕl krĕd'e-re.
Dele, de'le.
Delectation, de-lĕk-ta'shŭn.
Deleuda, de-lĕn'dah.
Delesseria, dĕl-ĕs-se're-ah.
Deleterious, dĕl-e-te're-ŭs.
Delft, dĕlf.
Delhi, dĕl'le.
Delia, de'le-ah.
Delicacy, dĕl'e-ka-se.
Delicious, de-lĭsh'ŭs.
Delight, de-līt'.
Delille, da-lēl'.
Delinquent, de-lĭngk'wĕnt.
Deliquesce, dĕl-e-kwĕs'.
Deliquium, de-lĭk'we-um.
Delirium, de-lĭr'e-ŭm.
Delisle, de-lĭl'.
Delium, de'le-ŭm.
Del Norte, del nŏr'ta.
Delolme, da-lōm'.
Delorme, d'lŏrm'.
Delphi, dĕl'fe.
Delphinidæ, dĕl-fĭn'e-de.
Delphos, dĕl'fŏs.
Del Segno, dĕl sĕn'yo.
Delta, dĕl'tah.
Delve, d'look'.
Delvge, dĕl'ŭj.
Delusion, de-loo'zhŭn.
Delve, dĕlv.
Demades, de-ma'dēz.
Demagogue, dĕm'a-gŏg.
Demaratus, dĕm-ah-ra'tŭs.
Demarcation, de-măr-ka'-
shŭn.
Demavend, dĕm-ah-vĕnd'.
Dembia, dĕm'be-ah.
Dembinski, dĕm-bĭn'ske.
Demeanor, de-mēn'ŏr.
Dementia, de-mĕn'she-ah.
Demerara, dem-ŭr-ah'rah.
Demesne, de-meen'.
Demeter, de-me'tŭr.
Demetrius, de-me'tre-ŭs.
Demi, dĕm'e.
Demidoff, dĕm'e-dŏf. [sahr'.
Demir-Hissar, da-mĕr-hĭs-
Demise, de-mīz'.
Demission, de-mĭsh'ŭn.
Demiurge, dĕm'e-ŭrj.
Demmin, dĕm-mēn'.
Democracy, de-mŏk'ra-se.
Democritus, de-mŏk're-tŭs.
Demoiselle, dĕm-wah-zĕl'.
Demolition, dem-o-lĭsh'ŭn.
Demopolis, de-mŏp'o-lĭs.
Demos, de'mŏs.
Demosthenes, de-mŏs'the-nēz
Demotica, de-mŏt'e-kah.
Dempseytown, dĕm'se-town.
Demulcent, de-mŭl'sĕnt.
Demy, de-mī'.
Denain, da-nahn(g)'.
Denarius, de-na're-ŭs.
Denbigh, dĕn'be.
Denderah, dĕn'dŭr-ah.
Dendermonde, dĕn-dŭr-
mŏn'da.
Dendrachates, dĕn'dra-kāts.
Dendrolagus, dĕn-drŏl'a-gŭs.
Dendrolite, dĕn'dro-līt.
Dendrophis, dĕn'dro-fĭs.
Dengue, dĕn'ga.
Denina, da-ue'năh.
Denis, dĕn'ĭs. (*Fr.* d'ne'.)
Denison, dĕn'e-sŭn.
Denizen, dĕn'e-zn.
Denou, da-nŏn(g)'.
Dénouement, da-noo'mŏn(g)'.
Denounce, de-nowns'.
Dentalus, dĕn'ta-lŭs.
Dentatus, dĕn'ta-tŭs.
Dent-du-Midi, dŏn(g)-doo-
Denticle, dĕn'te-kl. [me-de'.
Dentifrice, dĕn'te-frĭs.
Dentiloqny, dĕn-tĭl'o-kwe.
Dentirostres, dĕn-te-rŏs'tŭrz.
Dentition, dĕn-tĭsh'ŭn.
Denton, dĕn'tn. [to'.
Dentrecasteaux, dŏnt'r-kăs-
Denunciation, de-nŭn-she-
Denver, dĕn'vŭr. [a shŭn.
Deny, de-nī'.
Deodur, de-o-door'.
D'Eou, du-ŏn(g)'.
Deparcieux, da-păr-se-oo'.
Departure, de-pārt'yŭr.
Depauville, da-paw'vĭl.
De Pere, da pār'.
De Peyster, da pīs'tŭr.
Depict, de-pĭkt'.
Depletion, de-ple'shŭn.
Depose, de-pōz'.
Deposit, de-pŏz'ĭt.
Depôt, dĕ'po.
Depreciate, de-pre'she-āt.
Deprive, de-prīv'.
Deptford, dĕt'fŭrd.
Deputies, dĕp'ū-tĭz.
De Quincey, de kwĭn'se.
Deracinate, de-răs'e-nāt.
Derange, de-rānj'.
Derayeh, da-ra'yah.
Derbend, dĕr-bĕnd'.
Derby, dŭr'be or dar'be.
Derceto, dĕr'se-to.
Dereliet, dĕr'e-lĭkt.
Derg, dŭrg.
Derision, de-rĭzh'ŭn.
Dermatin, dŭrm'a-tĭn.
Dermestes, dŭr mĕs'tēz.
Dermotony, dŭr-mŏt'o-ne.
Dernier, dŭr'ne-ăr.
Derrick, dĕr'rĭk.
Dervis, dŭr'vĭs.
Derwent, dŭr'wĕnt.
Derzhavin, dŭr-zhah'vĭn.
Desaguadero, dēz-ah-gwah-
Desatgues, da-zān'. [da'ro.
Desaix, da-sa'.
Des Arc, dāz ărk'.
Desaugiers, da-zo-zhe-a'.
Desault, da-so'.
Desboro, dēz'hŭr'ro.
Descartes, da-kahrt'.
Descend, de-sĕnd'.
Descloizite, dēz-kloiz'īt.
Description, de-skrip'shŭn.
Desceration, dēs-e-kra'shŭn.
Desemboque, da-sĕm-bo'kah.
Deseret, dĕz'ŭr-ĕt.
Desert, dĕz'ŭrt.
Desertion, de-zŭr'shŭn.
Deserve, de-zŭrv'.
Descze, da-sāz'.
Deshoulieres, da-soo-le-a'.
Deshabillé, dēs-ah-bĭl', [tŭm.
Desideratum, de-sĭd-e-ra'-
Desiderius, dēs-e-de're-ŭs.
Design, de-zīn'.
Designient, de-sĭp'e-ĕnt
Desirade, da-zeer-ahd'.
Desire, de-zīr'.
Desmidium, dĕs-mĭd'yŭm.
Des Moines, de moin'.
Desmology, dĕz-mŏl'o-je.
Desmonlins, da-moo-lahn',
Desna, dĕs'nah.
De Soto, da so'to.
Despatch, de-spăch'.
Desperado, des-pŭr-a'do.

Despicable, dĕs'pe-ka-bl.
Despise, de-spiz'.
Des Plaines, de plān'.
Desquamate, dĕs'kwa-māt.
Dessalines, da-sah-lōu'.
Dessau, dĕs-sow'.
Dessert, dĕz-zŭrt'.
Desterro, dĕz-tĕr'ro.
Destitution, dĕs-te-tu'shŭn.
Destouches, da-toosh'.
Destruction, dĕs-trŭk'shŭn.
Desuetude, dĕs'we-tūd.
Desultory, dĕs'ŭl-to-re.
Deter, de-tŭr'.
Deterge, de-tŭrj'.
Deteriorate, de-te're-o-rāt.
Detersion, de-tŭr'shŭn.
Detmold, dĕt'molt.
Detour, da-toor'.
Detriment, dĕt're-mĕnt.
Detritus, de-tri'tŭs.
Detroit, { *Eng.* de-troit'. *Fr.* da-trwaw'.
Detrusion, de-troo'zhŭn.
Dettingen, dĕt-tĭug-ĕn. [sĕns.
Detumescence, de-tu-nĕs'-
Deucaliou, du-ka'le-ōn.
Deuce, dūs. [me.
Deuteronomy, du-tŭr-ŏu'o-
Deuthydroguret, dū-the-dro'gu-rĕt.
Dentoxide, du-tŏks'īd.
Dentz, doitz.
Deux-Ponts, doo-pŏn(g)'.
Deva, de'vah.
Devastatiou, dĕv-ăs-ta'shŭn.
Devclop, de-vĕl'ŏp.
Deventer, da-vĕn'tŭr.
De Vere, da vĕr'.
Devereux, dăv-ro'.
Deviatiou, de-ve-a'shŭn.
Devil, dĕv'l.
Devise, de-vīz'.
Devizes, de-vī'zĭz.
Devoir, de-vwah'.
Devou, dĕv'n.
Dew, dū.
Dewees, da-wēz'.
Dewlap, dū'lăp.
Dewy, dū'e.
Dextriu, dĕks'trĭn.
Dey, da.
Dhalae, dah-lahk'.
Dharwar, dahr'wahr. [gār'e.
Dhawalagiri, dah-wŏl-ah-
Dhoolpore, dool-poor'.
Diabase, dī'a-bās.
Diabetes, di-a-be'tēz.
Diablerie, dē-ăb-l-re'.
Diabrosis, dī-a-bro'sĭs.
Diacatholicon, di-a-kah-thol'e-kŏn.
Diacaustie, di-a-kawz'tĭk.
Diachylon, di-ăk'e-lŏn.
Diacodium, di-a-kōd'yŭm.
Diaconal, di-ăk'o-năl.
Diaconstie, di-a-koos'tĭk.
Diadelphia, di-a-dĕl'fe-ah.
Diadumedianus, dī-ah-du-me-de-a'nŭs.
Diæresis, di-a-re'sĭs.
Diaglyphie, di-a-glĭf'ĭk.
Diagnosis, di-ăg-no'sĭs.
Diagoras, di-ăg'o-răs.
Diagram, di'a-grăm.
Diagrydiate, di-a-grĭd'e-āt.
Dialect, di'a-lĕkt.
Dialogism, di-ăl'o-jĭzm.
Dialogue, di'a-lŏg.
Dialysis, di-ăl'e-sĭs.
Diamaute, de-ah-măn'ta.
Diameter, di-ăm'e-tŭr.
Diamoud, di'mŭnd.
Diana, di-ăn'ah. [da pwah-te-a'.
Diane de Poitiers, de-ah-na
Dianoetic, di-a-no-ĕt'ĭk.
Dianthus, di-ăn'thŭs.
Diapasou, di-a-pa'zŭn.
Diaper, di'a-pŭr.
Diaphaue, di'a-făn.
Diaphoresis, di-a-fo-re'sĭs.
Diapluragm, di'a-frăm.
Diapophysis, di-a-pŏf'e-sĭs.
Diarbekir, de-ăr-be-kēr'.
Diarehy, di'ăr-ke.
Diarrhea, di-ăr-re'ah.
Diarthrosis, di-ăr-thro'sĭs.
Diary, di'a-re.
Dias, de'ahth.
Diaschisiua, dī-ăs-kĭz'mah.
Diastase, di'ăs-tāz.
Diastole, di-ăs-to'le.
Diastyle, di'a-stĭl.
Diatessaron, dī-a-tĕs'sa-rŏn.
Diathesis, di-ăth'e-sĭs.
Diatoma, di-a-to'mah.
Diatribe, di'a-trĭb.
Diaz, de'ahth.
Dibranchiate, di-hrăng'ke-āt
Dicephalous, di-sĕf'a-lŭs.
Dichastasis, dī-kăs'ta-sĭs.
Dichlamydeous, di-kla-mĭd'e-ŭs.
Dichotomy, di-kŏt'o-me.
Dichroism, di'kro-ĭzm.
Dickinson, dĭk'ĭn-sn.
Dicoccous, di-kŏk'kŭs.
Dicotyledon, di-kŏt-e-le'dŏn.
Dictamnus, dĭk-tăm'nŭs.
Diction, dik'shŭn.
Dictum, dik'tŭm.
Dictyogens, dĭk-tĭ'o-jĕnz.
Dictyophyllum, dĭk-tŏf'ĭl-lŭm. [kre-tĕu'sĭs.
Dictys Cretensis, dĭk'tĭs
Didactyl, di-dak'tĭl.
Didapper, dĭd'ăp-pŭr.
Didelphidæ, di-dĕl'fe-de.
Diderot, dĕd-ro'. [lah-sōv'.
Didier-la-Seauve, de-de-a-
Didius, dĭd'e-ŭs.
Dido, dī'do.
Didot, de-do'.
Didraehm, dī'drăm.
Didymium, de-dim'e-ŭm.
Di'lyuamia, dĭd-e-na'me-ah.
Die, di.
Dié, de-a'.
Diebitsch, de'bĭch.
Dieffeubach, dĕf'ĕn-băk.
Diegesis, di-e-je'sĭs.
Diego, de-ah'go.
Diemen, dē'mĕn.
Diepenbeek, de'pĕn-bĕk.
Dieppe, de-ĕp'.
Dies Iræ, dī'ēz ī're.
Diesis, di'e-sĭs.
Dies uon, dī'ēz uŏn.
Diest, dēst.
Dieteties, di-e-tĕt'ĭks.
Dietbyliu, di-ĕth'e-lĭn.
Dieu et mon Droit, de-oo a nuŏn(g)-drwaw'.
Differentia, dĭf-fĕr-ĕn'she-ah.
Ditlractiou, dĭf-frăk'shŭn.
Ditfuse, dĭf-fūz'.
Digamma, di-găm'mah.
Digby, dig'be.
Digenesis, di-jĕn'e-sĭs.
Digestion, de-jĕst'yŭn.
Diglut, dĭt.
Digitalis, dĭj-e-ta'lĭs.
Digitigrade, dĭj'e-te-grād.
Diglyph, di'glĭf.
Digraph, di'grăf.
Digressiou, de-grĕsh'ŭu.
Digynian, di-jĭn'e-ăn.
Dii, di'i.
Diiambus, di-i-ăm'bŭs.
Dijon, de-zhŏn(g)'.
Dilatatiou, dĭl-a-ta'shŭn.
Dile"mma, de-lĕm'mah.
Dilettante, dĭl-ĕt-tăn'ta.
Diligence, { *Eng.* dĭl'i-jĕns. *Fr.* de-le-zhŏog'.
Dillersville, dĭl'ŭrz-vĭl.
Dillon, dĭl'lŭn.
Diluent, dĭl'u-ĕnt.
Dilnvium, de-loo've-ŭm.
Dimaguerite, di-măg'nŭr-īt.
Dimension, di-mĕn'shŭn.
Dimeter, dĭm'e-tŭr.
Diuidiate, de-mĭd'e-āt.
Diminuendo, de-mĭu-u-ĕn'do.
Diminution, dĭm-e-nu'shŭn.
Diunity, dĭm'e-te.
Dimorphanthus, dĭm-ŏr-făn'thŭs.
Dimorphism, de-mŏr'fĭzm.
Dimple, dim'pl.
Dimyarias, dĭm-ya're-ăs.
Dinagepoor, de-uăj-poor'.
Dinah, di'nah.
Dinant, de-nŏn(g)'.
Dinar, di'năr.
Dingelstedt, dĭng'ĕl-stĕt.
Dingey, dĭng'ge.
Dingle, dĭng'gl.
Dingy, diu'je.
Dinornis, di-uŏr'nĭs. [ŭm.
Dinotherium, di-no-the're-
Dinsmore, dinz'mōr.
Dinwiddie, dĭn-wĭd'de.
Diocese, dī'o-seez.
Dioeletian, di-o-kle'shăn.
Diodon, dī'o-dŏn. [rus sĭk'u-lŭs.
Diodorus Siculus, di-o-do'-
Dioeious, di-e'shŭs.
Diogenes, di-ŏj'e-nēz.
Dionedes, di-o-me'dēz.
Dionæa, di-o-ne'ah.
Dion Cassius, di-ŏn kăsh'yŭs.
Dione, di-o'no.
Dionysius, di-o-nĭsh'e-ŭs.
Diophantine, di-o-făn'tĭn.
Diopsis, di-ŏp'sĭs.
Dioptase, di-ŏp'tāz.
Dioraina, di-o-rah'mah.
Diorthosis, di-ŏr-tho'sĭs.
Dios, de'ŏs.
Dioscorides, di-ŏs-kŏr'e-deez.
Diospyros, di-ŏs'pe-rŏs.
Dioxylite, di-ŏks'e-lĭt.
Dipaschal, dĭ-păs'kăl.
Diphryges, dĭf're-jēz.
Diphtheria, dĭf-the're-ah.
Diphthong, dĭp'thong *or* dĭf'thŏng. [skŏp.
Dipleidoscope, de-pli'do-
Diplintlins, di-plĭn'the-ŭs.
Diploma, de-plo'mah.
Diplopia, de-plo'pe-ah.
Diplotegia, dĭp-lo-te'je-ah.
Dipody, dĭp'o-de.
Dipsacaceæ, dĭp-sa-ka'se-e.
Dipsomania, dĭp-so-ma'ne-ah.
Dipsosis, dĭp-so'sĭs.
Diptera, dĭp'te-rah.
Dipteryn, dĭp'tŭr-ĭn.
Diptych, dĭp'tĭk.
Dirae, di're.
Direa, dŭr'kah.
Directrix, de-rĕkt'rĭks.
Direption, de-rĕp'shŭn.
Dirge, dŭrj.
Dirigc, dĭr'e-je.
Dirk, dŭrk.
Diruption, de-rŭp'shŭn.
Di Salto, de săl'to.
Disaster, dĭz-ăs'tŭr.
Diseern, dĭz-zŭrn'.
Diseiple, dĭs-si'pl.
Diseipline, dĭs'se-plĭn.
Diseoplenra, dĭs-ko-ploo'rah.
Discordia, dĭs-kŏr'de-ah.
Discourse, dĭs kōrz'.
Discover, dĭs'kŭv-r.
Disens, dĭs'kŭs.
Discuss, dĭs-kŭs'.
Disentient, dĭs-kŭ'shĕnt.
Disease, dĭz-ēz'.
Disgnise, dĭz-gīz'.
Dishonor, dĭz-ŏu'ŭr.
Disnal, dĭz'măl. [re.
Dispensatory, dĭs-pĕn'sa-to-
Dispose, dĭs-pōz'.
Disposition, dĭs-po-zĭsh'ŭu.
Disraeli, dĭz'rah-le *or* dĭz-ra'-
Disseetion, dĭs-sĕk'shŭn. [ĕl-e.
Disscizin, dĭs-se'zĭn.
Dissilienee, dĭs-sĭl'yĕuz.
Dissolve, dĭz-zolv'.
Dissnade, dĭs-swād'.
Distiek, dĭs'tĭk.
Distiehiasis, dĭs-te-ki'a-sĭs.
Distil, dĭs-tĭl'.
Distinetion, dĭs-tĭngk'shŭn.
Distingnish, dĭs-tĭug'gwish.
Distoma, dĭs'to-mah.
Distraetion, dĭs-trak'shŭn.
Distrait, dĭs-tra'.
Distrauglt, dĭs-trawt'.
Distringas, dĭs-trĭug'găs.
Distyle, dĭs'tĭl.
Ditheisiu, di'the-ĭzm. [bŭs.
Dithyrambus, dĭth-e-răm'-
Ditriglyph, dĭt're-glĭf.
Ditroehee, di-tro'kee.
Dittany, dĭt'ta-ne.
Dinresis, di-ū-re'sĭs.
Dinrnal, di-ūr'uăl.
Divan, de-văn'.
Diverge, de-vŭrj'.
Divers, dī'vŭrz.
Diversion, de-vŭr'shŭn.
Divertisement, de-vărt'ĭz-
Divide, de-vīd'. [mŏn(g).
Diviug, dĭv'ĭng.
Division, de-vĭzh'ŭn.
Divorce, de-vōrs'.
Divoto, de-vo'to.
Divulge, de-vŭlj'.
Dixie, dĭks'e.
Dixmont, deeks-mŏn(g)'.
Dixou, dĭk'sŭn.
Dizful, dĕz'fool.
Dizier, de-ze-a'.
Djerrid, jĕr-reed'.
Djokjokarta, yŏk-yo-kahr'tah
Dnieper, ne'pr.
Dnlester, nĕs'tŭr.
Doane, dōn.
Doat, dōt.
Dobcin, do-bīn'.
Dobrente, do-brĕn'ta.
Dobrudscha, do-broo'jah.
Dobnle, dŏb'ŭl.
Doçe, do'sa.
Doeetae, do-se'te.
Dochmius, dŏk'me-ŭs.
Doeile, do'sil.
Doeiuacy, dŏs'i-ma-se.
Doctrinaire, dŏk-tre-nār'.
Doctrine, dŏk'trĭn.
Document, dŏk'yoo-mĕnt.
Doddridge, dŏd'drĭj.
Dodecagon, do-dĕk'a-gŏn. [ah.
Dodceagynia, do-dĕk-a-jĭn'e-
Dodecandria, do-de-kăn'dre-ah.
Dodecastyle, do-dĕk'a-stīl.
Dodeeatheon, do-de-ka'the-
Dodge, dŏj. [ŏn.
Dödiberg, doo'de-bārg.
Dodoua, do-do'nah.
Dodsley, dŏdz'le.
Doeskin, do'skĭn.
Dogana, do-gah'nah.
Doge, dōj.
Doggerel, dŏg'g'r-el.
Doily, doi'le.
Doings, doo'ĭngz.
Dolabella, dŏl-ah-bĕl'lah.
Dolabriform, do-lăb're-fŏrm.
Dolce, dŏl'cha.
Doldrums, dŏl'drŭmz.
Dôle, dōl.
Dolerite, dŏl'ŭr-īt.
Dolesome, dōl'sŭm.
Dolgorouki, dŏl-go-roo'ke.
Dolichos, dŏl'e-kŏs.
Doliehonyx, do-lĭk'o-nĭks.
Doliehurus, dŏl-i-ku'rŭs.
Doliuiu, do'le-ŭm.
Dollinger, dŏl-lĭng'ăr.
Dolomieu, do-lo-me-oo'.
Dolomite, dŏl'o-mīt.
Dolores, dŏl'o-rĕz.
Doloroso, dŏl-o-ro'zo.
Dolphin, dŏl'fĭn.
Dolt, dŏlt.
Dombeyaeeæ, dŏm-be-a'se-e.
Domenichino, do-mĕn-e-ke'-
Douicile, dŏm'e-sĭl. [no.
Domina, dŏm'e-nah.
Douingo, do-mĕng'go.
Douiuica, dŏm-e-ne'kah.
Domiuicans, do-mĭn'o-kănz.
Dominie, dŏm'e-ne.
Domiuiou, do-mĭn'yŭn.
Douinocs, dŏm'e-nōz.
Douitian, do-mĭsh'yăn.
Domremy - la - Pucelle, dŏn(g)ra-me-lah-poo'sĕl.
Doña, do'nah.
Donald, dŏu'ăld.
Donatello, do-nah-tĕl'lo.
Donati, do-nah'te.
Donatiou, do-na'shŭn.
Donanwerth, do-nŏw-wŭrt'.
Doncaster, dŏngk'ăs-tŭr.
Donegal, dŭn-e-gawl'.
Dongola, dŏng'go-lah.
Doniphan, dŏn'e-făn.
Donizetti, dŏn-e-zĕt'te.
Doujou, dūn'jŭu.
Donkey, dŏng'ke.
Donnat, do-nah'.
Doune, dŏn.
Dounu, do'nŭm.
Door, dōr.
Doorga, door'gah.
Dorado, do-rah'do.
Doreas, dōr'kăs.
Dorehester, dōr'chĕs-tŭr.
Dordogne, dŏr-dōn'.
Doré, do-ra'.
Doreuia, do-ra'mah.
Doria, do're-ah.
Dorie, do'rĭk.
Dorippe, do-rĭp'pe.
Dornoch, dōr'uŏk.
Doron, do'rŏn.
Doronieum, do-rŏn'e-kŭm.
D'Orsay, dōr-sa'.
Dorsibranchiate, dōr-se-brăng-ke-āt.
Dorstenia, dōr-stēn'yah.
Dortmund, dōrt'moont.
Dory, do're.
Dose, dōs.
Dositheaus, do-sĭth'yănz.
Dosology, do-sŏl'o-je.
Douai, doo-a'.
Donaue, doo-ahu'.
Double, dŭb'l.
Doubloon, doo-bloon'.
Doubs, doob.
Doubt, dowt
Douecur, doo-soor'.
Douelie, doosh.
Dough, dō.
Dougherty, do'ŭr-te.
Douglas, dŭg'lăs.
Dour, door.
Douro, doo'ro.
Donse, dows.
Dove, dŭv.
Dover, do'vŭr.
Dow, dŏw.
Dowager, dŏw'a-jŭr.
Dower, dŏw'ŭr.
Dowlatabad, dŏw-lăt-a-hăd'.
Downes, downz.
Doxology, dŏks'ŏl-o-je.
Doyle, doil.
Doze, dōz.
Dozen, dŭz'n.
Drabble, drăb'bl.
Dracæna, dra-ke'nah.
Drachentels, drah'kĕn-fĕlz.
Drachm, drăm.
Draco, dra'ko. [a-lŭm.
Dracoeephalum, dra-ko-sĕf'-
Dracunculus, dra-kŭng'ku-
Draggle, drăg'gl. [lus.
Dragoman, drăg'o-măn.
Dragonnades, drăg-ŏn-nādz'.
Dragoon, dra-goon'.
Draguiguan, drah-gĕn-yŏn(g)'
Drammen, drăm'mĕn.
Draucsville, drānz'vĭl.
Draught, drăft.
Drave, drahv.
Dread, drĕd.
Dredge, drĕj.
Dreuthe, drĕn'ta.
Dresden, drĕz'dn.
Drew, droo.
Driuys, drĭm'ĭs.
Driuk, drĭngk.
Droger, drōg'ŭr.
Drogheda, draw'he-dah.
Drohobice, dro'ho-hĭtch.
Droll, drōl.
Drôme, drōm.
Dromedary, drŭm'e-da-re.
Dromia, dro'me-ah.
Dromore, dro-mōr'.
Dropsy, drŏp'se.
Drosera, dro-se'rah.
Drosky, drŏs'ke.
Drosometer, dro-sŏm'e-tŭr.
Drought, drout. [da loo-e'.
Drouyn de Lhuys, droo-ahn'
Drowsy, drow'ze.
Drudge, drŭj.
Druid, droo'ĭd.
Drummond, drŭm'mŭnd.
Drunkeu, drŭngk'n.
Drupe, droop.
Druses, droo'zĭz.
Drusilla, droo-sĭl'lah.
Drusus, droo'sŭs.
Druxey, drŭk'se.
Dryad, drī'ăd.
Dryden, drī'dn. [nŏps.
Dryobalanops, drī-o-băl'o-
Dual, dū'ăl.
Duarchy, du'ăr-ke.
Du Bellay, doo bĕl-la'.
Dubious, dū'be-ŭs.
Dubois, doo-bwaw'.
Dubuque, du-book'.
Du Cange, doo-kŏnzh'.
Ducat, dŭk'ăt.
Duchesne, doo-shān'.
Duchesnois, doo-sha-nwah'.
Duchess, dŭch'ĕss.
Dueis, doo-sĕs'.
Duelos, doo-klo'.
Ductility, dŭk-tĭl'e-te.
Dudgeon, dŭj'ŭn.
Dudley, dŭd'le.
Duello, du-ĕl'lo.
Duenna, doo-ĕn'uah.
Duet, du-ĕt'.
Dufrenoy, doo-fra-nwah'.
Dugommier, doo-go-me-a'.
Duguay-Trouin, doo-ga'-troo-ahu'.
Dugueselin, doo-ga-klahn'.
Dugnetia, doo-ga'she-ah.
Duisburg, doo'ĭs-hoorg.
Dnke, dūk.
Dulcamara, dŭl-kăm'a-rah.
Dulce, dool'sa.
Dulcet, dŭl'sĕt.
Dulcimer, dŭl'se-mŭr.
Duleoration, dūl-sūr-a'shŭn.
Dulcinea, dŭl-sĭn-e'ah.
Dulichium, du-lĭk'e-ŭm.
Dnluth, dū-lŭth'.
Duly, du'le.
Dumas, doo-mah'.
Dumb, dŭm.
Dumbartou, dŭm-băr'tn.
Dumesnil, doo-ma-uĕl'.
Dumfries, dŭm-freez'.
Dumont D'Urville, doo-mŏn(g) door-vĭl'.
Dunouriez, doo-moo-re-a'.
Dunuus, dŭ'mŭs.
Duucan, dŭng'kăn.
Dnneiad, dŭn'se-ăd.
Dundalk, dŭn-dawk'.
Dundas, dŭn-dăs'.
Dundonald, dŭn-dŏn'ăld.
Dune, dūn.
Dunfermline, dŭn-fŭrm'lĭn.
Dungeness, dŭnj-nĕs'.
Dunglison, dŭng'gle-sŭn.
Dunkerque or **Dunkirk,** dŭn-kărk'.
Dunklin, dŭngk'lĭn.
Dunmow, dŭn-mō'.
Dunnage, dŭn'năj.
Dunois, doo-nwah'.
Dunsinane, dūn'se-năn.
Duo, du'o.
Dupauloup, doo-pŏn-loo'.
Dupe, dūp.
Dupln, doo-pahn'.
Duple, dū'pl.
Duplex, dū'plĕks.
Duplicate, dū'ple-kāt.
Duplin, doo-plĭn'.
Dupont, doo-pŏnt'
Duppel, doop'pĕl.
Dupuls, doo-pwe'.
Dupuytren, doo-pwe-e-trŏn'.
Duquesne, doo-kān'.
Dura Mater, du'rah ma'tŭr.
Duramen, du'ra-mĕn.
Durance, dūr'ăns.
Duraugo, doo-răng'go.
Durante, doo-răn'ta.
Durazzo, doo-rät'so.
Durbar, door'hăr.
Dürer, doo'rĕr.
Duress, dū-rĕs'.
Durham, dŭr'ăm.
Durio, doo're-o.
Duroc, doo-rŏk'.
Durrenstein, door'rĕn-stīn.
Dusseldorf, dŭs'sĕl-dŏrf.
Dutcheless, dŭch'ĕss.
Dnteous, dū'te-ŭs.
Dutrochet, doo-tro-sha'.
Dutteeah, dŭt-te'yah.

Duval, doo-vahl′.
Duvernay, doo-vär′na.
Dwarf, dwôrf.
Dwight, dwīt.
Dwina, dwe′nah.
Dwindle, dwĭn′dl.
Dyadic, dī-ăd′ĭk.
Dyce, dīs.
Dyer, di′ŭr.
Dynasty, di′năs-te.
Dysentery, dĭs′ĕn-tĕr-e.
Dysodia, dĭs-ō′dyah.
Dyspepsia, dĭs-pĕp′se-ah.
Dysphagia, dĭs-fa′je-ah.
Dyspnœa, dĭsp-ne′ah.
Dystome, dĭs′tōm.
Dysuria, dĭs-u′re-ah.
Dzeron, ze′rŏn.
Dzoongaria, zo-ŏn-ga′re-ah.

E.

Each, ēch.
Eager, ē′gŭr.
Eagle, ē-gl.
Eagre, ē′gĕr.
Ear, eer.
Earl, ŭrl.
Early, ŭr′le.
Earn, ŭrn.
Earth, ŭrth.
Ease, eez.
Easel, ē′zl.
Easter, ēst′ŭr.
Eat, eet.
Eau, ō.
Eaves, ēvz.
Ebeb Malek, e′bĕn me′lĕk.
Ebenaceæ, ō-bn-a′se-e.
Ebenezer, ĕb′n-e-zŭr.
Eberhard, ĕb′ŭr-härd.
Ebersberg, e′bărz-bărg.
Ebionites, ĕb′yŭn-īts.
Eblis, ĕb′lĭs.
Ebony, ĕb′o-ne.
Ebullement, a-bool-mŏn(g)′.
Ebracteate, e-brăk′te-āt.
Ebriety, e-bri′e-te.
Ebrillade, e-brĭl′lād.
Ebriosity, e-bre-ŏs′e-te.
Ebro, a′bro.
Ebullition, ĕb-ŭl-lĭsh′ŭn.
Eburna, e-bŭr′nah.
Ecarté, a-kär′ta.
Ecbalium, ĕk-ba′le-ŭm.
Ecbasis, ĕk′ba-sĭs.
Ecbatana, ĕk-ba-tah′nah.
Ecbole, ĕk′bo-le. [ŏn
Eccaleobion, ĕk-kah-le-o′be-
Ecce Homo, ĕk′se ho′mo.
Eccentric, ĕk-sĕn′trĭk.
Ecce Signum, ĕk-se sĭg′nŭm.
Ecchymosis, ĕk-ke-mo′sĭs.
Ecclesiastes, ĕk-kle-ze-ăs′tēz.
Eccope, ĕk′ko-pe.
Eccrinology, ĕk-krĭn-ŏl′o-je.
Ecdysis, ĕk′da-sĭs.
Echaconnee, ĕch-ah-kŏn′ne.
Echiales, e-ki′ah-lēz.
Echidna, e-kĭd′nah.
Echineis, e-ki′ne-ĭs.
Echinoderm, e-kĭn′o-dŭrm.
Echinoids, e′kĭn-oĭdz.
Echinus, e-kī′nŭs.
Echium, e′ke-ŭm.
Echmiadzin, ĕch-me-ad-zeen′.
Echo, ĕk′o.
Echometry, e-kŏm′e-tre.
Ecija, a-the′yah.
Eckmühl, ăk-mool′. [mŏn(g)′.
Eclaircissement, e-klār-sĭs-
Eclaircize, e-klār′sĭz.
Eclat, a-klah′.
Eclectic, ĕk-lĕk′tĭk.
Eclegm, ĕk-lĕm′.
Eclipse, e-klĭps′.
Eclogue, ĕk′lŏg.
Ecole, a-kōl′.
Economy, e-kŏn′o-me.
Ecorche, a-kōr-sha′.
Ecossaise, a-kŏs-sāz′.
Ecoute, a-koot′.
Ecphasis, ĕk′fa-sĭs.
Ecphonema, ĕk-fo-ne′mah.
Ecphora, ĕk-fo′rah.
Ecphysesis, ĕk-fe-se′sĭs.
Ecphysis, ĕk′fe-sĭs.
Ecrhythmus, ĕk-rĭth′mŭs.
Ecstasy, ĕks′ta-se.
Ecthlipsis, ĕk-thlĭp′sĭs.
Ecthyma, ĕk-thī′mah.
Ectopia, ĕk-to′pe-ah.
Ectozoa, ĕk-to-zo′ah.
Ectropium, ĕk-tro′pe-ŭm.
Ectylotic, ĕk-te-lŏt′ĭk.
Ecuador, ĕk-wah-dōr′.
Ecumenic, ĕk-u-mĕn′ĭk.
Ecurie, ĕk′yoo-re.
Edacious, e-da′shŭs.
Edam, e′dăm.
Edda, ĕd′dah.
Eddystone, ĕd′de-stōn.
Edematous, e-dĕm′a-tŭs.
Eden, ō′dn.
Edentulous, e-dĕn′tu-lŭs.
Edgar, ĕd′gär.
Edgeworth, ĕj′wŭrth.
Edible, ĕd′o-bl.
Edict, e′dĭkt.
Edinburgh, ĕd′n-hŭr′ro.
Edingtonite, ĕd′ĭng-tŭn-īt.
Edisto, e-dĭs′to.
Edition, e-dĭsh′ŭn. [thăl′mah.
Edriophthalma, ĕd-re-ŏf-
Educe, e-dūs′.
Eduction, e-dŭk′shŭn.
Edward, ĕd′wahrd.
Edwy, ĕd′we.
Eerie, ē′re.
Effect, ĕf-fĕkt.′
Effendi, ĕf-fĕn′de.
Effervescence, ĕf-fŭr-vĕs′
Effete, ĕf-fēt′. [sĕns.
Efficacy, ĕf′fe-ka-se.
Efficient, ĕf-fĭsh′ĕnt.
Effigy, ĕf′fe-je.
Effloresce, ĕf-flo-rĕs′.
Effluvium, ĕf-flū′ve-ŭm.
Effodient, ĕf-fo′de-ĕnt.
Effraction, ĕf-frăk′shŭn.
Effusion, ĕf-fū′zhŭn.
Egad, e-găd′.
Egalité, a-găl′e-ta.
Egbert, ĕg′bŭrt.
Eger, a′gär.
Egeria, o-je′re-ah.
Egesta, e-jĕs′tah.
Eglandulose, ĕg-lăn′du-lōz.
Eglantine, ĕg′lăn-tīn.
Egmont, ĕg′mŏn′.
Egoism, e′go-ĭzm.
Egophony, ē-gŏf′o-ne.
Egotism, e′go-tĭzm.
Egregious, e-gre′jŭs.
Egypt, e′jĭpt. [brĭt′stĭn.
Ehrenbreitstein, a-rĕn-
Ehretiaceæ, a-re-ti-a′se-e.
Eichhorn, īk′hŏrn.
Eider, ī′dăr.
Eidograph, ĭd′o-graf.
Eight, āt.
Eikon, ī′kŏn.
Eisenach, īz′n-ăk.
Eisleben, īz′la-bĕn.
Eisteddfod, īs-tĕd′vŏd.
Either, ē′thĕr *or* ī′thĕr.
Ejaculation, e-jăk-u-la′shŭn.
Ejusdem generis, e-jus′dĕm
jĕn′e-rĭs. [no-slāv.
Ekaterinoslav, ye-kät-a-re′-
Ekebergite, ēk′bărg-īt.
Ela, e′lah.
Elæagnus, e-le-ăg′nŭs.
Elagabalus, ĕl-ah-găb′a-lŭs.
Elaidine, e-lād′ĭn.
Elais, e-la′ĭs.
Eland, e′lănd.
Elapse, e′lăps′.
Elaqueate, e-la′kwe-āt.
Elasticity, e-lăs-tĭs′e-te.
Elateriæ, e-la-te′re-e.
Elation, e-la′shŭn.
Elba, ĕl′bah.
Elbe, ĕlb.
Elbeuf, ĕl-bŭf′.
Elbing, ĕl′bĭng.
Elbœuf, ĕl-bŭf′.
Elbow, ĕl′bo.
Elbridge, ĕl′brĭj.
Elburz, ĕl-boorz′.
Elcesean, ĕl-se′se-ănz.
Elche, ĕl′cha.
Elchingen, ĕl′kĭng-ĕn.
El Dorado, ĕl do-rah′do.
Eleanor, ĕl′e-nŏr.
Eleaties, e-le-āt′ĭks.
Eleazar, e-le-a′zär.
Elecampane, ĕl-e-kăm-pān′.
Electra, e-lĕk′trah.
Electricity, e-lĕk-trĭs′e-to.
Electrolysis, e-lĕk-trŏl′e-sĭs.
Electrophorus, e-lĕk-trŏf′o-
Electuary, e-lĕkt′u-a-re. [rŭs.
Elecmosynary, ĕl-e-mŏs′e-
Elegance, ĕl′e-găns. [na-re.
Elegy, ĕl′o-je.
Elei, e-le′i.
Elemi, ĕl′e-me. [sĭs.
Elephantiasis, ĕl-e-făn-tī′a-
Elephantine, ĕl-e-făn′tīn.
Eleusis, e-lū′sĭs.
Eleven, e-lĕv′n.
Elgin, ĕl′gĭn.
Eli, e′li.
Eliakim, e-li′a-kĭm.
Elias, e-lī′ăs.
Elicit, e-lĭs′ĭt.
Eligibility, ĕl-e-je-bĭl′e-te.
Elijah, e-li′jah.
Elimelech, e-lĭm′e-lĕk.
Eliot, ĕl′yŏt.
Eliphaz, e-li′făz.
Eliquation, ĕl-i-kwa′shŭn.
Elis, e′lĭs.
Elizabeth, e-lĭz′a-bĕth.
Elisavetgrad, a-le-zah-vĕt-
Elisha, e-lī′shah. [grahd′.
Elision, e-lĭz′ŭn.
Elite, a-leet′.
Elixir, e-lĭks′ŭr.
Elkhart, ĕlk′härt.
Ellagite, ĕl′lah-jīt.
Ellicott, ĕl′le-kŏt.
Ellipsograph, ĕl-lĭp′so-grăf.
Ellora, ĕl-lo′rah.
Ellsworth, ĕlz′wŭrth.
Elm, ĕlm.
Elmira, ĕl-mi′rah.
El Obeid, el o-beed′.
Elocutiou, ĕl-o-kū′shŭn,
Éloge, a-lo-zha′.
Elohim, e-lo′hĭm.
Eloign, e-loin′.
Eloquence, ĕl′o-kwĕns.
El Paso, ĕl pah′so.
El Peñon, -pān′yŏn.
Elphin, ĕl′fĭn.
Elsinore, ĕl-se-nōr′.
Elsler, ĕlz′lĕr.
Elster, ĕlz′tŭr.
Elton, ĕl′tŭn.
Elucidation, e-lū-se-da′shŭn.
Elvas, ĕl′vahs.
Elyodoric, e-li-o-dŏr′ĭk.
Elysium, e-lĭzh′yŭm.
Elytrine, ĕl′e-trĭn.
Elytrocele, ĕl-e-tro-sēl′.
Elytron, e-li′trŏn.
Elzevir, ĕl-za′vŭr.
Emaciation, e-mā-she-a′shŭn.
Emanuel, e-măn′u-ĕl.
Embalm, ĕm-bahm′. [da′re.
Embarcadere, ĕm-bär-kah-
Embargo, ĕm-bär′go.
Embassy, ĕm′bās-se.
Embathe, ĕm-bāth′.
Embden, ĕm′dĕn.
Emberiza, ĕm-be-rī′zah.
Embezzle, ĕm-bĕz′zl.
Embonpoint, ŏn(g)-bŏn(g)-
pwŏn(g)′. [shoor′.
Embouchure, ŏn(g)-boo-
Embrasure, ĕm-hra′zhŭr.
Embrocado, ĕm-bro-kah′do.
Embryo, ĕm′bre-o.
Emerald, ĕm′e-răld.
Emerge, e-mŭrj′.
Emeritus, e-mĕr′e-tŭs.
Emersion, e-mŭr′shŭn.
Emerson, ĕm′ŭr-sn.
Emetic, e-mĕt′ĭk.
Emente, a-moot′.
Émigrés, a-me-grāz′.
Emir, e-mĕr′.
Emissiou, e-mĭsh′ŭn.
Emmanuel, ĕm-măn′u-ĕl.
Emmaus, ĕm′ma-ŭs. [gŏg.
Emmenagogue, ĕm-mĕn′a-
Emollient, e-mŏl′yĕnt.
Emotion, e-mo′shŭn.
Empedocles, ĕm-pĕd′o-kleez.
Emphasis, ĕm′fa-sĭs.
Emphlysis, ĕm′fle-sĭs.
Emphytensis, ĕm-fe-tū′sĭs.
Emporium, ĕm-po′re-ŭm.
Empyema, ĕm-pe-e′mah.
Empyesis, ĕm-pe′ē-sĭs.
Empyreuma, ĕm-pe-roo′mah.
Ems, ĕmz.
Emulgent, e-mŭl′jĕnt.
Emulsion, e-mŭl′shŭn.
Emunctory, e-mŭngk′to-re.
Emydoidæ, ĕm-e-do′e-de.
Enamel, ĕn-ăm′ĕl.
Enanthesis, e-uăn′the-sĭs.
Enantiosis, e-năn-tī′o-sĭs.
Enargite, ĕn′ăr-jīt.
Enarthrosis, ĕn-ăr-thro′sĭs.
Encardion, ĕn-kär′de-ŏu.
Encauma, ĕn-kaw′mah.
Enceladus, ĕn-sĕl′a-dŭs.
Encephalgia, ĕn-se-făl′je-ah.
Encephalocele ĕn-sĕf′a-lo-sēl
Enchodus, ĕn′ko-dŭs.
Enckė, ĕnk′ka.
Enclitic, ĕn-klĭt′ĭk.
Encomium, ĕn-ko′me-ŭm.
Encore, ŏn(g)-kōr′.
Encrinite, ĕn′kri-nīt.
Encroach, ĕn-krōch′. [de-ah.
Encyclopedia, ĕn-si-klo-pe′-
Endeavor, ĕn-dĕv′ŭr.
Endeixis, ĕn-dĭks′ĭs.
En demeure, ăhn da-moor′.
Endemic, ĕn-dĕm′ĭk. [ŭm.
Endocardium, ĕn-do-kär′de-
Endorhiza, ĕn-do-rī′zah.
Endosmose, ĕn′dŏs-mōs.
Endostome, ĕn′do-stōm.
Endymion, ĕn-dĭm′e-ŏn.
Enema, e-ne′mah.
Energico, a-năr′je-ko.
Energy, ĕn′ŭr-je.
En famille, ahn fa-mee-a′.
Enfeoff, ĕn-fĕf′.
Enfield, ĕn′fēld.
Engadine, ĕn-gah-deen′.
Engano, ĕn-gah′uo.
Engelhe, ĕn-zhĕn′yo.
Enghien, ŏn′g)-ge-ahn(g)′.
Engine, ĭn′jĭn or ĕn′jĭn.
England, ĭng′glănd.
Engoulée, ŏng-goo-la′.
Enigma, e-nig′mah.
Enlimn, ĕn-lĭm′.
Enmanché, ŏn(g)-mŏn(g)-sha′.
Ennemoser, ĕn-na-mo′zŭr.
Enniskillen, ĕn-nĭs-kĭl′lĭu.
Ennius, ĕn′ne-ŭs.
Ennui, ŏn(g)-we′.
Enoch, e′nŏk. [tōp.
Enorthotrope, e-nŏr′thro-
Enos, e′nŏs.
Enough, e-nŭf′.
Enriqueta, ŏn-re-ke′tah.
Ensanguine, ĕn-săng′gwĭn.
Ensemble, ŏn(g)-sŏm′bl.
Ensign, ĕn′sīn.
Entasia, ĕn-ta′zhah.
Entasis, ĕn′ta-sĭs.
Entassment, ahn-tăs′mŏn(g).
Entente cordiale, ahn-tŏnt
kŏr-de-ahl′.
Enteritis, ĕn-te-rī′tĭs.
Enterocele, ĕn-tĕr′o-sēl.
Enterolite, ĕn-tĕr′o-līt. [fa-lŏs.
Enteromphalos, ĕn-te-rŏm′-
Enteropathy, ĕn-te-rŏp′a-the.
Enteropiplocele, ĕn-te-ro-
pĭp′lo-sēl.
Enterprise, ĕn′tŭr-prīz.
Entheasm, ĕn′the-ăzm.
Enthelmintha, ĕn-thĕl-
Entheus, ĕn′the-ŭs. [mĭu′tah.
Enthusiasm, ĕn-thū′ze-ăzm.
Enthymeme, ĕn′the-mēm.
Entice, ĕn-tīs′.
Entity, ĕn′te-te. [mŏf′a-gŭs.
Entomophagous, ĕn-to-
Entophyte, ĕn′to-fīt.
Entozoa, ĕn-to-zo′ah.
Entr'acte, ŏn(g)tr-ahkt′.
Entrails, ĕn′trālz. [trănz′.
Entrance, ĕn′trăns and ĕn-
Entre Rios, ĕn′trah re′ŏs.
Entrée, ŏn(g)-tra′.
Entremets, ŏn(g)tr-ma′.
Entrepôt, ŏn(g)tr-po′.
Entresol, ŏn(g)tr-sŏl′.
Entrochite, ĕn′tro-kīt.
Entropium, ĕn-tro′pe-ŭm.
Ennnciation, e-uŭn-she-a′-
Enuresis, ĕn-u-re′sĭs. [shŭn.
Enveigle, ĕn-ve′gl.
Envelop, ĕn-vĕl′ŏp.
Envelope, ŏn-ve-lōp′.
Environ, ĕn-vī′rŏn.
Environs, ĕn′ve-rŏnz.
Eocene, e′o-seen.
Eolis, e-o′lĭs.
Eou, { *Fr.* ā-ŏn′. *Eng.* e′ŏn.
Eooa, e-oo′ah.
Eos, e′ŏs.
Epagoge, ĕp-a-go′je. [dăs.
Epaminondas, e-păm-e-nŏn′-
Epanodos, e-păn′o-dŏs. [sĭs.
Epanorthosis, ĕp-a-nor-tho′-
Eparchy, ĕp′ärk-e.
Epaulement, e-pawl′mĕnt.
Epaulet, ĕp′aw-lĕt.
Epée, a-pa′. [lŏn.
Epencephalon, ĕp-yoo-sĕf′a-
Epergne, a-pärn′.
Epernay, a-pär-na′.
Epernon, a-pär-nŏn(g)′.
Epexegesis, ĕp-ĕks-e-je′sĭs.
Ephah, e′fah.
Ephemera, o-fĕm′e-rah.
Ephesus, ĕf′e-sŭs.
Ephesian, e-fē′zhăn.
Ephialtes, ĕf-i-ăl′tēz.
Ephod, ĕf′ŏd.
Ephraim, ĕf′rām.
Epicene, ĕp′e-sēn.
Epictetus, ĕp-ĭk-te′tŭs.
Epicurus, ĕp-e-ku′rŭs.
Epidemic, ĕp-e-dĕm′ĭk.
Epidermis, ĕp-i-dŭrm′ĭs.
Epididymis, ĕp-e-dĭd′e-mĭs.
Epigæa, ĕp-e-je′ah. [sĕl.
Epigastrocele, ĕp-e-găs′tro-
Epigene, ĕp′e-jēn.
Epigraph, ĕp′i-grăf.
Epigynous, ĕ′pĭj′e-nŭs.
Epilogism, e-pĭl′o-jizm.
Epilogne, ĕp′i-lŏg.
Epimenides, ĕp-e-mĕn′e-dēz.
Epinal, a-pe-nahl′.
Epiuglette, ĕp-ĭn-glĕt′.
Epinyctis, ĕp-i-nĭk′tĭs.
Epiphany, e-pĭf′a-ne.
Epiphora, e-pĭf′o-rah.
Epiphyte, ĕp′i-fīt.
Epiplerosis, ĕp-i-ple-ro′sĭs.
Epiploce, e-pĭp′lo-se.
Epiploon, e-pĭp′lo-ŏn.
Epirus, e-pī′rus.
Episcenium, ĕp-e-se′ne-ŭm.
Episcopalia, e-pĭs-ko-pa′le-ah.
Episode, ĕp′i-sōd.
Episperm, ĕp′i-spŭrm. [nĭs.
Episthotonis, ĕp-ĭs-thŏt′o-
Epistilbite, ĕp-i-stĭl′bīt.
Epistle, e-pis′tl.
Epistrophe, e-pĭs′tro-fe.
Epitaph, ĕp′i-tăf.
Epitasis, e-pĭt′a-sĭs.
Epithalamium, ĕp-i-tha-la′-
Epithem, ĕp′i-thĕm. [me-ŭm.
Epitithides, ĕp-i-tĭth′i-dēz.
Epitome, e-pĭt′o-me.
Epitrope, e-pĭt′ro-pe.
Epizoöty, ĕp-i-zo′o-te.
E pluribus unum, e plūr′i-
Epoch, ĕp′ŏk. [hŭs n′nŭm.
Eponym, ĕp′o-nĭm.
Epopœa, ĕp-o-pe′yah.
Epos, ĕp′ŏs.
Eprouvette, a-proo-vĕt′.
Epsom, ĕp′sŭm.
Epulones, ĕp-u-lo′nēz.
Epotides, e-pōt′e-dēz.
Epworth, ĕp′wŭrth.
Equation, e-kwa′shŭn.
Equatorial, e-kwa-to′re-ăl.
Equerry, e-kwĕr′re.
Equestrian, e-kwĕs′tre-ăn.
Equidæ, e-kwe-de.
Equilibrium e-kwi-lĭb′re-ŭm
Equinoctial, e-kwi-nŏk′shăl.
Equipage, ĕ-kwĭp′ĕj.
Equipoise, e′kwe-poiz.
Equites, ĕk′wi-tēz.
Equity, ĕk′we-te.
Equivalent, e-kwĭv′a-lĕnt.
Equus, e′kwŭs.
Equuleus, ĕk-ū-le′ŭs.
Eranthemum e-răn′the-mŭm
Erard, a-rahr′.
Erase, e-rāz′.
Erasmus, e-răz′mus.
Erastians, e-răst′yănz. [nēz.
Eratosthenes, e-ra-tŏs′the-
Erbium, ĕr′be-ŭm.
Erbsenstein, ărb′sĕn-stīn.
Ercilla y Zuniga, ĕr-thēl′-
yah e thoon-ye′gah.
Ercinite, ĕr′sin-īt.
Erdmannite, ărd′măn-nīt.
Erebus, ĕr′e-bŭs.
Erechtheum, ĕr-ĕk-the′ŭm.
Erection, e-rĕk′shŭn. [sĭs.
Eremacausis, ĕr-e-mah-kaw′-
Eremite, ĕr′e-mīt.
Erfurt, ĕr′foort.
Ergata, ŭr′ga-ta.
Ergo, ŭr′go.
Eric, ĕr′ĭk.
Erica, e-rī′kah.
Ericales, e-rĭk′a-lēz.
Erichthidæ, e-rĭk′the-de.
Ericsson, ĕr′ĭks-sŭn.
Eridanus, e-rĭd′a-nŭs.
Erie, e′re.
Erigenia, ĕr-e-je′ne-ah.
Erigeron, e-rĭj′e-rŏn.
Erin, e′rĭn.
Erinaceous, ĕr-e-na′shŭs.
Eringo, e-rĭng′go.
Erinnys, e-rĭn′nĭs.
Eriodendron, e-re-o-dĕn′drŏn
Eriphia, e-rĭf′e-ah.
Erisichthon, e-rĭs′ĭk-thŏn.
Eriskay, ĕr′ĭs-ka.
Erivan, ĕr-e-vän′.
Erlangen, ĕr-lăng-ĕn.
Erlau, ĕr′low. [vĕl′.
Ermenonville, ĕr-ma-nŏn(g)-
Ermine, ŭr′mĭn.
Erne, ŭrn.
Ernesti, ĕr-nĕs′te.
Erodium, e-ro′de-ŭm.
Eros, e′rŏs.
Erosion, e-ro′zhŭn.
Erostratus, e-rŏs′tr-tŭs.
Erotic, e-rŏt′ĭk.
Erpetology, ŭr-pe-tŏl′o-je
Err, ŭr.
Erratum, ĕr-ra′tŭm.
Errhine, ĕr′rĭn.
Erroneous, ĕr-ro′ne-ŭs.
Erse, ŭrs.
Erskine, ŭr′skĭn.
Erubescence, e-rū′bĕ-sĕns.
Erudition, ĕr-u-dĭsh′ŭ..
Eruption, e-rŭp′shŭn.
Ervum, ŭr′vŭm.
Erwin, ŭr′wĭn.
Erymanthus, ĕr-e-măn′thŭs.
Erygo, e-rĭng′go.
Erysipelas, ĕr-e-sĭp′e-lăs.
Erythræa, ĕr-e-thre′ah.
Erythrine, e-rĭth′rĭn.
Erythrogen, e-rĭth′ro-jĕn.
Erythrophlœum, e-rĭth-
ro-fle′ŭm. [thrŏks-e-la′se-e.
Erythroxylaceæ, ĕr-
Erzberg, ărz′bĕrg.
Erzeroum, ărz′room′.
Erzgebirge, ĕrts-ga-bĕr′gah.
Esau, e′saw.
Escalop, ĕs-kŏl′ŭp.
Escambia, ĕs-kăm′be-ah.
Escarp, ĕs-kärp′.
Eschalot, ĕsh-a-lŏt′.
Eschar, ĕs′kahr.

Eschenbach, ĕsh-an-băk′.
Eschew, ĕs-choo′.
Escholtz, ĕsh′sholts.
Escobar y Mendoza, ĕs-ko-bar e mĕn-do′thah.
Escopette, ĕs-ko-pĕt′.
Esconade, ĕs-ko-nād′.
Escritoire, ĕs-kre-twaw′.
Escroll, ĕs-krōl′.
Escudero, ĕs-ku-de′ro.
Escudo, ĕs′ku-do.
Esculent, ĕs′ku-lĕnt.
Esenrial, ĕs-kū′re-ăl.
Escutcheon, ĕs-kŭch′ŭn.
Esdras, ĕz′drăs.
Eski-Sagra, ĕs′ke-sah′grah.
Esmeralda, ĕs-ma-răl′dah.
Esocidæ, e-sŏs′e-de.
Esoteric, ĕs-o-tĕr′ik.
Espalier, ĕs-păl′yĕr.
Espartero, ŏs-pär-ta′ro.
Esparto, ĕs-pär′to.
Espaulière, ĕs-po-le-ār′.
Espinhaço, ĕs-pēn-yah′so.
Espionage, ĕs-pe-ŏn-ăzh.
Espiotte, ĕs-pe-ŏt′.
Espouse, ĕs-powz′.
Espy, ĕs-pī′.
Esquimaux, ĕs′ke-mo.
Esquina, ĕs-ke′uah.
Esquire, ĕs-kwīr′.
Esquiros, ĕs-ke-rōs′.
Esquisse, ĕs-kēs′.
Esseck, ĕs′sĕk.
Essen, ĕs′sĕn.
Essequibo, ĕs-se-kē′bo.
Essex, ĕs′sĕks.
Essling, ĕs′lĭng.
Essoin, ĕs-soin′.
Essonnes, ĕs-sŏn′.
Essorant, ĕs′so-rānt.
Establish, ĕs-tăb′lĭsh.
Estafette, ĕs-tah-fĕt′.
Estaing, ās-tahn(g)′.
Estampes, a-tŏmp′.
Estancia, ĕs-tăn′she-ah.
Estate, ĕs-tāt′.
Este, ĕs′ta.
Esther, ĕs′tŭr.
Esthonia, ĕs-tho′ne-ah.
Estiferous, ĕs-tĭf′ŭr-ŭs.
Estimate, ĕs′te-māt.
Estollée, ĕs-twah-la′.
Estoppel, ĕs-tŏp′pĕl.
Estrade, ĕs-trahd′.
Estramaçon, ĕs-trăm′a-sŏn.
Estrange, ĕs-trānj′.
Estrapade, ĕs-trah-pād′.
Estreat, ĕs-treet′.
Estrella, ĕs-trĕl′lah.
Estremoz, ĕs-tra-mōz′.
Estrich, ŏst′rĭj.
Estuation, ŏs-tu-a′shŭn.
Eszek, ĕs′sĕk.
Etchemin, ĕch-a-mēn′.
Eteslan, e-te′zhăn.
Ethain, e′thăm.
Ethelbert, ĕth′ĕl-hŭrt.
Ethelwolf, ĕth′ĕl-woolf.
Ether, e′thĕr.
Etheria, e-the′re-ah.
Ethics, ĕth′ĭks.
Ethiopia, e-the-o′pe-ah.
Ethmoid, ĕth′moid.
Ethology, e-thŏl′o-je.
Ethyl, ĕth′ĭl.
Étienne, a-te-ĕn′.
Etiolation, e-te-o-la′shŭn.
Eton, e′tŭn.
Etruria, e-troo′re-ah.
Etude, a-tood′.
Etymology, ĕt-e-mŏl′o-je.
Etymon, ĕt′e-mŏn.
En, oo.
Eucalyptus, ū-ka-lĭp′tŭs.
Eucharist, ū′ka-rĭst.
Euchologion, ū-ko-lo′je-ŏn.
Euclare, ū′kr.
Euchroite, ū′kro-īt.
Euchymy, ū′ke-me.
Euclase, ū′klās.
Eucrasy, ū′kra-se.
Eudiometry, ū-de-ŏm′e-tre.
Euergetes, ū-ŭr′je-tēz.
Eugenic, oo-zha-ne′.
Eugenius, ū-je′ne-ŭs.
Euler, ū′lŭr.
Eulogium, ū-lo′je-ŭm.
Eulogy, ū′lo-je.
Eulophia, ū-lo′fe-ah.
Eumæus, ū-me′ŭs.
Eumouia, ū-mo′ne-ah.
Eunuch, ū′nŭk.
Euomphalus, ū-ŏm′fa-lŭs.
Euouymus, ū-ŏn′e-mŭs.
Eupathy, ū′pa-the.
Eupatorium, ū-pa-to′re-ŭm.
Eupepsy, ū-pĕp′se.
Euphemism, ū′fe-mĭzm.
Euphony, ū′fo-ne.
Euphorbia, ū-fôr′be-ah.
Euphuism, ū′fū-ĭzm.
Eupion, ū′pe-ŏn.
Eupyrian, ū-pĭr′e-ăn.
Eure, oor.
Eureka, ū-re′kah.
Euripides, ū-rĭp′e-dēz.
Euroclydon, ū-rŏk′le-dŏn.
Europe, ū′rŏp.
Enrotas, ū-ro′tăs.
Enryalus, ū-rī′ah-lŭs.
Eurydice, ū-rĭd′e-se.
Eurysthenes, ū-rĭs′tha-nēz.
Ensebius, ū-se′be-ŭs.
Eustatius, ū-sta′shŭs.
Eustyle, ū′stīl.
Eutaw, ū′taw.
Euterpe, ū-tĕr′pe.
Euthanasia, ū-thăn-a′zhah.
Eutyches, ū′te-keez.
Euxine, ūks′ĭn.
Evagoras, e-vāg′o-răs.
Evanescence, e-văn′ĕs-sĕns.
Evans, ĕv′ănz.
Evasion, e-va′zhŭn.
Evection, e-vĕk′shŭn.
Evening, ēv′n-ĭng.
Everett, ĕv′ŭr-ĕt. [lŭm.
Everriculum, ĕv-ŭr-rĭk′u-
Eversion, e-vĕr′shŭn.
Everton, ĕv′r-tŭn.
Eviction, e-vĭk′shŭn.
Evolntion, ĕv-o-lū′shŭn.
Evora, a-vo′rah.
Evreux, ĕv-ro′.
Evulsion, e-vŭl′shŭn.
Ewald, a′vahlt.
Ewe, yoo.
Ewer, yoo′ŭr.
Ewing, yoo′ĭng.
Exact, ĕgz-ăkt′. [ĕt bo′no.
Exæquo et bono, ĕks-e-kwo
Exæresis, ĕks-e-re′sĭs. [shŭn.
Exaggeration, ĕgz-ăj-jŭr-a′-
Exaltation, ĕgz-awlt-a′shŭn.
Example, ĕgz-ăm′pl.
Ex animo, ĕks ăn′e-mo.
Exanthalose, ĕgz-ăn′tha-lōs.
Exarch, ĕgz′ahrk.
Excæcarla, ĕks-ka-ka′re-ah.
Excellence, ĕk′sĕl-lĕns.
Excelsior, ĕk-sĕl′se-ôr.
Excess, ĕk-sĕs′.
Exchange, ĕks-chānj′.
Exchequer, ĕks-chĕk′ŭr.
Excise, ĕks-sīz′.
Exclnsion, ĕks-klū′zhŭn.
Excogitate, ĕks-kŏj′e-tāt.
Ex concesso, ĕks kŏn-sĕs′so.
Excrescence, ĕks-krĕs′sĕns.
Ex curia, ĕks kū′re-ah.
Excursion, ĕks-kŭr′shŭn.
Excuse, ĕks-kūz′ *and* ĕks-kūs′.
Ex delicto, ĕks de-lĭk′to.
Exeat, ĕks′e-ăt.
Exedra, ĕks-e′drah.
Exegesis, ĕks-e-je′sĭs.
Exelmaus, ĕk-sĕl-mŏn′.
Exempli gratia, ĕgz-ĕm′pli gra′she-ah.
Exemption, ĕgz-ĕmp′shŭn.
Exequatur, ĕks-e-kwa′tŭr.
Exequies, ĕks′e-quĭz.
Exergue, ĕgz-ŭrg′.
Exertion, ĕgz-ŭr′shŭn.
Exeter, ĕgz′e-tŭr. [ŏm′nĕz.
Exeunt omnes, ĕgz′e-ŭnt
Exhaustlon, ĕgz-hawst′yŭn.
Exhibition, ĕgz-he-bĭsh′ŭn.
Exidia, ĕgz-ĭd′yah.
Exigency, ĕks′e-jĕn-se.
Exmonth, ĕks′mŭth.
Exogen, ĕks′o-jĕn.
Exogonium, ĕks-o-go′ne-ŭm.
Ex officio, ĕks ŏf-fĭsh′yo.
Exomphalos, ĕgz-ŏm′fa-lŏs.
Exorcism, ĕks′ŏr-sĭzm.
Exordium, ĕgz-ŏr′de-ŭm.
Exostome, ĕks′ŏs-tōm.
Exotic, ĕgz-ŏt′ĭk.
Expansion, ĕks-păn′shŭn.
Ex parte, ĕks pär′te. [shŭn.
Expatlation, ĕks-pa-she-a′-
Expedition, ĕks-pe-dĭsh′ŭn.
Experimentum Crucis, ĕks-pĕr-e-mĕn′tŭm kroo′sĭs.
Expiation, ĕks-pe-a′shŭn.
Explicit, ĕks-plĭs′ĭt.
Explosion, ĕks-plo′zhŭn.
Expositiou, ĕks-po-zĭsh′ŭn.
Exposure, ĕks-po′zhŭr.
Expugu, ĕks-pūn′.
Exquisite, ĕks′kwe-zĭt.
Extempore, ĕks-tĕm′po-re.
Exteusion, ĕks-tĕn′shŭn.
Extenuation, ĕks-tĕn-u-a′-shŭn.
Extinctiou, ĕks-tĭngk′shŭn.
Extortlon, ĕks-tôr′shŭn.
Extrados, ĕks-tra′dŏs.
Extraneous, ĕks-tra′ne-ŭs.
Extrusion, ĕks-troo′zhŭn.
Exuberance, ĕgz-ū′bŭr-ăns.
Exumaa, ĕks-oo′mah.
Exungulate, ĕgz-ŭng′gu-lāt.
Exuviæ, ĕgz-ū′ve-e.
Ex visceribus, ĕks vĭs-sĕr′e-bŭs.
Eyañalla-Yokul, ī-a-fyal′-lah-yo-kool′.
Eyas, ī′ăs.
Eylan, ī′lŏw.
Eyre, ār.
Eyry, ā′re.
Ezra, ĕz′rah.

F.

Faaborg, fah′bŏrg.
Fabian, fa′be-ăn.
Fable, fa′bl.
Fabric, făh′rĭk.
Fabricius, fa-bre′se-ŭs.
Facetiæ, fa-se′she-e.
Facette, fa-sĕt′.
Facies, fa′she-ēz.
Fac-simile, făk-sĭm′e-le.
Faction, făk′shŭn.
Facture, făkt′ŭr.
Faculæ, făk′u-le.
Fæces, fe′seez.
Fagot, făg′ŏt.
Fahluuite, fah′loon-īt.
Fahrenheit, fah′rĕn-hīt.
Faience, fi-ŏngz′.
Failure, fāl′yoor.
Fainéants, fān-a-ahn(g)′.
Fairfax, fār′făks.
Faisans, fa-zŏn(g)′.
Falernian, fah-lĕr′ne-ăn.
Falisci, fah-lĭs′ki.
Falkland, fawk′lănd.
Fallacy, făl′la-se.
Fallopius, făl-lo′pe-ŭs.
Falmouth, făl′mŭth.
False, fawls.
Falster, fawl′stŭr.
Falter, fawl′tŭr.
Faltrauck, făl′trăngk.
Falun, fah′loon.
Fauatina, fŭm-ah-te′nah.
Faunlist, făm′u-lĭst.
Fauega, făn-a′gah.
Faucuil, făn′yool.
Faufaronade, făn-făr-ŏn-ād′.
Fauo, fah′no.
Fautee, făn-te′.
Faraday, făr′a-da.
Farafeh, făr′ah-fa.
Fare, făr.
Farinelli, fah-re-nĕl′le.
Farnese, făr-neez′.
Faro, fah′ro.
Faroe, fa′ro.
Farrago, făr-ra′go.
Farragut, făr′ra-gŭt.
Farriery, făr′re-ŭr-e.
Farrow, făr′ro.
Farsistan, făr-sĭs-tahn′.
Farthingale, făr′thĭn-găl.
Fascia, făsh′e-ah.
Fascicle, făs′se-kl.
Fasciolaria, făs-se-o-la′re-ah.
Fasti, făs′ti.
Fastiginm, făs-tĭj′e-ŭm. [nah.
Fata Morgana, fa′ta mŏr-ga′-
Fatchio făch′e-o.
Fatlloquist, fa-tĭl′o-kwĭst.
Fatiscence, fa-tĭs′sĕns.
Fatnity, fa-tŭ′e-te.
Faubourg, fo′boorg.
Fauces, faw′seez.
Fanjasite, faw′jăs-ĭt.
Fauquier, fo′keer.
Faust, fowst.
Fanstina, faws-ti′nah.
Fauteuil, fo-tweel′.
Favorite, fa′vŏr-ĭt.
Favose, fa-vōs′.
Favre, fah′vr.
Fayalite fā′ăl-īt.
Fayette, fā-ĕt′.
Fayoum, fi-oom′.
Fealty, fe′ăl-te.
Feather, fĕth′ŭr.
Feature, fēt′yŭr.
Febricula, fe-brĭk′u-lah.
Febrltuge, fĕb′re-fūj.
Fecials, fe′shălz.
Fecula, fĕk′u-lah.
Federal, fĕd′ŭr-ăl.
Fedla, fē′de-ah.
Feejee, fe′jē.
Feigu, fān.
Felicíana, fe-lĭs-e-ah′nah.
Felicitatiou, fe-lĭs-i-ta′shŭn.
Felidæ, fe′le-de.
Fellahs, fĕl′lahz.
Felo-de-se, fe′lo-de-se.
Felon, fĕl′ŭn.
Felucca, fe-lŭk′kah.
Fénelon, făn-lōn′.
Fenestrella, fa-nĕs-trĕl′lah.
Fenians, fe′ne-ănz.
Feoffment, fĕf′mĕnt.
Ferdusi, fŭr-doo-se′.
Fergus, fŭr′gŭs.
Feriæ, fe′re-e.
Ferishta, fĕr′ĭsh-tah.
Fernuata' fĕr-mah′tah.
Fermoy, fŭr-moi′.
Fernandlua, fŭr-năn-dee′nah.
Fernaudez, fŭr-năn′dĕz.
Fernando Po, fŭr-năn-do po′.
Ferney, fär-na′.
Feronia, fe-ro′ne-ah.
Ferozabad, fe-ro-zah-had′.
Ferrandine, fĕr′răn-dĭn.
Ferrara, fĕr-rah′rah.
Ferreto, fĕr-rĕt′to.
Ferriage, fĕr′re-ăj.
Ferrol, fĕr-rōl′.
Ferrule, fĕr′rūl.
Ferula, fĕr′u-lah.
Fescennine, fĕs′sĕn-nĭn.
Fesch, fĕsh.
Festino, fĕs′te-no.
Festoon, fĕs-toon′.
Festnca, fĕs-tu′kah.
Fetation, fe-ta′shŭn.
Fetichism, fēt′ĭsh-ĭzm.
Feticide, fe′ti-sīd.
Fetor, fē′tŏr.
Fetwah, fĕt′wah. [la-hĕn.
Feuchtersieben, foik′tŭrz-
Fend, fūd. [teenz.
Feuillantines, fweel′ăn-
Few, fū.
Fezzan, fĕz′zăn.
Fibre, fī′bŭr.
Fibrine, fī′hrĭn.
Fibula, fĭb′u-lah.
Fichte, fĭk′ta.
Fickle, fĭk′l.
Fidalgo, fe-dăl′go.
Fidei commissum, fi-de′i cŏm-mĭs′sŭm.
Fide-jnssion, fi′de-jŭs′she-ŏn.
Fides, fi′dēz.
Fiduciary, fi-dū′she-a-re.
Fieschi, fe-ĕs′ke.
Figaro, fe-gah′ro.
Figurate, fĭg′-ū-rāt.
Filiation, fĭl-e-a′shŭn.
Filibuster, fĭl-i-hŭs′tŭr.
Filiciform, fi-lĭs′e-fôrm.
Filigree, fĭl′ĭ-grē.
Filose, fī′lōs.
Filtration, fĭl-tra′shŭn.
Fimbria, fĭm′bre-ah.
Finance, fe-năns′.
Finesse, fe-nĕs′.
Finger, fĭng′gŭr.
Finlal, fĭn′e-ăl.
Finistère, fĭn-ĭs-tār′.
Finsbury, fĭnz′bŭr-re.
Fiord, fyôrd.
Fiorenzuola, fi-o-rĕn-swo′lah.
Fiorite, fi′o-rīt.
Firkin, fŭr′kĭn.
Firman, fŭr′măn.
Flscherite, fĭsh′ŭr-īt.
Fissirostres, fĭs-se-rŏs′tŭrz.
Fissure, fĭsh′oor.
Fistularia, fĭs-tu-la′re-ah.
Fitzgerald, fĭts′jĕr-ăld.
Fiume, fe-oo′ma.
Fixture, fĭkst′ŭr.
Flaccus, flăk′kŭs.
Flagellant, flăj′ĕl-lănt.
Flagon, flăg′ŏn.
Flail, flāl.
Flambean, flăm′bo.
Flamboyant, flăm-hoi′ănt.
Flaminia, fla-mĭn′yah.
Flamingo, fla-mĭng′go.
Flancouade, flăng-ko-nād′.
Flanders, flăn′dŭrz.
Flandrin, flăn-drahn′.
Flange, flănj.
Flatulence, flăt′u-lĕns.
Flavius, fla′ve-ŭs.
Fleabane, flē′bān.
Fleam, fleem.
Flection, flĕk′shŭn.
Fledge, flĕj.
Flensborg, flĕnz′bŏrg.
Fletcher, flĕch′ŭr.
Flenr-de-lys, floor-de-lē′.
Fleurus, floor′ŭs.
Fleury floo-re′.
Flexor, flĕks′ŏr.
Flexure, flĕks′ŭr.
Flight, flīt.
Flimsy, flĭm′ze.
Flirt, flŭrt.
Flitch, flĭch.
Floccose, flŏk′kōs.
Flodden, flŏd′dn.
Flood, flŭd.
Floor, flôr.
Florence, flŏr′ĕns.
Flores, flo′rēs.
Florescence, flo-rĕs′sĕns.
Florida, flŏr′e-dah.
Floriu, flŏr′ĭn.
Floroon, flo-roon′.
Flotilla, flo-tĭl′lah.
Flonr, flowr.
Flourens, floo-rŏn′.
Flout, flowt.
Flow, flo.
Floyd, floid.
Fluctuation, flŭk-tu-a′shŭn.
Flue, floo.
Fluency, floo′en-se.
Flugelman, flū′gl-măn.
Fluid, flū′ĭd.
Flummery, flŭm′mŭr-e.
Fluor-albus, floo′ŏr-ăl′bŭs.
Fluorescence, floo-ŏr-ĕs′sĕns.
Fluorine, floo′o-rĭn.
Flustra, flŭs′trah.
Fluvanna, floo-văn′nah.
Fluvial, flū′ve-ăl.
Flux, flŭks.
Foal, fōl.
Foam, fōm.
Focile, fo′sĭl.
Focus, fo′kŭs.
Foe, fo.
Fœnlculum, fe-nĭk′u-lŭm.
Fœnum Græcum, fe′nŭm
Foggia, fŏd′jah. [gre′kŭm.
Fogo, fo′go.
Foible, foi′bl.
Foix, fwah.
Fokshany, fŏk-chah′ne.
Foldvar, fŏld-vahr′.
Foley, fo′le.
Foliage, fō′le-ăj.
Foligno, fo-lēn′yo.
Folk, fōk.
Folkestone, fōk′stūn.
Follicle, fŏl′le-kl.
Follow, fŏl′lo.
Foudi, fŏn′de.
Fond du Lac, fŏn(g) doo lahk′.
Fondus, fŏn-doo′.
Fontana, fŏn-tah′nah.
Fontanel, fŏnt-a-nŏl′.
Fontarabla, fŏn-tah-rā′be-ah.
Fonteuay, fŏn(g)-ta-na′.
Fontenelle, fŏn-ta-nĕl′.
Fontenoy, fŏn(g)-ta-nwah′.
Foo-choo-foo, foo-choo-foo′.
Forage, fŏr′ăj.
Foray, fō′ra.
Forbear, fôr-bār′.
Forbes, fôrbz.
Forbin, fôr-bahn′.
Forceps, fôr′sĕps.
Ford, fôrd.
Fordyce, fôr-dīs′.
Foreign, fŏr′ĭn.
Forensic, fo-rĕn′sĭk.
Forest, fŏr′ĕst.
Forey, fo-ra′.
Fortarshire, fŏr′fär-shŭr.
Forficulariæ, fôr-fĭk-n-la′re-e
Forge, fôrj.
Forgive, fôr-glv′.
Forli, fôr′le.
Formlca, fôr′me-kah.
Formlcidæ, fôr-mĭs′e-de.
Formidable, fôr′me-da-bl.
Formiga, fôr′me-gah.
Formlgny, fôr-măn-ye′.
Formosa, fôr-mo′sah.
Formula, fôr′mu-lah.
Formyle, fôr′mil.
Fornication, fôr-ne-ka′shun.
Forster, fôrz′tŭr.
Forte, fôr′tā.
Fortesene, fôr′tĕs-ku. [too′rah.
Forteventura, fôr-ta-vĕn-
Forth, fôrth.
Fortissimo, fôr-tees′se-mo.
Fortitude, fôr′te-tūd.
Fortuitous, fôr-tu′e-tŭs.
Fortunatæ Insulæ, fôr-tu-na′te ĭn′su-le.
Fortunatus, fôr-tu-na′tŭs.
Fortune, fôr′tūn.
Forzando, fôr-zăhn′do.
Fossano, fŏs-sah′no.
Fossombrone, fŏs-som-bro′ne
Fossores, fŏs′so-rēz.
Fotheringay, fŏth′rĭng-ga.
Fouah, foo′wah.
Fouché, foo-sha′.
Fongasse, foo-gās′.
Fougères, foo-zhār′.
Foul, fowl. [tahn′vĭl.
Fouquier Tinville, foo-ke-a′
Fourchette, foor-shĕt′.
Foureroy, foor-krwah′.
Fourler, foo-re-a′.
Foy, fwah.
Foyle, foil.
Fracas, fra′kăs.
Fracture, frăkt′yŭr.
Fra Diavolo, frah de-ah′vo-lo.
Fræunm, fre′nŭm.
Fragaria, fra-ga′re-ah.
Fraise, frāz.
Franc, frăugk.
Francavilla, frăn-kah-vĭl′lah.
Franche-Comté, frŏnsh-
Franchise, frăn′chīz. [kŏm′ta.
Francia, frahn′the-ah.
Franconia, fran ko′ne-an.
Frank, frăngk.
Frankenstein, frănk′ĕn-stīn.
Frankfort, frăngk′fŭrt.
Franzensbrunnen, frănts-ĕns-broon′ĕn.
Frascati, frăs-kah′te.

Fraserburgh, fra'zŭr-bŭrg.
Fratlcelli, frah-te-chĕl'le.
Fratricide, frăt-re-sīd.
Fratta-Maggiore, frăt'tah-
Fraught, frawt. [măd-jo'ra.
Fraxinine, frăks'ĭn-ĭn.
Freckle, frĕk'l.
Frederiek, frĕd'ŭr-ĭk.
Fredonia, fre-do'ne-ah.
Freiburg, frī-boorg'.
Freight, frāt.
Freiligrath, frīl'e-grahth.
Fréjus, fra-zhoos'.
Fremont, fre-mŏnt'.
Frequent, fre'kwĕnt.
Freriehs, fra'rĭks.
Fresnel, fra-nĕl'.
Freytag, frī'tahg.
Fricandeau, frĭk-ăn-do'.
Fricassée, frĭk-ăs-sa'.
Friction, frĭk'shŭn.
Friedland, freed'lănd.
Friend, frĕnd.
Frigeato, fre-jĕn'to.
Fright, frīt.
Frigidarium, frlj'i-da're-ŭm.
Fringillidæ, frĭn-jĭl'le-de.
Frisure, fre-zhoor'.
Fritillaria, frĭt-ĭl-la're-ah.
Frobisher, frŏb'ĭsh-ŭr.
Frohsdorf, frōz'dŏrf.
Froissart, frwah-sahr'.
Frolle, frōl'ĭk.
Fronde, frŏnd.
Froude, frood.
Fruetescenee, frŭk-tĕs'sĕns.
Fruetidor, frook-te-dōr'.
Fructose, frŭk-tōz'.
Fruit, froot.
Frustum, frŭs'tŭm.
Fuad, foo'ahd.
Fnea, foo'kah.
Fueaeeæ, fu-ka'se-e.
Fuehsia, fū'she-ah.
Fueino, foo-che'no.
Fueus, fū'kŭs.
Fuddle, fŭd'dl.
Fuego, fwe'go.
Fugato, foo-gah'to.
Fugitive, fū'je-tĭv.
Fulgency, fŭl'jĕn-se.
Fulgoridæ, fŭl-gŏr'e-de.
Fuliea, fū-le'kah.
Fulminate, fŭl'mĭn-āt.
Fulton, fŭl'tŏn.
Fulvia, fŭl've-ah.
Fumaria, fū-ma're-ah.
Fumarole, fū'ma-rōl.
Fumigation, fū-me-ga'shŭn.
Funanbulo, fū-năn'bu-lo.
Funehal, foon-shahl'.
Funetion, fŭngk'shŭn.
Fundy, fŭn'de.
Fünen, foo'nĕn.
Funest, fū-nĕst'.
Fungus, fŭng'gŭs.
Funiele, fū'ne-kl.
Funis-umbilicus, fū'nĭs ŭm-bĭl'i-kŭs.
Funk, fŭngk.
Fuor, fū'ŏr.
Furcation, fŭr-ka'shŭn.
Furcula, fŭr'kn-lah.
Furfurole, fŭr'fu-rōl.
Furies, fū'rĭz.
Furina, foo-re'năh.
Furioso, foo-re-o'zo.
Furniture, fŭr'ni-tŭr.
Furore, fū'rŏr.
Furrow, fŭr'ro. [băd'
Furruckabad, fŭr-rŭk-ah
Further, fŭr'thŭr.
Fürst, foorst.
Furunele, fu-rŭng'kl.
Fusarole, fū'sa-rōl.
Fusée, fu-zĕ'.
Fusillade, fū-zĭl-lād'.
Fusion, fū'zhŭn.
Fustian, fŭst'yăn.
Fusure, fū'zhŭr.
Futile, fū'tĭl.
Futtehpoor, fŭt-ta-poor'.
Futtock, fŭt'tŭk.
Fnture, fūt'yŭr.
Fyzabad, fi-zah-băd'.

G.

Gaban, ga'băn. [găb'ăr-deen.
Gabardine or **Gaberdine,**
Gabble, găb'bl.
Gabel, ga'bl.
Gaberlunzie, găb-ŭr-lŭn'ze.
Gabinius, ga-bĭn'e-ŭs.
Gabion, ga'be-ŭn.
Gable, gā'bl.
Gaboon, gah-boon'.
Gabrielle d'Estrées, găb-re-ĕl da-trā'.
Gadames, gah-dah'mĕz.
Gadara, găd'a-rah.
Gaddlel, găd'dĕl.
Gadidæ, găd'e-de.
Gadltanian, găd-e-ta'ne-ăn.
Gadolinite, găd'o-lĭn-īt.
Gador, gah'dōr.
Gadsden, găds'dĕn.
Gaelie, gahl'ĭk *or* gāl'ĭk.
Gaëta, gah-a'tah.
Gage, gāj.
Gahnite, gahn'īt.
Galnsay, gān-sā'.
Galnsborough, gānz'bŭr-ro.
Gait, gāt.
Gains, gā'ŭs.
Gala, ga'lah.
Galago, ga-la'go.
Galanthis, ga-lăn'thĭs.
Galantine, gal-ăn-teen'.
Galapagos, gah-lah-pah'gōs.
Galatæa, gal-a-te'ah.
Galatia, ga-la'she-ab.
Galatz, gah-lăts'.
Galaxy, găl'ăks-e.
Galba, gal'bah
Galbanum, găl-ba'nŭm.
Galea, ga'le-ah.
Galega, gah-le'gah.
Galen, ga'lĕn.
Galena, ga-le'nah.
Galeopsis, găl-e-ŏp'sĭs.
Galerius, ga-le're-ŭs.
Galiaceæ, găl-e-a'se-e.
Galiano, gal-e-ah'no.
Galicia, gal-ĭsh'e-ah.
Galilee, gal'e-le.
Galilel, gah-le-la'e.
Galiot, gal-e-ŏt'.
Galipea, găl-e-pe'ah.
Galitzin, gal-lĭt'sĭn.
Galium, ga'le-ŭm.
Gall, gawl.
Galland, gah-lŏn(g)'.
Gallant, gal'lănt *and* găl-lănt'.
Gallas, gal'lăs.
Gallatin, { *Eng.* găl'lah-tĭn. *Fr.* gah-lah-tabn'.
Gallandet, găl-law-dĕt'.
Galleon, găl'le-ŏn.
Gallia, gal'le-ah.
Galliard, gal'yahrd.
Gallienus, gal-le-e'nŭs.
Gallimanfry, găl-le-maw'fre.
Gallinæ, gal'le-ne.
Gallipoli, găl-lĭp'o-le.
Gallitzin, gal-lĭt'sĭn.
Gallopade, găl-lo-pād'.
Galloway, gal'lo-wa.
Galls, gawlz.
Gallus, gal'lŭs.
Galoparo. gah-lo-pah'ro.
Galore, ga-lōr'.
Galvani, gal-vah'ne.
Galveston. găl'vĕs'tŭn.
Gama, gah'mah.
Gamaliel, ga-ma'le-ĕl.
Gambado, găm-ba'do.
Gambia, găm'be-ah.
Gambler, găm'be-ŭr.
Gamble, găm'bl.
Gambroon, găm-broon'.
Gamin, gah-mahn'.
Gamut, găm'ŭt.
Gananoque, gah-nah-nŏk'.
Ganges, găn'jēz.
Gangpore, găng-poor'.
Gangue, găng.
Ganoids, găn'oidz.
Ganomatite, ga-nŏm'a-tīt.
Ganymede, găn'e-mēd.
Gaol, jāl.
Garancine, găr'ăn-sēn.
Garble, găr'bl.
Gareias, găr-the'ăs.
Garcilaso de la Vega, găr-the-lah'so da lah va'gah.
Garda, găr'dah.
Gardenia, găr-de'ne-ah.
Gardiner, gărd'nŭr.
Gardyloo, gărd-e-loo'.
Gargarus, găr'ga-rŭs.
Gargle, găr'gl.
Gargoyle, găr'goil.
Garibaldi, gah-re-băl'de.
Garlaseo, găr-lās'ko. [pah-zha';
Garnier-Pagès, găr-ne-a'-
Garnishee, găr-nish-ē'.
Garniture, găr'ne-tŭr.
Garonne, gah-rŏn'.
Garoo, gah-roo'.
Garous, ga'rŭs.
Garrison, găr're-sn.
Garrote, gah-rōt'.
Gas, găs or găz.
Gascony, găs'ko-ne.
Gaspé, găs'pa.
Gassendi, găs-sĕn'de.
Gasteropod, găs-tĕr'o-pŏd.
Gaston, găs'tŏn.
Gastralgia, găs-trăl'je-ah.
Gastritis, găs-trī'tĭs.
Gastroeele, găs'tro-sēl.
Gastrodynia, găs-tro-dĭn'yah.
Gastronomy, găs-trŏn'o-me.
Gata, gah'tah.
Gauchos, go'chŏs.
Gaud, gawd.
Gauge, gāj.
Gaultheria, gawl-the're-ah.
Gauntlet, gānt'lĕt.
Gaura, gaw'rah.
Gautier, go-te-a'.
Gavarni, gah-văr'ne.
Gavazzi, gah-vät'se.
Gaveston, gāv'ĕs'tŭn.
Gavial, ga've-ăl.
Gavot, gāv'ŏt.
Gawelghur, găv-ĕl-goor'.
Gaya, ga'yah.
Gay-Lussac, ga-loos'sak.
Gayoso, ga-o'zo.
Gaza, ga'zah.
Gaze, gāz.
Gazette, ga-zĕt'.
Gazogene, găz'o-jēn.
Géant, zha-ŏn(g)'.
Gear, jeer.
Geauga, je-aw'gah.
Geber, ge'bŭr.
Gédlé, yĕv'la.
Gehenna, je-hĕn-nah.
Gehlenite, ga'lĕn-īt.
Geilerite, gīl'ŭr-īt.
Geine, jē'ĭn.
Gelasius, je-la'zhŭs.
Gelidium, je-lĭd'e-ŭm.
Gellius, jĕl'le-ŭs.
Gem, jĕm
Gemara, je-mah'rah.
Gemelli, jĕm'e-ni.
Gemma, jĕm'mah.
Gemmi, gĕm'me.
Gemsboek, jĕmz'bŏk. [re.
Gendarmerie, zhŏn-dar'ma-
Gender, jĕn-dŭr.
Genealogy, jĕn-e-ăl'o-je.
Genera, jĕn'ŭr-ah. [se-mo.
Generalissimo, jĕn-ŭr-ăl-ĭs'-
Generosity, jĕn-ŭr-ŏs'e-te.
Genesis, jĕn'e-sĭs.
Genet, zha-na'.
Geneva, jĕn-ē'vah.
Genevieve, jĕn-a-veev'.
Genghis-Khan, jăn'gees
Genial, je'ne-ăl. [kahn'.
Genil, ha-neel'.
Genioglossi, je-ne-o-glŏs'si.
Genista, jĕn-ĭs'tah.
Genitive, jĕn'e-tĭv.
Genlus-loci, jĕn'yus-lo'si.
Gennesareth, jĕn-nĕz'a-rĕth.
Genoa, jĕn'o-ah.
Genouillère, zhnool-yār'.
Genre, zhong'r.
Gens, jzhŏnz.
Genseric, jĕn'sŭr-ĭk.
Genteel, jĕn-teel'.
Gentian, jĕn'te-ăn.
Gentle, jĕn'tl.
Genuflexion, jĕn-u-flĕk'shŭn.
Genuine, jĕn'u-ĭn.
Geodesy, je-ŏd'e-se.
Geoffrey, jĕf'fre.
Geoffrin, zho-frahn'.
Geoffroy, zho-frwaw'.
Geoglossum, je-o-glŏs'sŭm.
Geognosy, je-ŏg'no-se.
Geography, je-ŏg'ra-fe.
Geometry, je-ŏm'e-tre.
Geomyrieite, je-o-mlr'e-sĭt.
Geoponies, je-o-pŏn'ĭks.
Georama, je-o-răm'ah.
Georgia, jŏr'je-ah.
Gepidæ, jĕp'e-de.
Gera, ga'rah.
Gerard, { *Fr.* zha-rahr'. *Eng.* jĕr'ărd.
Gerfalcon, jĕr'faw-kn.
Gerhardt, gär'härt.
Gerieault, zha-re-ko'.
Gerizim, ge-ri'zĭm.
Germ, jŭrm. [mahn-ŏn(g)-la'.
Germain-en-Laye, zhär-
German, jŭr'man.
Germanicus, jŭr-măn'i-kŭs.
Gerocomia, jŭr-o-ko'me-ah.
Gerry, jĕr're.
Gers, zhär.
Gerson, zbär-sŏn'.
Gerstæeker, jŭr'stĕk-kŭr.
Gertrude, gĕr'trood.
Gervinus, jĕr-ve'nŭs.
Geryon, je're-ŏn.
Gesenius, je-seen'yŭs.
Gesner, gĕs'nĕr.
Gesta Romanorum, jĕs'ta ro-măn-o'rŭm.
Gestation, jĕs-ta'shŭn.
Gesture, jĕst'yŭr.
Geta, je'tah.
Getæ, je'te.
Gethsemane, gĕtb'se-mān.
Gettysburg, gĕt'tlz-bŭrg.
Geum, je'ŭm.
Geyser, gī'sĕr.
Ghazepoor, gāz-e-poor'.
Ghent, ghĕnt.
Gherlali, ge-rī'ah.
Ghetto, ghĕt'to.
Ghibellines, gĭb'ĕl-lĭnz.
Ghiberti, ghe-bĕr'te.
Ghika, ghē'kah.
Ghirlandalo, gĕr-lăn-dī'o.
Ghizeli, ghe'za.
Ghogra, go'grah.
Ghost, gōst.
Giant, jī'ănt.
Giaveno, jah-va'no.
Gibbet, jĭb'bĭt.
Gibbon, gĭb'bŏn.
Gibbosite, gĭb'bo-sĭt.
Gibeon, gĭb'e-ŏn.
Giblets, jĭb'lĕts.
Gibraltar, jĭb-rawl'tŭr.
Gibson, gĭb'sŭn.
Gideon, gĭd'e-ŏn.
Gieu, zhe-an(g)'.
Giessen, gees'sĕn.
Gigantolite, jĭ-găn'to-līt.
Giglio, jēl'yo.
Gihon, gī'ŏn.
Gilbert, gĭl'bŭrt.
Gildas, gĭl'dăs.
Gilead, gĭl'e-ăd.
Giles, jīlz.
Gill, gĭl *and* jĭl.
Gillenia, jĭl-le'ne-ah.
Gillespie, gĭl-lĕs'pe *or* jĭl-lĕs'pe
Gilolo, je-lo'lo.
Gimbal, gĭm'băl.
Gimerack, jĭm'krăk.
Ginger, jĭn'jŭr.
Ginkell, gĭng'kĕl.
Gioberti, jo-bĕr'te.
Gioja, jo'yah.
Giordano, jŏr-dah'no.
Giorgione, jŏr-jo'nah.
Giotto, jŏt'to.
Giovenazzo, jo-vah-nät'so.
Giraldi, je-rahl'de.
Giraldus Cambrensis, jĭr-ăl'dŭs kăm-brĕn'sĭs.
Girandole, jĭr'ăn-dōl.
Girard, { *Eng.* je-rărd'. *Fr.* zhe-rahr'.
Girardin, zhe-rahr-dahn'.
Girasol, jĭr'a-sōl.
Girder, gŭrd'ŭr.
Girdle, gŭr'dl.
Girgeh, jĕr'ja.
Girgenti, jĭr-jĕn'te.
Girl, gŭrl.
Girodet, zhe-ro-da'.
Gironde, zhe-rŏnd'.
Girth, gŭrth.
Gismondite, jĭs'mŏnd-īt.
Giuliano, joo-le-ah'no.
Giulio Romano, joo'le-o ro-
Give, gĭv. [mah'no.
Glaeial, gla'shăl.
Glaeier, glās'e-ŭr.
Glaeis, gla'sĭs.
Gladiator, glăd'e-ā-tŏr.
Gladiolus, gla-dī'o-lŭs.
Gladova, glah-do'vah.
Gladstone, glăd'stūn.
Glamorgan, gla-mŏr'găn.
Glaphyra, gla-fī'rah.
Glare, glār.
Glastonbury, glăs'tn-bŭr-re.
Glatz, glahtz,
Glauber, glow'bĕr.
Glanehan, glŏw'kŏw.
Glaucium, glaw'se-ŭm.
Glaucus, glaw'kŭs.
Glaux, glo.
Gleetroma, glĕk'trō'mah.
Gleditsehia, gle-dĭt'shah.
Gleim, glīm.
Glenmalure, glĕn-ma-loor'.
Glisten, glĭs'n.
Globularia, glŏb-n-la're-ah.
Gloehis, glo'kis.
Glogau, glo'gŏw.
Glomeration, glŏm-ŭr-a'shŭn
Glossitis, glŏs-sī'tĭs.
Glossology, glŏs-sŏl'o-je.
Glove, glŭv.
Gloxinia, glŏk-sĭn'yah.
Glueina, gloo-si'nab.
Gluek, glook.
Glucose, glū'kōz.
Glue, gloo.
Glumelle, gloo-mĕl'.
Glutination. gloo-tĭn-a'shŭn.
Glycerine, glĭs'ŭr-ĭn.
Glyeirrhiza, glĭs-ir-rī'zah.
Glyptodon, glĭp'to-dŏn.
Glyptotheea, glĭp-to-the'kah.
Gmelinite, mĕl'ĭn-īt.
Gnaphallum, na-fa'le-ŭm.
Gnu, nū.
Goa, go'ah.
Goar, go'ăr.
Gobelin, gŏb'e-lln.
Gobi, go'be.
Gobldæ, gŏb'e-de.
Godavery, go-da'vŭr-e.
Godfrey, gŏd'fre.
Godoy, go-do'e.
Godroon, go-droon'.
Gœrtz, goorts.
Goethe, goo'ta.
Goetz, goots.
Gogal, go'gŏl.
Gohilwar, go-hĭl'wăr.
Golconda, gŏl-kŏn'dah.
Golgotha, gŏl'go-thah.
Goliath, go-lī'ăth.
Golovin, go-lo-vēn'.
Gomato, go-mah'to.
Gombroon, gŏm-broon'.
Gomez, go'mĕz.
Gomorrah, go-mŏr'rah.
Gomphiasis, gŏm-fī'a-sĭs.
Gompholite, gŏm'fo-lĭt.
Gomphosis, gŏm-fo'sĭs.
Gomphrena, gŏm-fre'nah.
Gondola, gŏu'do-lah.
Gonfalonier, gŏn-fa-lŏn-eer'.
Goniatite, go'ne-a-tīt.
Goniometer, go-ne-ŏm'e-tŭr.
Gonorrhœa, gŏn-ŏr-re'ah.
Gonsalvo, gŏn-zahl'vo.
Gonzaga, gŏn-zah'gah.
Gonzales, gon-thah'lĕth.
Goodyera, good'yĕr-ah.
Goomty, goom-tee
Gopher, go'fŭr.
Gordianus, gŏr-de-a'nŭs.
Gordius, gŏr'de-ŭs.
Goree, go-rē'.
Görgei, goor'gī.
Gorges, gŏr'jĕz.
Gorgias, gŏr'je-ăs.
Gorgona, gŏr-go'nah.
Gorilla, go-rĭl'lah.
Goritz, goo'rĭts.
Gorkum, gŏr'kŭm.
Gorlitz, goor'lĭts.
Goshen, go'shĕn.
Goslarite, gŏz'lăr-īt.
Gossypium, gŏs-sĭp'e-ŭm.
Gotha, go'tah.
Gothic, gŏth'ĭk.
Gottenburg, gŏt'ĕn-bŭrg.
Gottlleben, gŏt-le'bĕn.
Gough, gŏf.
Goulard, goo-lahr'.
Gould, goold.
Gounod, goo-no'.
Gout, { *Eng.* gowt. *Fr.* goo. [sahn sĕr'.
Gouvion St. Cyr, goo-ve-ŏn'
Gowan, go'ăn.
Goyaz, go-yahz'.
Gozo, gŏt'zo.
Graafi-Reinet, grahf-rīn'ĕt.
Graechus, grāk'kŭs.
Gracillaria. gra-sĭl-la're-ah.
Graciosa, grah-se-o'sah.
Gradient, gra'de-ĕnt.
Gradin, gra'dĭn.
Gradiska, grah-dĭs'kah.
Graduation, grăd-u-a'shŭn.
Gradus, gra'dŭs.
Grafton, grăf'tŭn.
Gragnano, grahn-yah'no.
Graham, grā'ăm.
Grail, grāl.
Grallatores, grăl'la-tōrz.
Gramercy, grah-mŭr'se.
Graminaceæ, grăm-e-na'se-e.
Grammont, grah-mon(g)'.
Grampians, grăm'pe-ănz.
Gran, grahn.
Granada, grah-nah'da.
Granadilla, grah-nab-dĕl'yah.
Gran Chaco, grahn chah'ko.
Grandee, grăn-dē'.
Grandeur, grănd'yŭr.
Grandiose, grănd'i-ōs.
Grandville, grŏnd'vĭl.
Grange, grānj.
Granivoræ, gra-nĭv'o-re.
Granulation, grăn-u-la'shŭn.
Granville, grăn-vĭl.
Graphite, grăf'ĭt.
Graphotype, grăf'o-tīp.
Grapple, grăp'pl.
Graptolites, grăp'to-lĭts.
Gratian, gra'she-an.
Gratis, gra'tĭs.
Gratitude, grăt'i-tūd.
Gratry, grah-tre'.
Gratuity, gra-tu'e-te.
Gratulation, grăt-u-la'shŭn.
Gratz, grahtz.
Graudenz, grŏw'dĕnts.
Gravel, grăv'ĕl.
Gravesend, grāvz'ĕnd.
Gravimeter, gra-vĭm'e-tŭr.
Gravina, grah-ve'nah.
Gravitation, grăv-i-ta'shŭn.
Graziani, grăt-se-ah'ne.
Grease, grēs *and* grēz.
Greece, grēs.
Greenough, grēn'o.
Gregarious, gre-ga're-ŭs.
Grego, gre'gŏ.
Gregory, grĕg'o-re.
Greifenhagen, grīf'n-ah gn.
Grenada, grēn'a-dah.
Grenadier, grēn-a-deer'.
Grenelle, gra-nĕl'.
Grenoble, grēn-ob-l'.
Grenville, grĕn'vĭl.
Grès, gra.

Gresham, grĕs'ăm.
Grétry, gra-tre'.
Greuze, grooz.
Grewia, groo'e-ah.
Grey. gra.
Grice, grīs.
Gridiron, grĭd'i-ŭrn.
Griesbach, grees'bäk.
Grignan, green-yŏn(g)'.
Grillade, grĭl-lād'.
Grille, greel.
Grimaldi, gre-mäl'de.
Grimalkin, gre-mäl'kĭn.
Grisi, gre'se.
Grizzle, grĭz'l.
Groat, grawt.
Grocery, gro'sŭr-e.
Grodno, grŏd'no.
Grogram, grŏg'răm.
Groningen, grŏn'ĭng-ĕn.
Grorollite, gro-ro'e-līt.
Gros, gro.
Groschen, grŏsh'ĕn
Gross, grōs.
Grossales, grŏs'sa-lēz.
Grossbeak, grōs'bēk. [shŭn.
Grosslleatlon, grōs-se-le-ka'-
Grossularite, grŏs-sū'la-rīt.
Grosswardein, grŏs-wŏr'dīn.
Grotesque, gro-tĕsk'.
Grotius, gro'she-ŭs.
Groton, gro'tŏn.
Grotto, grŏt'to.
Group, groop.
Grouse, grōws.
Grow, gro.
Grudge, grŭj.
Gruidæ, groo'e-de.
Grumble, grŭm'bl.
Grunnanite, groon'ăn-īt.
Grunberg, groon'bărg.
Grus, groos.
Gryphite, grĭf'it.
Gryphosis, gre-fo'sĭs.
Guacara, gwah-kah'ro.
Guadalajara, gwah-dah-lah-ah'rah. [veer'.
Guadalquivir, gwah-dăl-ke-
Guadalupe, gwah-dah-loo'pa.
Guadelonpe, gah-da-loop'.
Guadiana, gwah-de-ah'nah.
Guadix, gwah-dee'.
Guaiacum, gwa'ya-kŭm.
Guajaba, gwah-ah'bah.
Guana, gwah'nah. [cha.
Guanaeache, gwah-nah-kah'-
Guanaco, gwah-nah'ko.
Guanaxnato, gwah-nah-hwah'to.
Guano, goo-ah'no or gwah'no.
Guarantee, gă-r-an-te'.
Guarapari, gwah-rah-pah're.
Guaratuba, gwah-rah-too'bah.
Guard, gard.
Guarini, gwah-re'ne.
Guastalla, gwah-stal'lah.
Guatavita, gwah-tah-ve'tah.
Guatemala, gwah-te-mah'lah.
Guava, gwah'vah.
Guaviare, gwah-ve-ah'ra.
Guayaquil, gwī-ah-kēl'.
Guaymas, gwi'mahs.
Gubbio, goob'be-o.
Guben, goo'bĕn.
Gudin, goo-dahn'.
Gudgeon, gŭd'jŭn.
Gueber, ge'bĕr.
Guelderland, gĕld'ŭr-länd.
Guelph, gwĕlf.
Guerara, gwa-rah'rah.
Guereino, goo-ĕr-che'no.
Guerdon, gŭr'dŏn.
Guerilla, gĕr-rĭl'lah.
Guérin, gwa-rahn'.
Guerrero, ghăr-ra'ro.
Guess, gĕs.
Gnettarda, gŭt-tär'dah.
Guffaw, gŭf-faw'.
Guiana, ge-ah'nah. [ne.
Guicciardini, goo-ŏt-chär-de'-
Guido d'Arezzo, goo-e'do dah-rĕt'so.
Guienne, ge-ĕn'.
Guildhall, gild'hawl.
Guilloche, gwe-lōsh'.
Guillotine, gĭl-lo-teen'.
Gnise, { Eng gīz. Fr. geez.
Gules, gūlz.
Gulo, gū'lo.
Gurge, gŭrj.
Gurgle, gŭr'gl.
Gurjun, goor'jŭn.
Gurney, gŭr'ne.
Gurrah, goor'rah.
Gustavus, gŭs-ta'vŭs.
Gustoso, gŭs-to'zo.
Guthrie, gŭth're.
Gutta-percha, gŭt'tah părt'-chah.
Guttenberg, goot'tĕn-bărg.
Guttural, gŭt'tŭr-ăl.
Guyou, gī'ŏn.
Guzman, gooth'măn.
Guzzle, gŭz'zl.
Gwalior, gwah'le-ŏr.
Gybe, jīb.
Gymnasiareh, jĭm-na'ze-ärk.
Gymnastics, jĭm-năs'tĭks.
Gymnema, jĭm-ne'mah.
Gymnocladus jĭm-nŏk'la-dŭs
Gymnogens, jĭm'no-jĕnz.
Gymnosophitæ, jĭm-no-sŏf'-
Gymnote, jĭm'nōt. [e-te.
Gynæceum, jĭn-e-se'ŭm.
Gynæcocracy, jĭn-e-kŏk'ra-se
Gynandria, jĭn-an'dre-ah.
Gyneocracy, je-nŏk'ra-se.
Gynobase, jĭn'o bās.
Gynœceum, je-ne'se-ŭm.
Gypætos, je-pe'tŏs.
Gypsography, jĭp-sŏg'ra-fe.
Gypsy, jĭp'se.
Gyracanthus, jĭr-a-kăn'thŭs.
Gyration, ji-ra'shŭn.
Gyrludæ, je-rĭn'e-de.
Gyrolepsis, jĭr-o-lĕp'sĭs.
Gyrolite, jĭr'o-līt.
Gyromancy, jĭr-o-măn'se.
Gyroscope, ji'ro-skōp.
Gynlal, joo'li.

H.

Haaf, hahf.
Haarlem, hahr'lĕm. [kŏr'pŭs.
Habeas Corpus, ha'be-ăs
Habendum, ha-bĕn'dŭm.
Haberdashery, hăb-ĕr-dăsh'-ŭr-e.
Habergeon, ha-hŭr'je-ŏn.
Habersham, hăh'ŭr-shăm.
Habiliment, ha-bĭl'e-mĕnt.
Habit, hăb'ĭt.
Habitué, a-bĭt-vo-a'.
Hachette, ăsh-ĕt'.
Hacienda, ah-the-ĕn'dah.
Hachure, hăch'ŭr.
Hackensack, hăk'n-săk.
Hackle, hăk'l.
Hackney, hăk'ne.
Haddington, hăd'dĭng-tŭn.
Haddock, hăd'dŭk.
Hadelu, ah'dĕln.
Hadersleben, ah-dărz-la'bĕn
Hades, ha'dēz.
Hadleigh, hăd'le.
Hadramaut, ah-drah-mŏwt'.
Hæceity, hĕk-se'e-te.
Hæmachrome, hĕm'ah-krōm
Hæmapophysis, hĕm-ah-pŏf'o-sĭs.
Hæmatoeele, he-măt'o-sēl.
Hæmatozoa, hĕm ah-to-zo'ah
Hæmoptysis, he-mŏp'te-sĭs.
Hæmorrhage, hĕm'ŏr-răj.
Hæmus, be'mŭs.
Haffle, häf'fl.
Hafis, ah'fĭz.
Hagar, ha'gär.
Hagenbach, ah'gĕn-häk.
Haggada, hăg'ga-dah.
Haggai, hăg'ga-i.
Hagiarehy, ha'je-ăr-ke. [fah.
Hagiographa, ha-je-ŏg'rah-
Hagioscope, ha'je-o-skōp.
Hague, hăg.
Hahnemann, hah'na-măn.
Hail, hāl.
Haimaturla, hăm-a-tū're-ah.
Hainan, hī-nahn'.
Haklm, hä'kĭm.
Halberd, hăl'bŭrd.
Halberstadt, hăl'bŭr-stät.
Halcyon, hăl'se-ŏn.
Haldimand, hăl'de-mănd.
Halesia, hăl'se-ah.
Halévy, ah-la-ve'. [năs'sŭs.
Halicarnassus, hăl-e-kär-
Halicore, hăl'e-kōr.
Halieuties, hăl-e-kū'tĭks.
Haliography, ha-le-ŏg'ra-fe.
Haliotis, ha-lī'o-tĭs.
Hallam, hăl'lăm.
Halle, hăl'la.
Halleck, hăl'lĕk.
Halley, hăl'le.
Halloween, hăl'lo-een.
Hallucinatlon, hăl-lū-se-na'-
Halmstadt, hälm'stät. [shŭn.
Halo, hā'lo.
Halogen, hăl'o-jĕn.
Haloid, ha'loid.
Haloscope, ha'lo-skōp.
Halstead, hăl'stĕd.
Halt, hawlt.
Halton, hawl'tŭn.
Halve, hahv.
Hamadan, hăm-a-dăn'.
Hamadryad, hăm-a-drī-ăd.
Hamburg, hăm'boorg.
Hames, hāmz.
Hamilcar, hah-mĭl'kär
Hamiltou, hăm'il-tŭn.
Hammock, hăm'mŏk.
Hampden, hămp'dĕn.
Hamper, hăm'pŭr.
Hampshire, hămp'shŭr.
Hampstead, hămp'stĕd.
Hamster, hăm'stŭr.
Hamulose, hăm'u-lōz.
Hananiah, hăn-a-ni'ah.
Hanaper, hăn'a-pŭr.
Handel, hăn'dĕl. [chĭf.
Handkerchief, hăngk'ŭr-
Handsel, hăn'sl.
Handsome, hăn'sŭm.
Hang-Teheon, hăng-choo'.
Han-kiang, hăn-ki'ăng.
Hankle, hăng'kl.
Hannibal, hăn'ne-hal.
Hanover, hăn'o-vĕr.
Hansa, hăn'sah.
Hapsburg, hăbz'boorg. [nŭt'.
Hardieannte, här-de-kah-
Hardinge, härd'ĭng.
Harem, hā'rĕm.
Harleck, här'lĕk.
Harlequin, här'le-kwĭn.
Harlingen, här'lĭng-ĕn.
Harmaline, här'ma-lin.
Harmattan, här-măt'tăn.
Harmodius, här-mo'de-ŭs.
Harmonica, här-mŏn'e-kah.
Harmonium, här-mo'ne-ŭm.
Harmotome, här'nuo-tōm.
Harold, hăr'ŏld.
Haronu-al-Rashid, ah-roon'-ahr-rah-shēd'.
Harpax, här'păks.
Harper, här'pŭr.
Harpings, hărp'ĭngz.
Harpocrates, här-pŏk'ra-teez
Harpy, här'pe.
Harrier, hăr're-ŭr.
Harrington, hăr'rĭng-tŭn.
Harrowing, hăr'ro-ĭng.
Hartlepool, här'tl-pool.
Hartley, härt'le.
Hartz, habrts. [ska'rŭm.
Harum-scarum, ha'rŭm-
Haruspice, ha-rŭs'pĭs.
Harvard, här'värd.
Harwich, hăr'rĭj.
Hasdrubal, hăs'droo-băl.
Hashish, hăsh'eesh.
Hasselt, hăs'sĕlt.
Hastati, hăs-ta'ti.
Haste, hāst.
Hastings, hās'tĭngz.
Hatches, hăch'lz.
Hatteras, hăt'te-răs.
Hauerite, how'ŭr-īt.
Haugh, baw.
Haulm, hawm.
Haurient, haw're-ĕnt.
Haussmann, howsmăn.
Hautenr, ho-toor'.
Havana, hah-van'ah.
Havelock, hăv'lŏk.
Haverhill, hāv'r-hĭl.
Havildar, hăv'ĭl-dăr. [grahs'.
Havre de Graee, ah'vr da
Havresne, hăv'ŭr-săk.
Hawse, hawz.
Haydn, hā'dn.
Haydon, hā'dŭn.
Hayesine, hāz'in.
Hayne, hān.
Hayti, hā'te.
Hazel, hā'zl.
Hazlitt, hāz'lĭt.
Heading, hĕd'ĭng.
Healfang, hēl'făng.
Hearken, härk'n.
Heath, hēth.
Hebdomadal, hĕb-dŏm'a-dăl.
Heber, be'bŭr.
Hebert, a-bär'.
Hebetation, hĕb-e-ta'shŭn.
Hebetine, hĕb'e-tĭn.
Hebraism, he'bra-ĭzm.
Hebron, he'brŏn.
Hecate, hĕk'a-te.
Heeatompedon, hĕk-a-tŏm'-pe-dŏn.
Heela, hĕk'lah. [pe-dŏn.
Heetare, hĕk'tār.
Hedeoma, hĕd-e-o'măh.
Hedera, he-de'rah.
Hedge, hĕj.
Hedonism, he'dŏn-ĭzm.
Hedyotis, hĕd-e-o'tĭs.
Hedyphane, hĕd'e-făn.
Hedysarum, he-dĭs'a-rŭm.
Hegel, hā'gĕl.
Hegira, he-ji'rah.
Heighten, hīt'n.
Heine, hī'na.
Heinous, hā'nŭs.
Heintzelman, hīnt'zl-măn.
Helster, hīs'tŭr.
Heidelberg, hī'dĕl-bărg.
Helen, hĕl'ĕn.
Helena, he-le'nah.
Hellae, he'le-ăk.
Heliauthus, he-le-ăn'thŭs.
Helichrysum, hĕl-e-krī'sŭm.
Heliciдæ, he-lĭs'e-de.
Helicoid, hĕl'e-koid.
Helicon, hĕl'e-kŏn.
Heligoland, hĕl'e-go-lănd.
Heliocentric, he-le-o-sĕn'-trĭk.
Heliochrome, he'le-o-krōm.
Heliodorus, he-le-o-do'rŭs.
Heliopolis, he-le-ŏp'o-lĭs.
Helioscope, he'le-o-skōp.
Heliotrope, he'le-o-trōp.
Helix, he'lĭks. [the're-ŭm.
Helladotherium, hĕl-la-do-
Hellas, hĕl'lăs.
Hellebore, hĕl'le-bōr.
Hellespont, hĕl'lĕs-pŏnt.
Helmholtz, hĕlm'hōlts.
Helminthagogne, hĕl-mĭn'-
Heloise, a-lo-āz'. [tha-gōg.
Helonias, he-lo'ne-ăs.
Helots, hĕl'ŏts.
Helsingfors, hĕl'sĭng-fŏrz.
Helvellyn, hĕl-vĕl'lĭn.
Helvetia, hĕl-ve'she-ah.
Helvoetslnys, hĕl-voot-slois'.
Hemachate, hĕm'a-kāt.
Hemadynamometer, hĕm-a-dĭn-a-mŏm'e-tŭr.
Hemans, hĕm'ănz. [sĭs.
Hematemesis, hĕm-a-tĕm'e-
Hematite, hĕm'a-tīt.
Hematocele, hĕm'a-to-sēl.
Hematoxyliu, hĕm-a-tŏks'e-lĭn.
Hematuria, hĕm-a-tū're-ah.
Hemeralopia, hĕm-e-rah-lo'-pe-ah.
Hemieronia, hĕm-i-kro'ne-ah
Hemidesmus, hĕm-e-dĕz'mŭs
Hemlganous, he-mĭg'a-mŭs.
Hemiptera, he-mip'tŭr-ah.
Hemitrope, hĕm'e-trōp.
Héuault, a-no'.
Hendeeagou, hĕn-dĕk'a-gŏn.
Hengist, hĕng'gist.
Henrietta, hĕn-re-ĕt'tah. [se-e.
Wensloviaeeæ, hĕn-slo-ve-a'-
Hepatiea, he-păt'e-kah.
Hepatitis, hĕp-a-ti'tĭs.
Hepatoeele, he-păt'o-sēl.
Hephæstion, he-fēs'te-ŏn.
Heptagynia, hĕp-tah-jĭn'yah.
Heptameron, hĕp-tăm'e-rŏn.
Heptandria, hĕp-tăn'dre-ah.
Heraclea, hĕr-ah-klē'ah.
Heraclidæ, he-răk'le-de.
Heraclitus, hĕr-ah-klī'tŭs.
Heraldry, hĕr'ăld-re.
Herat, he'rat.
Herbage, hŭrb'ăj.
Herbarium, hŭr-ba're-ŭm.
Herbert, hŭr'bŭrt.
Herborization, hŭrb-o-re-za'shŭn. [ŭm.
Hercnlaneum, hĕr-ku-la'ne-
Hereynian, bĕr-sĭn'e-ăn.
Herder, hĕr'dŭr.
Hereby, hĕr'bi. [mĕnt.
Hereditament, hĕr-e-dĭt'a-
Hereford, hĕr'e-fŭrd.
Heresy, hĕr'e-se.
Heretoch, hĕr'e-tŏk.
Heriot, hĕr'e-ŏt.
Herkimer, hĕr'ke-mŭr.
Hermandad, hĕr-măn'dahd.
Hermanos, hĕr-măn'yŏs.
Hermanstadt, hĕr'măn-stät.
Hermeneutics, hŭr-me-nū'-tĭks. [hĕr'mēz trĭs-me-jĭs'tŭs.
Hermes Trismegistus,
Hermodactyle, hĕr-mo-dăk'-
Hermou, hĕr'mŏn. [tĭl.
Hernia, hĕr'ne-ah.
Hernosand, hĕr'no-sahnd.
Herod, hĕr'ŏd.
Herodias, he-ro'de-ăs.
Herodotus, he-rŏd'o-tŭs.
Heroine, hĕr'o-ĭn.
Heron, hĕr'ŏn or hĕrn.
Heroölogist, he-ro-ŏl'o-jĭst.
Herpetology, hĕr-pe-tŏl'o-je.
Herrera, ĕr-ra'rah
Hers, hŭrz.
Herstal, hĕr'stăl.
Hernli, hĕr'u-li.
Hertz, hĕrts.
Hesiod, he'she-ŏd.
Hesioue, he-si'o-ne.
Hesitation, hĕz-e-ta'shŭn.
Hesperides, hĕs-pĕr'e-dēz.
Hesperidium, hĕs-pĕr-id'-
Hesse, hĕss. [yŭm.
Hetæra, he-te're-ah.
Heteroclite, hĕt'ĕr-o-klīt.
Heterodox, hĕt'ĕr-o-dŏks.
Heterogenesis, hĕt-ĕr-o-jĕn'-e-sĭs.
Hexameter, hĕks-ăm'e-tŭr.
Hexandria, hĕks-ăn'dre-ah.
Hexapla, hĕks'ah-plah.
Heywood, hā'wŭd.
Hezekiah, hĕz-e-kī'ah.
Hiawassee, hī-ah-wŏs'se.
Hibernaculum, hī-bĕr-năk'-
Hibernia, hī-bĕr'ne-ah. [u-lŭm.
Hiecins Doceeus, hĭk'she-us dŏk'she-ŭs.
Hiecough, hĭk'kŭp.
Hidalgo, e-dăl'go.
Hideous, hĭd'e-ŭs.
Hieracium, hi-e-ra'she-ŭm.
Hiero, hi'e-ro.
Hierochloa, hi-e-rŏk'lo-ah.
Hieromnemon, hi-e-rŏm'-ne-mŏn.
Hieronymus, hi-e-rŏn'e-mŭs.
Hilarion, hi-la're-ŏn.
Hilary, hĭl'a-re. [boorg-how'zn.
Hildburghausen, hĭlt-
Hildebrand, hĭl'de-hrănd.
Hilum, hī'lŭm.
Himalayas, hĭm-ah-la'yahz.
Himantopus, hi-măn'to-pŭs.
Himyaric, hĭm-yăr'ĭk. [hrook.
Hinchinbrook, hĭnch'ĭn-
Hinemar, hĭngk'măr.
Hind, hīnd.
Hindoo, hĭn-doo.
Hindostan, hĭn-doo-stahn'
Hipparchia, hĭp-pär'ke-ah.
Hipplas, hĭp'pe-ăs.
Hippocampi, hĭp-po-kăm'pi.
Hippoeastaneæ, hĭp-po-kăs-ta'ne-e.
Hippoeras, hĭp'po-krăs.
Hippocrates, hĭp-pŏk'ra-teez.
Hippoerene, hĭp-po-kre'ne.
Hippodamia, hĭp-po-da'me-ah.
Hippodrome, hĭp'po-drōm.
Hippolytus, hĭp-pŏl'e-tŭs.
Hipponyx, hĭp'po-nĭks.
Hippopotamus, hĭp-po-pŏt'-
Hippurie, hĭp-pū'rĭk. [a-mŭs.
Hiram, hī'răm.
Hireine, hīr'sīn.
Hirundo, hī-rŭn'do.
Hislopite, hls'lŏp-īt.
Hispania, hīs-pa'ne-ah.
Hispid, hīs'pĭd.
Histogeny, hĭs-tŏj'e-ne.
Historiography, hĭs-to-ro-ŏg'ra-fe.
Histrionie, hĭs-tre-ŏn'ĭk.
Hitch, hĭcb.
Hittites, hĭt'tĭts.
Hoang-ho, ho-ăng-ho'.
Hoar, hōr.
Hobbema, hŏb'he-mah.
Hobbes, hŏbz.
Hobbledehoy, hŏb-bl-de hoi'.
Hocus-pocus, ho'kŭs po-kŭs.
Hofer, ho fŭr.
Hogarth, ho'gärth. [dĕn.
Hohenlinden, ho-h a-'l-n'-
Hoiden, hoi'dn.
Holbein, hōl'bīn.
Holeus, hōl-kŭs.
Hollo, hŏl-lo'.
Hollow, hŏl'lo.
Holm, hōm.
Holocaust, hŏl'o-kaw st.
Holofernes, hŏl-o-fŭr'neez.
Holoptychius, hŏl-ŏp-tik'e-ŭs. [rĭsh'ŭs.
Holosericeous, ho-lo-se-
Holothuria, hŏl-o-thū're-ah.
Holston, hōl'stŭn.
Holyrood, hōl'e-rood. [re-ah.
Homœomeria, ho-me-o-ne'e-
Homœopathy, ho-me-ŏp'ah-the.
Homœozoic, ho-me-o zo'ĭk.
Homogeneous, ho-me'je-nŭs.
Homoioptoton, ho-mo-e-ŏp'-to-tŏn. [zhan
Homoiousian, ho-mo-oo'.
Homology, ho-mŏl'o-je.
Homonym, hŏm'o-nĭm.
Homotype, hŏm'o-tīp. [lŭs.
Hommnenlus, ho-mŭng'ku-
Honan, ho-nän'.
Honda, hŏn'dah.
Honduras, hŏn-doo'rās.
Hone, hōn.
Honey, hŭn'e.
Honfleur, ŏn(g)-flŭr'.
Honolulu, hŏn-o-loo'loo.
Honorarium, hŏn-o-ra're-ŭm
Honorius, ho-no're-ŭs.
Honor, ŏn'ŭr.
Hoopoe, hoop'oo.
Hoosle, hoo'sĭk.
Hopkins, hŏp'kĭnz.
Horace, hŏr'ăs.
Horæ, ho're.
Horary, ho'ra-re.
Horatii, ho-ra'she-i.
Horde, hŏrd.
Hordeine, hŏr'de-ĭn.
Hordeum, hŏr'de-ŭm.
Horizon, ho-rī'-zŏn.
Hornblende, hŏrn'blĕnd.
Hornito, ŏr-ne'to.
Horologlum, hŏr-o-lo'je-ŭm.
Horology, ho-rŏl'o-je.
Horoscope, hŏr'o-skōp.
Horripilation, hŏr-rĭp-e-la'-
Hortense, ŏr-tŏnz'. [shŭn.
Horteusius, hŏr-tĕn'shŭs.
Hortienlture hŏr-te-kŭl'tyŭr
Hortulan, hort'yu-lăn.

Horus, ho'rŭs.
Hosanna, ho-zăn'nah.
Hosea, ho-se'ah.
Hospice, hŏs'pis.
Hosmer, hŏs'mŭr.
Hospitium, hŏs-pĭsh'yŭm.
Hospodar, hŏs'po-dahr.
Host, hōst.
Hostile, hŏs'tĭl.
Hottentots, hŏt'tn-tŏts.
Houdon, oo-dŏn(g)'.
Houri, howr'e.
Housatonic, hoo-sah-tŏn'ĭk.
Houssa, hoos'sah.
Houssaye, oos-sa'.
Houston, hū'stŭn.
Hovel, hŏv'l.
Howe, hōw.
Hubert, hū'bŭrt.
Huberite, hoob'nŭr-ĭt.
Huckster, hŭk'stŭr.
Huddle, hŭd'dl.
Hudibras, hū'de-brăs.
Hughes, hūz.

Hugo, {Eng. hū'go. Fr. oo'go.
Humanity, hu-măn'e-te.
Humboldt, hŭm'bōlt.
Hume, yoom. [shŭn.
Humectation, hu-měk-ta'-
Humerus, hu'me-rŭs.
Humidity, hu-mĭd'e-te.
Humiliation, hu-mĭl-e-a'-
Humite, hu'mīt. [shŭn.
Hummock, hum'mŭk.
Humulus, hū'mu-lŭs.
Hu-nan, hoo-nän'.
Hungary, hŭng'gah-re.
Hunger, hŭng'gŭr.
Hunniades, hŭn'ne-a-deez.
Hura, hu'rah.
Hurdwar, hoord'wŏr.
Huron, hu'rŏn.
Hurricane, hŭr're-kān.
Hurry, hŭr're.
Husband, hŭz'bănd.
Hussar, hŭz-zar'.
Hussites, hŭs'sītz.

Hustle, hŭs'l.
Hutcheson, hŭch'e-sŭn.
Hutten, hoot'tĕu.
Hutton, hŭt'tn.
Huyssenite, hī'sĕn-īt.
Hyacinth, hī'a-sĭnth.
Hyæna, hi-e'nah.
Hyalea, hi-a-le'ah.
Hyalescence, hi-a-lĕs'sĕns.
Hyaline, hi'a-lĭn.
Hyalophane, hi'ăl-o-fān.
Hybrid, hĭb'rĭd.
Hydatid, hĭd'a-tĭd.
Hyde, hīd.
Hyderabad, hī-dŭr-ah-bad'.
Hyduocarpus, hĭd-no-kär'-
Hydra, hī'drah. [pŭs.
Hydraulic, hi-draw'lĭk.
Hydrenteroccle, hī-drĕn-
Hydride, hi'drīd. [tĕr'o-sēl.
Hydrocardia, hī-dro-kär'de-
Hydrocele, hi'dro-sēl. [ah.
Hydrochærus, hī-drŏk'e-rŭs
Hydrogen, hī'dro-jĕn.

Hydroldæ, hi-dro'e-de.
Hydrouncter, hi-drŏm'e-tŭr.
Hydropathy, hi-drŏp'a-the.
Hydrophane, hi'dro-fān. [ah.
Hydrophobia, hi-dro-fo'be-
Hydrophytology, hi-dro-fe-tŏl'o-je.
Hydrostatic, hi-dro-stăt'ĭk.
Hydrotalcite, hi-dro-tal'sīt.
Hydrozincite, hi-dro-zĭngk'-
Hyères, he-är'. [īt.
Hyetograph, hi-ĕt'o-grăf.
Hylæosaurus, hi-le-o-saw'rŭs
Hylus, hīl'lŭs.
Hyloidæ, hi-lo'e-de.
Hylozoism, hi-lo-zo'ĭzm.
Hymen, hī'mĕn.
Hymettus, hi-mĕt'tŭs.
Hyoid, hi'oid.
Hyoscyamus, hi-o-si'a-mŭs.
Hypanthium, hī-păn'the-ŭm
Hyperbola, hi-pŭr'bo-lah.
Hypercatharsis, hī-pŭr-ka-thar'sĭs.

Hyperides, hi-pĕr'e-deez.
Hypertrophy, hi-pŭr'tro-fe.
Hyphen, hi'fĕn.
Hypnotism, hĭp'no-tĭzm.
Hypocaust, hĭp'o-kawst.
Hypochondria, hĭp-o-kŏn-dre-ah.
Hypochondriasis, hĭp-o-kŏn-dri'a-sĭs.
Hypocrisy, he-pŏk'ra-se.
Hypogastrium, hĭp-o-găs'-tre-ŭm.
Hypoglutis, hĭp-e-glu'tĭs.
Hypopyon, hī-po'pe-ŏn.
Hypotheca, hi-pŏth'e-kah.
Hypotheneuse, hi-pŏth'e-nūs.
Hypothesis, hi-pŏth'e-sĭs.
Hypsædidæ, hĭp-se'i-de.
Hyrax, hi'răks.
Hyrcania, hŭr-ka'ne-ah.
Hyson, hī'sŭn.
Hyssopus, hĭs'so-pŭs.
Hysteria, hĭs-te're-ah.
Hystricidæ, hĭs-trĭs'e-de.

I.

Iambic, i-ăm'bĭk.
Iarbas, i-är'bas.
Iatrallptic, i-a-trah-lĭp'tĭk.
Iberian, i-be're-ăn.
Iblapaba, eeb-yah-pah'bah.
Ibis, i'bĭs.
Ibrahim, ib-rah-eem'.
Ibrail, e'brāl.
Ibzan, ĭb'zăn.
Icarus, ĭk'ah-rŭs.
Iceland, īs'lănd. [e-de.
Ichneumonidæ, ĭk-nū-mŏn'-
Ichnology, ĭk-nŏl'o-je.
Ichthyology, Ik-the-ŏl'o-je.
Icicle, ĭ'sc-kl.
Icilius, ī-sĭl'e-ŭs.
Iconology, i-ko-nŏl'o-je.
Icosandria, ĭk-o-săn'dre-ah.
Ida, ī'dah.
Idaho, ī'dah-o.
Identity, i-dĕn'te-te.
Idiopathy, id-e-ŏp'a-the.
Idiotism, id'e-ŏt-ĭzm.
Idleness, ī'dl-nĕs.
Idocrase, id'o-krās.
Idria, id're-ah.
Idyl, ī'dĭl or id'il.
Igarapé, e-gär'a-pa.
Iglau, ĭg'lŏw.
Ignis Fatuus, ĭg-nĭs făt'n ŭs.
Ignition, ĭg-nĭsh'ŭn.
Ignoble, ĭg-no'bl.
Ignominy, ĭg-no-mĭn'e.
Ignoramus, ĭg-no-ra'mŭs.
Ignorantines, ĭg-no-răn'tĭnz.
Iguana, e-gwah'nah.
Ildefonso, ēl-da-fon'so.
Ileum, il'e-ŭm.
Ilex, ī'lĕks.
Illabaseo, Il-lah-bās'ko.
Illapse, Il-lăps'.
Illecebraceæ, il-le-se-bra'se-e.
Ille et Vilaine, ēl a ve-lān'.
Iller, il'lŭr.
Illicium, Il-lĭsh'yŭm.
Illision, il-lĭzh'ŭn.
Illinois, Il-lĭn-oi'.
Illuminati, Il-lu-me-na'te.
Illusion, Il-lū'zhŭn.
Illustration, Il-lŭs-tra'shŭn.
Illyria, il-lĭr'e-ah.
Ilori, e-lo're.
Ilvaite, il'va-īt.
Image, ĭm'āj. [shŭn.
Imagination, Im-ăj-e-na'-
Imago, i-ma'go.

Imaum, e-mawm'.
Imbecile, ĭm'be-sĭl.
Imbricate, im'bre-kāt.
Imbroglio, ĭm-brōl'yo.
Imitation, im-e-ta'shŭn.
Immerge, ĭm-mŭrj'. [shŭn.
Immigration, im-me-gra'-
Immission, ĭm-mĭsh'ŭn.
Immunity, im-mū'ne-te.
Impact, im'pakt and ĭm-păkt'.
Impasto, im-pas'to. [ah.
Imperatoria, im-pĕr-a-to're-
Imperious, im-pe're-ŭs. [nens.
Impertinence, ĭm-pŭr'te-
Impervious, im-pŭr've-ŭs.
Impetigo, ĭm-pĕt'e-go.
Impetus, im'pe-tŭs.
Implicit, im-plĭs'ĭt.
Implication, im-ple-ka'shŭn.
Impluvium, im-ploo've-ŭm.
Importune ĭm-pŏr-tūn'.
Imposition, im-po-zĭsh'ŭn.
Impression, im-prĕsh'ŭn.
Imprimatur, ĭm-pri-ma'tŭr.
Imprimis, im-prī'mis.
Improvement, ĭm-proov'-ment. [ve-sa-to're.
Improvvisatore, im-prŏv-
Improvvisatrice, im-prŏv-ve-sa-tre'chah.
Impulsion, im-pŭl'shŭn.
Imputation, im-pu-ta'shŭn.
Inamorata, in-a-mŏr'e-tah.
In articulo mortis, in är-
Incest, in'sĕst. [tĭk'u-lo mŏr'tis.
Inchbald, inch'bawld.
Incision, in-sĭzh'ŭn.
Inclusion, in-klū'zhŭn.
Incognita, in-kŏg'ne-tah.
Incubus, in'ku-bŭs.
Incunabula, in-ku-năb'u-lah.
Incursion, in-kŭr'shŭn.
Indemnity, in-dĕm'ne-te.
Indebted, in-dĕt'ĕd.
India, in'de-ah.
Indiana, in-de-ah'nah. [lĭs.
Indianapolis, in-de-ăn-ăp'o-
Indication, in-de-ka'shŭn.
Indicia, in-dĭsh'e-ah.
Indict, in-dīt'.
Indium, in'de-ŭm. [ăl'e-te.
Individuality, in-de-vĭd-u-
Indre et Loire, ahn-dr a lwawr'.
Induction, in-dŭk'shŭn.
Indulgence, in-dŭl'jĕnz.

Indusium, in-du'se-ŭm.
Industry, in'dŭs-tre.
Inebriation, in-e-bre-a'shŭn.
Ineptitude, in-ĕp'ti-tūd.
Inertia, in-ĕr'she-ah.
Infamy, in'fa-me.
Infanta, in-făn'tah.
Infantry, in'fant-re.
Inferiæ, in-fe're-e.
Inflation, in-fla'shŭn.
Inflection, in-flĕk'shŭn.
Influenza, in-floo-ĕn'zah.
Infralapsarian, in-frah-lăp-sa're-an.
Infurcation, in-fŭr-ka'shŭn.
Infusorin, in-fu-so're-ah.
Ingenio, in-je'ne-o.
Ingenuous, in-jĕu'u-ŭs'.
Ingersoll, ing'gĕr-sōl.
Ingredient, in-gre'de-ĕnt.
Ingres, ahngr.
Ingrians, ing'gre-ănz.
Ingul, in'gool.
Inhibition, in-hi-bĭsh'ŭn.
Inhume, in-hūm'.
Inia, in'e-ah.
Initial, in'ĭsh-ăl.
Innisbotin, in-nĭs-bo'fin.
Innocence, in'no-sĕns.
Innocuous, in-nŏk'u-ŭs.
Innominatum, in-uom-in-a'-tŭm.
Innovation, in-no-va'shŭn.
Inusprück, ins'prook.
Innuendo, in-u-ĕn'do.
Ino, ī'no.
Insane, in-sān.'
Insatiability, in-sa-she-a-bĭl'e-te.
Insect, in'sĕkt.
Insessores, in-sĕs'so-rēz.
Insidious, in-sĭd'e-ŭs.
Insigula, in-sĭg'ne-ah.
Insolation, in-so-la'shŭn.
Insolvency, in-sŏl'vĕn-se.
Inspeximus, in-spĕk'se-mŭs.
Instantaneous, in-stăn-ta'-ne-ŭs.
Instar omnium, in-stär ŏm'-ne-ŭm.
In statu quo, in stăt'u kwo.
Insterburg, inz'tĕr-boorg.
Instinct, in'stĭngkt.
Institution, in-ste-tu'shŭn.
Insurance. in-shoor'ăns.
Insurgency, in-sŭr'jĕn-se.

Insurrection, in-sŭr-rĕk'-
Intaglio, in-tahl'yo. [shŭn.
Integration, in-te-gra'shŭn.
Interdiction, in-tĕr-dĭk'shŭn
Interim, in-tĕr'ĭm.
Interlachen, in-tĕr-lăk'ĕn.
Inter nos, in'tĕr nōs.
Interpellation, in-tĕr-pĕl-la'shŭn.
Intermuncio, in-tĕr-nŭn'she-o
Interregnum in-tĕr-rĕg'nŭm
Interspersion, in-tĕr-spŭr'-
Interstice, in'tĕr-stĭs. [shŭn.
Intertrigo, in-tĕr'tre-go.
Intervention in-tĕr-vĕn'shŭn
Intestine, in-tĕs'tin.
Intimacy. in-te-ma'se.
Intoxication, in-tŏks-e-ka'-
Intrados, in-tra'dŏs. [shŭn.
In transitu. in trăn'si-tū.
Intrepid, in-trĕp'id.
Introit, in-tro'it.
Intromission. in-tro-mĭsh'ŭn
Intus susception, in-tŭs sŭs-sĕp'shŭn.
Inulin, in'u-lin.
In vacuo, in văk'u-o.
Invalid, in'va-lid.
Invention, in-vĕn'shŭn.
Inverness, in-vŭr-nĕs'.
Inversion, in-vŭr'shŭn.
Investiture, in-vĕst'i-tŭr.
Involucre, in-vo-lū'kr.
Involve, in-vŏlv'.
Io, i'o.
Iodine, i'o-dĭn.
Iole, i'o-le.
Ionia, i'o-ne-ah.
Ionidium, i-o-nĭd'e-ŭm.
Iota, i-o'tah.
Iowa, i'o-wah.
Iphigenia, if-e-je'ne-ah.
Ipsambool, ĭp-sŭm-bool'.
Ipse dixit, ip'se dĭks-ĭt.
Ipsus, ĭp'sŭs.
Irascible, i-răs'se-bl.
Irbit, ŭr'bĭt.
Ireland, īr'lănd.
Irenæus, ir-e-ne'ŭs.
Irene, i-re'ne.
Ireton, ir'tŭn.
Iriartea, ir-e-ăr'te-ah.
Iridescence, ir-e-dĭs'sĕns.
Iridium, i-rĭd'e-ŭm.
Iridosmine, ir-e-dŏs'mĭn.
Iris, i'rĭs.

Iritis, i-ri'tĭs.
Irkutsk, ir-kootsk'.
Iron, i'ŭrn.
Irradiation, ir-ra-de-a'shŭn.
Irrawadi, ir-rah-wah'de.
Irrigation, ĭr-re-ga'shŭn.
Irruption, ir-rŭp'shŭn.
Irving, ŭr'vĭng.
Isabella, ĭz-a-bĕl'lah.
Isabey, e-zah-ba'.
Isaiah, i-za'yah.
Isaure. e-sōr'.
Ischiadic, Is-kĭ-ăd'ĭk.
Ischiagra, Is-ke-ah'grah.
Ischuophony, ish-nŏf'o-ne.
Iser, i'sŭr.
Isère, e-sär'.
Isghem, ĭs'gām.
Ishbosheth, ĭsh-bo'shĕth.
Ishmael, ĭsh'māl.
Isia, ĭsh'yah.
Isidore, ēz'e-dōr.
Isinglass, i'zĭng-glās.
Isis, i'sĭs.
Islam, ĭz'lăm.
Islay, ī'la.
Isluga, ĭz-loo'gah.
Ismail, ĭs-mah-ēl'.
Isobare, ĭs'o-bār.
Isochimene, ĭs-o-ke-me'ne.
Isocrates, i-sŏk'rah-tēz.
Isoctes, i-so'e-tēz.
Isola Grossa, e-so'lah grŏs'sah
Isolation, ĭs-o-la'shŭn.
Isomerides, ĭs-o-mĕr'e-dēz.
Isomorphous, ĭs-o-mŏr'fŭs.
Isopyre, ĭs'o-pīr.
Isosceles, i-sŏs'se-lēz.
Ispahan, ĭs-pah-ahn'.
Israel, ĭz'rūl.
Issue, ĭsh'shoo.
Issus, ĭs'sŭs.
Issy, ees'se.
Istamboul, ĭs-tăm-bool'.
Isthmus, ĭst'mĭs.
Iswara, ĭs-wah'rah.
Ita est, ĭ'tah ĕst.
Italian, e-tăl'yăn.
Itch, ĭch.
Ithaca, ĭth'a-kah.
Itinerary, i-tin'e-ra-re.
Iulidæ, i-ū'le-de.
Ivanhoe, i'văn-ho.
Ivica, e-ve'kah.
Ivory, i'vo-re.
Ixolyte, ĭks'o-lĭt.

J.

Jaal, jahl.
Jabal, ja'băl.
Jabary, ah-bah-re'.
Jabirn, jab-e-roo'.
Jacamar, jăk'a-măr.
Jacana, ja-ka'nah.
Jacinto, ah-seen'to.
Jackal, jăk'awl.
Jackanapes, jăk'a-nāpz.
Jackson, jăk'sŭn.
Jacob', yah-ko-be'.
Jacobin, jăk'o-bĭn.
Jacobus, ja-ko'bŭs.
Jaconet, jak'o-nĕt.
Jacquard, zhah-kahr'.
Jacqueline, zhăk-lēn'.
Jacquerie, zhăk-re'.
Jactitation, jăk-te-ta'shŭn.
Jaffa, jăf'fah.
Jagellon, yah-gĕl'lŏn.
Jaggery, jăg'gre.
Jaguar, jăg-u-är'.
Jalap, jal'ăp.
Jamaica, ja-ma'kah.
Jamb, jām.
Jangle, jăng'gl.
Janin, zha-nahn'.

Janissaries, jăn'e-za-rĭz.
Janitor, jăn'e-tŏr.
Jannarins, jăn-u-a're-ŭs.
Janus, ja'nŭs.
Japan, ja-păn'.
Japheth, ja'fĕth.
Japu, ah-poo'.
Jararaca, jăr-a-rah'kah.
Jardinière, zhär-dăn-yār'.
Jargonium, jär-go'ne-ŭm.
Jarnac, zhär'năk.
Jasher, jā'shŭr.
Jasmine, jăz'mĭn.
Jason, jā'sŏn.
Jasper, jăs'pŭr.
Jatropha, jăt'ro-fah
Java, jah'vah.
Javelin, jăv'e-lĭn.
Jean, zhăn.
Jeba, je'bah.
Jebusites, jĕb'u-zīts.
Jeconiah, ja-ko'ne-ah.
Jefferies, jĕf'frĭz.
Jehanghir, je-hahn-geer'.
Jehoahaz, je-ho'ah-ăz.
Jehoiakim, je-hoi'ah-kĭm.
Jehoshaphat, je-hŏsh'ah-făt.

Jehovah, je-ho'vah.
Jejune, je-jūn'.
Jelalabad, jĕl-ăl-a-băd'.
Jellitz, ja'lĭts.
Jellachich, yĕl'lah-kĭk.
Jemidar, jĕm'e-dahr.
Jeofail, jĕl'făl.
Jeopardy, jĕp'ărd-e.
Jerboa, jĕr-bo'ah.
Jeremiah, jĕr-e-mi'ah.
Jerk, jŭrk.
Jeroboam, jĕr-o-bo'ăm.
Jerome, {Eng. je-rōm'. Fr. zha-rōm'.
Jerrold, jĕr'rōld.
Jersey, jŭr'ze.
Jerusalem, je-roo'sa-lĕm.
Jessamine, jĕs'sa-mĭn.
Jesse, jĕs'se.
Jessica, jĕs'se-kah.
Jesuit, jĕz'u-ĭt.
Jesus Christ, je'zus krīst.
Jet d'eau, jĕt dō'.
Jeterus, jĕt'e-rŭs.
Jettee, jĕt'te.
Jewel, joo'ĭl.
Jews, jooz.

Jezebel, jĕz'e-bĕl.
Jhansi, jahn-sē'.
Jhelum, jē'lŭm.
Jiddah, jĭd'dah.
Jiggamaree, jĭg-gah-ma-ree'.
Jingle, jĭng'gl.
Joachim, jo'ah-kĭm.
Joan, jōn.
Joanna, jo-ăn'nah.
Job, jōb and jŏb.
Jocasta, jo-kās'tah.
Jocelyn, jŏs'e-lĭn.
Jocose, jo-kōs'.
Jocund, jo'kŭnd.
Joel, jo'ĕl.
Joggle, jŏg'gl.
Johannes, jo-hăn'nĕz. [bārg.
Johannisberg, yo-hăn'nĭs-
Johannot, zho-ah-no'.
John, jŏn.
Joinville, zhwahn-vĭl'.
Jomelli, yo-mel'le.
Jonini, zho-me-ne'.
Jonadab, jŏn'a-dăb.
Jones, jōnz.
Jordaens, yŏr'dahnz.
Jordan, jŏr'dăn.

Joseph, jo'zĕf.
Josephine, jo-zĕf-ēn'.
Josephus, jo-se'fŭs.
Joshua, jŏsh'u-ah.
Josiah, jo-si'ah.
Joubert, zhoo-bār'.
Jouffroy, zhoo-frwaw'.
Jourdan, zhoor-dŏn'.
Journal, jŭr'năl.
Joust, jŭst.
Joux, zhoo.
Jovian, jo've-ăn.
Joyeuse, zhwah-yooz'.
Juan, hoo'ahu.
Juba, jū'bah.
Jubé, joo'ba.
Jubilee. jū'be-lee. [kār'e-ōt
Judas Iscariot, joo'das is
Judgment, jŭj'mĕnt. [de'i
Judicium Dei, ju-dĭsh'yŭm
Judith, jn'dith.
Juggernaut, jng-gĕr-nawt'.
Juggler, jŭg'glŭr.
Juglandin, joo-glăn'dĭn.
Juglans, jū'glănz.
Jugular, jū'gu-lăr.
Jujube, jū'joob.

Julep, joo'lĭp.
Julia, joo'le-ah.
Julien, zhoo-le-ăn'.
Julius, joo'le-ŭs.
July, joo'lī.
Jumboseer, jŭm-bo-zeer.'
Jumilla, joo-mĭl'lah.
Jummoutri, jŭm-moo'tre.
Jumna, jŭm'nah.
Juncaceæ, jŭng-ka'se-e.
Jungcypoor, joon-ga-poor'.
Juniata, joo-ne-ah'tah.
Juniper, joo'ue-pŭr.
Junius, joo'ue-ŭs.
Junk, jŭngk.
Junot, zhoo-no'.
Junto, jŭn'to.
Jupiter, ju'pe-tŭr.
Jupon, joo-pŏn'.
Jura, joo'rah.
Jurisdiction, ju-rĭs-dĭk'shŭn
Jury, joo're.
Jusquiritium, jŭs-kwe-rĭsh'-yŭm.
Jussieu, jŭs-sū'.
Just-au-corps, zhoost-o-kōr'.
Juste-milieu, zhoost-mēl-yoo'
Justinian, jŭs-tĭn'e-an.
Jutes, joots.
Jutland, jŭt'lănd.
Juvenal, joo're-năl.
Juventas, joo-vĕn'tăs.
Juxon, jŭk-sn.

K.

Kaarta, kahr'tah.
Kadesh, ka'dĕsh.
Kadmonites, kahd'mŏn-īts.
Kafiristan, kăf-ŭr-is-tahn'.
Kail, kāl.
Kairwan, kār-wahn'.
Kaisariah, kī-zār-e'ah.
Kakodyl, kāk'o-dil.
Kakoxene, kāk'ŏks-een.
Kalamazoo, kăl-a-mah-zoo'.
Kalat-Kadiri, kăl'ăt-kah-de're.
Kaleidophone, kăl-īd'o-fōn.
Kalenberg, kăl'ĕn-bărg.
Kali, kah'le.
Kalil, kah'leel.
Kaliouga, kăl-yoo'gah.
Kalisz, kah'lĭsh.
Kalkas, kăl'kăz.
Kalkbrenner, kălk'hrĕn-năr.
Kalmia, kăl'me-ah.
Kalocsa, ko-lōt'so.
Kaluga, kah-loo'gah.
Kaminietz, kăm-yĕn'yĭts. [ĭt
Kammererite, kăm'mŭr-ŭr-
Kamouraska, kăm-oo-răs'-
Kampen, kăm'pĕn. [kah.
Kamptulicon, kămp-tu'le-kŏn.
Kautchatka, kăm-tshăt'kah.
Kanawha, kah-naw'ah.
Kangaroo, kăng-ga-roo'.
Kang-Hi, kahng-hē'.
Kankakee, kăn-kah-kē'.
Kan-kiang, kăn-ke-ăng'.
Kansas, kăn'săs.
Kant, kahnt.
Kan-yeh, kăn-wē'.
Kaolin, ka'o-lĭn.
Kao-Tsou, ka-o-soo'.
Kapnomur, kăp'no-muhr.
Kara, kah'rah.
Karagane, kăr'a-găn.
Karaite, ka'rah-īt.
Karamsin, kah-răm-zēn'.
Karaskier, ka-răs'ke-ŭr.
Kara-soo, kah-rah-soo'.
Karasubasar, kah-rah-soo-
Karatas, kăr-ah-tăs'.[bah-sahr'.
Karelinite, kăr'e-lĭn-īt.
Karical, kăr'e-kăl.
Karob, ka'rŏb.
Karr, kahr.
Karroos, kăr-rooz'.
Kars, kărz.
Kaskaskia, kăs-kăs'ke-ah.
Katrine, kăt-rēn'.
Kattywar, kăt'te-wăr.
Katydid, ka-te-dĭd'.
Katzbach, kăts'băk.
Kava, kah'vah.
Kazan, kah-zahn'.
Kean, keen.
Kearney, kăr'ne.
Keats, keets.
Kecksy, kĕk'se.
Kediri, ke-dī'rī.
Keelson, kĕl'sn.
Kehl, kāl.
Keiser, kī'zr.
Kelat, ke-lăt'.
Kellermann, kĕl'lĕr-măn.
Kemble, kĕm'bl.
Kempen, kĕm'pĕn.
Kenilworth, kēu'īl-wŭrth.
Kennebec, kĕn'ne-bĕk.
Kenneth, kĕn'nĕth.
Kenosha, ke-no'shaw.
Kensington, kĕn'zĭng'tŭn.
Kentucky, kĕn-tŭk'e.
Keoknk, ke'o-kŭk.
Kepler, kĕp'lŭr.
Kerargyrite, ke-răr'je-rīt.
Kerasine, kĕr'a-sĭn.
Keratonyxis, kĕr-a-tŏn'ĭk-sis
Kerchief, kŭr'chĭf.
Keresoun, kĕr-e-soon'.
Kerguelen, kĕr-ga-lŏn'.
Kermanshah, kŭr-măn-shah'
Kermes, kĕr'mēz.
Kernel, kŭrn'ĕl.
Kerolite, kĕr'o-līt.
Kerosene, ker'o-sēn.
Kerria, kĕr're-ah.
Kerseymere, kŭr'ze-meer.
Kershaw, kŭr'shau.
Kesitah, ke-zī'tah.
Ketones, ke'tōnz.
Ketskemet, kĕz-ke-mĕt'.
Kettle, kĕt'tl.
Keystone, kē'stōn.
Khadijah, ka-dee-jah'.
Khalkas, kăl'kahz.
Kharkoff, kahr'kŏf. [doo'.
Khatmandoo, kaht-mahn-
Khelat, ke-laht'.
Kherson, kĕr-sŏn'.
Khiva, kē'vah.
Khodjend, ko-jĕnd'.
Khoi, koi.
Khokan, ko-kahn'.
Kholoom, kop-loom'.
Khoondooz, koon-dooz'.
Khorassan, ko-răs'sahn.
Khotan, ko-tahn'.
Khuzistan, koo-zĭs-tahn'.
Khyerpoor, ke-ĕr-poor'.
Kiang-Soo, ke-ăng-soo'.
Kidney, kĭd ne.
Kidron, kĭd'rŏn.
Kiefekill, keef-e-kĭl'. [fĕr.
Kiesel-schiefer, ke'zĕl shī'-
Kiev, ke-ĕv'.
Kildare, kĭl-dair'.
Killarney, kil-lăr'ne. [ke.
Killiecrankie, kĭl-le-krăng'-
Kilmarnock, kĭl-măr'nŏk.
Kineardine, kĭng-kăr'dĭn.
Kind, kīnd.
Kindle, kĭn'dl.
Kinematics, kĭn-e-măt'ĭks.
Kinesipathy, kĭn-e-sĭp'a-the.
Kingsley, kĭngz'le.
Kinic, kin'ik.
Kinkajou, kingk'a-joo.
Kinnikinic, kĭn-ne-kĭn'uĭk.
Kinross, kĭn-rŏs'.
Kiosk, ke-ŏsk'.
Kiotome, ki'o-tōm.
Kirgheez, kŭr-geez'.
Kiria, kĭr'e-ah.
Kirk, kŭrk. [bre.
Kirkcudbright, kŭrk-koo'-
Kir-moab, kŭr-mo'ăb.
Kirtle, kŭr'tl.
Kirwanite, kŭr'wăn-īt. [e'tăs.
Kiskiminetas, kĭs-ke-mĭn-
Kistna, kĭst'nah.
Klapka, klăp'kah.
Klaproth, klăp'rōt.
Klausthal, klows'thăl.
Kleber, kle'bĕr. [ah.
Kleptomania, klĕp-to-ma'ne-
Kliasma, kle-ăz'mah.
Klikitat, klik'e-tăt.
Klopstock, klŏp'stŏk.
Knee, uee.
Knuckle, nŭk'l.
Kobold, ko'bōld.
Kolapoo, kōl-a-poo'.
Kölliker, kŏl'le-kŭr.
Kolomna, ko-lŏm'nah.
Kolyma, ko-le'mah.
Koniah, ko're-ah. [mahrk.
Konigsmarke, kee'nĭgs-
Koodoo, koo-doo'.
Koprili, ko'pre-le.
Koran, ko'răn.
Kordofan, kŏr-do-fahn'.
Köruer, kŭr'nĕr.
Koruthal, kŭrn'thahl.
Korotcha, ko-ro'chah.
Kosciusko, kŏs-se-oos'ko.
Kossuth, kosh'oot.
Kostroma, kŏs-tro'mah.
Kotah, ko'tah.
Kotzebue, kŏt'sa-boo.
Koupholite, koo'fo-līt.
Kourie, kow're.
Kow-tow, koo-too'.
Kozlov, kŏs'lŏf.
Kraken, kra'kĕn. [shoog'.
Krementchug, krĕm-ĕnt-
Kremlin, krĕm'lĭn.
Kriegia, krēg'e-ah.
Krishna, krĭsh'nah.
Kristolatræ, krĭs-tŏl'a-tre.
Kronstadt, krŏu'stăt.
Krooman, kroo'man.
Kroya, kroi'ah.
Krudener, krood'nĕr.
Krummhorn, krŭm'hŏrn.
Kuban, koo'băn.
Kubla Khan, koo'bla-kahn.
Ku-Klux-Klan, kū-klŭks-
Kuhnia, koou'e-ah. [klahn'.
Kumaon, koo-ma'on.
Kung-fu-tse, koong-foo-sē'.
Kur, koor.
Kurdistan, koor-dĭs-tahn'.
Kurrachee, kŭr-rah-chē'.
Kursk, koorsk.
Kurtz, koorts.
Kussier, kŭs-seer'.
Kutusoff-Smolenskoi, koo-too-zŏf-smo-lĕn'skoi.
Kyanizing, kī'ăn-īz-ing.
Kyrie Eleison, kĭr'i-e e-le'i-
Kythe, kīth. [zŏn.
Kythul, kī'thŭl.

L.

Labadist, lăb'a-dĭst.
Laban, la'băn.
Label, la'bl.
Labeo, la-be'o.
Labial, la'be-ăl.
Labium, la'be-ŭm.
Labrador, lăb-rah-dōr'.
Labrax, la'brăks.
La Bruyère, lah broo-yăr'.
Laburnum, la-bŭr'nŭm.
Labyrinth, lăb'e-rinth.
La Caille, lah ka-ye'.
Lac Ammouiacum, lăk ăm-mo'ne-a-kŭm.
Laccadives, lăk'kah-dīvs.
Lace, lās.
Laceration, lăs-ŭr-a'shŭn.
Lacertian, la-sŭr'she-an.
Lachaise, lah-shāz'.
Lache, lahsh.
Lachenalia, lăsh-e-na'le-ah.
Lachrymæ Christi, lăk-re-me krĭs'te.
Lacinia, la-sĭn'e-ah. [mĕn.
La Condamine, lah kŏn'dah-
Laconia, la-ko'ne-ah.
Lacordaire, lah-kōr-dār'.
Lacrimoso, lăk-re-mo'zo.
Lacs d' Aiuour, lăks dah-moor'.
Lactantius, lăk-tăn'shŭs.
Lactic, lăk'tĭk.
Lactometer, lăk-tŏm'e-tŭr.
Lactone, lăk-tōn'.
Lactuca, lăk-tu'kah.
Lacuna, lah-ku'uah.
Ladakh, lah-dahk'.
Ladislaus, lăd'ĭs-lŏws.
Ladle, la'dl.
Ladoga, lah-do'gah.
Lady, la'de.
Lækeu, lăk'ĕn.
Lælius, le'le-ŭs.
Læmodipoda, le-mo-dĭp'o-dah
Laennec, lahn-năk'.
Laertes, la-ŭr'teez.
Lætaré, le-ta'ra
Lævinus, le-vi nŭs. [sĕm'ĭk.
Lævoracemic, le-vŏr-a-
La Fayette, lah fa-ĕt'.
La Fontaine, lah fŏn-tăn'.
Lagan, lăg'ăn.
Lagenaria, la-gĕn-a're-ah.
Lager, lah'gŭr.
Lagetta, lah-gĕt'tah.
Laggard, lăg'gărd.
Lagomys, lăg'o-mĭs.
Lagoon, la-goon'.
Lagopus, la-go'pŭs.
Lagostomus, la-gŏs'to-mŭs
Lagothrix, lăg'o-thrĭks.
Lagrange, lah-grŏnzh'.
La Gueronnière, lah găr-
Lagus, la'gŭs. [ŏn-ne-ăr'.
Laharpe, lah-ahrp'.
Lahore, la-hōr'.
Laibach, lī'băk.
Laird, lārd.
Lais, la'ĭs.
Lalande, lah-lănd'.
Lally, lăl-le'.
Lamaism, la'mah-ĭzm.
Lamar, lah-mār'.
La Marmora, lah măr'mo-rah
Lamartine, lah-măr-teen'.
Lamballe, lŏn-bahl'.
Lambert, { *Eng.* lăm'bŭrt. *Fr.* lŏn-bār'.
Lambeth, lăm'bĕth.
Lamech, la'mĕk.
Lamennais, lah-ma-na'.
Lamentation, lăm-ĕn-ta'shŭn
Lamia, la'me-ah.
Laminaria, lăm-ĭn-a're-ah.
Lamium, la'me-ŭm.
Lammas, lăm'măs.
Lammermuir lăm-mŭr-moor'
Lamoille, lah-moi-ye'. [foo'ka.
La Motte-Fouqué, lah mŏt-
Lampadrome, lăm'pa-drōm.
Lampoon, lăm-poon'.
Lamprey, lăm'pre.
Lampsaens, lăm-sa'kŭs.
Lanark, lăn'ŭrk.
Lancaster, lăng'kăs-tŭr.
Lanciano, lăn-se-ah'no.
Laudamman, lăn'dăm-măn.
Landau, lăn'do.
Landen, lăn'dĕn.
Lander, lăn'dŭr.
Landgrave, lănd'grāv.
Landor, lăn'dŏr.
Landsberg, lăndz'bărg.
Landscape, lănd'skāp.
Landseer, lănd-seer'.
Landwehr, lănt-vār'.
Laufranc, lăn'frăngk.
Laugrage, lăng'gr.j.
Langue d'Oc, lăng dŏk'.
Laugnette, lăng-gwĕn'ta.
Lanfidæ, la-nī'e-de.
Launes, lahn'.
La Noue, lah-noo-a'.
Lansium, lan'se-ŭm.
Lansquenet, lanz'ke-nĕt.
Lantern, lan'tŭrn.
Lantbanium, lan-tha'ne-ŭm.
Lan-Tsze, lăn-se'.
Lanyard, lăn'e-ărd.
Lanagcria, lăp-ă-je're-ah.
La Perouse, lah pa-roos'.
Lapidary, lăp'e-da-re.
Lapis Lazuli, la'pĭs lăzh'u-le.
Lapithæ, lăp'e-the.
Laplace, lah-plahs'.
Laque Minerale, lakh mĭn'-e-rahl'.
Lara, lah'rah.
Lareeny, lăr'se-ne.
Lardner, lahrd'nŭr.
Largo, lăr'go.
Laridæ, lăr'e-de.
Larissa, lah-rĭs'sah.
Larmier, lăr'me-ăr.
La Rochefoucauld, lah rŏsh-fo-ko'. [rŏsh-jak-lahn'.
La Rochejaquelein, lah
Larrey, lăr-ra'.
Laryngitis, lah-rĭn-je'tĭs.
Lascivious, las-sĭv'e-ŭs.
Lassitude, lăs'se-tūd.
Lasso, lăs-so.
Lastrea, lăs-tre'ah.
Latakia, lăt-ah-ke'ah.
Lateen, lah-teen'.
Latex, la'tĕks.
Lathræa, lăth-re'ah.
Lathyrus, lăth'ĭ-rŭs.
Latibulum, lah-tĭb'u-lŭm.
Latimer, lăt'e-mŭr.
Latin, lăt'ĭn.
Latis rectum, lăt-ĭs rĕk'tŭm.
Latissimus Dorsi, lah-tis'-se-mŭs dōr'se.
Latitude, lăt'i-tūd.
Latona, lah-to'nah.
Latour d'Auvergne, lah-toor do-vărn'.
Latreille, lah-tre-ya'.
Latria, lăt're-ah.
Latude, lah-tood'.
Laudanum, lawd'a-nŭm.
Lauderdale, lawd-ŭr-dāl'.
Laurens, law'rĕnz.
Lautree, lo-trĕk'.
Lauzun, lo-zoou'.
Lava, la'vah.
Laval, lah-vahl'.
La Vallière, lah-văl-yār'.
Lavandula, lah-văn'du-lah.
Lavaret, lah-vah-ra'.
Lavater, lah-vah-tār'.
Lavoisier, lah-vwaw-se-a'.
Lawrence, lŏr'rŭnz.
Lawsonia, law-so'ne-ah.
Layard, lā'ahrd.
Lazaretto, lăz-a-rĕt'to.
Lazarus, lăz'a-rŭs.
Lazulite, lăz'u-līt.
Lazzaroui, lăz-za-ro'ne.
Leah, le'ah.
Lebanon, lĕb'a-nŭn.
Lebrun, la-broon'.
Lecanora, la-kah-no'rah.
Leece, lĕt'cha.
Lectica, lĕk-te'kah.
Leda, le'dah.
Ledru Rollin, la-drooro-luhn'.
Ledyard, lĕd'yahrd.
Lefebvre, la-fav'r.
Lefort, la-fōr'.
Legaré, la-gār'.
Legate, lĕg'ăt.
Legendre, la-zhŏn'dr.
Leggiadro, la-je-ah'dro.
Legulcian, le-gu'le-ăn.
Legume, le-gūm'.
Lehi, le'hi.
Leibnitz, līb'nĭts.
Leighton, lī't'n.
Leiophyllum, lī-ŏf'īl-lŭm.
Leipoa, lī-po'ah.
Lekain, le-kăn'.
Leland, le'lănd.
Le Maire, lah măr'.
Lemberg, lĕm'bărg.
Lemma, lĕm'mah.
Lemnos, lĕm'nŏs.
Lemonade, lĕm-ŏn-ād'.
Lemur, le'mŭr.
Lenapes, lĕn'a-peez.
Lenawee, lĕn-a-wee'.
L'Enclos, lŏn(g)-klo'.
Lenient, lē'ne-ĕnt.
Lentando, lĕn-tăn'do.
Lentiena, lĕn-tĭk'u-lah.
Lentulus, lĕnt'u-lŭs.
L'Envoi, lăn-voi'.
Lenzinite, lĕn'zĭn-īt.
Leon, le'ŏn.
Leonidas, le-ŏn'e-dăs.
Leonine, le'o-nīu.
Leontodon, le-ŏn'to-dŏn.
Leontopodium, le-ŏn-to-po'-
Leomurus, le-ŏn-u'rŭs.[de-ŭm.
Leopold, le'o-pōld. [tŭr.
Lepadogaster, le-păd-o-găs'-
Lepidium, le'pĭd'e-ŭm.
Lepidoptera, lĕp-e-dŏp'tŭr-ah
Lepidus, lĕp'e-dŭs.
Leporidæ, le-pŏr'e-de.
Leporine, lĕp'o-rīn.
Leprosy, lĕp'ro-se.
Leptology, lep-tŏl'o-je.
Lepus, le'pŭs.
Leroux, la-roo'.
Le Sage, la săzh'.
Lesina, la-se'nah.
Lesion, le'zhŭn.
Leslie, lĕs'le.
Lespedeza, lĕz-pe-de'zah.
Lesseps, la-sĕp'.
Lessing, lĕs'sĭng.
L'Estrange, lĕz-tränj'.
Lestris, lĕs'trĭs.
Lesueur, la-soo-ŭr'.
Lethargy, lĕth'ar-je.
Leuca, loo-kah. [the-mŭm.
Leucanthemum, loo-kăn'-
Leucine, lū'sĭn.
Leucippus, lu-sĭp'pŭs.
Leucocythemia, lu-ko-si-the'me-ah.
Leucoma, lu-ko'mah.
Leucorrhœa, lu-kŏr-re'ah.
Leucothiop, lu-ko'the-ŏp.
Leuthen, loi'tĕn. [she-ăs.
Levari-facias, le-va'rī fa'-
Level, lĕv'l.
Leverrier, la-va-re-a'.
Leviathan, le-vī'a-thăn.
Levigation, lĕv-e-ga'shŭn.
Levites, le'vīts.
Levitieus, le-vĭt'i-kŭs.
Levity, lĕv'e-te.
Lewis, loo'ĭs. [ra-fe.
Lexicography, lĕks-e-kŏg'-
Lexicon, leks'e-kŏn
L'Hôpital, lo-pe-tahl'.
Liana, le-ah'nah.
Liaison, le-a-zŏng'.
Liatris, li'a-trĭs.
Libanus, le-bah'nŭs.
Liber, li'bŭr.
Liberation, lib-ŭr-a'shŭn.
Liberia, li-be're-ah.
Libertine, lĭb'ŭr-tĭn.
Libethenite, le-bĕth'ĕn-īt.
Libidinous, le-bĭd'i-nŭs.
Libourne, le-boorn'.
Libra, li'brah.
Libration, li-bra'shŭn.
Libretto, le-brĕt'to.
Libya, lĭb'e-ah.
Lichen, līch'ĕn.
Licinius, lĭ-sĭn'e-ŭs.
Licordia, li-kŏr'de-ah.
Licorice, lĭk'o-rls.
Lienala, lĭk-u-a'lah.
Lieberkuhn, le'bĕr-koon.
Liege, leej. (*Fr.* leăzh').
Ligarius, le-ga'ro-ŭs.
Ligature, lĭg'a-tŭr.
Ligne, len-ya'.
Lignin, lig'nĭn.
Lignum-vitæ, lig-nŭm-vi'te
Ligny, lēn-ye
Ligula, lĭg'u-lah.
Liguria, le-goo re-ah.
Ligusticum, li-gŭs'te-kŭm.

Lilac, lī'lāk.
Lilliaceous, lil-e-a'shŭs.
Lilacine, lil'a-sin.
Liliputian, lil-e-pū'she-ăn.
Lilium, lil'e-ŭm.
Lille, leel.
Lima, le'mah.
Limaceous, lī-ma'shŭs.
Limb, lim.
Limburg, lim'boorg.
Limit, lim'it. [the-mŭm.
Limnanthemum, lim-năn'-
Limosella, li-mo-sel'lah.
Limosis, li-mo'sis. [a-pe'yah.
Limotherapeja, le-mo-thĕr-
Limonsin, le-moo-zahn(g)'.
Limulus, lim'u-lŭs.
Linaceæ, lī-na'se-e.
Lincoln, lingk'ŭn.
Lincture, lingk'tŭr.
Lindley, lind'le.
Linen, lin'in.
Lingard, ling'gahrd.
Lingen, ling'gan.
Lingo, ling'go. [frŏng'kah.
Lingua Franca, lĕn-gwah
Liniment, lin'i-mĕnt.
Linlithgow, lin-lith'go.
Linnæus, lin-ne'ŭs.
Linnhe, lin'ne.
Linum, lī'nŭm.
Linz, lints.
Lion, lī'ŭn.
Lipari, le'pah-re.
Lipogram, lip'o-grăm.
Lipoma, lip'o-mah.
Lippe-Schaumburg, lip'pa
Lippi, lep'pe. [shown'boorg.
Lippia, lip'pe-ah.
Lipyl, lip'il.
Liquefacient, lik-we-fa'shĕnt
Liqueur, le-koor'.
Liquidation, lik-we-da'shŭn.
Lira, le'rah. [drŏn.
Liriodendron, lir-o-dĕn'-
Liroconite, lir'o-kŏn-īt.
Lisbon, liz'bŏn.
Lisienx, le-ze-oo'.
Lissa, lis'sah.
Lissom, lis'sŭm.
Listera, lis'tŭr-ah.
Litany, lit'a-ne.
Literati, lit-ŭr-a'te.
Literature, lit'ŭr-a-tūr.
Litharge, lith'ārj.
Lithiasis, le-thī'a-sis.
Lithium, lith'e-ŭm.
Lithobius, lith-o'be-ŭs.
Lithograph, lith'o-grăf.
Litholabe, lith'o-lāb.
Lithomarge, lith'o-mahrj.
Lithontriptor, lith'on-trip-
Lithotomy, le-thŏt'o-me. [tŏr.
Lithotrity, le-thŏt're-te.
Litigation, lit-e-ga'shŭn.
Litmus, lit'mŭs.
Litotes, li'to-teez.
Litrameter, le-trăm'e-tŭr.
Littorale, lit-to-rah'la.
Liturgy, lit'ŭr-je.
Lituus, lit'u-ŭs.
Llvenza, le-vĕn'zah.
Liverpool, liv'ŭr-pool.
Liver-wort, liv'ŭr-wŭrt.
Livia-Drusilla, liv'e-ah
droo-sil'lah.
Lividity, le-vid'e-te.
Livingstone, liv'ing-stŭn.
Livy, liv'e.
Lixiviation, liks-iv-e-a'shŭn.
Lizard, liz'ŭrd.
Llanos, thlah'nōz.
Lloyd, loid.
Loam, lōm.
Loanda, lo-ahn'dah.
Loango, lo-ăng'go.
Loasaceæ, lo-a-sa'se-e.
Loathe, lōth.
Loblolly, lŏb-lŏl'le.
Lobelia, lo-be'le-ah.
Lobscouse, lŏbz'kowz.
Lobster, lŏb'stŭr.
Locatton, lo-ka'shŭn.
Lochia, lo-kī'ah.
Loco-foco, lo'ko fo'ko.
Locomotion, lo-ko-mo'shŭn.
Locris, lo'kris.
Locular, lŏk'u-lăr.
Loenu-teneus, lo'kŭm te'-
nēns.
Locustariæ, lo-kŭs-ta're-e.
Lodomeria, lŏd-o-ma're-ah.
Logarithm, lŏg'a-rithm.
Loggerhead, lŏg'gŭr-hĕd.
Loggia, lŏd'jah.
Logocracy, lŏg-ŏk'ra-se.
Logogriph, lŏg'o-grif.
Logos, lo'gŏs.
Logroño, lo-grŏn'yo.
Loire, lwahr'.
Loiret, lwahr-a'.
Lola Montez, lo-lah mŏn'tĕz.
Lolium, lo'le-ŭm.
Lollards, lŏl'lārdz.
Lombok, lŏm'bŏk.
London, lŭn'dŭn. [te.
Longanimity, lŏng-ga-nim'e-
Longevity, lŏn-jev'e-te.
Longicorn, lŏn'je-kŏrn.
Longinus, lŏn-ji'nŭs.
Longipennes, lŏn-je-pĕn'nēz.
Longirostres, lŏn-je-rŏs'tŭrz.
Longissimus Dorsi, lŏn-
jis'se-mŭs dŏr'sī.
Longitude, lŏn'je-tūde.
Longobardi, lŏng-go-băr'dē.
Longueville, lŏng-veel'.
Longus-colli, lŏng'gŭs-kŏl'li.
Lonicera, lo-nis'ŭr-ah.
Lons-le-Saulnier, lŏn(g)-
la-so-ne-a'.
Loodianah, loo-de-ah'nah.
Lope de Vega, lo-pa da va'gah.
Lopez, lo'pĕth.
Lophiodon, lo-fī'o-dŏn.
Lophiola, lo-fī'o-lah.
Loquat, lo'kwăt.
Loranthaceæ, lŏr-ŏn-tha'se-e.
Lordosis, lŏr-do'sis.
Lorette, lo-rĕt'.
Lorgnette, lŏrn-yĕt'.
Lorica, lŏr'e-kah.
L'Orient, lo-re-ŏn(g)'.
Lorimer, lŏr'e-mŭr.
Loriot, lo're-ŏt.
Lorraine, lŏr-rān'.
Los Angelos, lōs ăn'jē-lŏs.
Losini, lo-se'ne.
Lota, lo'tah. [rŏn'.
Lot-et-Garonne, lŏ a gah-
Lothian, lo'the-ăn.
Lotophagi, lo-tŏf'a-je.
Lotus, lo'tŭs.
Loudon, low'dŭn.
Louis, loo'e.
Louisa, loo-e'zah.
Louvain, loo-văn.'
Louvois, loo-vhwah'.
Louvre, loo'vr.
Lovelace, lŭv'lās.
Lowell, lo'ĕl.
Lowigite, lō'vig-īt. [īks.
Loxodromics, lŏks-o-drŏm'-
Loyal, loi'al.
Loyola, loi-o'lah.
Lübeck, loo'bĕk.
Lubrication, lu-hre-ka'shŭn.
Lucanidæ, lu-kăn'e-de.
Lucanus, lu-ka'nŭs.
Lucernaria, lu-sŭr-na're-ah.
Lucerne, loo-sĕrn'.
Lucia, loo-she'ah.
Lucianus, loo-she-a'nŭs.
Lucifer, loo'se-fĕr.
Lucilius, loo-sil'yŭs.
Lucina, loo-sī'nah.
Lucius, loo'she-ŭs.
Lucretius, loo-kree'shŭs.
Lucubration, lū-ku-brā'shŭn
Lucullus, loo-kŭl'lŭs.
Ludicrous, loo'dik-rŭs.
Ludlow, lŭd'lo.
Lugano, loo-gah'no. [lah.
Lugnaquilla, lŭg-nah-kwil'-
Lugo, loo'go.
Lully, loo-le'.
Lumbago, lŭm-ba'go.
Lumbricidæ, lŭm-brĭs'e-de.
Luminary, loo-me-na're.
Luna, loo'nah.
Lunaria, loo-na're-ah.
Lunette, loo-nĕt'.
Lunisolar, loo-ne-so'lăr.
Lunula, loo'nu-lah.
Lupine, loo'pin.
Lupus, loo'pŭs.
Lure, lūr.
Lusatia, loo-sa'she-ah.
Lusiad, loo'se-ăd.
Lusignan, loo-zeen-yŏn(g)'.
Lustration, lŭs-tra'shŭn. [ra
Lusus naturæ, loo-sŭs na'tu-
Lutarions, loo-ta're-ŭs.
Luther, loo'thŭr.
Luxation, lŭks-a'shŭn.
Luxeuil, looks-ool'.
Luxuriance, lugz-u're-ăns.
Luynes, loo'ĕn'.
Luzerne, loo-zărn'.
Luzula, loo-zu'lah.
Lycænidæ, lī-se'ne-de.
Lycanthrope, lī-kăn'thrōp.
Lycaon, lī-ka'ŏn.
Lycenm, li-se'ŭm.
Lychnis, lik'nis.
Lycia, lish'yah. [kŭm.
Lycopersicum, li-ko-pĕr'se-
Lycopodium, lī-ko-po'de-ŭm.
Lycopsis, lī-kŏp'sis.
Lycopus, li-ko'pŭs.
Lycurgus, lī-kŭr'gŭs.
Lydia, lid'e-ah.
Lyell, lī'ĕl.
Lygordium, lī-gŏr'de-ŭm.
Lymnæa, lim-ne'ah. [fe-
Lymphography, lim-fŏg'ra-
Lynch, linsh.
Lyon, le-ŏn'.
Lyonnais, le-ŏn-na'.
Lyra, lī'rah.
Lys, lees.
Lysander, lī-săn'dŭr.
Lysippus, li-sip'pŭs.
Lythrum, lith'rŭm.
Lytton, lit't'n.

M.

Maacah, ma'ah-kah.
Mabillon, mah-be-yĕn(g)'.
Mably, mah-ble'. [ăn-i-za'shŭn.
Macadamization, măk-ăd-
Macarins, ma-ka're-ŭs.
Macaroni, măk-ah-ro'ne.
Macassar, mah-kăs'sahr.
Macaulay, mah-kaw'le.
Macaw, mah-kaw'.
Macbeth, măk-bĕth'. [vĕl'le.
Macchiavelli, mah-ke-ah-
Macclesfield, măk'klz-fēld.
MacClintock, măk-klin'tŭk.
Mace, mās.
Macedonia, măs-e-do'ne-ah.
Maceration, mās-ŭr-a'shŭn.
Machairodus, mah-ka'ro-dŭs
Machiavelism, măk-e-a-vĕl'-
izm.
Machination, măk-e-na'shŭn
Machine, ma-sheen'.
Mackenzie, măk-kĕn'ze.
Mackerel, măk'ŭr-ĕl.
Mackinaw, măk'e-naw.
Mackintosh, măk'in-tŏsh.
Maclise, măk-lees'.
Macon, mah-kŏn'.
Macpherson, măk-fŭr'sŭn.
Macrobius, măk-ro'be-ŭs.
Macrocosm, măk'ro-kozm.
Macrology, ma-krŏl'o-je.
Macrophyllous, măk-rŏl'il-
lŭs. [re-ŭm.
Macrotherium, măk-ro-the'-
Macrurans, ma-kroo'rănz.
Maculation, măk-u-la'shŭn.
Madagascar, măd-ah-găs'kăr.
Maddaloni, măd-dah-lo'ne.
Mademoiselle, mād-m-waw-
Madia, ma'de-ah. [zĕl'.
Madison, măd'e-sŭn.
Madjoun, mād'joon.
Madras, mah-drās'.
Madrepore, măd-re-pōr'.
Madrier, mād're-ŭr.
Madura, mah-doo'rah.
Maecenas, me-se'ŭs.
Maestoso, mah-ĕs-to'zo.
Maestro, mah-ĕs'tro.
Magadoxo, mah-gah-dŏk'so.
Magdala, măg'dah-lah.
Magdaleon, măg-da'le-ŏn.
Magdeburg, mahg'da-boorg.
Magellan, mah-jĕl'lahn.
Magenta, mah-jĕn'tah.
Maggiore, mād-jo're.
Magi, ma'ji.
Magiclan, ma-jish'ăn.
Magilus, măj'i-lŭs.
Magister, ma-jis'tŭr.
Magistrate, maj'is-trāt.
Magna Charta, măg'nah
kahr'tah. [gre'she-ah.
Magna Græcia, măg'nah
Magnanimity, măg-na-nim'-
e-te.
Magnesia, măg-ne'zhah.
Magnetism, măg'net-izm.
Magnitico, mag-nĕf'e-ko.
Magnitude, măg'ne-tūd.
Magnolia, măg-uo'le-ah.
Maguey, mah-gwa.
Magyar, mŏd-yŏr'.
Mahadeva, mah-ah-da'vah.
Mahaleb, ma-hah'lĕb.
Mahanaim, mah'a-năm.
Mahaska, mah-ăs'kah.
Mahmoud, mah-mood'.
Mahogany, ma-hŏg'a-ne.
Mahoning, mah-o'ning.
Mainprise, mān'prīz.
Maiutenon, malnt-nŏn(g)'.
Mairwarra, mār-wŏr'rah.
Maistre, mā'tr.
Majestic, ma-jĕs'tik.
Majolica, ma-jŏl'ekah.
Majorat, mah-zho-rah'.
Majorca, mah-yŏr'kah.
Major-Domo, maj'ŭr-do'mo.
Majuscule, ma-jŭs'kūl.
Malabar, mal'ah-bahr.
Malacca, mah-lăk'kah.
Malachite, măl'a-kīt.
Malacology, măl-a-kŏl'o-je.
Malacosteon, măl-a-kŏs'te-ŏn
Malacostracans, măl-a-kŏs'-
Malady, măl'a-de. [tra-kănz.
Malaga, măl'ah-gar.
Malagrida, mah-lah-gre'dah.
Malanders, măl'an-dŭrz.
Malapternurus, măl-ăp-te-
Malaria, ma-la're-ah. [roo'rŭs.
Malatesta, mal-ah-tĕs'tah.
Malcolm, măl'kŭm.
Maldah, măl'dah.
Male, māl.
Malesherbes, mahl-zārh'.
Malevolence, ma-lĕv'o-lĕns.
Malherbe, mah-lārh'.
Malibran, mah-le-brŏn'.
Mallenceæ, măl-le-a'se-e.
Mallcation, măl-le-a'shŭn.
Malmaison, mahl-ma-sŏn(g)'.
Malmesbury, mahmz'bŭr-re.
Malmo, mahl'mo.
Maloi-Jaroslawitz, mah-
loi-yah-ro'slah-vĭts.
Malpighi, mahl-pe'ge.
Malta, mawl'tah.
Malte-Brun, mahl-ta-brŭn'.
Malthus, măl'thŭs.
Malum, ma'lŭm.
Malva, măl'vah.
Malveru, maw'vŭrn.
Mamelukes, măm'e-lūks.
Mammea, mam-me'ah.
Mammillary, mam'mil-la-re.
Mammodis, mam'mo-dis.
Mana, mah'nah.
Manasseh, mah-năs'sa.
Manatus, ma-na'tŭs.
Manayunk, man'a-yŭngk.
Mancha, măn'chah.
Manche, mŏnsh.
Manchester, măn'chĕs-tr.
Manchineel, mantch-nēl'.
Mancini, mahn-che'ne.
Manciple, măn'se-pl.
Manco, mang'ko.
Mandamus, măn-da'mŭs.
Mandans, măn'danz.
Mandara, măn'dah-rah.
Mandarin, măn-da-rēn'.
Mandible, măn'de-bl.
Mandilion, măn-dil'yŭn.
Mandingo, măn-ding'go.
Mandrel, măn'drĕl.
Mandragora, măn-drăg'o-rah
Manducation, măn-du-ka'-
Manducus, măn-du'kŭs. [shŭn.
Manduria, măn-du're-ah.
Manfred, măn'frĕd.
Manganese, măng-ga-nēz'.
Manganja, măng-gan'yah.
Mangel-Wurzel, măng'gl-
wŭrzl.
Manifesto, măn-e-fĕs'to.
Manihot, man'e-hŏt.
Manila, mah-ne'lah.
Manin, mah-nēn'. [shŭn.
Manipulation, măn-ĭp-u-la'-
Manistec, măn-is-tē'.
Manitoowoc, măn-e-too'wŏk.
Manitoulin, măn-e-too'lin.
Manlius, măn'le-ŭs.
Manna, măn'nah.
Mannite, măn'nīt.
Manœuvre, ma-nū'vr.
Manola, măn-yo'lah.
Manor, măn'ŏr.
Manoscopy, ma-nŏs'ko-pe.
Mans (Le), la mŏn(g)'.
Mansard, mŏn-sahr'.
Mause, mâns.
Manslaughter, măn-slaw'tŭr.
Mansoura, mân-soo'rah.
Mantilla, măn-til'lah.
Mantinea, măn-tin-e'ah.
Mantis, măn'tis.
Mantissa, măn-tis'sah. [yŭr.
Manufacture, măn-u-fakt'-
Manure, ma-nūr'.
Many, mĕn'e.
Manzoni, măn-zo'ne
Maoris, ma'o-rlz.
Maonna, ma-oo'nal.
Marabon, mar-a-boo'.
Maracaibo, măr-ah-kī'ho.
Maranec, mar'u-mĕk.
Maranatha, măr-a-na'thah.
Maranhão, mah-rahn-yŏwn(g)'
Maranta, mah-rān tah.
Marasehino, mah-ras-ke'no.
Marasmus, mah-raz'mŭs.
Marathon, mar'a-thon.
Marauder, ma-rawd'ŭr.
Maravedi, măr-a-ve'de,
Marble, mar'bl.
Marcasite, mär'ka-sīt.
Marcel, mär'sĕl.
Marcellus, mär-sĕl'lŭs.
Marcesible, mär-sĕs'e-bl.
Marches, march'iz.
Marchiali, mär-ke-ah'le.
Marcion, mär'she-ŭn.
Marcomanni, mär-ko-măn'ne
Marcosians, mär-ko'zhăns.
Marcus Antonius, mär'kŭs
Marcy, mär'se. [ăn-to'ne-us.
Mardonius, mär-do'ne-ŭs.
Maremma, mah-rĕm'mah.
Marengo, mah-răng'go.
Margarate, mär'ga-rāt.
Margaric, mär-gar'ik.
Margarin, mär'ga-rin.
Marginalia, mär-jin-a'le-ah.
Margot, mär'go.
Margrave, mär'grāv.
Maria Christina, mah-re'ah
kris-te'nah.
Mariamne, ma-re-ăm'ne.
Mariana, mah-re-a'nah.
Marie, mah-re'.
—Antoinette, -ăn-twahn-ĕt'.
Marignano, mah-rēn-yah'no.
Marigold, ma're-gōld.
Marine, mah-reen'.
Marino, mah-re'no.
Mario, mah're-o.
Mariolatry, ma-re-ŏl'a-tre.
Mariotte, mah-re-ŏt'.
Mariposa, mah-re-po'zah.
Maritime, mär'e-tim.
Marizza, mah-reet'zah.
Marlborough, märl'hŭr-ro.
Marmalade, mär-ma-lād'.
Marmora, mär'mo-rah.
Marmose, mär'mōz.
Marmozet, mär-mo-zĕt'.
Marne, mahrn.
Marochetti, mah-ro-kĕt'te.
Maronites, mär'o-nītz.
Maroon, ma-roon'.
Marque, mahrk.
Marquis, mär'kwĭs.
Marrow, mär're.
Marrubium, mär-roo'be-ŭm.
Marryat, mär're-ät.
Mars, märz.
Marsala, mär-sah'lah
Marseillaise, mär-sāl-vāz'.
Marshall, mär'shal.
Marshalsea, mär'shăr-ze.
Marsi, mahr'se. [noo-o'vo.
Marsico Nuovo, mär-se'ko
Marston, märz'tŭn.
Marsupium, mär-su'pe-ŭm.
Martel-de-fer, mär-tĕl-da-fār'.
Martial, mär'shal.
Martinet, mär'tin-ĕt.
Martingale, mär'tin-gāl.
Martynia, mär-tin'yah.
Martyrology, mär-tŭr-ŏl'o-je.
Maruta, mah-roo'tah.
Marvel, mär'vĕl.
Marwar, mahr'wŏr.
Maryland, ma're-lănd.
Masaccio, mah-sät'cho.
Masaniello, mah-sah-ne-ĕl'lo.
Mascagni, mahs-kän'ye. [ahz.
Mascareuhas, măs-ka-reen'-
Masinissa, măs-e-nis'sah.
Maslin, măz'lin.
Masonry, ma'sn-re.
Masovia, mah-so've-ah.
Masquerade, mas-kūr-ād'.
Massa-Carrara, mas'sah-kăr-
rah'rah.
Massachusetts, măs-sa-choo'
Massacre, măs'sa-kŭr. [sĕts.
Masséna, mas-sa'nah.
Massicot, mas'se-kŏt.
Massillon, mas-se-yŏn(g)'.
Massonah, mas-soo'wah.
Masticador, mas-tik'a-dŏr.
Masticin, mas'te-sin. [ŭr-ŭs.
Mastigopherus, mas-te-gŏf'-
Mastodon, mas'to-dŏn.
Mastoid, mas'toid. [shŭn.
Masturbation, mas-tŭr-ba'-
Masulipatam, ma-soo-le-pah-
Matador, mat'ah-dŏr. [tam'.
Matamoras, mat-ah-mo'ras.
Mataro, mah-tah'ro.
Matelote, mat'e-lōt.
Mater, ma'tŭr.
Materialism, ma-te're-al-izm.
Materia Medica, ma-te're-ah
mĕd'e-kah.
Maternity, ma-tŭr'ne-te.
Mathematics, măth-e-mat'iks
Mathesis, măth'e-sis.
Mathew, măth'yoo.
Mathilde, mah-teeld'.
Matiu, mat'iu.
Matinée, mat-e-na'.
Matricaria, mat-re-ka're-ah.
Matrix, ma'trĭks.
Matron, mā'trŏn.
Matross, ma-trŏs'.
Matsmai, mats-mī'.
Matto-Grosso, mat'to-grŏs'so
Mattress, mat'trĕs.
Maturation, mat-u-ra'shŭn.
Maudlin, mawd'lin.
Maugre, maw'gr.
Maulmain, mowl'măn.
Maundy, mawn'de.
Maurepas, mō -pah'.
Maurice, maw'lis.
Mauritania, maw-re-ta're-ah.
Mauritius, maw-rish'yŭs.
Maury, maw're.
Mauve, mōv.
Mavis, ma'vis. [dah'to.
Mavrocordato, mal v-ro-kŏr-
Maxentius, măks-ĕn'shŭs.
Maxilla, măk-sil'lah.
Maximilian, măk-se-mil'yăn.
Maximum, măks'e-mŭm.

Mayence, mīnts.
Mayhem, mā'hĕm.
Mayo, mā'o.
Mayor, mar *or* mĕr. [ahn'.
Mazanderan, mah-zahn-dūr-
Mazarin, măz-ah-rĕn'.
Mazatlan, mdh-saht-lahn'.
Mazeppa, mah-zĕp'pah.
Mazology, ma-zŏl'o-je.
Mazzara, măt-sah'rah.
Mazzini, măt-se'ne.
Mazzuoli, măt-soo-o'lah.
Meaco, me-ah'ko.
Meade, meed.
Meadow, mĕd'o.
Meagre, me'gŭr.
Measles, me'zlz.
Mecometer, me-kŏm'e-tŭr.
Mecouium, me-ko'ne-ŭm.
Meconopsis, me-kŏn ŏp'sĭs.
Medal, mĕd'ăl.
Medea, me-de'ah.
Medeola, mĕd-e-o'lah.
Media, me'de-ah.
Mediæval, me-dī'e-văl.
Mediatization, me-de-ăt-e-za'shŭn.
Medicago, mĕd-e-ka'go.
Medici, ma'dē-che.
Medietatis Linguæ, me-dī-e-ta'tĭs lĭng'gwe.
Medina, ma-de'nah.
Meditation, mĕd-e-ta'shŭn.
Mediterranean, mĕd-e-tĕr-
Medium, me'de-ŭm. [ra'ne-ăn.
Medoc, ma-dŏk'.
Medulla, me-dŭl'lah.
Medusa, me-du'sah.
Megalonyx, mĕg-a-lŏn'ĭks.
Megalosaurus, mĕg-a-lo-saw'rŭs.
Megantic, me-găn'tĭk.
Megapodidæ, mĕg-a-pŏd'e-de.
Megara, mĕg'a-rah. [ŭm.
Megatherium, mĕg-a-the're-
Megrim, me'grĭm.
Mehemet, ma'ha-mĕt.
Mehul, ma-ool'.
Meibomian, mī-bo'me-ăn.
Meiningen, mī'nĭng-ĕu.
Meionite, mī'ŏn-īt.
Meiosis, me-i-o'sĭs.
Meissonier, ma-so-ne-a'.
Mekong, ma-kŏng'.
Melada, ma-lah'dah.
Melæna, ma-le'nah.
Melamine, mĕl'a-mĭn. [rŭm.
Melampyrum, mĕl-ăm-pī'-
Mélange, ma-longzh'-
Melanilline, mĕl-ăn'e-lĭn.
Melanochroite, mĕl-ăn-ŏk'-
Melanosis, mĕl-a no'sĭs. [ro-īt.
Melanthaceæ, mĕl-ăn-tha'se-e
Melasma, me-lăz'mah.
Melchisedec, mĕl-kĭz'e-dĕk.
Meleager, me-le-a'gŭr.
Meleagris, mĕl-e-a'grĭs.
Mèlée, ma-la'.
Melesians, me-le'zhănz.
Mellanthus, me-le-ăn'thŭs.
Melliceris, me-lĭs'ŭr-ĭs.
Melicerta, mĕl-e-sŭr'tah.
Melilite, mĕl'e-līt.
Meliphagidæ, mĕl-e-fă'ge-de.
Melissa, me-lĭs'sah.
Melitæa, mĕl-e-te'ah.
Mellow, mĕl'lo.
Melodeon, me-lo'de-ŭn.
Melodrama, mĕl-o-drah'mah.
Melody, mĕl'o-de.
Melon, mĕl'ŭn.
Melospiza, me-lŏs'pe-zah.
Melpomenee, mĕl-pŏm'e-ne.
Melrose, mĕl'rōz.
Melum, ma-lŭn'g'.
Melusine, mĕl-u-seen'.
Melville, mĕl'vĭl.
Membrane, mĕm'brān.
Memel, ma'mĕl.
Memnon, mĕm'nŏn. [e-ah.
Memorabilia, mĕm-o-ra-bĭl'-
Memphis, mĕm'fĭs.
Menaccanite, mĕn'ăk-kăn-īt.
Menace, mĕn'ăs.
Menage, mĕn-azh'.
Menagerie, mĕn-ăzhŭr-e.
Menam, ma-nalm'.
Menander, me-năn'dŭr.
Mendelssohn, mĕn'dĕlz-sŏn.
Mendicants, mĕn'de-kănts.
Mendipite, mĕn'dĭp-īt.
Mene, me'ne.
Mengs, mĕngz.
Meng-Tse, mĕng-se'.
Menhaden, mĕn-ha'dn.
Meningitis, men-in-jī'tĭs.
Menisens, me-nis'kŭs.
Menologium, men-o-lo'je-ŭm
Menostasis, me-nŏs'ta-sĭs.
Mensa, mĕn'sah. [shŭn.
Menstruation, mĕn-stroo-a'-
Mensuration, mĕn-shoo-ra'-shŭn.
Mentchikoff, or **Menzikoff,** mĕnt'che-kŏf.
Mentha, mĕn'thah.
Mention, mĕn'shŭn.
Mentone, mĕn-to'na.
Mentor, mĕn'tor.
Mentzelia, mĕnt-ze'le-ah.
Menu, ma-noo'.
Menziesa, mĕn-zeez'ah.
Meplitis, me-tī'tĭs.
Mercantile, mŭr'kăn-tĭl.
Mercator, mŭr-ka'tŏr.
Mercenary, mŭr'se-na-re.
Merchandise, mŭr'chăn-dīz.
Mercury, mŭr'kŭ-re.
Mergullus, mŭr-gŭl'lŭs.
Meridian, me-rĭd'e-ăn.
Mérimée, ma-re-ma'.
Merioneth, mĕr-e-ŏn'ĕth.
Merit, mĕr'ĭt.
Merlin, mŭr'lĭn.
Merlucius, mŭr-loo'shŭs.
Mercecle, mer'o-sĕl.
Meroë, mĕr'o-e.
Merope, mĕr'o-pe.
Meroveus, mĕr-o-ve'ŭs.
Meroxene, mĕr'ŏks-een.
Merrimack, mĕr're-măk.
Mersy, mŭr'ze.
Mesched, mĕsh'ĭd. [a'se-e.
Mesembryaceæ, me-sĕm-bre-
Mesentery, mĕz'ĕn-tĕr-e.
Mesmerism, mĕz'mĕr-ĭzm.
Mesolobe, mĕs'o-lōb. [me-ah.
Mesopotamia, mĕs-o-po-ta'-
Mespilus, mĕs'pi-lŭs.
Messalina, mĕs-sah-lī'nah.
Messenia, mĕs-se'ne-ah.
Messiah, mĕs-si'ah.
Messidor, mĕs'se-dŏr.
Messina, mĕs-se'nah.
Metaphor, mĕt'a-fŏr.
Metaphysics, mĕt'a-fĭz-zĭks.
Metastasio, ma-tas-tah'se-o.
Metellus, me-tĕl'lus. [se-ko'sĭs.
Metempsychosis, me-tĕmp-
Meteorology, me-te-ŏr-ŏl'o-je.
Methodists, mĕth-ŏd'ĭsts.
Methuselah, me-thu'sa-lah.
Methyl, mĕth'ĭl.
Metoclic, mĕt'o-ke.
Metonymy, me-tŏn'e-me.
Metope, mĕt'o-pe.
Metre, me'tr.
Metropolis, me-trŏp'o-lĭs.
Metrosideros, mĕt-ro-sĭ-de'-
Metternich, mĕt'tŭr-nĭk. [rŏs.
Metz, mĕts.
Meulen, moo'lĕn.
Mexico, mĕks'e-ko.
Meyerbeer, mī'ŭr-bār.
Mezières, ma-ze-ar'.
Mezuzoth, mĕz'u-zŏth.
Mezza voce, mĕt-sah-vo'cha.
Mezzo, mĕt'zo.
Mezzofanti, mĕt-so-făn'te.
Miasma, mi-ăz'mah.
Miaul, me-owl'.
Micah, mi'kah.
Michael, mī'kăl.
Michaelmas, mik'ăl-măs.
Michaud, me-sho'.
Michelet, mĕsh-a-la'.
Michigan, mĭsh'e-găn.
Michoacan, me-cho-ah-kahn'.
Mickiewics, mĭts-ke-a'vĭch.
Mierology, mi-krŏl'o-je.
Midas, mi'das.
Midianites, mĭd'e-ăn-īts.
Microslowski, me-a-ro-slăv'-
Mignard, mon-yahr'. [ske.
Miguet, mĕn-ya'.
Miguel, me-gĕl'.
Mikania, mi-ka'ne-ah.
Milan, mĭl'ăn.
Milazzo, me-lăt'so.
Miletus, mi-le'tŭs.
Milhau, mĭl-how'.
Miliola, mĭl-e-o'lah.
Military, mĭl'e-ta-re.
Milinm, mĭl'e-ŭm.
Milleuium, mĭl-lĕn'e-ŭm.
Millepore, mĭl'le-pōr.
Milliard, mĭl-le-ăr'.
Millimétre, mĭl-le-ma'tr.
Milton, mĭl'tŭn.
Milwaukee, mĭl-waw'ke.
Mime, mīm.
Mimiery, mĭm'ĭk-re.
Mimosa, mi-mo'zah.
Mimulus, mĭm'u-lŭs.
Mina, me'nah.
Minaret, mĭn'a-rĕt.
Minas-Geraes, me'năs-ge-răz'
Mince, mĭns.
Minden, mĭn'dĕn.
Mindoro, mĕn-do'ro.
Mineralogy, mĭn-ĕr-ăl'o-je.
Minerva, me-nĕr'vah.
Mingoes, mĭng'gōz.
Mingrelia, mĭn-gre'le-ah.
Minho, mĕn'yo.
Minims, mĭn'ĭms.
Minimum, mĭn'e-mŭm.
Mining, mĭn'ĭng.
Minion, mĭn'yŭn.
Minium, mĭn'yŭm.
Mink, mĭngk.
Minneapolis, mĭn-ne-ăp'o-lĭs.
Minnesota, mĭn-ne-so'tah.
Minor, mī'nŏr.
Minorca, me-nŏr'kah.
Minos, mi'nŏs.
Minotaur, mĭn'o-tawr.
Minsk, mĭnsk.
Minnet, mĭn'u-ĕt.
Minute, mĭn'ĭt.
Minutius, mi nu'she-ŭs.
Minx, mĭngks.
Miquelet, meek-la'.
Mirabeau, mĭr-ah-bo'.
Mirabilis, mi-răb'i-lĭs.
Miranda, me-răn'dah.
Mirandola, me-răn-do'lah.
Miriam, mĭr'e-ăm.
Mirza, mĭr'zah.
Miserere, mĭz-e-re're.
Mispickel, mĭs'pĭk-l.
Missisquoi, mĭs'sĭs-kwoi.
Mississippi, mĭs-sĭs-sĭp'pe.
Missouri, mis-soo're.
Misurato, mĭz-u-rah'to.
Mithridates, mĭth-ri-da'teez.
Mitigation, mĭt-e-ga'shŭn.
Mitla, meet'lah.
Mittau, mĭt'tow.
Mittimus, mĭt'te-mŭs.
Mitylene, mĭt-e le'ne.
Mizrain, mĭz'răm.
Mizzen, mĭz'n.
Moabites, mo'ăb-īts.
Mobocracy, mŏb-ŏk'ra-se.
Moccasin, mŏk'ka-sĭn.
Mocha, mo'kah.
Mockery, mŏk'ŭr-e.
Modena, mo-da'nah.
Moderato, mŏd-a-rah'to.
Modicum, mŏd'e-kŭm.
Modillion, mo-dĭl'yŭn.
Modulus, mŏd'u-lŭs.
Modus operandi, mo'dŭs
Moen, mo'ĕn. [op-ŭr-ăn'di.
Mogadore, mŏg-ah-dōr'.
Mogul, mo'gŭl.
Mohair, mo'hār.
Mohammed, mo-hăm'mĕd.
Mohave, mo'hāv.
Mohegans, mo'he-gănz.
Möhler, mo'e-lĕr.
Mohur, mo'hŭr.
Moidore, moi'dōr.
Moiety, maw'e-te.
Moire, mwŏr.
Moisten, moi'sn.
Molasses, mo-lăs'sĕz.
Molay, mo-lā'.
Moldavia, mŏl-da've-ah.
Molé, mo-la'.
Moleeh, mo'lĕk.
Molecule, mŏl'e-kūl.
Moleskin, mŏl'skĭn.
Molfetta, mŏl-fet'tah.
Moline, mo-leen'.
Mollah, mŏl'lah.
Mollebart, mŏl'le-hărt. [shŭn.
Mollification, mŏl-le-fi-ka'-
Mollugo, mŏl-lū'go.
Mollusca, mŏl-lŭs'kah.
Moloch, mo'lŏk.
Molnccas, mo-lŭk'kăz.
Molwitz, mŏl'wits. [nŭm.
Molybdenum, mŏl-lĭb-de'-
Momordica, mo-mŏr'de-kah.
Momus, mo'mŭs.
Monachism, mŏn'a-kĭzm.
Monaco, mŏn'ah-ko.
Monandria, mo-năn'dre-ah.
Monarch, mŏn'ărk.
Monastery, mŏn'as-tre.
Monazite, mŏn'a-zīt.
Moncey, mŏn-sa'.
Monde, mŏnd.
Mondovi, mŏn-do've.
Money, mŭn'e.
Mongolia, mŏn-go'le-ah.
Mongrel, mŭng'grĕl. [se-e.
Moniuiaceæ, mo-nĭm-e-a'-
Monitor, mŏn'i-tŏr.
Monk, mŭngk.
Monkey, n ŭngk'e.
Monmouth, mŏn'mŭth.
Monnina, mŏn-ne'nah.
Monogynia, mŏn-o-jĭn'yah.
Monolith, mŏn'o-lĭth. [pah.
Monomotapa, mŏn-o-mŏt'ah-
Mononeurans, mŏn-ŏn-ū' ränz.
Monongalia, mŏn-ŏn-ga'le-ah.
Monoousiun, mŏn-o-oozh'-e yăn.
Monophthong, mŏn'ŏf-thŏng.
Monopoly, mŏn-ŏp'o-le.
Monotony, mo-nŏt'o-ne.
Monroe, mŭn-rō'. [yŭr.
Monseigneur, mŏn(g)-sān'-
Monsieur, m-soo'.
Monsoou, mon-soou'.
Monster, mŏn'stŭr.
Monstrance, mŏn'străns.
Monstrelet, mŏn-stra-la'. [e-te'.
Monstruosity, mŏn-stroo-ŏs'-
Montagnard, mŏn-tăn-yahr'.
Montagu, mŏn'tah-gu.
Montaigne, mŏn-tān'. [bār'.
Montalembert, mŏn-tah-lŏu-
Montana, mŏn-tah'nah.
Montanists, mŏn'ta-nĭsts.
Montaubon, mŏn-to-bŏn'.
Montcalm, mŏnt-kahm'.
Mont de Piété, mŏng doo pe-a-ta'. [se'no.
Monte Casino, mŏn-ta kah-
Monte Christo, mŏn'te krĭs'-to. [ko-le.
Montecuculi, mŏn-ta-kook'-
Montenegro, mŏn-ta-na'gro.
Montenotte, mŏn-ta-nŏt'ta.
Montepulciano, mŏn-ta-pool-chah'no.
Montereau, mŏn-ta-ro'.
Monterey, mŏn-ta-ra'.
Montespan, mŏn-tĕs-pahn'.
Montesquien, mŏn-tes-ke-oo'.
Montevideo, mŏn-ta-ve-da'o.
Montezuma, mŏn-te-zu'mah.
Montfaucon, mŏn-fo-kŏn'.
Montferrat, mŏn-fĕr-rah'.
Montfort, { *Eng.* mŏnt'fŏrt. *Fr.* mŏn(g)-fŏr'.
Monti, mŏn'te.
Montillah, mŏn-teel'yah.
Montlinçon, mŏn-loo-sŏn(g)'.
Montmartre, mŏn(g)-mart'.
Montmirail, mŏn(g)-me-rahl'.
Montmorency, mŏn-mo-rŏn'-
Montoir, mŏn-twaw'. [se.
Montoro, mŏn-to'ro.
Montpelier, { *Eng.* mŏnt-pĕl'le-ŭr. *Fr.* mŏn(g)-pĕl-le-a'.
Montpensier, mŏn-pŏn-se-a'.
Montrose, mŏnt-rōz'. [zhăn'.
Mont St. Jean, mŏn(g) sahn.
Montserrat, mŏnt-sĕr'rāt.
Montyon, mŏn-te-ŏn'.
Monument, mŏn'u-mĕnt.
Monza, mŏn'zah.
Moodir, moo-deer'.
Mooltan, mool-tahn'. [ah-hăd'.
Moorshedabad, moor-shĕd-
Moquega, mo-ke'gah.
Moral, mŏr'ăl.
Morale, mo-rahl'.
Morana, mo-rah'nah.
Morant, mo-rānt'.
Morass, mo-răs'.
Morat, mo-rah'.
Moratin, mo-rah-teen'.
Moravia, mo-rah'vah.
Moravia, mo-ra've-ah.
Moray, mŭr're.
Morbidezza, mŏr-be-dĕt'sah.
Mordecai, mŏr'de-ka.
Mordella, mŏr-dĕl'lah.
Morea, mo-re'ah.
Moreau, mo-ro'.
Morello, mo-rĕl'lo.
Moresque, mo-rĕsk'.
Morgan, mŏr'găn.
Morgarten, mŏr-gahr'tĕn.
Morgue, mŏrg.
Moriah, mo-ri'ah.
Moriuga, mo-ring'gah.
Morion, mo're-ŏn.
Morisco, mo-rĭs'ko.
Morlaix, mŏr-la'.
Mormonism, mŏr'mŏn-ĭzm.
Morocco, mo-rŏk'ko.
Morose, mo-rōs'.
Morosis, mo-ro'sĭs.
Moroxite, mo-rŏks'īt.
Morpheus, mŏr'fe-ŭs.
Morphy, mŏr'fe. [ănz.
Morrisonians, mŏr-re-so'ne-
Morse, mŏrs.
Mortefontaine mŏrt-fŏn-tān'
Mortier, mŏr-te-a'. [shŭn.
Mortification, mŏr-tĭf-i-ka'-
Mortimer, mŏr'te-mŭr.
Morton, mŏr'tŏn.
Mosasaurus, mŏs-ah-saw'rŭs.
Moschus, mŏs'kŭs.
Moscow, mŏs'ko.
Moselle, mo-zĕl'.
Moses, mo'zĭz.
Moskwa, mŏsk'wah.
Mosque, mŏsk.
Mosquito, mŭs-ke'to.
Mostra, mŏs'trah.
Mosul, moo sŭl.
Motet, mo-tĕt'.
Mother, mŭth'ĕr.
Motivo, mo-te'vo.
Motley, mŏt'le.
Motto, mŏt'to.
Mould, mōld.
Mountain, mown'tn.
Mourad, moo'rād.
Mourning, mŏrn'ĭng.
Moustache, mŭs-tash'.
Movable, moov'a-bl.
Moxa, mŏk'sah. [yŭn.
Moxibustion, mŏks-e-bust'-
Moya, moi'ah. [sing.
Moyamensing, moi-ah-men'-
Mozart, mo-zahrt'.
Mucocele, mu'ko-sēl.
Mucuna, mu-kū'nah.
Mucus, mū'kŭs.
Mucutine, mū'ku-tĭn.
Muezzin, mu-ĕz'zĭn.
Mutile, mŭf'fl.
Mufti, mŭf'te.
Mugilidæ, mu-jĭl'e-de. [e-ah
Muhlenbergia mūl-en-bŭrg'-
Muhlhausen, mūl-how'zn.
Muir, mūr.
Mulahacen, moo-lah-ah'thĕn.
Mulatto, mu-lăt'to.
Mulet, mŭlkt.
Mulde, mool'da.
Mule, mūl.
Mulheim, mŭl'hīm.
Muliebrity, mu-li-ĕb're-te.
Müller, mŭl'lĕr. [taw'ne
Mulligatawny, mŭl-le-ga
Multiple, mŭl'te-pl.
Multnomah, mŭlt-no'mah.
Multoca, mŭl-to'kah.
Multure, mŭlt'yŭr.
Mummius, mŭm'me-ŭs.
Munchausen, mŭnk'how-zn
Mundane, mŭn'dān.
Mundungus, mŭn-dŭng'gŭs.
Mungo, mŭng'go.
Munich, mu nik.
Municipal, mu-nĭs'e-păl.
Munster, mŭn'stĕr.
Muntjak, mŭn'jăk.
Muotta, moo-ŏt'tah.
Murano, moo-rah'no.
Muratori, moo-rah-to're.
Murchison, mŭr'ke-sŭn.
Murex, mu'reks. [freez-bŭr-r
Murfreesborough, mŭr
Muricidæ, mu-rĭs'e-de.
Murillo, moo-rĭl'yo.
Murphy, mŭr'fe.
Murray, mŭr're.
Musaceæ, mu-za'se-e.
Museæ volitantes, mūs'k vŏl-e-tăn'tēz.
Muscales, mŭs'ka-leez.
Muscat, mŭs'kăt.
Museidæ, mŭs'ke-de.
Muscle, mŭs'sl.
Muscogee, mŭs-ko'je.
Muscovado, mŭs-ko-vah'do.
Muscovite, mŭs'ko-vit.
Musette, mu-zĕt'.
Museum, mu-ze'ŭm.
Music, mu'zĭk.
Muskallonge, mŭs'k l-lŏnzh
Muskegon, mŭs-ke'gŏn.
Muskingum, mŭs-king'gŭm
Musophaga, mu-sof'a-gah.
Mussel, mŭs'sl.
Musset, mŭs-sa'.
Mussulman, mŭs'sul-man.
Mustang, mŭs'tahng.
Mustapha, moos'tah-fah.
Mustela, mŭs-te'lah.
Mutandum, mu-tăn'dŭm
Muttra, mŭt'trah.
Myeale, mĭk'a-le.
Myelium, mi-se'le-ŭm.
Myeology, me-kŏl'o-je.
Mygale, mig'a-le.
Mylæ, mi'le.
Mylitta, mi-lĭt'tah.
Mylodon, mil'o-dŏn.
Milo-hyoid, mi-lo-hī'oid.
Mynchery, mĭngk'ŭr-e.
Mynheer, mĭn-hār'.
Myolæmna, mi-o-e m'nah.
Myoline, mi'o-lĭn.
Myology, mī-ŏl'o-je.
Myopy, mī'o-pe.
Myosotis, mi-o-so'tĭs.
Myoxus, mi-ŏks'ŭs.
Myosurus, mi-o-sboo'rŭs.
Myriapod, mĭr'e-a-pod.
Myrmecophaga, mŭr-m kŏt'a-gah.
Myrmeleon, mŭr-me'le-ŏn.
Myrmidon, mŭr'me-dŏn.
Myron, mī'rŏn.
Myrrh, mŭr.
Myrtle, mŭr'tl.
Mystery, mĭs'tŭr-e.
Mysticism, mĭs'te-sĭzm.
Mythoplasm, mith'o-plăzm.
Myxine, mĭks'in.

N.

Nabal, na'băl.
Nablum, năb'lŭm.
Nabob, na'bŏb.
Nabonassar, năb-o-năs'săr.
Nacarat, năk'a-răt.
Nævius, nē've-ŭs.
Nahash, na'hăsh.
Nahum, na'hŭm.
Naiad, na'yăd.
Nairn, nărn.
Naissant, năs'sănt.
Naive, nah'ēv.
Naiveté, nah'ēv-ta.
Nakir, na'keer.
Namur, na'mŭr.
Nancy, { *Eng.* năn'se. *Fr.* nŏn(g)-sē'.
Nangasaki, năn-gäs'ah-ke.
Nankin, năn-keen'.
Nantes, { *Eng.* năntz. *Fr.* nŏnt.
Naoml, na'o-me.
Naphtali, năf'ta-le.
Napier, na'pe-ŭr.
Naples, na'plz.
Napoléon, nah-po-la-ŏn'.
Narcein, nar-see'yah.
Narcissus, nar-sĭs'sŭs.
Narcotine, när'ko-tĭn.
Nardoo, nahr-doo'.
Nardostachys, när-do'sta-kĭs.
Nargileh, när'go-la.
Naro, na'ro. [găn'sĕt.
Narraganselt, năr-rah-
Narration, năr-ra'shŭn.
Narses, när'seez.
Narthex, när'thĕks.
Narva, nar'vah.
Narvaez, när-vah-ĕth'.
Narwhal, när'wăl.
Nascent, nas'sĕnt.
Naseby, nāz'be.
Nashua, năsh'nah.
Nassau, nas'sow.
Natatores, na-tah-to'reez.
Natchez, năch'ĭz.
Nathanael, na-thān'a-ĕl.
Natica, năt'e-kah.
National, năsh'ŭn-ăl.
Natolia, na-to'le-ah.
Natural, năt'yoo-răl.
Naumachy, naw'ma-ke.
Naumburg, nawm'boorg.
Nauplia, no'ple-ah.
Nauscopy, nawz'ko-pe.
Nausea, naw'she-ah.
Nautilus, naw'te-lŭs.
Navarino, nah-vah-re'no.
Navel, na'vl.
Naxia, năks'e-ah.
Nazareth, năz'a-rĕth.
Neagh, nā.
Neander, na-ăn'dĕr.
Nearchus, ne-ăr'kŭs.
Nebraska, ne-brăs'kah.
Nebuchadnezzar, nĕb-n-kăd-nĕz'zar.
Nebula, nĕb'u-lah.
Necker, nĕk-kŭr.
Necrology, ne-krŏl'o-je.
Necrouite, nĕk'ro-nīt.
Necrophore, nĕk'ro-fōr.
Necropolis, ne-krŏp'o-lĭs.
Necrosis, ne-kro'sĭs.
Nectandra, nĕk-tăn'drab.
Nectar, nĕk'tăr.
Nedenaes, na-da-năs'.
Needle, ne'dl.
Ne exeat Republica, ne egz'e-ăt re-pŭb'le-kah.
Nefarious, ne-fa're-ŭs.
Negritos, na-gre'tōz.
Negropont, ne'gro-pŏnt.
Negundo, ne-gŭn'do.
Nehemiah, ne-he-mi'ah.
Neisse, nī'sa.
Nekrosoziac, nĕk-ro-so'ze-ak.
Nélaton, na-lah-tŏn'.
Nellore, nĕl-lōr'.
Nelson, nĕl'sŭn. [se-e.
Nelumbiaceæ, ne-lŭm-bi-a'-
Nemansa, ne-măn'sah.
Nematoids, nĕm'a-toidz.
Nemaur, ne-mōr'.
Nemea, ne-me'ah.
Nemesis, nĕm'e-sĭs.
Neuopauthus, ne-mo-păn'-thŭs.
Nemophila, ne-mŏf'e-lah.
Nemours, na-moor'.
Nemphar, nĕm'fahr.
Neology, ne-ŏl'o-je.
Neophyte, ne'o-fīt.
Nepaul, ne-pawl'.
Nepe, nēp.
Nepenthe, ne-pĕn'the.
Nepeta, nĕp'e-tah.
Nephelium, ne-fēl'yŭm.
Nephew, nĕf'yoo.
Nephralgia, ne-frăl'je-ah.
Nephrite, nĕf'rīt.
Nephrodium, ne-fro'de-ŭm.
Nepos, ne'pŏs.
Nepotism, nĕp'o-tĭzm.
Neptune, nĕp'tūn.
Nerbuddah, nĕr-bŭd'dah.
Nereid, ne're-ĭd.
Neri, na're.
Neriad, ne're-ăd.
Nerium, ne're-ŭm.
Nero, ne'ro.
Neroli, na-ro'le.
Nerve, nŭrv.
Nesselrode, nĕs-sĕl-ro-da.
Nessus, nĕs'sŭs.
Nestor, nĕs'tŏr.
Nethinims, nĕth'e-nĭms.
Neufchâtel, nūsh-ah-tĕl'.
Neuroptera, nu-rŏp'tĕr-ah.
Neurotomy, nu-rŏt'o-me.
Neurypnology, nu-rĭp-nŏl'-
Neusatz, noo-sahts'. [o-je.
Neustria, nūs'tre-ah.
Neutral, nū'tral.
Neva, ne'vah.
Nevada, ne-vah'dah.
Nevers, na'vr.
Newel, nū'el.
Ney, na.
Neyva, na'e-vah.
N-gan-Hoei, n-gahn-oo'e.
Niagara, ni-ăg'a-rah.
Nias, ne'ăs. [lŭng'ĕn-leet.
Nibelungen-Lied, ne-be-
Nicaise, ne-kāz'.
Nicandra, ni-kăn'drah.
Nicanor, ni-ka'nŏr.
Nicaragua, nĭk-ăr-ah'gwah.
Nicastro, ne-kās'tro.
Nicausis, ne-kaw'sĭs.
Nice, (France,) neece.
Nice, nīs.
Nicene, nī'sēn.
Nicephorus, nī-sĕf'o-rŭs.
Nicholas, nĭk'o-lăs.
Nicias, nĭsh'e-ăs.
Nicobar, nĭk-o-băr'.
Nicolaieff, nĭk-o-lī'ĕf.
Nicolaitans, nĭk-o-la'e-tănz.
Nicolo, nĕk'o-lo.
Nicomedia, nĭk-o-me'de-ah.
Nicopolis, ni-kŏp'o-lĭs.
Nicosia, ni-ko'zhah.
Nictation, nĭk-ta'shŭn.
Nidus, nī'dŭs.
Niebuhr, ne'boor.
Nicce, nēs.
Niel, ne-ĕl'.
Niello, ne-ĕl'lo.
Niemcewicz, ne-ĕm-tsah'vĭch.
Nièvre, ne-ăvr'.
Nigel, nī'jel.
Niger, nī'jŭr.
Nigh, nī.
Nigra, ne'grah.
Nigrine, nī'grĭn. [nŏv'go-rŏd.
Nijni-Novgorod, nĭzh-ne-
Nimbus, nĭm'bŭs.
Nimegnen, nĭm'wa-gĕn.
Nimes, neem.
Nincompoop, nĭn'kŭm'poop.
Nineveh, nĭn'e-va.
Ningpo, nĭng-po'.
Ninian, nĭn'yăn.
Niusin, nĭn-seen'.
Ninus, nī'nŭs.
Niobe, nī'o-be.
Niobrara, ni-o-bra'rah.
Niort, ne-ŏr'.
Niphon, nĭp'ŏn.
Nipoma, nĭp'o-mah.
Nippers, nĭp'pŭrz.
Nipple, nĭp'pl.
Nisao, ne-sah'o.
Nisita, ne'se-tah.
Nisroch, nĭz'rŏk.
Nissa, nĭs'sah.
Nithsdale, nĭthz'dāl.
Nitraria, ni-tra're-ah.
Nitre, nī'tr.
Nitrogen, nī'tro-jĕn.
Nivose, ni-vōs'.
Nizampatam, ne-zăm-pah-tăm'.
Noblesse oblige, no-blĕs' o-ble-zha'.
Noctuidæ, nŏk-tu'e-de.
Noël, no'ĕl.
Noise, noiz.
Nola, no'lah. [lĕnz.
Nolens volens, no'lĕnz vo'-
Noli me tangere, no'li me tăn'je-re. [se-kwe.
Nolle prosequi, nŏl-le pro'-
Nomenclature, no-mĕn-klāt'-ŭr.
Nonchalance, nŏn-sha-lŏns'.
None, nūn.
Nontronite, nŏn'trŏn-īt.
Nookaheeva, noo-kah-e'vah.
Nordhausen, nŏrt'how-zn.
Nordlingen, nŏrt'lĭng-ĕn.
Norfolk, nŏr'fŭk.
Noria, no're-ah.
Noricum, nŏr'i-kŭm.
Normandy, nŏr'măn-de.
Norse, nŏrz.
Norton, nŏr'tn.
Norwegian, nŏr-we'je-ăn.
Norwich, nŏr'rij.
Nose, nōz.
Nosology, no-sŏl'o-je.
Nostalgia, nŏs-tăl'je-ah.
Nostradamus, nŏs-trah-dā' mŭs.
Nostrum, nŏs'trŭm.
Notables, nōt'a-blz.
Noto, no'tō.
Nottuno, nŏt-tŭr'no.
Noureddin, noor-ed-deen'.
Nourish, nŭr'ĭsh.
Novalis, no-vah'lĭs.
Novara, no-vah'rah. [ah.
Nova Scotia, no'vah sko'sha
Novatians, no-va'shanz.
Novgorod, nŏv'go-rŏd.
Novi, no've.
Novice, nŏv'ĭs.
Nowagnrh, now-ah-goor'.
Noyeau, noi-o'.
Nozzle, nŏz'zl.
Nubecula, noo-bĕk'u-lah.
Nubia, nū'be-ah.
Nucleus, nū'kle-ŭs.
Nuncle, nū'kūl.
Nuddea, nūd-de'ah.
Nudity, nū'de-te.
Numantia, nu-măn'she-ah.
Numa Pompilius, nu-mah pŏm-pĭl'yŭs.
Numero, nu'me-ro.
Numidia, nu-mĭd'e-ah.
Numismlites, nŭm'mu-līts.
Nunc dimittis, nŭngk de-mĭt'tĭs.
Nuñez, noon'yĕth.
Nungeenah, nŭn-jee'nah.
Nunnation, nu-ua'shŭn.
Nuphar, nū'fahr.
Nuremberg, nu-rĕm'bĕrg.
Nutation, nu-ta'shŭn.
Nux Vomica, nŭks vŏm'e-kah.
N'Yanza, n-yăn'zah.
Nyctalopia, nĭk-ta-lo'pe-ah.
Nycthemeron, uĭk-thĕm'ŭr-
Nylghau, nīl'gaw. [ŏn.
Nyssa, nĭs'sah.
Nymph, nĭmf.
Nystagmus, nĭs-tăg'mŭs.

O.

Oahu, o-ah-oo'.
Oajaca, wah-ah'kah.
Oakesia, ōks'ze-ah.
Oarsman, ōrz'măn.
Oasis, o-a'sĭs.
Obadiah, ŏb-a-dī'ah.
Obduracy, ŏb'dn-ra-se.
Obeah, o'be-ah.
Obelisk, ŏb'e-lĭsk.
Obelus, ŏb'e-lŭs.
Oberland, o'bār-lănt.
Oberon, ŏb'ĕr-ŏn.
Obesity, o-be'se-te.
Obituary, o-bĭt'u-a-re.
Objection, ŏb-jĕk'shŭn.
Objurgation, ŏb-jŭr-ga'shŭn.
Oblation, ŏb-la'shŭn.
Obligato, ŏb-le-gah'to.
Oblige, o-blīj'.
Oblique, ŏb-leek'. [shŭn.
Obliteration, ŏb-lĭt-ŭr-a'-
Obnoxious, ŏb-nŏk'shŭs.
Obolaria, ŏb-o-la're-ah.
Obole, ŏb'ōl.
Obolus, ŏb'o-lŭs.
Obscene, ŏb-seen'.
Obsecration, ŏb-se-kra'shŭn.
Obsequies, ŏb'se-kwēz.
Observation, ŏb-zŭr-va'shŭn.
Obsidian, ŏb-sĭd'e-ăn.
Obstinacy, ŏb'ste-na-se.
Occasion, ŏk-ka'zhŭn.
Occiput, ŏk'se-pŭt.
Ocean, o'shŭn.
Ocellus, o-sĕl'lăs.
Ochnaceæ, ŏk-na'se-e.
Ochlocracy, ŏk-lŏk'ra-se.
Ochre, ō'kŭr.
Ochroma, ŏk-ro'mah.
Ocilla, o-sĭl'lah.
Octachord, ŏk'ta-kōrd.
Octandria, ŏk-tăn'dre-ah.
Octavo, ŏk-ta'vo.
Octroi, ŏk-troī'.
Ocypoda, ŏs-e-po'dah.
Odenwald, o'dĕn-vāld.
Odeon, o-de'ŏn.
Oder, o'dĕr.
Odessa, o-dĕs'sah.
Odillon-Barrot, o-de-yŏn(g)-băr-ro'.
Odin, o'dĭn.
Odium, o'de-ŭm.
Odometer, o-dŏm'e-tŭr.
Odontalgia, o-dŏn-tăl'je-ah.
Œcumenical, e-ku-mĕn'e-kl.
Œdema, e-de'mah.
Œdenburg, e'dĕn-bārg.
Œil de Bœuf, eel da bŭf'.
Œland, e'lănd.
Œnothera, e-nŏth'ŭr-ah.
Œrsted, oor'stĕd.
Œstridæ, ĕs'tre-de.
Ofanto, o-fahn'to.
Offenbach, ŏf'fĕn-băk.
Ogham, ŏg'ăm.
Ogre, o'gŭr.
Ohio, o-hi'o.
Oidium, o-ĭd'e-ŭm.
Oignon, oin-yŏn(g)'.
Oinomania, o-ĭn-o-ma'ne-ah.
Oise, hwahs'.
Okra, ŏk'rah.
Olacaceæ, o-la-ka'se-e.
Olaf, ōl'ăv.
Olbers, ōl'bairz.
Oldenburg, ōl'dĕn-boorg.
Olea, o'le-ah.
Oleron, o-la-rŏn(g)'.
Olfaction, ōl-fak'shŭn.
Olga, ōl'gah.
Olibanum, o-lĭb'a-nŭm.
Oligarchy, ŏl'e-gar-ke.
Oligoclase, o-lĭg'o-klāz.
Oliphant, ŏl'e-fant.
Oliva, o-le'vah.
Olive, ŏl'ĭv.
Olla-podrida, ŏl-lah-pŏd-re'-dah.
Ollivier, ŏl-le-ve-a'.
Olustee, ŏl-ŭs-te'.
Olympus, o-lĭm'pŭs.
Omagra, ŏm'a-grah.
Omar, o'măr.
Omasum, o-ma'sŭm.
Ombre, ŏm'br.
O'Meara, o-ma'rah.
Omen, o'mĕn.
Omentum, o-mĕu'tŭm.
Omission, o-mĭsh'ŭn.
Ommiades, o-ma'yădz.
Omnium, ŏm'ne-ŭm.
Omniscience, ŏm-nĭsh'yĕns.
Omri, ŏm're.
Omsk, ŏmsk.
On dit, ŏn(g)-dē'.
Onega, o-na'gah.
Oneida, o-nī'dah.
Oneirodynia, o-ni-ro-dĭn'yah
Oniscus, o-nĭs'kŭs.
Onobrychis, o-nŏb're-kĭs.
Onology, o-nŏl'o-je. [kŏn.
Onomasticon, o-no-măs'te-
Ononis, o-no'nĭs.
Onopordium, ŏn-o-pŏr'de-ŭm
Ontology, ŏn-tŏl'o-je.
Onus, o'nŭs.
Onychia, o-nĭk'e-ah.
Oolysis, oo-lī'sĭs.
Oonalaska, oo-nah-lăs'kah.
Oosima, oo-se'mah.
Opal, o'păl.
Open, o'pn.
Opera, ŏp'ĕr-ah.
Operculum, o-pĕr'ku-lŭm.
Operetta, ŏp-ĕr-ĕt'tah.
Ophelia, o-fe'le-ah.
Ophibolus, o-fĭb'o-lŭs.
Ophicleide, ŏf'i-klīd.
Ophidians, o-fĭd'e-ănz. [sŭm.
Ophioglossum, ŏf-i-o-glŏs'-
Ophiology, ŏf-i-ŏl'o-je.
Ophir, o'fŭr.
Ophirys, ŏf'ĭr-ĭs.
Ophiuchus, o-fi-ū'kŭs.
Ophiuroids, ŏf-i'u-roidz.
Opisthotonos, o-pis-thŏt'o-nŏs.
Opodeldoc, ŏp-o-dĕl'dŏk.
Opoponax, o-pŏp'o-năks.
Oporto, o-pōr'to.
Opossum, o-pŏs'sŭm.
Oppeln, op'pĕln.
Oppidan, ŏp'pe-dăn.
Opprobrium, ŏp-pro'bre-ŭm.
Oracle, ŏr'a-kl.
Oraug-outang, o-răng-oo-tăng'.
Oratorio, ŏr-a-to're-o.
Orbiculus, ŏr-bĭk'u-lŭs.
Oregna, ŏr-kăn'yah.
Orcine, ŏr'sĭn.
Ordure, ŏr'dŭr.
Orel, o'rĕl.
Orellana, o'rĕl-lăn-ya.
Orenburg, o'rĕn-boorg.
Oreodaphne, o-re-o-dăf'ne.
Oreography, o-re-ŏg'ra-fe.
Orestes, o-rĕs'teez.
Orfah, ŏr'fah.
Organzine, ŏr-găn-zeen'.
Orgaos, ŏr-ga'ŏs.
Orgeat, ŏr-jĕt'.
Oriel, o're-ĕl.
Origen, ŏr'e-jĕn.
Orillon, o-rĭl'lŏn.
Oriole, o're-ōl.
Orion, o-re'ŏn.
Orissa, o-rĭs'sah.
Oristano, ŏr-ĭs-tah'no.
Orkney, ŏrk'ne.
Orleans, ŏr-lăn'.
Orloff, ŏr'lŏf.
Orlop, ŏr'lŏp.
Ormoln, ŏr-mo-loo'.
Ormuz, or'mooz.
Ornithology, ŏr-nĭth-ŏl'o-je.
Ornithopus, ŏr-nĭth'o-pŭs.
Orobus, ŏr'o-bŭs.
Orotund, o'ro-tŭud.
Orpah, ŏr'pah.
Orpheus, ŏr'fe-ŭs.
Orpiment, ŏr'pe-mĕnt.
Orrery, ŏr'rĕ-re.
Orsini, ŏr-se'ne.
Orthoclase, ŏr'tho-klāz.
Orthodoxy, ŏr'tho-dŏks-e.
Orthodromics, ŏr-tho-drŏm'-
Orthoëpy, ŏr-tho'e-pe. [ĭks.
Orthography, ŏr-thŏg'ra-fe.
Orthopedy, ŏr-thŏp'e-de.
Orthoptera, ŏr-thŏp'tŭr-ah.
Ortler-Spitz, ŏrt'lĕr-spcets.
Ortona, ŏr-to'uah.
Ortyx, ŏr'tĭks.
Orvieto, ŏr-ve-a'to.
Oryx, o'rĭks.
Oryzopsis, o-re-ŏp'sĭs.
Oscar, ŏs'kahr.
Osceola, ŏs-se-o'lah.
Oscillation, ŏs-sĭl-la'shŭn.
Osiuo, o-se'mo.
Osiris, o-si'rĭs.
Osmanli, ŏz'măn-le.
Osmazome, ŏz'ma-zōm.
Osmium, ŏz'me-ŭm.
Osmorrhiza, ŏz-mŏr-ri'zah.
Osnaburg, ŏz'na-boorg.
Osorno, o-sŏr'no.
Osseous, ŏs'se-ŭz.
Ossian, ŏs'se-ăn *or* ŏsh'yăn.
Ossification, ŏs-se-fe-ka'shŭn.
Ossuna, ŏs-soo'nah.
Ostend, ŏs-tĕnd'.
Osteocele, ŏs'te-o-sēl.
Ostia, ŏs'te-ah.
Ostrich, ŏs'trĭch.
Ostrogoths, ŏs'tro-gŏths.
Ostrya, ŏs-tri'ah.
Osymandias, ŏs-e-măn'de-ăs.
Otaria, o-ta're-ah.
Othman, ŏth-mahn'.
Othniel, ŏth'nĭel.
Otho, o'tho *or* ōt'tō.
Otis, o'tis.
Otitis, o-ti'tĭs.
Otium, o'she-ŭm.
Otoconite, o-tŏk-o-nīt.
Otography, o-tŏg'ra-fe.
Otranto, o-trahn'to.
Ottawa, ŏt'ta-wah.
Ottocar, ŏt'to-kăr.
Ottoman, ŏt'to-măn.
Oubliette, oo-ble-ĕt'.
Oudenarde, ood'ĕn-ahrd.
Oudinot, oo-de-no'.
Ought, awt.
Oul-dire, we-deer'.
Onrga, oor'gah.
Ourology, oo-rŏl'o-je.
Ouro-Preto, oo'ro-pra'to.
Outrance, oo-trŏngz.
Ouviraudra, oo-vir-ăn'drak.
Ovary, o'va-re.
Overture, o'vĕr-tūr.
Overyssel, o-vĕr-is'sĕl.
Ovid, ŏv'ĭd.
Oviedo, o-ve-a'do.
Ovolo, o'vo-lo.
Ovum, o'vŭm.
Owen, o'ĕn.
Owhyhee, ah-waw'e.
Oxalic, ŏkz-ăl'ĭk.
Oxenstiern, ŏks'ĕn-stĕrn.
Oxide, ŏks'īd.
Oxus, ŏks'ŭs.
Oxygen, ŏks'e-jĕn.
Oxymoron, ŏks-ĭm'o-ron.
Oxyopia, ŏks-e-o'pe-ah.
Oxyria, ŏks-ĭr'e-ah
Oyapoc, oi'ah-pŏk.
Oyster, ois'tŭr.
Ozena, o-ze'nah.
Ozocerite, o-zo se'rīt.
Ozone, o'zōn.

P.

Pabulum, păb'u-lŭm.
Paca, pa'kah.
Pace, pās.
Pacha, pah'shah.
Pachycormus, păk-e-kŏr'mŭs.
Pachydermata, păk-e-dŭrm'a-tah.
Pactolus, păk-to'lŭs.
Paderborn, pah-dĕr-bŏrn'.
Padilla, pah-dēl'yah.
Padishah, pah-de-shah'.
Padua, păd'u-ah.
Paducah, pah-du'kah.
Pæan, pe'ăn.
Pæonia, pe-o'ne-ah.
Paer, pa'ŭr.
Pæstum, pees'tŭm.
Paez, pah-ĕth.
Paganini, pah-gah-ne'ne.
Pageant, pa'jant.
Pagoda, pa-go'dah.
Paguridæ, pa-gu're-de.
Paillasse, păl-yăs'.
Paine, pān.
Paisiello, pī-se-ĕl'lo.
Paisley, pāz'le.
Paixhans, păk-sŏn'.
Paladin, păl'a-dĭn.
Palæologus, pā-le-ŏl'o-gŭs.
Palamedes, pal-ah-me'dēz.
Palate, păl'āt.
Palatinate, pa-lăt'e-nāt.
Palaver, pa-lah'vŭr.
Palea, pa-le'ah.
Palembang, pah-lĕm-bahng'.
Palencia, pah-lĕn'se-ah.
Palenque, pah-lĕn'ka.
Paleontology, pa-le-ŏn-tŏl'o-je.
Paleotherium, pa-le-o-the're-ŭm.
Palermo, pah-lŭr'mo.
Palestia, pa-lĕs'te-ah.
Palestine, păl'ĕs-tīn.
Palestrina, pah-lĕs-tre'nah.
Palestro, pah-lĕs'tro.
Palfrey, pawl'fre.
Palingenesis, păl-ĭn-jĕn'e-sĭs.
Palissy, pah-lees'se.
Paliurus, păl-e-u'rŭs.
Pall, pawl.
Palladium, păl la'de-ŭm.
Pallas, păl'lăs.
Pallavicino, păl-lah-ve-che'no.
Palli, păl'le.
Palliation, păl-le-a'shŭn.
Palm, pahm.
Palmas, păl'măs.
Palmerston, pahm'ŭr-stŭn.
Palmetto, păl-mĕt'to.
Palmyra, păl-mī'rah.
Palo Alto, pah'lo ăl'to.
Palpitation, păl-pe-ta'shŭn.
Paludamentum, păl-u-da-mĕn'tŭm.
Pamir, pa'mĭr.
Pampas, păm'pahs.
Pampeluna, păm-pa-loo'nah.
Pamphylia, păm-fĭl'yah.
Pamphlegia, păm-fle'je-ah.
Pan, păn.
Panacea, păn-a-se-ah'.
Panache, pah-năsh'.
Panada, pa-na'dah.
Panama, pahn-ah-mah'.
Panaro, pah-nah'ro.
Panax, pa'năks.
Pancreas, păn'kre-ăs.
Pandarus, păn'da-rŭs.
Pandean, păn-de'ăn.
Pandect, păn'dĕkt.
Pandemonium, păn-de-mo'ne-ŭm.
Pandiculation, păn-dĭk-u-la'shŭn.
Pandora, păn-do'rah.
Pandour, păn'door.
Paneulogism, păn-ū'lo-jĭzm.
Pangolin, păng'go-lĭn.
Panhellenism, păn-hĕl'lĕn-ĭzm.
Panicum, păn'e-kŭm.
Pannonia, păn-no'ne-ah.
Panoply, păn'o-ple.
Panopticon, păn-ŏp'te-kŏn.
Panorama, păn-o-rah'mah.
Pan slavism, păn-sla'vĭzm.
Pantagruelism, păn-ta-groo'ĕl-ĭzm.
Pantheism, păn'the-ĭzm.
Pantheon, păn-the'ŏn.
Panther, păn'thŭr.
Pantisocracy, păn-te-sŏk'ra-se.
Pantomime, păn'to-mīm.
Pantophagy, păn-tŏf'a-je.
Pantoufle, păn-too'fl.
Papaver, pah-pah'vŭr.
Papeterie, păp-a-tre'.
Paphian, pā'fe-an.
Paphlagonia, păf-la-go'ne-ah.
Paphos, pā'fŏs.
Papier Maché, păp'ya mah-sha.
Papilionaceous, pa-pĭl-yŏn-a'shŭs.
Papin, pah-pēn'.
Pappus, păp'pŭs.
Papua, pap'oo-ah.
Parabola, pa-răb'o-lah.
Paracatu, pah-rah-kah'too.
Paracelsus, păr-a-sĕl'sŭs.
Paradigm, păr'a-dĭm.
Parados, păr'a-dŏs.
Paradox, păr'a-dŏks.
Paraguay, păr'ah-gwa.
Paraleipsis, păr-a-līp'sĭs.
Paralogism, pa-răl'o-jĭzm.
Paralysis, pa-răl'e-sĭs.
Paramaribo, păr-ah-măr'e-bo.
Paramatta, păr-ah-măt'tah.
Paramo, păr-ah'mo.
Paranthite, păr'ăn-thīt.
Paranymph, păr'a-nĭmf.
Paraphrast, păr'a-frăst.
Paraphrenitis, păr-a-fre-nī'tĭs.
Paraphymosis, păr-a-fi-mo'sĭs.
Paraplegia, păr-a-ple'je-ah.
Parasol, păr'a-sŏl.
Parataxis, păr-a-tăks'ĭs.
Parathesis, pa-răth'e-sĭs.
Parcæ, păr'se.
Parcener, păr'se-nŭr.
Paregoric, păr-e-gŏr'ĭk.
Parella, pa-rĕl'lah.
Parembole, pa-rĕm'bo-le.
Parenchyma, pa-rĕngk'e-mah.
Pargasite, păr'găs-īt.
Parhelion, păr-hĕl'yŭn.
Pariah, pa're-ah.
Parietaria, pa-ri-e-ta're-ah.
Parima, pah-re'mah.
Parinarium, păr-ĭn-a're-ŭm.
Pari passu, pa're pas'su.
Paris, { *Eng.* păr'ĭs. / *Fr.* pah-re'. }
Parmelia, păr-me'le-ah.
Parmesan, păr-me-zăn'.
Parnassus, păr-năs'sŭs.
Parochial, pa-ro'ke-ăl.
Parody, păr'o-de.
Paromology, păr-o-mŏl'o-je.
Paronomasia, păr-o-no-ma'zhah.
Paroquet, păr-o-keet'.
Paros, pa'rŏs.
Parotis, pa-ro'tĭs.
Parquetry, păr'kĕt-re.
Parquette, păr-kĕt'.
Parsimony, păr'se-mo-ne.
Parthenon, păr'the-nŏn.
Parthenope, păr-thĕn'o-pe.
Parthia, păr'the-ah.
Partridge, păr'trĭj.
Paruru, pah-roo'roo.
Parvenu, păr'va-noo.
Paschal, păs'kăl.
Pas-de-Calais, pah-da-kă'la'.
Pasigraphy, pa-sĭg'ra-fe.
Paspalum, păs'pa-lŭm.
Pasquin, păs'kwĭn.
Passau, păs-sow'.
Passeres, păs'se-reez.
Passiflora, păs'se-flo-rah.
Passover, păs'o-vŭr.
Pasta, păs'tah.
Pasticcio, păs-tĭt'cho.
Pastinaca, păs-tĭn-a'kah.
Pastoureaux, păs-toor-o'.
Patagonia, păt-a-go'ne-ah.
Paté, păt-a'.
Patella, pa-tĕl'lah.
Paterno, pah-tĕr'no.
Paternoster, pa-tĕr-nŏs'tŭr.
Pathogeny, pa-thŏj'e-ne.
Pathognomy, pa-thŏg'no-me.
Pathology, pa-thŏl'o-je.
Pathopoeia, păth-o-pe'yah.
Pathos, pa'thŏs.
Patience, pa'shĕns.
Patmos, păt'mŏs.
Patres conscripti, pa'trĕs kŏn-skrĭp'tī.
Patrician, pa-trĭsh'ăn.
Patroclus, pah-tro'klŭs.
Patronymic, păt-ro-nĭm'ĭk.
Patti, păt'to.
Pauline, paw-leen'.
Paullinia, pawl-lĭn'yah.
Pausanias, paw-sa'ne-as.
Pausilippo, paw-se-lĭp'po.
Pavesade, păv-e-sahd'.
Pavia, pah ve-ah.
Pavilion, pa-vĭl'yŭn.
Pawnee, pawn-ee'.
Payne, pān.
Pazaree, păz-ah-rē'.
Peabody, pe'bŏd-e.
Pearl, pŭrl.
Peasant, pĕz'ănt.
Peccadillo, pĕk-ka-dĭl'lo.
Pecten, pĕk'tĕn.
Pectolite, pĕk'to-lĭt.
Peculiar, pe-kūl'yăr.
Pedal, pĕd'ăl.
Pedagogue, pĕd'a-gŏg.
Pedee, pe-dē'.
Pedicellates, pĕd'e-sĭl-lāts.
Pedicularis, pe-dĭk-u-la'rĭs.
Pedometer, pe-dŏm'e-tŭr.
Peduncle, pe-dŭngk'l.
Pegasus, pĕg'a-sŭs.
Pegu, pe'gū.
Pekin, pe-kĭn'.
Pelargonium, pĕl-ăr-go'ne-ŭm.
Pelerine, pĕl'e-rĭn.
Peleus, pe'le-ŭs.
Pelican, pĕl'e-kăn.
Pelioma, pĕl-e-o'mah.
Pelion, pe'le-ŏn.
Pelissier, pa-lĭs-se-a'.
Pellage, pĕl'lāj.
Pellagra, pĕl-lăg'rah.
Pellico, pĕl-le'ko.
Pelopidas, pe-lŏp'e-dăs.
Peloponnesus, pĕl-o-pŏn-ne'sŭs.
Peloria, pe-lo're-ah.
Pelta, pĕl'tah.
Peltigera, pĕl-tĭj'e-rah.
Peltophorum, pĕl-tŏf'o-rŭm.
Pelvis, pĕl'vĭs.
Penates, pe-na'teez.
Pencil, pĕn'sĭl.
Penicillium, pĕn-sĭl'yŭm.
Pendleton, pĕn'dl-tŭn.
Pendulum, pĕn'du-lŭm.
Penelope, pe-nĕl'o-pe.
Penguin, pĕn'gwĭn.
Peninsula, pĕn-ĭn'su-lah.
Pennsylvania, pĕn-sĭl-va'ne-ah.
Penology, pe-nŏl'o-je.
Pentandria, pĕn-tăn'dre-ah.
Pentapolis, pĕn-tăp'o-lĭs.
Pentateuch, pĕn'ta-tūk.
Pentecost, pĕn'te-kŏst.
Penumbra, pe-nŭm'brah.
Penza, pĕn'zah.
People, pe'pl.
Peoria, pe-o're-ah.
Pepin, pĕp'ĭn.
Pepsine, pĕp'sĭn.
Percutient, pĕr-ku'shĕnt.
Perdifoil, pŭrd'e-foil.
Peregrination, pĕr-e-gre-na'shŭn.
Peremptory, pĕr'ĕm-to-re.
Pereskia, pe-rĕs'ke-ah.
Pergamus, pĕr'ga-mŭs.
Pergolese, pĕr-go-la'sa.
Peri, pē're.
Periander, pĕr-e-ăn'dŭr.
Perianth, pĕr'e-ănth.
Periblepsis, pĕr-e-blĕp'sĭs.
Peribolos, pe-rĭb'o-lŏs.
Pericles, pĕr'e-kleez.
Peridiola, pe-rĭd-e-o'lah.
Perigee, pĕr'e-je.
Périgueux, pa-re-goo'.
Perigynium, pĕr-e-jĭn'e-ŭm.
Periœci, pe-ri'e-si.
Periosteum, pĕr-e-ŏs'te-ŭm.
Periostracum, pĕr-e-ŏs'tra-kŭm.
Periphery, pe-rĭf'ŭr-e.
Periscian, pe-rĭsh'yăn.
Peristology, pĕr-ĭs-tŏl'o-je.
Peristyle, pĕr'e-stīl.
Perisystole, pĕr-e-sĭs'to-le.
Peritoneum, pĕr-e-to-ne'ŭm.
Peritonitis, pĕr-e-to-nī'tĭs.
Peritrochium, pĕr-e-tro'ke-ŭm.
Periwinkle, pĕr'e-wĭngk-l.
Perkins, pŭr'kĭnz.
Perm, pŭrm.
Permutation, pĕr-mu-ta'shŭn.
Pernambuco, pĕr-nam-boo'ko.
Perquisite, pŭr'kwe-zĭt.
Perpignan, pĕr-peen-yŏn(g)'.
Perrault, pa-ro'.
Persea, pĕr'se-ah.
Persepolis, pĕr-sĕp'o-lĭs.
Perseus, pĕr-she'ŭs.
Persia, pĕr'shah.
Persiflage, păr'se-flazh.
Perspicacity, pĕr-spe-kăs'e-te.
Perspicuity, pĕr-spe-ku'e-te.
Perth, pŭrth.
Pertinax, pĕr'te-năks.
Perugino, pa-roo-je'no.
Perusal, pe-roo'zăl.
Pescherais, pĕs'ke-ra.
Peschiera, pĕs-ke-a'rah.
Pestle, pĕs'l.
Petaurus, pe-taw'rŭs.
Petchora, pĕch'o-rah.
Petecchiæ, pe-tĕk'ke-a.
Peter, pe'tŭr.
Peterwardein, pe-tŭr-wŏr'dīn.
Petra, pe'trah.
Petrel, pĕt'rĕl.
Petroleum, pe-tro'le-ŭm.
Petromyzonidæ, pe-tro-me-zŏn'e-de.
Petronius Arbiter, pe-tro'ne-ŭs ăr'be-tŭr.
Petroselinum, po-tro-se-lī'nŭm.
Petto, pĕt'to.
Petunse, pe-tŭns'.
Petzite, pĕt'zīt.
Peucedanine, pu-sĕd'a-mĭn.
Peucile, pu'sĭl.
Pfeiffer, fī'fŭr.
Phacolite, făk'o-līt.
Phædra, fe'drah.
Phalænidæ, făl-e'ne-de.
Phalangium, fah-lăn'je-ŭm.
Phalanx, făl'ăngks.
Phalaris, făl'a-rĭs.
Phalaropidæ, făl-a-rŏp'e-de.
Phallus, făl'lŭs.
Phantasm, făn'tăzm.
Pharamond, făr'ah-mŏnd.
Pharisee, făr'e-se.
Pharmacy, făr'ma-se.
Pharos, fa'rŏs.
Pharsalia, făr-sa'le-ah.
Pharyngitis, făr-ĭn-jī'tĭs.
Pharynx, făr'ĭngkz.
Phase, fāz.
Phaseolus, făs-e-o'lŭs.
Phenomenon, fe-nŏm'e-nŏn.
Pheon, fe'ŏn.
Phidias, fĭd'e-ăs.
Philadelphia, fĭl-ah-dĕl'fe-ah.
Philanthropy, fe-lăn'thro-pe.
Philemon, fe-le'mŏn.
Philip, fĭl'ĭp.
Philippi, fe-lĭp'pi.
Philippopoli, fĭl-ĭp-pŏp'o-le.
Phillyrea, fĭl-lĭr'e-ah.
Philomath, fĭl'o-măth.
Philomela, fĭl-o-me'lah.
Philosophy, fe-lŏs'o-fe.
Philostratus, fe-lŏs'trăh-tŭs.
Phlebitis, fle-bī'tĭs.
Phlegm, flĕm.
Phleum, fle'ŭm.
Phocas, fo'kăs.
Phœnicia, fe-nĭsh'yah.
Pholas, fo'lăs.
Phormium, fŏr'me-ŭm.
Phosphorus, fŏs'fŏr-ŭs.
Photius, fo'shŭs.
Photography, fo-tŏg'ra-fe.
Photopsia, fo-tŏp'se-ah.
Phrase, frāz.
Phrenitis, fre-nī'tĭs.
Phrenology, fre-nŏl'o-je.
Phryganidæ, fre-găn'e-de.
Phrygia, frĭj'e-ah.
Phryma, frī'mah.
Phyllis, fĭl'lĭs.
Phyllium, fĭl'le-ŭm.
Phyma, fī'mah.
Physalia, fi-sa'le-ah.
Physician, fe-zĭsh'ăn.
Physostegia, fĭs-ŏs-te'jah.
Phytelephas, fi-tĕl'e-fas.
Phyton, fī'tŏn.
Phytozoa, fi-to-zo'ăh.
Piacenza, pe-ah-chĕn'zah.
Pia Mater, pī'ah ma'tŭr.
Pianissimo, pe-ah-nĭs'se-mo.
Piano, pe-ah'no.
Pianosa, pe-ah-no'sah.
Piarists, pī'a-rĭsts.
Piastre, pe'ăs-tr.
Piauhy, pe-ow'e.
Piave, pe-ah'va.
Piazza, pe-ăz'zah.
Pica, pī'kah.
Picador, pĭk-a-dŏr'.
Picayune, pĭk-a-yoon'.
Piccadilly, pĭk-ka-dĭl'le.
Piccini, pēt-che'ne.
Piccolo, pĭk'ko-lo.
Piccolomini, pĕk-ko-lŏm'e-ne.
Pichegru, pēsh-groo'.
Pickle, pĭk'l.
Picrasma, pe-krăz'mah.
Picris, pī'krĭs.
Picromel, pĭk'ro-mĕl.
Picrophyllite, pĭk-ro-fĭl'lĭt.
Picrosmine, pi-krŏs'mĭn.
Picture, pĭkt'yŭr.
Picul, pĭk'ŭl.
Pierian, pī-e're-ăn.
Pierre, pe-air'.
Pietist, pī'e-tĭst.
Pifferari, pĕf-fa-rah're.
Pigalle, pe-gahl'.
Pigault, pe-gō'.
Pignoration, pĭg-no-ra'shŭn.
Pigeon, pĭj'ŭn.
Pilaster, pe-lăs'tŭr.
Pilate, pī'laht.
Pilcomayo, pĭl-ko-mī'o.
Pileorhiza, pĭl-e-o-ri'zah.
Pileus, pĭ'le-ŭs.
Pilgrimage, pĭl'grĭm-āj.
Pilidium, pī-lĭd'yŭm.
Pillau, pĭl'lŏw.
Pillory, pĭl'lo-re.
Pilnitz, pĭl'nĭts.
Pilon, pe-lŏn'.
Pilose, pĭ-lŏz'.
Pimelite, pĭm'e-lĭt.
Pimos, pe'mōz.
Pimpinella, pĭm-pe-nĕl'lah.
Pinacotheca, pĭn-ah-ko-the'kah.
Pincers, pĭn'sŭrz.
Pinckney, pĭngk'ne.
Pindar, pĭn'dăr.
Pinguite, pĭng'gwĭt.
Pink, pĭngk.
Pinnite, pĭn'nĭt.
Pintado, pĭn-tah'do.
Pinus, pī'nŭs.
Pinzon, pēn-thŏn'.
Piombino, pe-ŏm-be'no.
Piombo, pe-ŏm'bo.
Pipa, pe'pah.
Piper, pī'pŭr.
Pipette, pe-pĕt'.
Piquant, pĭk'ănt.
Pique, peek.
Piracy, pī'ra-se.
Piræus, pe-re'ŭs.
Pirogue, pe-rŏg'.
Pirouette, pĭr-oo-ĕt'.
Pisa, pe'sah.
Pisano, pe-sah'no.
Piscataquis, pĭs-kăt'a-kwĭs.
Pisces, pĭs'seez.
Piscidia, pĭs-sĭd'yah.
Piscina, pĭs-sī'nah.
Pisistratus, pe-sĭs'trah-tŭs.
Pisolite, pī'so-lĭt.
Pisonia, pe-so'ne-ah.
Pissasphalt, pĭs-ăs'fălt.
Pissophane, pĭs'so-fān.
Pistachio, pĭs-tah'sho.
Pistareen, pĭs-ta-rēn'.
Pistil, pĭs'tĭl.
Pistoja, pĭs-to'yah.
Pistole, pĭs-tōl'.
Piston, pĭs'tŭn.
Pisum, pī'sŭm.
Pittacus, pĭt'ta-kŭs.
Pittosporaceæ, pĭt-to-spo-ra'se-e.
Pittsburgh, pĭtz'bŭrg.
Pittsylvania, pĭt-sĭl-va'ne-ah.
Pityriasis, pĭt-e-ri'a-sĭs.
Più, pe-oo'.
Pius, pe'ŭs.
Pivot, pĭv'ŏt.
Pizarro, pe-zăr'ro.
Pizzicato, pĭt-se-kah'to.
Placard, pla-kahrd'.
Placebo, pla-se'bo.
Placenta, pla-sĕn'tah.
Placentia, pla-sĕn'she-ah.
Placer, pla-thĕr'.
Placita, plăs'e-tah.
Plagiarism, pla'je-a-rĭzm.
Plague, plāg.
Plakodine, plăk'o-dīn.
Planchette, plŏn(g)-shĕt.
Planet, plăn'ĕt.
Planksheer, plăngk'shĕr.
Planorbis, pla-nŏr'bĭs.
Plantagenet, plăn-tăj'e-nĕt.
Plasma, plăz'mah.
Plastography, plăs-tŏg'ra-fe.
Plastron, plăs'trŏn.
Platæa, pla-te'ah.
Plateau, plah-to'.
Platinum, pla-tī'nŭm.
Platitude, plăt'e-tūd.
Plato, pla'to.
Platurus, pla-tu'rŭs.
Platycephalous, plăt-e-sĕf'a-lŭs.
Plaudit, plawd'ĭt.
Plausible, plaw'ze-bl.
Plautus, plaw'tŭs.
Plebiscite, ple-bĭs'sĭt.
Plectognathi, plĕk'tŏg-na-thi.
Plectrophanes, plĕk-trŏf'a-neez.
Plectrum, plĕk'trŭm.
Plenum, ple'nŭm.
Pleochroism, ple-ŏk'ro-ĭzm.
Pleonasm, ple'o-năzm.
Plesiomorphism, ple-se-o-mŏr'fĭzm.
Plesiosaurus, ple-se-o-saw'rŭs.
Plethora, plĕth'o-rah.
Pleurisy, plū're-se.
Pleurobrachia, plū-ro-bra'ke-ah.
Pleuronectes, plū-ro-nĕk'teez.
Plexus, plĕks'ŭs.
Plica, plī'kah.
Plight, plīt.
Pliny, plĭn'e.
Pliocene, plī'o-seen.
Pliosaurus, pli-o-saw'rŭs.
Ploceus, plo-se'ŭs.
Plock, plŏk.
Ploermel, plo-ĕr'mĕl.
Plombières, plŏm-be-air'.
Plotinus, plo-tī'nŭs.
Plumbago, plŭm-ba'go.
Plumber, plŭm'er.
Plumula, plū'mu-lah.
Pneumonia, nu-mo'ne-ah.
Pocahontas, po-kah-ŏn'tăs.
Pochard, po'chărd.
Poco, po'ko.
Podagra, pŏd'a-grah.
Podesta, po-dĕs'tah.
Podium, po'de-ŭm.
Podolia, po-do'le-ah.
Podrida, po-dre'dah.
Pohono, po-ho'no.
Poignant, poin'ănt.
Point-d'appui, pwŏn(g)-dăp-pwe'.
Pointe-à-Pitre, pwănt-ah-pe'tr.
Poison, poi'zn.
Poitiers, pwaw-te-a'.
Poitrine, pwaw-trēn'.
Polacca, po-lăk'kah.
Poland, po'lănd.
Polenta, po-lĕn'tah.
Police, po-lēs'.
Politesse, pŏl-e-tĕs'.
Politician, pŏl-e-tĭsh'ăn.
Polka, pŏl'kah.
Pollard, pŏl'lărd.
Pollux, pŏl'lŭks.
Polo, po'lo.
Polonaise, po-lo-nāz'.
Polotzk, po-lŏtsk'.
Poltava, pŭl-tah'vah.

Poltin, pŏl'tĭn.
Poltroon, pŏl-troon'.
Polverine, pŏl've-rĭn.
Polybius, po-lĭb'e-ŭs.
Polycarp, pŏl'e-kärp.
Polyglot, pŏl'e-glŏt.
Polygynia, pŏl-e-jĭn'yah.
Polynesia, pŏl-e-ne'zhah.
Polynia, po-lin'e-ah.
Polyphemus, pŏl-e-fe'mŭs.
Polypi, pŏl'e-pi.
Polypody, po-lĭp'o-de.
Pomade, po-mād'.
Pomegranate, pŭm-grăn'ĕt.
Pomerania, pŏm-e-ra'ne-ah.
Pomona, po-mo'nah.
Pompeii, pŏm-pe'yi.
Pompey, pŏm'pe.
Pompion, pŏm'pe-ŏn.
Pomposo, pŏm-po'zo. [da'mi.
Pomum Adami, po'mŭm a-
Pondicherry, pŏn-de-chĕr're.
Pongo, pŏng'go.
Pont-à Mousson, pŏnt-ah moo-sŏn(g)'. [trăn'.
Pontchartrain, pŏnt-shar-
Ponte-Corvo, pŏn-ta-kōr'vo.
Pontefract, pŏm'frĕt.
Pontlae, pŏn'te-ăk.
Pontiff, pŏn'tĭf.
Pontificate, pŏn-tĭf'ĭk-ăt.
Pontoise, pŏn(g)-twahz'.
Pontus, pŏn'tŭs.
Poonah, poo'nah.
Popayan, po-pah-yahn'.
Popinjay, pŏp'in-ja. [pĕtl'.
Popocatepetl, po-po-kah-ta-
Populace, pŏp'u-lās.
Porcelalu, pŏr'se-lāu.
Porco, pŏr'ko.
Porenpine, pŏr'ku-pīn.
Porosity, po-rŏs'e-te.
Porphyry, pŏr'fe-re.
Porpora, pŏr'po-rah.
Porporino, pŏr-po-re'no.
Porridge, pŏr'rij.
Porsenna, pŏr-sĕn'nah. [prĭns'.
Port-an-Prince, pŏrt-o-
Porte-monnaie, pŏrt'mŭn-na
Portfolio, pŏrt-fō'lyo.
Portico, pōr'te-ko.
Portion, pōr'shŭn.
Portoise, pōr'tĭz.
Porto Rico, pŏr'to re'ko.
Portrait, pōr'trāt.
Portuguese, pōr'tu-geez.
Posse Comitatus, pŏs'se kŏm-e-ta'tŭs.
Position, po-zĭsh'ŭn.
Postea, pŏs-te'ah.
Posthumous, pŏst'hu-mŭs.
Postilion, pŏs-til'yŭn.
Post-mortem, pōst-mŏr'tĕm.
Potagro, po-tăg'ro.
Potash, pŏt'ăsh.

Potassinm, po-tăs'se-ŭm.
Potemkin, po-tĕm'kĭn.
Poteney, po'tĕn-se.
Potential, po-tĕn'shăl.
Potentilla, po-tĕn-tĭl-lah.
Poterium, po-te're-ŭm.
Pothier, po-te-a'. [ma'ne-ah.
Potichomania, po-te-sho-
Potiphar, pŏt'e-fär.
Potomac, po-to'măk.
Potosi, po-to'se.
Potsdam, pŏtz'dăm.
Pottawottomie, pŏt-tah-wät'to-me.
Potteries, pŏt'tŭr-ĭz.
Pot-pourri, po-poor-ē'.
Pouillet, pwe'la.
Poultiee, pōl'tĭs.
Poultry, pōl'tre.
Poupies, poo'pĭks.
Pourpoint, poor'point.
Poussiu, poo-sahn'.
Poyou, poi'oo. [bŏr'go.
Pozzo-di-Borgo, pŏt'so-de-
Pozzolana, pŏt-so-lah'nah.
Pradier, prah-de-a'.
Pradt, praht.
Præcognita, pre-kŏg'ne-tah.
Præcordia, pre-kŏr'de-ah.
Præfect, pre'fekt.
Prætorium, pre-to're-ŭm.
Prague, prāg.
Prairie, pra're.
Praseolite, prās'e-o-līt.
Prato, prah'to.
Prayer, prār.
Precaution, pre-kaw'shŭn.
Preeentor, pre-sĕn'tŏr.
Precious, prĕsh'ŭs.
Predaceous, pre-da'shŭs.
Predestination, pre-dĕs-te-na'shŭn.
Prediction, pre-dĭk'shŭn.
Pregnancy, prĕg'năn-se.
Prejudiee, prĕj'ū-dĭs.
Prelude, pre'lūd.
Premier, pre'me-ŭr.
Premonstrateusians, pre-mŏn-strah-tĕn'shănz.
Prenzlau, prĕns'lŏw.
Preposltion, prĕp-o-zĭsh'ŭn.
Presburg, prĕs'boorg.
Presbyopia, prĕs-be-o'pe-ah.
Presbyter, prĕz'be-tŭr.
Prescienee, pre'she-ĕns.
Presenee, prĕz'ĕns.
Presentoir, prĕz-ŏng-twŏr'.
Pressirosters, prĕs-se-rŏs'-
Preserve, pre-zŭrv'. [tŭrz.
Prestidigitation, prĕs-te-dĭj-e-ta'shŭn.
Prestissimo, prĕs-tĭs'se-mo.
Presto, prĕs'to.
Pretension, pre-tĕn'shŭn.
Preterit, prĕt'ŭr-ĭt.

Priam, pri'ăm.
Priapus, pri'a-pŭs.
Priene, pri-ān'.
Priessnitz, prees'nĭts.
Priestley, prĕst'le.
Prillion, prĭl'yŭn.
Prim, { *Eng.* prim. *Sp.* preem. [nah.
Prima-donna, pre-mah-don'-
Primâ-faeie, pri-mah-fa'she-e
Primaticeio, pre-mah-tĕt'cho.
Primitive, prĭm'i-tĭv.
Primo, pre'mo.
Primrose, prĭm'rōz.
Primula, prĭm'ū-lah.
Principato Citeriore, preen-che-pah'to che-ta-re-o're.
Prinos, pre'nōs.
Prionus, pri'o-nŭs.
Priscilla, prĭs-sĭl'lah.
Proa, pro'ah.
Probation, pro-ba'shŭn.
Proboscis, pro-bŏs'sis.
Probus, pro'bŭs.
Procataretie, pro-ka-tärk'tĭk
Procatarxis, pro-ka-tärks'ĭs.
Proeedendo, pro-se-dĕn'do.
Procellaridæ, pro-sĕl-lăr'e-de
Proelda, pro'che-dah.
Proecelian, pro-se'le-ăn.
Proconsul, pro-kŏn'sŭl.
Procrustes, pro-krŭs'teez.
Proetocele, prŏk'to-sēl.
Proctor, prŏk'tŭr.
Procuration, prŏk-u-ra'shŭn.
Procyon, pro'se-ŏn.
Prodigal, prŏd'e-gal.
Prodigious, pro-dĭj'ŭs.
Prodigy, prŏd'e-je.
Prœgnminal, pre-gu'me-năl.
Proemptosis, pro-ĕm-to'sĭs.
Profanation, prŏf-a-na'shŭn.
Progeny, prŏj'e-ne.
Prognatism, prŏg-na'tizm.
Prolapsus, pro-lăp'sŭs. [nah.
Prolegomena, prŏl-e-gŏm'e-
Proletaire, pro-la-tair'.
Promenade, prŏm-e-nahd'.
Promerops, prŏm'ĕr-ŏps.
Promethens, pro-me'the-ŭs.
Promusels, pro-mŭs'kĭs.
Pronaos, pro-na'ŏs.
Pronunciamento, pro-noon-the-ah-mĕn'to. [tiks.
Propædenties, pro-pe-dĕn'-
Propaganda, prŏp-a-găn'dah.
Propeller, pro-pĕl'lŭr.
Propertius, pro-pĕr'shŭs.
Prophasis, pro-fa'sĭs.
Prophet, prŏf'ĭt.
Propitheeus, pro-pith'e-kŭs.
Propolis, pro-po'lĭs.
Proprætor, pro-pre'tŏr.
Propylæum, prŏp-e-le'ŭm.
Pro Rata, pro ra'tah.

Proscenium, pro-se'ne-ŭm.
Prose, prōz.
Proselyte, prŏs'e-līt.
Proserpine, prŏs'ĕr-pin.
Prosody, prŏs'o-de.
Prosopis, prŏs'o-pis. [se.
Prosopolepsy, prŏs-o-po-lĕp'-
Prospeetus, pro-spĕk'tŭs.
Prosphysis, prŏs'fe-sĭs.
Prossnitz, prŏs'nĭts.
Prosthesis, prŏs'the-sĭs.
Prostitution, prŏs-te-tu'shŏn,
Prostyle, pro'stīl.
Protagoras, pro-tăg'o-răs.
Protein, pro'te-in.
Protens, pro-te'ŭs.
Prothonotary, pro-thŏn'o-ta-re.
Protogenes, pro-tŏj'e-neez.
Protozoa, prōt-o-zo'ah.
Prondhon, proo-dŏn'.
Provençal, pro-vahn-săl'.
Provincial, pro-vin'shăl.
Proviso, pro-vi'zo.
Proximo, prŏks'e-mo.
Prudentius, pru-dĕn'shŭs.
Prudhomme, proo-dŏm'.
Prunello, proo-nĕl'lo.
Prunus, proo'nŭs.
Prurigo, proo-ri'go.
Prussia, prŭs'shah.
Prytaneum, prĭt-a-ne'ŭm.
Prytanes, prĭt'a-neez.
Psalter, sawl'tŭr.
Psamma, săm'mah.
Psephism, se'fizm.
Psilomelane, sil-o-me'lān.
Pskov, pskŏf.
Psoas, so'ăs.
Ptelia, te'le-ah.
Ptarmigan, tär'me-găn.
Pterocarpus, tĕr-o-kär'pŭs.
Pteromys, tĕr'o-mĭs.
Ptosis, to'sĭs.
Ptyaline, tī'a-lĭn.
Puberty, pū'bĕr-te.
Pubes, pū'beez.
Pubis, pu'bis.
Puccinia, pŭk-sĭn'yah.
Puecile, pu-sĕl'.
Puddening, pŭd'dn-ing.
Pudsey, pŭd'se.
Puebla, pwĕb'lah.
Puerperal, pū-ŭr'pĕr-ăl.
Puerto, pwĕr'to.
Puget, pu'jĕt.
Pugilism, pu'jĭl-izm.
Puisne, pū'ne.
Pulaski, poo-lahs'ke.
Pulchritude, pŭl'kre-tūd.
Pulkha, pŭl'kah.
Pulley, pŭl'le.
Pulmonaria, pŭl-mo-na're-ah
Pulque, pool'ka.
Pulu, pū'lu.

Pulverization, pŭl-vĕr-i-za'-
Pulvillio, pŭl-vil'yo. [shŭn.
Pumice, pŭm'ĭs.
Punetation, pŭngk-ta'shŭn.
Punctilio, pŭngk-til'yo.
Punctnre, pŭngkt'yŭr.
Pundit, pŭn'dĭt.
Punica, pu'ue-kah.
Punjab, pŭn'jăb.
Punkah, pŭng'kah.
Punto, pŭn'to.
Pupa, pu'pah.
Pupelo, pu-pe'lo.
Puppet, pŭp'pĕt.
Puraeé, poo-rah'sa.
Purana, pu-rah'nah.
Purbeek, pŭr'bĕk.
Purchase, pūr'chās.
Purée, poo-ra'.
Purim, pu'rĭm.
Puritan, pu're-tăn.
Purveyor, pūr-va'ŭr.
Purlieu, pūr'lū.
Purueah, pūr-ne'ah.
Purple, pŭr'pl.
Pursuivant, pŭr-swe'vănt.
Puseyism, pū'ze-ĭsm.
Pusillanimity, pu-sĭl-la-nĭm'e-te.
Pustule, pŭst yool.
Putanism, pu'tăn-ĭzm.
Putative, pu-ta'tĭv.
Puteal, pu'te-ăl.
Putrefaction, pu-tre-făk'shŭn.
Putreseent, pu-trĕs'sĕnt.
Putrid, pū'trĭd.
Putty, pŭt'te.
Putumayo, poo-too-mai'yo.
Puy-de-Dôme, pwe-da-dōm'.
Puzzle, pŭz'zl.
Puzzuoli, pŭt-zoo-o'le.
Pyæmia, pi-e'me-ah.
Pyenite, pĭk'nĭt.
Pyenodites, pĭk'no-dīts.
Pygmy, pĭg'me.
Pylorus, pi-lo'rŭs.
Pyralis, pi-ra'lĭs.
Pyramid, pĭr'a-mĭd.
Pyramus, pĭr'a-mŭs.
Pyrargillite, pĭr-ăr'jĭl-līt.
Pyrena, pe-re'nah.
Pyrethram, pe-rĕth'răm.
Pyretology, pĭr-e-tŏl'o-je.
Pyrexia, pe-rĕks'e-ah.
Pyrites, pe-ri'teez.
Pyrogen, pĭr'o-jĕn.
Pyrope, pĭr'o-pe.
Pyrotechnics, pĭr-o-tĕk'nĭka.
Pyrrhus, pĭr'rŭs.
Pyrula, pĭr'u-lah.
Pyrus, pi'rŭs.
Pythagoras, pe-thăg'o-răs.
Pythian, pĭth'e-ăn.
Python, pi'thŏn.
Pyxis, pĭks'ĭs.

Q.

Quackery, kwăk'ŭr-e.
Quadra, kwŏd'rah.
Quadrangle, kwŏd'răng-gl.
Quadrature, kwŏd'ra-tŭr.
Quadrille, ka-drĭl'.
Quadrillion, kwŏd-rĭl'yŭn.
Quadroon, kwŏd-roon'.
Quadrumana, kwŏd-roo-ma'-nah.
Quadruped, kwŏd'roo-pĕd.
Quære, kwe're.

Quaint, kwānt.
Qualm, kwawm.
Quantum, kwŏn'tŭm.
Quarantine, kwŏr-ăn-teen'.
Quartation, kwŏr-ta'shŭn.
Quarteron, kwŏr'tĕr-oon.
Quasi, kwa'se.
Quasimodo, kwah-se-mo'do.
Quassia, kwŏsh'e-ah.
Quatrain, kwŏt'rĕn.
Quatuor, kwät'ŭ-ŏr.

Quay, ke.
Quedah, ka'dah.
Quentin, { *Eng.* kwĕn'tĭn. *Fr.* kŏn-tahn'.
Quereitron, kwŭr'sĭt-rŏn.
Queretaro, ka-ra-tah'ro.
Querist, kwe'rĭst.
Quernales, kwĕr-na'leez.
Querulous, kwĕr'u-lŭs.
Quiberon, ke-brŏn(g)'.
Quiddity, kwĭd'de-te.

Quid nunc, kwĭd nŭngk.
Quieseence, kwi-ĕs'sĕns.
Quietus, kwi-e'tŭs.
Quiney, kwĭu'se.
Quinine, kwe-nīn'.
Quinsy, kwin'ze.
Quintilian, kwĭn-tĭl'e-ăn.
Quinzaine, kwĭn'zān.
Quipu, ke'poo.
Quirites, kwe-rī'teez.
Quiscalus, kwĭs'ka-lŭs.

Qui tam, kwī tăm.
Quitman, kwĭt'măn.
Quito, ke'to.
Qui vive, ke vēv.
Quixotism, kwĭks'ŏt-ĭzm.
Quodlibet, kwŏd'le-bĕt.
Quondam, kwŏn'dăm.
Quorum, kwo'rŭm.
Quotation, kwo-ta'shŭn.
Quo warranto, kwo wŏr'răn-to.

R.

Raamses, rahm'seez.
Rabagh, rah'bah.
Rabat, rah-bät'.
Rabbi, răb'bi.
Rabdology, răb-dŏl'o-je.
Rabelais, rahb-la'.
Rabntin, rah-boo-tahn'.
Raea, rah'kah.
Raecoon, răk-koon'.
Racemic, ra-se'mĭk.
Rachel, ra'chĕl.
Rachilla, ra-chĭl'lah.
Racine, rah-seen'.
Radcliffe, răd'klĭf.
Radeau, rah-do'.
Radetzky, rah-dĕt'ske.
Radiata, ra-de-ah'tah.
Radicle, răd'e-kl.
Radiolite, ra'de-o-līt.
Radius, ra'de-ŭs.
Radzivill, rahd'ze-wĭl.
Rafiles, raf'flz.
Raging, rāj'ing.
Ragont, ra-goo'.
Ragusa, rah-goo'sah.
Rainbow, răn'bo.
Raisin, ra'zn.
Raisonné, ra-zo-na'.
Rajah, rah'jah.
Rajpoots, rahj-poots'.
Raleigh, raw'le.
Rallentando, răl-lŏn-tăn'do.
Ralph, rălf.

Ramadan, răm-a-dăn'.
Ramapo, răm-a-po'.
Ramayana, rah-ma-yah'nah.
Ramillies, răm'e-leez.
Ramist, ra-mĭst.
Ramoth, ra'mŏth.
Ramphastidæ, răm-făs'te-de.
Ramsay, răm'ze.
Ramshackle, răm'shăk-l.
Ramus, ra'mŭs.
Ranales, răn'a-leez.
Raneé, răn-sa'.
Rancedo, răn-sa'do.
Ranelio, rănsh'o.
Randolph, răn'dŏlf.
Ranee, rah-ne'.
Rangoon, răng-goon'.
Rank, răngk.
Ranke, răngk'a.
Rantipole, răn'te-pōl.
Rantula, răn'tu-lah.
Ranunculus, ra-nŭug'ku-lŭs.
Ranz-des-vaches, rŏnz-da-vahsh'.
Raphael, rahf'a-ĕl.
Raphanus, răf'a-nŭs.
Raphides, răf'i-deez.
Rappahannock, răp-pah-ăn'nŭk.
Rapscallion, răpz-kăl'yŭn.
Rara Avis, ra-rah a'vis.
Rasores, ra-zo'reez.
Raspail, răs'pāl.

Ratisbon, răt'ĭz-bŏn.
Ratlin, răt'lin.
Rattau, răt-tăn'.
Rattazzi, răt-tät'se.
Ravenala, răv-e-na'lah.
Ravenna, rah-vĕn'nah.
Ravignan, rah-vēn'yăn.
Ravissant, răv-ēs-săn(g)'.
Ravitz, rah'vĭts.
Raymond, ra'mŏnd.
Raynal, ra'nald.
Reaumur, ro-moor'.
Rebus, re'bŭs.
Recent, re'sĕnt.
Rectum, rĕk'to.
Reddendum, rĕd-dĕn'dŭm.
Redemptorist, re-dĕm'to-
Redgrave, rĕd'grāv. [rĭst.
Redowa, re-do'wah.
Rees, reez.
Refereuce, rĕf'ŭr-ĕns.
Reformation, ref-ŏr-ma'shŭn.
Regatta, re-gat'tah.
Reggio, rĕd'jo.
Regma, rĕg'mah.
Regnard, ra-nahr'.
Regnier, ra-ne-a'.
Regulus, rĕg'u-lŭs.
Rehoboam, re-ho-bo'ăm.
Rehoboth, re'ho-bŏth.
Reichenberg, rīk'ĕn-bărg.
Reid, rĕd.
Reims, rēmz.

Reindeer, rān'deer.
Relinquish, re-lĭngk'wĭsh.
Relique, rĕl'ĭk.
Remainder, re-mān'dŭr.
Rembrandt, rĕm'brănt.
Remi, ra-me'.
Remington, rĕm'ĭng-tŭn.
Remora, ra-mo'rah.
Remphan, rĕm'făn.
Rémusat, ra-moo-zah'.
Renaissance, roo-na-sōugs'.
Rendezvous, rŏn-da-voo'.
René, ra-na'.
Renilla, re-nĭl'lah.
Rennes, rĕnn.
Replevin, re-plĕv'ĭn.
Replica, rĕp'le-kah.
Replum, re'plĭm.
Reprove, re-proov'.
Reptile, rĕp'tĭl.
Repnblie, re-pŭb'lĭk.
Request, re-kwĕst'.
Requiem, re'kwe-ĕm.
Resaca de la Palma, ra-sah'kah da lah păl'mah.
Rescission, re-sĭzh'ŭn.
Rescue, rĕs'kū.
Reseda, ra-sa'dah.
Reservoir, rĕz-ŭr-vwŏr'.
Reshd, rĕshl.
Residuum, re-zĭd'u-ŭm.
Resina, ra-se'nah.
Resolve, re-zŏlv'.

Respiration, rĕs-pe-ra'shŭn.
Restiaccæ, rĕs-te-a'se-e.
Restigouche, rĕs-te-goo'sha.
Retiarii, rĕt'e-a re-e.
Reticulum, re-tĭk'u-lŭm.
Retina, rĕt'e-nah.
Retinitis, rĕt-e-nī'tĭs.
Retinue, rĕt'e-nū.
Retraction, re-trăk'shŭn.
Retz, rĕts.
Reuben, roo'bĕn.
Reuss, roiss.
Revel, rĕv'ĕl.
Reversion, re-vŭr'shŭn.
Revolver, re-vŏlv'r.
Reward, re-wŏrd'.
Reynard, rēn'ărd.
Reynolds, rĕn'ŏlz. [thŭs.
Rhadamanthus, răd-a-măn'-
Rhamnaceæ, răm-nā'se-e.
Rhamnales, răm'na-leez.
Rhamnus, răm'nŭs.
Rhea, re'ah.
Rheumatism, roo'ma-tizm.
Rhexia, rĕks'e-ah.
Rhinantus, rī-năn'tŭs.
Rhine, rīn.
Rhinoplasty, rī-no-plăs'te.
Rhizobolaeeæ, rīz-o-lo-la'-
Rhizogeus, rīz'o-jĕnz. [se.
Rhizoma, rī-zo'mah.
Rhizophora, re-zŏf'o-rah.
Rhizopod, rī'zo-pŏd.

Rhodes, rōdz.
Rhododendron, rōd-o-dĕn'-[drŭn.
Rhodomenia, rōd-o-me'ne-ah.
Rhodoriza, rōd-o-ri'zah.
Rhubarb, roo'bärb.
Rhymester, rīm'stŭr.
Riant, re-ŏng'.
Ribald, rĭb'ald.
Ribaud, rib'ŏn.
Ribera, re-ba'rah.
Ricasoli, re-kăs'o-le.
Rice, rīs.
Richard, rĭch'ärd.
Richelieu, rēsh-le-oo.
Richibucto, rĭsh-e-bŭk'to.
Richter, rĭk'tĕr.
Riemns, rīs-i'nŭs.
Rickets, rĭk'ĭts.
Ricochet, rĭk-o-shĕt'.
Record, re-kŏr'.
Ridicule, rĭd'e-kūl.
Ridotto, re-dŏt'to.
Rienzi, re-ĕn'ze.
Rietbok, rēt'bŏk.
Rifacimento, re-fäs-e-mĕn'to.
Riga, re'gah.
Rigadoon, rĭg-a-doon'.
Right, rīt.
Rigmarole, rĭg'ma-rōl.'
Rima, ri'mah.
Rinderpest, rĭn'dĕr-pĕst.
Rinforzando, rēn-fôrt-sahn'-[do.
Riolite, ri'o-līt.
Riparian, re-pa're-ăn.
Ripidolite, re-pĭd'o-līt.
Ripley, rĭp'le.
Riquet, re-ka'.
Risotto, re-zŏt'to.
Rissole, re-sōl'.
Ristori, res-to're.
Risus Sardonicus, ri'sŭs [săr-dŏn'e-kŭs
Ritardando, re-tär-dan'do.
Ritualism, rĭt'u-al-īzm.
Rivulet, rĭv'u-lĕt.
Roan, rōn.
Robertson, rŏb'ŭrt-sŭn
Robespierre, rōbz-pe-air'.
Roborant, rŏb'o-rănt.
Rocambole, rŏk'ăm-bōl.
Rocas, ro'kăs.
Rocella, ro-sĕl'lah.
Rochdale, rotch'dāl. [ko'.
Rochefoucauld, rŏsh-foo-
Rochelle, ro-shĕl'.
Rocoa, ro-ko'ah.
Rococo, ro-ko'ko.
Roeroy, ro-krwah'.
Rodentia, ro-dĕn'she-ah.
Rodney, rŏd'ne.
Rodolph, ro-dŏlf'.
Rodomontade, rŏd-o-mŏn-
Rodosto, ro-dŏs'to. tād'.
Roebling, rōb'lĭng.
Roland, { *Eng.* ro'land. *Fr.* ro-lŏn(g)'
Rollin, { *Fr.* ro-lahn'. *Eng.* rŏl'lin.
Rollo, rŏl'lo.
Romagna, ro-mahn'yah.
Romaunt, ro-nah'nŏf.
Romanus, ro-mah'nŭs.
Romanzieri, ro-măn-ze-a're.
Romanzoff, ro-oo-mahn'tsŏf.
Romulus, rŏm'u-lŭs.
Roncesvalles, rŏn-se-väl'lĕs.
Roorbach, roor'băk.
Roosa, roo'sah.
Roquelaure, rŏk-lōr'.
Rosa, ro'zah.
Rosario, ro-zah're-o.
Rosas, ro'zăs.
Roscoe, rŏs'ko.
Roscommon, rŏs-kŏm'mŭn.
Rosecrans, rōz'krănz.
Roseola, ro-se-o'lah.
Rosetta, ro-zĕt'tah. [shănz.
Rosicrucians, rōz-e-kroo'-
Rosin, rŏz'n.
Rosmarine, rŏz'mah-reen.
Rossi, rŏs'se.
Rossini, rŏs-se'ne.
Roster, rŏs'tŭr.
Rostock, rŏs'tŭk.
Rostrum, rŏs'trŭm.
Rota, ro'tah.
Rotherhithe, rŏth'ŭr-hĭth.
Rothschild, rŏs'chĭld.
Rotifera, ro-tĭf'ŭr-ah.
Rotterdam, rŏt'tŭr-dăm.
Rotunda, ro-tŭn'dah.
Roubaix, roo-ba'.
Rouble, roo'bl.
Roué, roo-a'.
Rouen, roo-ahn(g)'.
Rouge, roozh.
Rough, rŭf.
Roulade, roo-lahd'.
Roulean, roo-lo'.
Roulette, roo-lĕt'.
Roumania, roo-ma'ne-ah.
Roumelia, roo-me'le-ah.
Ronssean, roo-so'.
Roveredo, ro-va-ra'do.
Rovigo, ro-ve'go.
Royal, roi'ăl.
Rshev, r'shĕv.
Ruatan, roo-ah-tahn'.
Rubato, roo-bah'to.
Rubens, roo'bĕnz.
Rubicon, roo'be-kŏn.
Rubidium, roo-bĭd'yŭm.
Rubies, roo'bĭz.
Rubric, roo'brĭk.
Ruche, roosh.
Rugen, roo'gĕn.
Ruinex, roo'mĕks.
Rumford, rŭm'fŭrd.
Ruminantia, roo-me-năn'she ah.
Rummage, rŭm'măj.
Rumple, rŭm'pl.
Runes, roonz.
Rupee, roo-pee'.
Rupia, roo'pe-ah.
Rusens, rŭs'kŭs.
Russell, rŭs'sl.
Russet, rŭs'sĭt.
Russia, rŭsh'ah.
Rustchuk, roost'chook.
Ruta, roo'tah.
Ruth, rooth.
Ruthenium, roo-the'ne-ŭm.
Ruthertord, rŭth'r-fŭrd.
Rutherglen, rŭg'lĕn.
Rutland, rŭt'lănd.
Ruysdael, rois'dahl.
Ruyter, rī'tŭr.
Rynd, rĭnd.
Ryot, rī'ŏt.
Ryswick, rĭz'wĭk.

S.

Saadi, sah'de.
Sabadell, sah-bah-dĕl'.
Sabaoth, sā'ba-ŏth.
Sabasia, sa-ba'zhah.
Sabbath, săb'băth.
Sabellians, sa-bĕl'yănz.
Sabians, sa'be-ănz.
Sabines, săb'ĭnz.
Sabot, sah-bo'.
Saccade, săk-kād'.
Saccatoo, săk-kah-too'.
Saccharine, săk'ka-rĭn. [e-tŭr.
Saccharometer, săk-ka-rŏm'-
Saccomyidæ, săk-ko-me'i-de.
Sacerdotal, săs-ŭr-do'tăl.
Saco, sah'ko.
Sacramento, săk-rah-mĕn'to.
Sacrifice, săk're-fīz.
Sacristan, săk'rĭst-ăn.
Sacrum, sa'krŭm.
Saddleworth, săd'dl-wŭrth.
Sadowa, sah-do'wah.
Safegnard, sāf'gahrd.
Saffi, săf'fe.
Saffron, săf'frŭn.
Saga, sa'gah.
Sagapenum, săg-a-pe'nŭm.
Sage, sāj.
Saggar, săg'gär.
Sagittarius, săj-ĭt-ta're-ŭs.
Sago, sa'go.
Sagoins, sa-go'ĭnz.
Sagueuay, sah-gwe-na'.
Sagueras, săg-oo-a
Sahara, sah-ah'rah.
Sahlite, sah'līt.
Saigon, sa'gŏn.
Sainte-Beuve, sahn-boov'.
Saint Pierre Simon, -pe-air'
Sajou, sah-joo'. [se-mŏn(g)'.
Saki, săk'e.
Salaam, sa-lahm'.
Salad, săl'ăd.
Saladin, săl'ah-dĭn.
Salamanca, săl-ah-măng'kah.
Salamandridæ, săl-a-măn'-
Salemi, săl-a'me. [dre-de.
Saleratus, săl-e-ra'tŭs.
Salerno, sah-lĕr'no.
Salesman, sālz'măn.
Salibabo, săl-e-bah'bo.
Salicin, săl'e-sĭn.
Salicornia, săl-e-kŏr'ne-ah.
Salience, sa'le-ĕns.
Salii, sa'le-i.
Salinas, sah-le'năs.
Saline, sa'līn.
Salique, săl'ĭk.
Salisbury, sawlz'bŭr-re.
Saliva, sa-lī'vah.
Sallx, sa'lĭks.
Sallenders, săl'lĕn-dŭrz.
Sallow, săl'lo.
Sallust, săl'lŭst.
Salmagundi, săl-ma-gŭn'de.
Salmi, săl'me.
Salmon, săm'ŭn.
Salogen, săl'o-jĕn.
Salome, sa-lo'me.
Salon, sah-lŏn(g)'.
Salop, săl'ŏp.
Salsafy, săl'sa-fe. [mĕn-ta're-ŭs.
Salsamentarious, săl-sah-
Salses, săl'sĕz.
Salsette, săl-sĕt'.
Salsilla, săl-sĭl'lah.
Salsola, săl-so'lah.
Salta, sawl'tah.
Saltarello, săl-tah-rĕl'lo.
Salubrious, sa-lū'bre-ŭs.
Saluda, sah-lū'dah.
Salutation, săl-u-ta'shŭn.
Salut Public, sah-loo-pūb-leek'.
Salnzzo, sah-loot'zo.
Salvador, săl'vah-dŏr.
Salvatella, săl-vah-tĕl'lah.
Salve, sahv.
Salvia, săl've-ah.
Samana, sah-mah'nah.
Samara, sah-mah-rah'.
Samarang, sah-mah-rahng'.
Samaria, sa-ma're-ah.
Sambas, sahm-bäs'.
Sambo, săm'bo.
Sambucus, săm-bū'kŭs.
Samnites, săm'nītz.
Samoiedes, săm-oi-adz'.
Samos, sah'mŏs.
Samphire, săm'fŭr.
Samson, săm'sŭn.
Samydaceæ, săm-e-da'se-e.
Sana, sah'nah. [ah'no.
San Casciano, sŏn kăs-she-
Sanctuary, săngk'tu-a-re.
Sanctus, săngk'tŭs.
Sandal, săn'dăl.
Sandarach, săn'da-răk.
Sandemanians, săn-de-ma'-
Sandusky, săn-dŭs'ke. [ne-ănz.
San Francisco, săn frăn-sĭs'-
Sangamon, săng'ga-mŏn. [ko.
Sangaree, săng-ga-rē'.
Sang-froid, sŏng-frwaw'.
Sangreal, săn'gre-ăl.
San Giulio, săn joo'le-o. [ah.
Sanguinaria, săng-gwĭn-a're-
Sanguine, săng'gwĭn.
Sanhedrim, săn'he-drĭm.
Saniella, săn-ĭk'u-lah.
Sanies, sa'neez.
Sans-culotte, sŏng-koo-lŏt'.
Sanskrit, săn'skrit.
Santa Anna, săn'tah ăn'nah.
Santalaceæ, săn-tah-la'se-e.
Santalum, săn'ta-lŭm.
Santiago, săn-te-ah'go.
Santonine, săn'tŏn-ĭn.
Santorin, săn-to-reen'.
São Roque, sown(g)-ro'ka.
Sapajou, săp'ah-joo.
Saphena, sa-fe'nah.
Sapient, sa'pe-ĕnt.
Sapindus, sa-pin'dŭs.
Sapodilla, săp-o-dĭl'lah.
Saponaria, săp-o-na're-ah.
Saponine, săp'o-nĭn.
Sapor, sa'pŏr.
Sapphire, săf'ĭr.
Sappho, săf'fo.
Sarabaud, săr'ah-bănd.
Sarabita, sah-rah-be'tah.
Saracens, săr'ah-sĕnz.
Sarah, sa'rah.
Sarangpoor, săr-ăng-poor'.
Saratoga, săr-a-to'gah.
Sarawak, sah-rah-wahk'.
Sarcasm, săr'kăzm.
Sarcobasis, săr-ko-ba'sĭs.
Sarcocele, săr'ko-sēl.
Sarcology, săr-kŏl'o-je.
Sarcoma, săr-ko'mah. [pa'lŭs.
Sardanapalus, săr-dah-nah-
Sardine, săr'deen.
Sardinia, săr-dĭn'e-ah.
Sardonic, săr-dŏn'ĭk.
Sardonyx, săr'dŏn-ĭks.
Saree, sah're.
Sargasso, săr-găs'so.
Sarguemines, sahr-goo-meen'
Sarigue, sah-reeg'.
Sarnia, săr'ne-ah.
Saros, sah'rŏs. [mŭmz.
Sarothamnus, sa-rŏth'a-
Sarrasin, săr'ra-sĭn. [lah.
Sarsaparilla, sär-sah-pah-rĭl'-
Sarto, sahr'to.
Sartorius, săr-to're-ŭs. [wŏn
Saskatchewan, săs-kăch'a-
Sassafras, săs'sa-frăs.
Sassanides, săs-săn'e-deez.
Sassari, săs-sah're.
Sassolin, săs'so-lĕn.
Satalia, sa-ta'le-ah.
Satan, sā'tăn.
Satchel, săch'ĕl.
Satellite, săt'ĕl-līt.
Satiate, sa'she-āt.
Satin, săt'ĭn.
Satire, săt'ĭr.
Satrap, săt'răp.
Sattara, săt-tah'rah.
Saturn, săt'ŭrn.
Saturnalia, săt-ŭr-na'le-ah.
Satyr, sa'tŭr.
Saurian, saw're-ăn.
Sauvage, so-vazh'.
Sauvé, so-va'.
Savage, săv'ăj.
Savannah, sah-văn'nah.
Savary, sah-vah-re'.
Savigliano, sah-veel-yah'no.
Savona, sah-vo'nah.
Savonarola, sah-vo-nah-ro'lah
Saxe, säks.
Saxifrage, säks'e-fraj.
Saxicavons, säks-e-ka'vŭs.
Saxon, säks'n.
Sayette, sa-ĕt'.
Scabious, ska'be-ŭs.
Scagliola, skăl-yo'lah.
Scalaria, skah-la're-ah.
Scald, skawld. [drŭn.
Scalenohedron, skăl-ĕn-o-e'-
Scammony, skăm'mo-ne.
Scanderbeg, skăn'dŭr-bĕg.
Scansores, skăn-so'reez.
Scapula, skăp'u-lah.
Scapus, ska'pŭs.
Scarabeus, skăr-a-be'ŭs.
Scarecrow, skăr'kro.
Scarlatina, skăr-la-te'nah.
Scarlatti, skăr-lät'te.
Scarpa, skär'pah.
Scarron, skăr'rŏn(g).
Scene, seen.
Scepticism, skĕp'te-sĭzm.
Sceptre, sĕp'tŭr.
Schaumburg-Lippe, showm-boorg-lip'pe.
Schecletine, she'le-tĭn.
Schelling, shĕl'lĭng.
Scheme, skeem.
Scheroma, ske-ro'mah.
Scherzando, skĕrt-sahn'do.
Scherzo, skĕrt'so.
Schesis, ske'sĭs.
Schiraz, she'răz.
Schism, sĭzm.
Schist, shĭst.
Schizopods, shĭz'o-pŏds.
Schlegel, shla'gal.
Schleswig, shlĕs'wĭg.
Schmidt, shmit.
Schœnus, ske'nŭs.
Scholar, skŏl'ăr.
Scholiast, sko'le-ăst.
Schoolcraft, skool'krăft.
Schooner, skoo-nŭr. [hŏw'ŭr.
Schopenhauer sho-pen-
Schottisch, shŏt'teesh.
Schrankia, shrăngk'e-ah.
Schubert, shoo'bĕrt.
Schuyler, skī'lĕr.
Schwalbea, shwahl'be-ah. [lĕr.
Schwanthaler, shwahn'tah-
Schwartz, shwŏrts.
Schwartzburg-Sondershausen, shwŏrts'boorg sŏn-dĕrz-how'zn.
Schweidnitz, shwīd'nĭts.
Sciagraphy, si-ăg'ra-fe
Sciatica, si-ăt'e-kah.
Science, si'ĕns.
Sciolti, se-ŏl'te.
Sciomachy, si-ŏm'a-ke.
Sciomancy, si'o-măn-se.
Scion, si'ŏn.
Scire-facias, si-re-fa'she-ăs.
Scirrhus, skir'rŭs.
Scissors, sĭz'zŭrz.
Scinridæ, si-u're-de. [tha'se-e
Scleranthaceæ, skle-răn-
Scleria, skle're-ah.
Scold, skōld.
Scolecite, skŏl'e-sīt.
Scolopacidæ, sko-lo-păs'e-de.
Scolopendrinm, sko-lo-pĕn'-
Scolymus, sko-lī'mŭs. [dre-ŭm.
Scolytidæ, sko-lĭt'e-de.
Scombridæ, skŏm'bre-de.
Scoria, sko're-ah.
Scorodite, skŏr'o-dīt.
Scorpion, skŏr'pe-ŭn.
Scorzonera, skŏr-zo'nŭr-ah.
Scourge, skŭrj.
Scranton, skrăn'tŭn.
Scripture, skrĭpt'yŭr.
Scrivener, skrĭv'nŭr.
Scrofula, skrŏf'u-lah. [ah.
Scrophularia, skrŏf-u-la're-
Scrotum, skro'tŭm. [te.
Scrupulosity, skroo-pu-lŏs'e-
Scrutiny, skroo'te-ne.
Scuderi, skoo-da-re'.
Scumbling, skŭm'blĭng.
Scurrilous, skŭr'rĭl-ŭs.
Scurvy, skŭr've.
Scutch, skŭch.
Scutellum, skn-tĕl'lŭm.
Sentibranchians, sku-te-brăngk'e-ănz.
Sentiger, skn'te-jŭr.
Scythe, sīth.
Scythian, sĭth'e-ăn.
Scammachie, sĕn'nah-ke.
Sebastopol, se-bās'to-pŏl.
Secession, se-sĕsh'ŭn.
Sechium, se'ke-ŭm.
Secondo, se'kŏn'do.
Secrecy, se'kre-se.
Secretary, sĕk're-ta-re.
Sector, sĕk'tŏr.
Secularization, sĕk-u-lăr-e-za'shŭn.
Secunderabad, se-kŭn-dĕr-a-băd'.
Security, se-ku're-te.
Sedan, se-dăn'.
Sedative, sĕd'a-tĭv.
Sederunt, se-de'rŭnt.
Sedilium, se-dĭl'yŭm.
Sednm, se'dŭm.
Segment, sĕg'mĕnt.
Segno, sāu'yo.
Segovia, se-go've-ah.
Segregation, sĕg-re-ga'shŭn.
Seguiera, sān-ye-a'rah.
Ségur, sa-goor'.
Seidlitz, sĭd'lĭts.
Seignior, sēn'yŭr.
Seine, sān.
Selachians, se-la'ke-ănz.
Selah, se'lah.
Sel d'Or, sĕl dŏr'.
Selection, se-lĕk'shŭn.
Selene, se-le'ne.
Selenga, se-lĕng'gah.
Selenium, se-le'ne-ŭm. [fe.
Selenography, sĕl-e-nŏg'ra-
Seleucia, se-lū'she-ah.
Seleucus Nicator, se-lū'kŭs ni-ka'tŏr.
Selim, se'lĭm.
Selkirk, sĕl'kŭrk.
Semblance, sĕm'blăns.
Semecarpus, sĕm-e-kär'pŭs.
Semele, sĕm'e-le.
Semen, se'mĕn.
Seminal, sĕm'e-năl.
Seminoles, sĕm'e-lōlz.
Semiramis, se-mĭr'a-mĭs.
Semitic, se-mĭt'ĭk.
Semolina, sĕm-o-le'nah.
Sempach, sĕm'pak. [vŭm.
Sempervivum, sĕm-pŭr-vi'-
Sempronius, sĕm-pro'ne-ŭs.
Senate, sĕn'ăt.
Seneca, sĕn'e-kah.
Senecio, se-ne'sho.
Senegambia, sĕn-e-găm'be-sh.
Sennaar, sen-nahr'.
Sensation, sĕn-sa'shŭn.
Sensorium, sĕn-so're-ŭm.
Sensual, sen'shoo-ăl.
Sentient, sĕn'she-ent.
Sepal, se'păl.
Sepia, se'pe-ah. [ŏn-ăl.
Septentrional, sĕp-tĕn'tre-
Septillion, sĕp-tĭl'yŭn.
Septum, sĕp'tŭm.
Sepulchre, sĕp'ŭl-kĕr.
Sepulture, sĕp'ŭl-tŭr.
Sequacious, se-kwa'shŭs.
Sequela, se-kwe'lah. [sbŭn.
Sequestration, se-kwes-tra'-
Sequoia, se-kwoi'ah.
Serai, se-ra'ye.
Serangani, sĕr-ăn-gsh'ne.
Seraph, sĕr'ăf.
Serapis, se-ra'pĭs.
Serenity, se-re'ne-te.
Seres, se'rēz.
Serfage, sŭrf'aj.
Sergius, sŭr'je-ŭs. [pah-tăm'.
Seringapatam, se-ring-gah-
Sermon, sŭr'mŏn.
Seron, se-roon'.
Serpent, sŭr'pĕnt.
Serpula, sŭr'pu-lah.
Sertorius, sĕr-to're-ŭs.
Serum, se'rŭm.
Servia, sĕr've-ah.
Service, sŭr'vĭs.
Servius, sŭr've-ŭs.
Sesamum, sĕs'a-mŭm.
Sesia, se'she-ah.
Sesostris, se-sŏs'trĭs.
Session, sĕsh'ŭn.
Setaria, se-ta're-ah.
Seth, sĕth.
Settee, sĕt-tē'.
Severance, sĕv'ŭr-ăns.
Severn, sĕv'ŭrn.
Severus, se-ve'rŭs.
Sévigné, sa-vän-ya'.
Sewell, sū'ĕl.
Sextant, sĕks'tănt.
Sexton, sĕks'tŭn.
Seymour, se'mŭr.
Sforza, sfôrt'sah.
Sforzando, sfôrt-sahn'do.
Sfumato, sfoo-mah'to.
Sgratiato, sgrăf-fe-ah'to.
Shabrack, shab'răk.
Shaftesbury, shăftz'bŭr-re
Shahpoor, shah-poor'.
Shakspeare, shăk'spere.
Shamanism, sha'măn-izm.
Shampooing, shăm-poo'ĭng.
Shanghai, shăng-hā'.
Shannon, shăn'nŭn.
Shan-se, shăn-sē'.
Sharon, sha'rŏn.
Sheba, she'bah.
Sheffield, shĕf'feld.

Sheil, shēl.
Sheik, shoek.
Shekel, shĕk'l.
Shekinah, shĕk'e-nah.
Sheldrake, shĕl'drāk.
Shelley, shĕl'le.
Shemech, she'nĕk.
Shenandoah, shĕn-ăn-do'ah.
Sherbet, shûr'bĕt.
Sheridan, shĕr'e-dăn.
Sherman, shûr'măn.
Sherryvallies, shĕr-re-văl'lĭz
Shiite, shi'ĭt.
Shillelagh, shĭl-la'lah.
Shire, shīr *or* shûr.
Shirley, shûr'le.
Shirwa, sheer'wah.
Shittah, shĭt'tah.
Shoa, sho'ah.
Shoulder, shōl'dûr.
Shovel, shŭv'l.
Sialidæ, si-ăl'e-de.
Sialogue si'a-lŏg.
Siamang, se-ah-măng'.
Siamese, sia-mēz.'
Sibyl, sĭb'il.
Sicard, se-kahr'.
Sicilian, so-sĭl'yăn.
Siddons, sĭd'dnz.
Sidereal, si-de're-ăl.
Siderltis, si-dēr'e-tĭs.
Siderography, sid-ĕr-ŏg'ra-fe
Sideroschisolite, sid-ĕr-o-skĭs'o-līt.
Sideroxylon, sĭd-ĕr-ŏks'e-lŏn.
Sidlaw, sĭd'lan. [bĕrg'a.
Siebengebirge, se-bĕu-ga-
Sierra Leone, se-ĕr'rah la-o'-
Siesta, se-ĕs'tah. [na.
Sieyès, se-a-yĕs'.
Sigel, se'gĕl.
Sigillaria, sĭj-ĭl-la're-ah.
Sigismund, sĭj'ĭz-mŭnd.
Sigma, sĭg'mah. [ĕn.
Sigmaringen, sĭg-mah-rĭng'-
Signora, sēn-yo'rah.
Signorina, sēn-yo-re'nah.
Sikhs, seeks.
Silenales, sĭl-e-na'leez.
Silence, sī'lĕns.
Silenus, si-le'nŭs.
Silesia, si-le'zhah.
Silicon, sĭl'e-kŏn.
Siliquella, sĭl-e-kĕl'lah.
Silistria, se-lĭs'tre-ah.
Sillimanite, sĭl'le-măn'ĭt.
Siloam si-lo'ăm.
Silphium, sĭl'fe-ŭm.
Silurian, si-lū're-ăn.
Silvas, sĭl'vâs.
Silvester, sĭl'vĕs-tŭr.
Silybum, sĭl'e-bŭm.
Simar, s'mahr.
Simarnba, sĭm-a-ru'bah.
Simbirsk, sĭm-bŭrsk'.
Simeon, sĭm'e-ŭn.
Simon, sī'mŭn.
Simony, sĭm'o-ne.
Simoom, se-moom'.
Simpheropol, sĭm-fĕr'o-pŏl.
Simulation, sim-u-la'shŭn.
Sinciput, sĭu'se-pŭt.
Sinecure, sĭn'e-kūr.
Sine dies, si'ne di'ĕz.
Sine qua non, si'ne kwa nŏn.
Singapore, sĭng-gah-poor'.
Single, sĭug'gl.
Singultus, sin-gŭl'tŭs.
Sinope, se-no'pe.
Sinople, sĭu'o-pl.
Sinnosity, sĭu-u-ŏs'e-te.
Sinus, sī'nŭs.
Sion, sī'ŭn.
Siphon, sī'fŏn.
Siphonia, si-fo'ne-ah.
Sipotnba, sip-o-tu'bah.
Sipscy, sĭp'se.
Sipunculus, se-pŭng'kn-lŭs.
Siraballi, se-rah-bal'le.
Siredon, sē-re'don.
Siren, sī'rĕn.
Sirins, sĭr'e-ŭs.
Sirocco, se-rŏk'ko.
Sirrah, sĭr'rah.
Sirupy, sĭr'ŭp-e.
Sirvente, sŭr-vĕn'te.
Siskiwit, sĭs'ke-wĭt.
Sismondi, sees-mŏn'de.
Sistova, sees-to'vah.
Sisymbrium, se-sĭm'bre-ŭm.
Sisyphus, sĭs'e-fŭs. [ĭum.
Sisyrinchium, sĭs-e-rĭug'ke-
Sitka, sĭt'kah.
Sitology, se-tŏl'o-je.
Siva, sĭ'vah *or* s3'vah. [ŭm.
Sivatherium, sĭv-a-the're-
Sixtus, sĭks'tŭs.
Sizar, sĭ'zăr.
Skager-rack, skah-gĕr-rahk'.
Skeleton, skĕl'e-tŭn.
Skerries, skĕr'rĭz.
Skiddaw, skĭd'dau.
Skink, skĭngk.
Skirmish, skŭr'mĭsh.
Skirret, skĭr'rit.
Skolopsite, skŏl'ŏp-zīt.
Skutterudite, skŭt-tĕr'u-dīt.
Slaughter, slaw'tŭr.
Slavonia, slah-vo'ne-ah.
Sledge, slĕj.
Sliove, sleev.
Sloakan, slo-ah-kăn'.
Slovaks, slo'vahks.
Sluice, sloos.
Small-clothes, smawl'klōz.
Smalt, smawlt.
Smaragdite, sma-răg'dīt
Smectite, smĕk'tīt.
Smew, smū.
Smilaceæ, sme-la'se-e.
Smilacene, smĭl'a-seeu.
Smilax, smi'laks.
Smithsonian, smĭth-so'ne-ăn.
Smolensk, smo-lĕnsk'.
Smollett, smŏl'lĕt.
Smorzando, smôrt-sahn'do.
Smyrna, smûr'nah.
Snail, snāl.
Snider, snī'dûr.
Snipe, snīp.
Snivel, snĭv'l.
Snow-ball, sno'bawl.
Snyders, snī'dûrz.
Soavamente, so-ah-va-mĕn'ta.
Soboles, sŏb'o-leez.
Sobriquet, so-bre-ka'.
Socialism, so'shăl-izm.
Socinians, so-sin'e-ănz.
Sockdolager, sŏk-dŏl'a-jûr.
Socle, so'kl.
Socotra, sŏk'o-trah.
Socrates, sŏk'ra-teez.
Soda, so'dah.
Sodium, so'de-ŭm.
Sodom, sŏd'ŏm.
Sofala, so-fah'lah.
Soflioni, sŏt-fe-o'ne.
Soft, so'fe.
Soirée, swah-ra'.
Soissons, swah-sŏn(g)'.
Solanales, so-lan'a-leez.
Solania, so-la'ne-ah.
Solano, so-lah'uo.
Solar, so'lăr.
Solder, so'dûr.
Soldier, sōl'jûr.
Solfanaria, sŏl-fah-nah're-ah.
Solfatara, sŏl-fah-tah'rah.
Solfeggio, sŏl-fĕd'jo.
Solferino, sŏl-fa-re'no.
Solicitons, so-lĭs'e-tŭs.
Solidago, sŏl-e-dah'go.
Solifidian, sŏl-e-fĭd'yan.
Solitaire, sŏl-e-tār'.
Sollecito, sŏl-le-che'to.
Solomon, sŏl'o-mŏn.
Solon, so'lŏn.
Solstice, sŏl'stĭs.
Solus, so'lŭs.
Solyman, sŏl'e-măn.
Somateria, sŏm-a-te're-ah.
Sombrero, sŏm-bra'ro.
Somerset, sŭm'ĕr-sĕt.
Somme, sŏm.
Sommeil, sŏm-ma'e. [bu-lĭzm.
Somnambulism, sŏm-năm'-
Somnus, sŏm'nŭs.
Sonata, so-nah'tah.
Sonchus, sŏng'kŭs.
Sonderbund, sŏn'dĕr-boond.
Soudershausen, sŏn-derz-
Sonnet, sŏn'nĕt. [how'zn.
Sonometer, so-nŏm'e-tŭr.
Sonora, so-no'rah.
Sontag, sŏn'tăg.
Sooloo, soo-loo'.
Sounda, soon'dah.
Sophia, so-fi'ah.
Sophism, so'fizm. [shŭn.
Sophistication, so-fis-te-ka'-
Sophomore, sŏf'o-mōr.
Soprano, so-prah'no.
Sophocles, sŏf'o-kleez.
Sorcery, sôr'sŭr-e.
Sordawalite, sôr-da'wăl-īt.
Sordes, sôr'dēz.
Sordine, sôr'deen.
Soredinm, so-re'do-ŭm.
Sorgo, sôr'go.
Soria, so're-ah.
Sorites, so-ri'teez.
Sorosis, so-ro'sis.
Sorrel, sôr'rĭl.
Sorrento, sôr-răn'to.
Sorus, so'rŭs.
Sospiro, sôs-pe'ro.
Sostennto, sŏs-ta-noo'to.
Sotto voce, sŏt'to vo'cha.
Soudan, soo-dahn'.
Soulié, soo-la'.
Soulouque, soo-look'.
Soult, soolt.
Soutane, soo-tahn'.
Southern, sŭth'ĕrn.
Souvalky, soo-vahl'ke.
Souvenir, soo' neor'.
Souzdal, sooz'dahl.
Sovereign, sŭv'ĕr-In.
Sowing, so'ing.
Soymida, soi'me-dah.
Spadille, spa-deel'.
Spadix, spa'dĭks.
Spado, spah'do.
Spadroon, spăd-roon'.
Spahis, spah'eez.
Spain, spān.
Spalatro, spah-lah'tro.
Spallanzani, spăl-lăn-ze'ne.
Spandrel, span'drĕl.
Spaniard, spăn'yărd.
Sparganium, spăr-ga'ne-ŭm.
Sparidæ, spăr'e-de.
Sparta, spăr'tah.
Spartacus, spăr'ta-kŭs.
Spartium, spăr'she-ŭm.
Sparus, spa'rŭs.
Spasm, spăzm.
Spasmology, spăz-mŏl'o-je.
Spatangus, spa-tăng'gŭs.
Spatula, spăt'u-lah.
Spavin, spăv'ĭn.
Special, spĕsh'ul.
Specific, spe-sĭf'ĭk.
Specimen, spĕs'e-mĕn
Spectre, spĕk'tŭr
Spectroscope, spĕk'tro-skōp.
Specularia, spĕk-u-la're-ah.
Speculum, spĕk'u-lŭm.
Speke, spēk.
Spencer, spĕn'sŭr.
Spergula, spŭr'gu-lah.
Spermaceti, spûrm-a-se'te.
Spermaphore, spûrm'a-fôr.
Spermatozoa, spûrm-a-to-
Spew, spū. [zo'ah.
Speyer, spīr.
Sphacelus, sfās'e-lŭs.
Sphagnum, sfăg'nŭm.
Sphargidīdæ, sfar-jĭd'e-de.
Sphegidæ, sfĕj'e-do.
Sphene, sfeen.
Sphere, sfeer.
Spherical, sfĕr'ĭk-ăl.
Spherule, sfĕr'ool.
Sphincter, sfĭngk'tŭr.
Sphingidæ, sfĭn'je-de.
Spica, spi'kah.
Spiccato, speck-kah'to.
Spice, spīs.
Spider, spī'dŭr.
Spielhagen, speel'ah-gān.
Spigelia, spi-ge'le-ah.
Spigot, spĭg'ŏt.
Spigurrel, spe-gŭr'rĕl.
Spiking, spīk'ĭng.
Spilanthes, spe-lăn'theez.
Spinacia, spe-na'she-ah.
Spinel, spe-nel'.
Spinet, spĭn'ĕt.
Spinule, spĭn'ūl.
Spiræa, spe-re'ah.
Spiranthes, spe-răn'theez.
Spiritoso, spir-e-to'zo.
Spiritualism, spĭr'ĭt-u-ăl-ĭzm
Spirula, spĭr'u-lah.
Spissitude, spĭs'se-tūd.
Spitzbergen, spĭts-hĕr'gĕn.
Splanchnology, splangk-
nŏl'o-je.
Splenology, sple-nŏl'o-je.
Spodumene, spŏd'u-meeu.
Spoliation, spo-le-a'shŭn.
Spondee, spŏn'de.
Spondias, spŏn'de-ăs.
Sponge, spŭnj.
Spongiole, spŭn'je-ōl.
Sponsion, spŏn'shŭn.
Sponsor, spŏn'sŏr.
Spontaneity, spŏn-ta-ne'e-te.
Spontini, spŏn-te'no.
Sporades, spŏr'a-deez.
Sporangium, spo-răn'je-ŭm.
Sprague, sprāg.
Sprengel, sprĕng'gĕl.
Sprightly, sprīt'le.
Sprinkle, sprĭngk'l.
Sprocket, sprŏk'ĭt.
Sprout, sprowt.
Spunky, spŭngk'e.
Spurions, spu'ro-ŭs.
Spntum, spu'tŭm.
Spurzheim, spoorts'hĭm
Sphynx, sfingkz.
Squalidæ, skwŏl'e-de.
Squaw, skwaw.
Squier, skwo'ŭr.
Stabat-Mater, sta'bät ma'tŭr.
Staccato, stak-kah'to.
Stackhousiaceæ, stăk-hŏws-
Stadium, sta'de-ŭm. [e-a'se-e.
Stadtholder, stät'hōld-ŭr.
Staël, stahl.
Staffa, stăf'fah.
Stage, stāj.
Staggers, stăg'gŭrz.
Stagirite, stag'e-rīt.
Stagnation, stăg-na'shŭn.
Staith, stăth.
Stalactite, stah-lăk'tīt.
Stalagmite, stah-lăg'mīt.
Stalk, stawk.
Stamen, sta'mĕn.
Stamina, stăm'e-nah.
Stampede, stăm-pēd'.
Standard, stănd'ărd.
Stanhope, stăn'ŭp.
Stannaries, stăn'na-reez.
Stannine, stăn'nĭn.
Stanza, stăn'zah.
Stapelia, sta-po'le-ah.
Staphyloma, stăf-e-lo'mah.
Starboard, stär'bŭrd.
Stargaard, stahr'gärt.
Starost, stahr'ŏst.
Startle, stär'tl.
Statics, stăt'ĭks.
Statue, stăt'u.
Statuette, stăt-u-ĕt'.
Status quo, sta'tŭs kwo.
Statute, stăt'ūt.
Staurotide, staw'ro-tīt.
Staunton, stăn'tŭn.
Stavropol, stahv'ro-pŏl.
Steak, stāk.
Stealth, stĕlth.
Stearine, ste'a-rĭn.
Steatoma, ste-a-to'mah.
Steelyard, stĭl'yărd.
Steeple, stē'pl. [ra-fe.
Steganography, stĕg-a-nŏg'-
Steinheilite, stīn'hīl-īt.
Stellaria, stĕl-la're-ah.
Stellion, stĕl'yŭn.
Stenson, stĕn'sn.
Stencil, stĕn'sĭl.
Stenography, ste-nŏg'ra-fe.
Stentorian, stĕn-tō're-ăn.
Stephen, ste'vn.
Stercoranism, stĕr-kŏr'ăn-
ĭzm.
Stère, stăr.
Stereotype, ste're-o-tīp.
Sterlet, stŭr'lĕt.
Stern, stûrn.
Sternbergite, stûrn'bĕrg-īt.
Sterne, stûrn.
Sternson, stûrn'sn.
Sternum, stûr'nŭm.
Stertorous, stûr'to-rŭs.
Stethoscope, stĕth'o-skōp.
Stettin, stĕt'tĭn.
Stenben, stu'bĕn.
Stevedore, ste've-dōr.
Steward, stu'ărd.
Sthenic, sthĕn'ĭk.
Stiacciato, ste-ät-chah'to.
Stibnite, stĭb'uīt.
Sticcado, stĭk-kah'do.
Stichometry, stĭk-ŏm'e-tre.
Stiffening, stĭf'u-ĭng.
Stigmata, stĭg'mah-tah.
Stilbite, stĭl'bīt.
Stiletto, ste-lĕt'to.
Stillingia, stĭl-lĭn'je-ah. [lăn.
Stilpnomelane, stĭlp-nŏm'e-
Stilpnosiderite, stilp-no-
sĭd'ur-īt.
Stimulus, stĭm'u-lŭs.
Stingo, stĭng'go.
Stipa, sti'pah.
Stipulation, stĭp-u-la'shŭn.
Stipule, stĭp'ūl.
Stirling, stûr'lĭng.
Stirrup, stŭr'rŭp.
Stoccado, stok-ka'do.
Stockholm, stŏk'hōm.
Stoicism, sto'e-sĭzm.
Stola, sto'lah.
Stolen, stōln.
Stolpe, stōl'pa.
Stomach, stŭm'ăk.
Storied, sto'rĭd.
Stowe, sto.
Strabo, stra'bo.
Straight, strāt.
Stralsund, strahl'soont.
Strange, strānj.
Strangury, străng'gu-re.
Strappado, străp-pa'do.
Strasbourg, strahs'boorg.
Stratarithmetry, străt-a-
rĭth'me-tre.
Strategy, străt'e-je.
Stratification, străt-e-fe-ka'-
shŭn.
Stratiotes, strah-ti'o-teez.
Stratocracy, stra-tŏk'ra-se.
Stratography, stra-tŏg'ra-fe.
Stratum, stra'tŭm.
Stremmons, strĕn'u-ŭs.
Strelizia, stra-lĭzh'yah. [ah.
Strepsiptera, strĕp-sĭp'tŭr-
Streptopus, strĕp'to-pŭs.
Stretton, strĕt'tn.
Stria, stro'ah.
Stricture, strĭkt'yŭr.
Strigillose, strĭj'ĭl-lōz.
Strissores, strĭs'so-reez.
Strix, strĭks.
Strobile, strŏb'ĭl.
Stromb, strŏm.
Strombite, strŏm'bīt.
Stromboli, strŏm'bo-le.
Strontian, strŏn'she-ăn.
Strophe, stro'fe.
Strozzi, strŏt'se.
Structure, strŭkt'yŭr.
Strumah, stroo'mah. [e-de.
Struthionidæ, stroo-the-on'-
Struthiopteris, stroo-the-
ŏp'tŭr-ĭs.
Strychnine, strĭk'nĭn.
Stuart, stū'ărt.
Stubble, stŭb'bl.
Studio, stu'de-o.
Stufa, stoo'fah.
Stultiloquy, stŭl-tĭl'o-kwe.
Stupendous, stu-pĕn'dŭs.
Stupose, stu-pōz'.
Sturgeon, stŭr'jŭn.
Sturiones, stu-ri'o-neez.
Sturnidæ, stŭr'ne-de.
Stylites, stī'lĭts.
Stylopodium, sti-lo-po'de-
Styptic, stĭp'tik. [ŭm.
Syracine, stĭr'a-sĭn.
Styrole, sti'rōl.
Styx, stĭks.
Suasion, swa'zhŭn.
Suavity, swăv'e-te.
Subahdar, su'bah-dahr.
Subsequent, sŭb'se-kwĕnt.
Subjection, sŭb-jĕk'shŭn.
Subsesqui, sŭb-ses'kwe.
Subsidy, sŭb'se-de.
Subtle, sŭt'l.
Succotash, sŭk'ko-tash.
Success, sŭk-sĕs'.
Succubus, sŭk'ku-bŭs.
Succumb, sŭk-koom'.
Succussion, sŭk-kŭsh'ŭn.
Sucrose, su'krōz.
Suction, sŭk'shŭn.
Sudra, soo'drah.
Sue, *Eng.* sū. *Fr.* soo.
Suevi, swe'vi.
Sufficiency, sŭf-fĭsh'ĕn-se.
Suffocation, sŭf-fo-ka'shŭn.
Sugar, shoo'găr *or* shŭg'ŭr.
Suggest, sŭd-jĕst'.
Suidæ, su'e-de.
Suite, sweet.
Sultor, sŭt'ŏr.
Sullots, soo'le-ŏts.
Sullivan, sŭl'le-văn.
Sully, soo-le'.
Sulphide, sŭl'fĭd.
Sulphion, sŭl'fe-ŏn.
Sulphur, sŭl'fŭr.
Sumach, soo'măk.
Sumpter, sŭm'tŭr.
Sumptnous, sŭmt'u-ŭs.
Snn-dew, sŭn'-dū.
Superb, su-pûrb'.
Superficies, su-pŭr-fĭsh'eez.
Superlnous, su-pûr'loo-ŭs.
Superimpose, su-pŭr-ĭm-
pōz'.
Superstition, su-pŭr-stĭsh'ŭn.
Supervision, su-pŭr-vĭzh'ŭn.
Supplement, sŭp'ple-mĕnt.
Supremacy, su-prĕm'a-se.
Surcingle, sŭr'sĭng-gl.
Surety, shoor'te.
Surfeit, sŭr'fĭt.
Surrey, sŭr're. [ŭs
Surreptitions, sŭr-rĕp-tĭsh'-
Survey, sŭr'va *and* sŭr-va'.
Susa, soo'sah.
Susquehanna, sŭs-kwe-hăn'-
Suture, sūt'ur. [nah
Suttee, sŭt-tē'.
Suzerain, su'ze-rān.
Swaddle, swŏd'dl.
Swamp, swŏmp.
Sweaty, swĕt'e.
Sweden, swe'dn. [bŏr'je-ăn
Swedenborgian, swe-dn-
Sweeten, swēt'n.
Swietenia, swe-te'ue-ah.
Swinge, swĭnj.
Swingle, swing'gl.
Switzerland, swit'zŭr-länd.
Swivel, swĭv'l.
Sybarite, sĭb'a-rīt.
Sycamore, sĭk'a-mōr.
Sycosis, si-ko'sĭs.
Sydenham, sĭd'năm.
Syderolite, sĭd'ĕr-o-līt.
Syene, si-e'ne.
Sylph, sĭlf.
Syllepsis, sĭl-lĕp'sĭs.
Syllogism, sĭl'lo-jĭzm.
Sylvester, sĭl'vĕs-tŭr.
Sylvicola, sĭl-ve-ko'lah.
Symmetry, sĭm'me-tro.
Sympathy, sĭm'pa-the.
Symphony, sĭm fo-ne.
Symphyseotomy, sĭm-fĭz-
ŏt'o-mo.
Symposium, sĭm-po'zhe-ŭm.
Synanthus, sĭn-ăn'thŭs.
Synarchy, sĭn'ar-ke.
Synaxis, se-năks'ĭs. [nĭzm.
Synchronism, sĭngk'ro-
Syncope, sĭngk'o-pe.
Synecdoche, sĭn-ĕk'do-ke.
Synesins, se-ne'zhŭs.
Synizesis, sĭn-o-zo'sĭs.
Synod, sĭn'ŏd.
Synonym, sĭn'o-nĭm.
Synopsis, sĭn-ŏp'sĭs.
Synovia, sĭu-o've-ah.
Synteresis, sĭn-to-ro'sĭs.
Synthesis, sĭu'the-sĭs.
Syphilis, sĭf'e-lĭs.
Syra, si'rah.
Syria, sĭr'e-ah.
Syringa, se-rĭng'gah.
Syringe, sĭr'ĭnj.
Syrinx, sĭr'ĭngkz.
Syssarcosis, sĭs-sär-ko'sĭs.
Systole, sĭs'to-le.
Syzygy, sĭz'e-je.

T.

Tabanus, tah-ba'nŭs.
Tabard, tăb'ărd.
Tabasco, tah-băs'ko.
Tabasheer, tăb-ah-sheer'.
Tabernacle, tăh'ŭr-na-kl.
Tablature, tăb'la-tūr.
Tablcau, tab-lo'.
Taboo, ta-boo'.
Tabouret, tăb'oo-rĕt.
Taccaceæ, tăk-ka'se-e.
Tachydrite, tăk'e-drīt.
Taciturn, tăs'e-tūrn.
Tacsonia, tăk-so'ne-ah
Taffeta, tăf'fe-tah.
Tafia, ta'fe-ah.
Talilet, tah-fe-lĕt'.
Taganrog, tăg'ăn-rŏg.
Tagetes, ta-je'teez.
Tagliacozzo, tăl-yah-kŏt'so.
Tagliamento, tăl-yah-mĕn'to.
Taglioni, tăl-yo'ne.
Tahiti, tah-e'te.
Taille, ta-ye'.
Tai-wan-foo, ti-wahn-foo'.
Tajaçu, tah-jăs'soo.
Talbot, tawl'bŭt.
Talca, tăl'kah.
Talcgalla, tăl-e-găl'lah.
Tallicu, tah-le-ăn'.
Talma, tahl'mah.
Talmud, tăl'mŭd.
Talou, tal'ŏu.
Talpidæ, tăl'pe-de.
Talookdar, tah-look'dăr.
Tamar, ta'măr. [se-e.
Tamaricaceæ, ta-măr-e-ka'-
Tamarind, tăm'a-rĭnd.
Tambourine, tăm-boor-een'.
Tampion, tăm'pe-ŭn.
Tanager, tăn'a-jĕr.
Tanaro, tah-nah'ro.
Tanghinia, tăng-gĭn'e-ah.
Tangipaha, tăn-je-pah'ah.
Tanists, ta'nĭsts.
Tanuiu, tăn'uĭn.
Tansy, tăn'ze.
Tantalidæ, tăn-tăl'e-de.
Tantalus, tăn'ta'lŭs.
Tapestry, tăp'ĕs-tre.
Tapioca, tăp-e-o'kah.
Tapir, ta'pĕr.
Tarantella, tah-răn-tĕl'lah.
Tarantism, tăr'ăn-tĭzm.
Taranto, tah-răn'to.
Tarantula, tah-răn'tu-lah.
Taraxacum, ta-răks'a-kŭm.
Tardo, tahr'do.
Targum, tăr'gŭm.
Tarlatan, tăr'la-tăn.
Tarnopol, tăr'no-pŏl.
Tarpaulin, tăr-paw'lĭn.
Tarpeian, tăr-pe'yăn.
Tarquinius, tăr-kwĭn'e-ŭs.
Tarragona, tăr-rah-go'nah.
Tarshish, tăr'sheesh.
Tarsier, tăr-se-a'.
Tarsorraphy, tăr-sŏr'ra-fe.
Tarsotomy, tăr-sŏt'o-me.
Tarsus, tăr'sŭs.
Tartan, tăr'tăn.
Tartarus, tăr'ta-rŭs.
Tartuffe, tăr-toof'.
Tasmania, tăz-ma'ne-ah.
Tasso, tahs'so.
Taste, tāst.
Tatouay, tăt'oo-a.
Tattoo, tat-too'.
Taurine, taw'rĭn.
Taurocol, taw'ro-kŏl.
Taurus, taw'rŭs.
Tautology, taw-tŏl'o-je.
Taxaceæ, tăks-a'se-e.
Taxation, tăks-a'shŭn.
Taxidermy, tăks'e-dŭr-me.
Taxonomy, tăks-ŏn'o-me.
Taygetus, ta-je'tŭs.
Taylor, ta'lăr.
Tazza, taht'sah.
Tchadda, chăd'dah. [foo'.
Tchao-choo-foo, chow-choo-
Tchernaya, chĕr-na'yah.
Tchernigov, chĕr'ne-gŏf.
Teak, tēk.
Tcbeth, te'bĕth.
Tecoma, te-ko'mah.
Teetona, tēk-to'nah.
Tecumseh, te-kŭm'sa.
Te Deum, te de'ŭm.
Tedium, te'de-ŭm.
Ted si, tĕ-l'se.
Te totum, te-to'tŭm.
Teflis or **Tiflis,** tif'lĭs.
Tefsa, tĕf'sah.
Tegument, tĕg'u-mĕnt.
Tehama, te-ah'mah.
Telegraph, tĕl'e-grăf.
Tellina, tĕl-le'nah.
Tellurium, tĕl-lu're-ŭm.
Temerity, te-mĕr'e-te. [mĕnt.
Temperament, tĕm'pĕr-a-
Tempis, tĕm'pĭs.
Templars, tĕm'plărz.
Temple, tĕm'pl.
Tenaculum, te-năk'u-lŭm.
Tenasserim, tĕn-ăs'sa-rĭm.
Tencin, tŏn-sahn'.
Tendon, tĕn'dŏn. [de.
Tenebrisnidæ, tĕn-e-brĭz'ne-
Tenedos, tĕn'e-dŏs.
Tenesmus, te-nĕz'mŭs.
Tenet, tĕn'ĕt.
Teniers, tĕn'e-ŭrz.
Tenné, tĕn'na.
Tennessee, tĕn-nĕs-sē'.
Tennis, tĕn'ŭis.
Tennyson, tĕn'ne-sŭn.
Tenon, tĕn'ŭn.
Tenotomy, te-nŏt'o-me.
Tensile, tĕn'sĭl.
Tentaculum, tĕn-tăk'u-lŭm.
Tenthredinetæ, tĕn-thre-dĭn'e-te.
Tentiginous, tĕn-tĭj'e-nŭs.
Tenuirostres, tĕn-ne-rŏs'-
Tenure, tĕn'ŭr. [tŭrz.
Teocalli, te-o-kăl'le.
Tephrosia, te-fro'zhah.
Terah, te'rah.
Teramo, te-rah'mo.
Teraphim, tĕr'ah-fĭm.
Teratology, tĕr-a-tŏl'o-je.
Terceira, tĕr-sĭ'rah.
Terebratula, tĕr-e-brăt'u-lah.
Teredo, te-re'do.
Terek, te'rĕk.
Terence, tĕr'ĕns.
Terete, te-rēt'. [sa'shŭn.
Tergiversation, tŭr-je-vĕr-
Tergum, tŭr'gŭm.
Terlizzi, tĕr-lĭt'se.
Terminalia, tŭr-min-a'le-ah.
Termini, tŭr'me-ni.
Termitidæ, tŭr-mit'e-de.
Ternanx, tĕr'no.
Terni, tĕr'ne.
Ternova, tĕr-no'vah.
Ternstromiaceæ, tĕrn-stro-me-a'se-e.
Terodant, tĕr'o-dănt.
Terrace, tĕr'rās.
Terra-cotta, tĕr'rah-kŏt-tah.
Terra Japonica, tĕr'rah ja-pŏn'e-kah.
Terrapin, tĕr'ra-pĭn.
Terrible, tĕr're-bl.
Terror, tĕr'rŏr.
Tertullian, tĕr-tŭl'le-ăn.
Terza Rima, tĕr'zah re'mah.
Testament, tĕs'ta-mĕnt.
Testicle, tĕs'te-kl.
Testimony, tĕs'te-mo-ne.
Testudo, tĕs-tu'do.
Tetanus, tĕt'a-nŭs.
Tête-à-tête, tāt-ah-tāt'.
Tethys, te'thĭs.
Tetracera, tĕt-răs'ăr-ah.
Tetrachotomous, tĕt-rah-kŏt'o-mŭs.
Tetradrachm, tĕt'rah-drăm.
Tetragon, tĕt'rah-gŏn.
Tetrarch, te'trărk.
Tetrastich, te-trăs'tĭk.
Teucrium, tu'kre-ŭm.
Teutates, tu-ta'teez.
Tenthidæ, tŭ'the-de.
Tentou, tŭ'tŏn.
Texas, tĕks'ăs.
Texture, tĕkst'ŭr.
Thackeray, thăk'ŭr-e.
Thalamus, thăl'a-mŭs.
Thalberg, tahl'bărg.
Thales, tha'leez.
Thalia, tha'le-ah.
Thalictrum, tha-lĭk'trŭm.
Thallogens, thăl'lo-jĕnz.
Thanuophile, thăn'no-fīl.
Thanatology, thăn-a-tŏl'o-je.
Thank, thăngk.
Thapsia, thăp'se-ah.
Thasos, tha'sŏs. [tŭr'je.
Thaumaturgy, thaw'ma-
Theanthropy, the-ăn'tro-pe.
Theatin, the'a-tĭn.
Theatre, the'a-tŭr.
Thebes, thēbz.
Theca, the'kah.
Theeaphore, the'kah-fōr.
Theine, the'ĭn.
Theiss, tīs.
Themis, the'mĭs.
Theobroma, the-o-bro'mah.
Theocracy, the-ŏk'ra-se.
Theodicy, the-ŏd'e-se.
Theodolite, the-ŏd'o-lit.
Theodore, the'o-dōr.
Theodorus, the-o-do'rŭs.
Theodosius, the-o-do'she-ŭs.
Theogony, the-ŏg'o-ne
Theopathy, the-ŏp'a-the.
Theophanes, the-ŏf'a-neez.
Theophrastus, the-o-frăs'tŭs.
Theorbo, the-ŏr'bo.
Theory, tl.e'o-re,
Therasia, the-ra'zhah.
Theresa, ta-ra'zah.
Theresiopol, ta-ra-ze-o'pŏl.
Theriac, the're-ăk.
Thermæ, thŭr'me. [sĭs.
Thermocrosis, thŭr-mŏk'ra-
Thersites, thŭr-se'teez.
Thesaurus, the-saw'rŭs.
Thescus, the'se-ŭs.
Thespian, thĕs'pe-ăn. [ne-ănz.
Thessalonians, thĕs-sa-lo'-
Thessaly, thĕs'sa-le.
Thetis, the'tĭs.
Thcurgy, the'ŭr-je.
Thian-shau, the-ăn-shahn'.
Thierry, te-ăr-ra'.
Thiers, te-air'.
Thibet, tĭb'ĕt.
Thigh, thī.
Thiouville, te-ŏn-veel'.
Thistle, thĭs'l.
Thlipsis, thlĭp'sĭs.
Thomas, tŏm'ăs.
Thoracic, tho-răs'ĭk.
Thoreau, tho-ro'.
Thorium, tho're-ŭm.
Thorough, thŭr'ro.
Thorwaldsen, tŏr'vahld-sŭn.
Thought, thawt.
Thrace, thrās.
Thrall, thrawl.
Thrasybulus, thrās-e-bn'lŭs.
Threepence, thrĭp'pĕns.
Thrombolite, thrŏm'bo-lĭt.
Throttle, thrŏt'tl.
Through, throo.
Thrum, thrŭm.
Throwster, thro'stŭr.
Thuggism, thŭg'gĭzm.
Thule, thūl.
Thumb, thŭm.
Thuringia, thn-rĭn'je-ah.
Thylacine, thīl'a-sĭn.
Thyme, tīm.
Thyrsus, thŭr'sŭs.
Tiara, ti'a-rah.
Tiarella, te-ah-rĕl'lah.
Tiber, tī'bŭr.
Tiberius, ti-he're-ŭs.
Tibia, tĭb'e-ah.
Tibulus, tĭb'u-lŭs. [loo-roo'.
Tic-douloureux, tik-doo-
Ticino, te-che'no.
Tickle, tĭk'l. [gah.
Ticonderoga, ti-kŏn-de-ro'-
Tidology, tĭd-ŏl'o-je.
Tierce, teers.
Tiers Etat, te-airz a-tah'.
Tigella, te-jĕl'lah.
Tiger, ti'gŭr.
Tigridia, te-grĭd'e-ah.
Tigris, tī'grĭs.
Tilia, tĭl'e-ah.
Tillæa, tĭl-le'ah.
Tilsit, tĭl'sĭt.
Timbre, tĭm'bŭr.
Timeuogny, ti-mĕn'o-gi.
Timoleon, te-mo'le-ŏn.
Timon, ti'mŏn.
Timor, te-mōr'.
Timotheus, te-mo'the-ŭs.
Timothy, tĭm'o-the.
Tinamou, tĭn'a-mŏn.
Tinea, tĭn'e-ah.
Tinkle, tĭng'kl.
Tinsel, tĭn'sl.
Tinto, teen'to.
Tippoo Saib, tĭp-poo sah'ĭb.
Tipulariæ, tĭp-n-la're-e.
Tirade, ti-rād'.
Tirailleur, te-rahl-yoor'.
Tirano, te-rah'no.
Tirra-lirra, tĭr'rah-lĭr'rah.
Tissue, tĭs'shoo.
Tisane, te-zān'.
Tisri, tĭz're.
Titan, ti'tăn.
Titanium, ti-ta'ne-ŭm.
Titus, ti'tŭs.
Tmesis, mue'sĭs.
Tnutarakan, mu-tăr'ah-kăn.
Tobago, to-ba'go.
Tobit, to'bit.
Tobolsk, to-hŏlsk'.
Toccantins, to-kahn-teenz'.
Toccata, tŏk-kăh'ta.
Tocqueville, tŏk-veel'.
Tocsin, tŏk'sĭn.
Tocuyo, to-kĭ'yo.
Todmorden, tŏd'mŏr-dĕn.
Toga, to'gah.
Toilet, toi'lĕt.
Tokay, to-ka'.
Tolentino, to-lĕn-te'no.
Toll, tōl.
Tolosa, to-lo'zah.
Tomahawk, tŏm'a-hawk.
Tomato, to-mah'to.
Tomb, toom.
Toubuctoo, tŏm'bŭk-too.
Tongue, tŭng.
Ton, tŭn.
Tone, tōn.
Tongs, tŏngz.
Tonquiu, tŏn-keen'.
Tonsil, tŏn'sĭl.
Tousure, tōn'shoor.
Toothed, tootht.
Topalias, to-pa'le-ăs.
Toparchy, to'pārk-e.
Topaz, to'păz.
Toplitz, tŏp'lĭts.
Topology, to-pŏl'o-je.
Tornes, tŏr'nĕth.
Toruado, tŏr-na'do.
Tornea, tŏr'ne-o.
Toronto, to-rŏn'to.
Torpedo, tŏr-pe'do.
Torpid, tŏr'pĭd. [gra'ko.
Torre del Greco, tŏr'ra dĕl
Torres-Vedras, tŏr-rĕz văd'-
Torreya, tŏr-ra'yah. [rahz.
Torricelli, tŏr-re-chĕl'le.
Torshok, tŏr'shŏk.
Torsi, tŏr'si.
Torticulis, tŏr-tĭk'u-lĭs.
Tortoise, tŏr'tĭs.
Tortona, tŏr-to'nah.
Tortosa, tŏr-to'zah.
Tortrix, tŏr'trĭks.
Tortuga, tŏr-tu'gah.
Tortuous, tŏrt'u-ŭs.
Torus, to'rŭs.
Totem, to'tĕm.
Totila, tŏt'e-lah. [pahn'.
Totonicapan, to-tŏn-e-kah-
Touch, tŭch.
Tough, tŭf.
Toulon, too-lŏn(g)'.
Toulouse, too-looz'.
Tourbillion, toor-he-yŏn(g)'.
Tourmaline, toor'ma-lĭn.
Tournament, tŭr'na-mĕnt.
Tourniquet, tŭr'ne-kĕt.
Tournois, toor-nwah'.
Touronkchansk, too-roo-kănsk'.
Tourville, toor-veel'.
Tous-les-mois, too-laz-mwah'
Tout-ensemble, toot-ŏng-
Towards, to'ărdz. [sŏng'bl.
Towhee, too-hwē'.
Trachea, tra'ke-ah.
Traction, trăk'shŭn.
Traditiou, tra-dĭsh'ŭn.
Trafalgar, trah-făl-gahr'.
Tragacauth, trăg'a-kănth.
Tragedy, trăj'e-de.
Tragopon, trăg'o-pŏn.
Tragus, tra'gŭs.
Trajectory, tra-jĕkt'o-re.
Trani, trah'ne.
Tranquebar, trăn-kwe-băr'.
Transitu, trăn'se-tu.
Transom, trăn'sŭm.
Trapa, trah'pah.
Trapani, trah-pah'ne.
Trapezium, tra-pe'zhŭm.
Trappists, trăp'pĭstz.
Tras-os-Montes, trahz-ŏs-mŏn'tĕz.
Travel, trăv'l.
Travertine, trah'vĕr-teen.
Travesty, trăv'ĕs-te.
Treachery, trĕch'ŭr-e.
Treason, tre'zn.
Treasure, trĕzh'ŭr.
Trebizond, trĕb'e-zŏnd.
Trebuchet, trĕb'u-shĕt.
Tre-ceuto, tra-chĕn'to.
Treckschuyt, trĕk'shoit.
Tredegar, trĕd'e-găr.
Tredille, tre-deel'.
Treenail, trūn'nl. [dra'se-e.
Tremandraceæ, tre-măn-
Tremella, tre-mĕl'lah.
Tremolite, trĕm'o-lĭt.
Tremolo, trĕm'o-lo.
Trenchant, trĕnch'ănt.
Trenck, trĕngk.
Treutham, trĕnt'ăm.
Trepanning, tre-păn'nĭng.
Trephine, tre-fĭn'.
Trepidation, trĕp-e-da'shŭn.
Trespass, trĕs'păs.
Treviso, tra-ve'zo.
Triandria, tri-ăn'dre-ah.
Triangle, tri'ăng-gl.
Trias, tri'ăs.
Tribasic, tri-ba'sĭk.
Tribune, trĭb'yoon.
Trica, tri'kah.
Trichiasis, tre-kī'a-sĭs.
Trichinæ, tre-kī'ne.
Trichocyst, trĭk'o-sĭst.
Trichostema, tre-kŏs-te'mah.
Triclinium, tre-klĭn'e-ŭm.
Tricuspid, 're-kŭs'pĭd
Tridacnidæ, tre-dăk'ne-de.
Trident, tri'dĕnt.
Trieste, tre-ĕst'.
Trifolium tre-fo'le-ŭm.
Trigamy, trĭg'a-me.
Triglyph, tri'glif. [e-tre.
Trigonometry, trĭg-o-nŏm'-
Trigynia, tre-jĭn'e-ah.
Trilingual, tri-lĭng'gwal.
Trillion, trĭl'yŭn.
Trilobite, tri'lo-bīt.
Trilogy, trĭl'o-je.
Trimurti, tre-moor'te.
Triucomalee, trĭn-kŏm-a-lē'.
Tringa, trĭng'gah.
Triuket, trĭng'kĕt.
Trinidad, trĭn-e-dăd'.
Trinoctial, tre-nŏk'shăl.
Trio, tre'o.
Tricecia, tri-e'shah.
Triostemn, tre-ŏs'te-ŭm.
Tripsacum, trĭp'sa-kŭm. [ah.
Triptolemæa, trĭp-to-le'me-
Triptolemus, trĭp-tŏl'e-mŭs.
Triptych, trĭp'tĭk.
Trismus, trĭz'mŭs.
Tritheist, tri'the-ist.
Triticum, trĭt'e-kŭm.
Triton, tri'tŏn.
Triumvirate, tri-ŭm've-rāt.
Troas, tro'ăs.
Troche, tro'ke.
Trochilidæ, tro-kĭl'e-de.
Trochlea, trŏk'le-ah.
Trochoid, tro'koid.
Troglodyte, trŏg'lo-dīt.
Trogonidæ, tro-gŏn'e-de.
Troll, trōl.
Trollius, trŏl'le-ŭs.
Trollope, trŏl'lŭp.
Trombidium, trŏm-bĭd'e-ŭm
Trombone, trŏm'bōn.
Trona, tro'nah.
Tropæolum, tro-pe'o-lŭm.
Trophi, tro'fi.
Trophimus, tro-fe'mŭs.
Trophy, tro'fe.
Trouble, trŭb'l.
Tronpe, troop.
Trousers, trow'zŭrz.
Troussean, trōs-so'.
Troy, troi.
Trudge, trŭj.
Truffle, trŭf'fl.
Truncheon, trŭn'shŭn.
Trunnion, trŭn'yŭn.
Truro, troo'ro.
Trusion, troo'zhŭn.
Tryst, trĭst.
Tsarskoselo, tzărz-ko-sa'lo.
Tsetsé, tsät-sa'.
Tsung-ming, tsoong-mĭug'.
Tubal, tu'băl.
Tubifera, tu-bĭf'ŭr-ah.
Tuenman, too-koo-mahn'.
Tudor, tū'dŭr.
Tufaceous, tu-fa'shŭs.
Tugendbund, tu'gand-boond.
Tuition, tū-ish'ŭn.
Tulip, tū'lĭp.
Tulle, tool. [hŏs-tĭl'yŭs.
Tullus Hostilius, thl'lŭs
Tumultuous, tu-mŭl'tu-ŭs.
Tumulus, tūmu-lŭs.
Tunguses, tŭng'ŭs-iz.
Tunicle, tū'ne-kl.
Tunis, tū'nĭs.
Tunkers, tŭngk'ŭrz.
Tunny, tŭn'ne.
Tupelo, tu'pe-lo.
Turbulence, tŭr'bn-lĕns.
Turcism, tŭr'sĭzm.
Turcoman, tŭr'ko-măn.
Tureen, tu-reen'.
Turgescence, tŭr-jĕs'sĕns.
Turgid, tŭr'jĭd.
Turin, tn'rĭn *or* too-reen'.
Turiones, tu-re-o'neez.
Turkistan, toor-kĭs-tahn',
Turlupin, tŭr'ln-pĭn.
Turnkey, tŭrn'ke.
Turnsole, tŭrn'sōl.
Turnstone, tŭrn'stūn.
Turpitude, tŭr'pe-tūd.
Turtle, tŭr'tl.
Tuscany, tŭs'kah-ne.
Tuscaroras, tŭs-kah-ro'răz.
Tusculum, tŭs'ku-lŭm.
Tussicular, tŭs-sĭk'u-lăr.
Tussilago, tŭs-sĭl-a'go.
Tussle, tŭs'sl.
Tutor, tū'tŭr.
Tutti, toot'te.
Tuyère, twe-air'.
Twaddle, twŏd'dl.
Tyburnia, ti-bŭr'ne-ah.
Tyler, tī'lŭr.
Tympanum, tĭm'pa-nŭm.
Type, tīp.
Typhomania, ti-fo-ma'ne-ah.
Typhoid, tī'foid.
Typhoon, ti-foon'.
Tyr, tĭr.
Tyranny, tĭr'ăn-ne.
Tyro, tī'ro.
Tyrone, te-rōn'.
Tyrrhenian, tĭr-re'ne-ăn.
Tyrol, tĭr'ŏl.
Tyrtæus, tĭr-te'ŭs.

U.

Ubiquity, u-bĭk'we-to.
Udder, ŭd'dŭr.
Udine, oo'de-na.
Ugliness, ŭg'le-nĕs.
Uhland, oo'lahnt.
Uladislas, vlăd'ĭs-lauz.
Ulceratlou, ŭl-sŭr-a'shŭn.
Ulema, oo-le'mah.
Ulex, u'lĕks.
Ulmaceous, ŭl-ma'shŭs.
Ulmine, ŭl'mĭn.
Ulua, ŭl'uah.
Ulster, ŭlz'tŭr.
Ultimatum, ŭl-te-ma'tŭm.
Ultimo, ŭl'te-mo.
Ultra, ŭl'trah.
Ululation, ŭl-u-la'shŭn.
Umâ, oo'mah.
Umbellales, ŭm-bĕl'la-leez.
Umber, ŭm'bŭr.
Umbilicus, ŭm-bĭl'e-kŭs.
Umbles, ŭm'blz.
Umbrage, ŭm'braj.
Umbria, ŭm'bre-ah.
Unquhile, ŭm'kwĭl.
Unaka, oo-nah'kah.
Unciform, ŭn'se-fôrm.
Unction, ŭngk'shŭn.
Uniola, u-ne-o'lah.
Union, yoon'yŭn.
Unison, u'ne-sŭn.
Unitarians, u-ne-ta're-ănz.
Universal, n-ne-vûrs'ăl.
University, u-ne-vûr'se-te.
Unknit, ŭn-nĭt'.
Upholstery, ŭp-hōl'stŭr-e.
Uphroe, yoov'ro.
Upupa, oo-poo'pah.
Ural, yoo'răl.
Uranium, ū-ra'ne-ŭm.
Uranus, ū'ra-nŭs.
Urban, ûr'băn.
Urceole, ûr'se-ōl.
Ure, yoor.
Uredo, yoo-re'do.
Urethra, ū-re'thrah.
Urge, ûrj.
Urginea, ûr-jĭn'yah.
Urim, u'rĭm.
Urinæ, u'rĭn-e.
Uroscopy, u-rŏs'ko-pe.
Urquhart, ûrk'hărt.
Ursius, oor-sahn'.
Ursula, ûr'su-lah.
Ursulines, ûr'su-lînz.
Urtica, ûr'te-kah.
Urus, yoo'rŭs.
Usance, yooz'ăns.
Ushant, oosh'ănt.
Usher, ŭsh'ûr.
Uskup, oos'kŭp.
Ustica, ŭs'te-kah.
Ustulation, ŭs-tu-la'shŭn.
Usual, yoo'zhoo-ăl.
Usumasinta, u-sŭm-a-sĭn'tah.
Usurp, yoo-zûrp'.
Utensil, u-tĕn'sil.
Uterine, ū'tĕr-ĭn.
Utica, ū'te-kah.
Utilitarianism, u-tĭl-e-ta're-ăn-ĭzm. [tĭs.
Uti Possidetis, ū'ti pŏs-sĭd'e-
Utopia, u-to'pe-ah.
Utraquists, u'trah-kwists.
Utrecht, yoo-trĕkt'.
Utricle, u'tre-kl.
Utricularia, u-trĭk-u-la're-ah.
Uttoxeter, ŭt-tŏks'e-tŭr.
Uvea, ū've-ah.
Uvula, ū'vu-lah.
Uwarowite, ū-vär'o-īt.
Uxmal, ooks-mahl'.
Uxorious, ŭgz-o're-ŭs.
Uzema, ū'ze-mah.
Uzziah, ŭz-zi'ah.

V.

Vaal, vahl.
Vadium, va'de-ŭm.
Vagabond, văg'a-bŏnd.
Vagary, va-ga're.
Vagina, va-ji'nah.
Vague, vāg.
Vaisya, vīs'yah.
Valais, vah-la'.
Valdivia, vahl-de've-ah.
Valediction, văl-e-dĭk'shŭn.
Valencia, vah-lĕn'she-ah.
Valenciennes, vah-lŏn(g)-se-
Valentine, văl'ĕn-tīn. [ĕn'.
Valerian, vah-le're-ăn.
Valet, văl'a.
Valetta, vah-lĕt'tah. [na're-ăn.
Valetudinarian, văl-e-tu-de-
Valhalla, văl-hăl'lah.
Validity, va-lĭd'e-te.
Valkyria, văl-kĭr'e-ah.
Vallisneria, văl-lĭs-ne're-ah.
Valonia, va-lo'ne-ah.
Valorous, văl'ŏr-ŭs.
Valparaiso, văl-pah-ri'zo.
Value, văl'yoo.
Vampirism, văm'pĭr-ĭzm.
Vanadium, va-na'de-ŭm.
Vandalism, văn'dăl-ĭzm.
Vandervelde, vahn-dăr-vĕl'da
Vandyck, vahn-dĭk'.
Vanessa, vah-nĕs'sah.
Vangio, văng'glo.
Vanguard, văn'gahrd.
Vanilla, vah-nĭl'lah.
Vanity, văn'e-te.
Vanquish, văngk'wĭsh.
Van Rensselaer, -rĕn'sĕl-lĕr.
Vansittart, văn-sĭt'tahrt.
Vapor, va'pŭr.
Variable, va're-a-bl.
Varicella, văr-e-sĕl'lah.
Varicocele, vär'e-ko-sĕl.
Varicose, vär'e-kōs.
Variety, va-rī'e-te.
Varioiite, va're-o-līt.
Varlorum, va-re-o'rŭm.
Varisse, vah-rĭs'.
Varix, va'rĭks.
Varna, vahr'nah.
Varro, vahr'ro.
Varuna, vah-roo'nah.
Vasarheily, vah'shahr-hĕl.
Vasari, vah-sah're.
Vase, vās *or* vawz.
Vassalage, văs'săl-ăj.
Vassilkov, vah-sĭl-kŏv'.
Vaticination, vah-tĭs-e-na'-
Vattel, vaht-tĕl'. [shŭn.
Vauban, vo-bŏn'.
Vaudeville, vōd'vĕl.
Vaudois, vo-dwah'.
Vaughan, vaw'ăn.
Vanquelinite, vōk'lĭn-īt.
Vavasor, văv'a-sŏr.
Vedas, ve'dăz.
Vedette, ve-dĕt'.
Vega, va'gah.
Vegetation, vĕj-e-ta'shŭn.
Vehemence, ve'he-mĕns.
Velmic, va'mĭk.
Veil, vāl.
Vela, ve'lah.
Velasquez, va-lăs'kĕth.
Velites, ve-lī'teez.
Veilore, vĕl-lōr'.
Velocipede, ve-lŏs'e-pĕd.
Vena, ve'nah.
Vendée, vŏn(g)-da'.
Vendetta, vĕn-dĕt'tah.
Veneer, ve-neer'.
Venereal, ve-ne're-ăl.
Vengeance, vĕnj'ăns.
Venire, ve-nī're.
Veni Sancti Spiritus, ve'-ni săngk'tī spĭr'ĭt-ŭs.
Venison, vĕn'zn.
Venom, vĕn'ŭm.
Ventilation, vĕn-te-la'shŭn.
Ventricle, vĕn'tre-kl.
Venus, ve'nŭs.
Veranda, ve-răn'dah.
Veratrum, ve-ra'trŭm.
Verbascum, vûr-băs'kŭm.
Verbena, vûr-be'nah.
Verd-antique, vûrd-ăn-teek'.
Verdict, vûr'dĭkt.
Verdigris, vûr'de-grēs.
Verdure, vûrd'ûr.
Vergaloo, vûr'gah-loo.
Vergnland, vnĭru-ye-o'.
Verification, vĕr-e-fe-ka'-
Vermes, vûr'meez. [shŭn.
Vermiculation, vûr-mĭk-u-la'shŭn.
Vermifuge, vûr'me-fūj.
Vernacular, vûr-năk'u-lăr.
Vernon, vûr'nŭn.
Verona, va-ro'nah.
Veronese, va-ro-na'za.
Verouica, ve-rŏn'e-kah.
Verrocchio, vĕr-rŏk'ke-o.
Versailles, vair-sa-ye'.
Vertebra, vûr-te'brah.
Vertex, vûr'tĕks.
Verticil, vûr'te-sĭl.
Vertiginous, vĕr-tĭj'e-nŭs.
Vertumnus, vĕr-tŭm'nŭs.
Verus, ve'rŭs.
Verviers, vair-ve-a'.
Vesalius, ve-sa'le-ŭs.
Vesparlæ, vĕs-pa're-e.
Vespertilis, vĕs-pûr-tī'lĭs.
Vespucci, vĕs-poot'che.
Vessiguon, vĕs'sĕn-yŏn(g).
Vesta, vĕs'tah.
Vestibule, vĕs'te-būl.
Vestris, vĕs'trees.
Vesuvins, ve-su've-ŭs.
Veteran, vĕt'ûr-ăn.
Veto, ve'to.
Vexillum, vĕks-ĭl-lŭm.
Viana, ve-ah'nah.
Viands, vī'ăndz.
Viaticum, vi-ăt'e-kŭm.
Viatka, ve-ăt'kah.
Vibratiou, vi-bra'shŭn.
Vibriones, vĭb-ri-o'neez.
Viburnum, vi-bûr'nŭm.
Vicar, vĭk'ăr.
Vicarious, ve-ka're-ŭs.
Vicenza, ve-chĕn'sah.
Vice Versa, vī'se vûr'sah.
Vichy, ve'she.
Vicia, vĭsh'e-ah.
Vicious, vĭsh'ŭs.
Vicissitude, vi-sĭs'se-tūd.
Vico, ve'ko.
Victnals, vĭt'lz.
Victoria, vĭk-to're-ah.
Videlicet, vi-dĕl'e-sĭt.
Vidimus, vĭd'e-mŭs.
Vidonia, ve-do'ne-ah.
Vienna, ve-ĕn'nah.
Vieuxtemps, voo-tŏn'(g)
View, vū.
Vigevano, ve-ja-vah'no.
Vigil, vĭj'il.
Vignette, vĭn-yĕt'.
Vignola, vĭn-yo'lah.
Vigoroso, ve-go-ro'zo. [kah.
Villa Franca, vĭl'lah frăng'-
Villars, ve-ahr'.
Villeinage, vĭl'lĭn-ăj.
Villemain, veel-mahn'.
Villi, veel'le.
Vincent, vĭn'sĕnt.
Viuci, vĭn'che.
Vinegar, vĭu'e-găr.
Vingt-un, vahnt-oon'.
Viola, vi'o-lah.
Violation, vi-o-la'shŭn.
Violin, vi-o-lĭn'.
Violoncello, ve-o-lŏn-sĕl'lo.
Violone, ve-o-lo'na.
Viotti, ve-ŏt'te.
Virago, vi-ra'go.
Virginia, vŭr-jĭn'e-ah.
Virgo, vûr'go.
Virile, vĭr'il.
Virtuoso, vûr-tu-o'so.
Virus, vi'rŭs.
Vis-a-vis, vĭz-a-ve'.
Viscera, vĭs'se-rah.
Viscosity, vĭs-kŏs'e-te.
Visconnt, vĭ'kŏwnt.
Visé, ve-za'.
Vision, vĭzh'ŭn.
Visit, vĭz'ĭt.
Visor, vĭz'ŏr.
Vistula, vĭs'tu-lah.
Vitaceæ, vi-ta'se-e.
Vitebsk, ve-tĕbsk'.
Vitellins. ve-tĕl'yŭs.
Viterbo, ve-tär'bo.
Vitex, vi'tĕks.
Vitreous, vĭt're-ŭs.
Vitiate, vĭsh'e-āt.
Vitriol, vĭt're-ŏl.
Vittoria, vĭt-to're-ah.
Vitnline, vĭt'u-lĭn.
Vituperation, vi-tu-pŭr-a'- [shŭn.
Vivace, ve-vah'cha.
Vivandiere, ve-vŏng-de-ār'.
Viva-voce, ve'vah vo'cha.
Vlverridæ, ve-vĕr're-de.
Vivianite, vīv'yăn-īt.
Viviparous, ve-vĭp'a-rŭs.
Vivisection, vĭv-e-sĕk'shŭn.
Vizier, vĭz'yĕr.
Vladimir, vlahd'e-meer.
Vocabulary, vo-kăb'u-la-re.
Vocalism, vo'kăl-ĭzm. [shŭn.
Vociferation, vo-sĭf-ûr-a'-
Vodina, vo-de'nah.
Voghera, vo-ga'rah.
Voglite, vŏg'lĭt.
Vogue, vŏg.
Voir dire, vwahr deer'.
Voitnre, vwah-toor'.
Volatile, vŏl'a-tĭl.
Volcano, vŏl-ka'no.
Volga, vŏl'gah.
Volition, vo-lĭsh'ŭn.
Volney, vŏl'ne.
Vologda, vo-lŏg'dah.
Volsci, vŏl'si.
Volta, vŏl'tah.
Volterra, vŏl-tĕr'rah.
Voltigeur, vŏl-te-zhoor'.
Voltri, vŏl'tre.
Volturno, vŏl-toor'no.
Voltzine, vŏlt'zĭn.
Volubility, vŏl-u-bĭl'e-te.
Voluptuous, vo-lŭp'tu-ŭs.
Volnta, vo-lod'tah.
Volvox, vŏl'vŏks.
Vomica, vŏm'e-kah.
Vomit, vŏm'ĭt.
Von Moltke, fŏn mōl'ka.
Voronetz, vŏr'o-nĕts.
Vortex, vŏr'tĕks.
Vosges, vōzh.
Voss, fŏs.
Vossins, fŏs'se-ŭs.
Voussoir, voos-swahr'.
Voyageur, vwah-yah-zhoor'.
Voyol, vī'ŏl. [blŏngz'.
Vraisemblance, vra-sŏng-
Vulcanlte, vŭl'kăn-īt.
Vnlgarian, vŭl-ga're-ăn.
Vnlgate, vŭl'găt.
Vnlnerability, vŭl-nĕr-a-bĭl'-e-te.
Vulturidæ, vŭlt-u're-de.
Vyasa, ve-ah'sah.

W.

Waday, wah'da.
Wadding, wŏd'dĭng.
Wagner, wahg'nŭr.
Wagram, wah'grahm.
Wahabees, wah'ah-beez.
Walcheren, wal'kĕr-ăn.
Walchowite, wăl'ko-īt.
Waldemar, wŏl'da-mahr.
Waldenses, wŏl'dĕn-seez.
Waldsteinia, vahlt-stīn'e-ah.
Walker, wawk'ûr.
Wali, wawl.
Wallace, wŏl'lĭs.
Walla-Walla, wŏl'lah-wŏl'lah.
Wallenstein, vahl'lĕn-stīn.
Walloons, wŏl-loonz'.
Wallow, wŏl'lo.
Walpole, wŏl'pōl.
Walter, wawl'tŭr.
Wamuel, wŏm'mĕl.
Wanderer, wŏn'dûr-ûr.
Wanghee, wăng-hē'.
Want, wŏnt.
Wapitschaw, wŏp'ĭn-shau.
Warble, wŏr'bl.
Warburton, wŏr'bŭr-tn.
Warden, wŏr'dn.
Wardrobe, wŏrd'rōb.
Ware, wĕr.
Warren, wŏr'rn.
Warrior, wŏr're-ûr.
Warwick, wŏr'rĭk.
Washington, wŏsh'ĭng-tŭn.
Waterloo, waw-tŭr-loo'.
Watonwan, wah-tōm'wahn.
Watteau, wăt-to'.
Wavellite, wa'vĕl-līt.
Waxen, waks'u.
Wayne, wān.
Weaken, wēk'n.
Wealden, wēld'n.
Wearing, wĕr'ĭng.
Weazen, wē'zu.
Wedge, wĕj.
Wednesday, wĕnz'de.
Weight, wāt.
Wellesley, wĕlz'le.
Wellington, wĕl'lĭng-tŭn.
Wenceslaus, vänt'säs-lōwss.
Wener, wa'nĕr.
Weser, wa'sĕr.
Wesley, wĕz'le.
Westmeath, wĕst-meeth'.
Westminster, wĕst'mĭn-stŭr.
Westmorcland, wĕst'mŭr-lănd.
Westphalia, wĕst-fa'le-ah.
Wexford, wĕks'fŭrd.
Weymouth, wa'mowth.
Wheeling, hwēl'ĭng.
Whelk, hwĕlk.
Whewell, hū'ĕl.
Whimsy, hwĭm'ze.
Whinbrel, hwĭn'brĕl.
Whipper, hwĭp'pŭr.
Whirlpool, hwûrl'pool.
Whiskey, hwĭs'ke.
Whisper, hwĭs'pŭr.
Whitby, hwĭt'be.
Whitefield, hwīt'feeld.
Whitlow, hwĭt'lo.
Whittier, hwĭt'te-ûr.
Whitworth, hwĭt'wûrth.
Wicklow, wĭk'lo.
Widgeon, wĭd'jŭn.
Wieland, we'lănt.
Wilderness, wĭl'dûr-nĕs.
Wiikes, wĭlkz.
Wilkie, wĭl'ke.
William, wĭl'yăm.
Wiimington, wĭl'mĭng-tŭn.
Wilmot Proviso, wĭl-mŏt
Wilna, wĭl'nah. [pro-vi'zo.
Wind, wind *and* wīnd. [grahtz.
Windischgrätz, vĭn'dĭsh-
Windsor, wind'zŭr.
Winged, wĭngd. [hawk.
Winkle-hawk, wĭngk'l-
Winnebago, wĭn-ne-ba'go.
Winneshiek, wĭu'ne-shĕk.
Winnipiseogee, wĭn-ne-
Winslow, wĭnz'lo. [pĭs-e-o'je.
Wintzenheim, vĭnt'zăn-hīm.
Wire-gauge, wīr'gāj.
Wisbeach, wĭz'bĭch.
Wisconsin, wĭs-kŏn'sĭn.
Wisdom, wĭz'dŭm.
Wiserite, wĭz'ŭr-īt.
Wismar, vĭs'mahr. [boorg.
Wissembourg, vĭs'sĕm-
Wistaria, wĭs-ta're-ah.
Witchcraft, hwĭch'krăft.
Witenagemote, wĭt'e-na-ge-
Witherite, hwĭth'ŭr-īt. [mōt.
Withers, hwĭth'ûrz.
Wittenberg, vĭt'tăn-bârg.
Wizen, wĭz'n.
Woahoo, wah'oo.
Wolfram, wŭlf'răm.
Wollaston, wŭl'lăs-tŭn.
Wolsey, wŭl'ze. [hăm'tŭn.
Wolverhampton, wŭl-vûr-
Wombat, wŏm'bat.
Wondrous, wŭn'drŭs.
Wont, wŏnt *and* wōnt.
Wood, wŭd.
Wool, wŭl.
Wooraly, woo'rah-le.
Wootz, woots.
Wordsworth, wûrdz'wûrth.
Work, wûrk.
World, wûrld.
Worship, wûr'shĭp.
Worth, wûrth.
Wourali, woo'rah-le. [mahn.
Wouvermans, wow'vûr-
Wrangel, vräng'găl.
Wrede, vra'da.
Wren, rĕn.
Wright, rīt.
Writing, rīt'ĭng.
Würtemberg, ooor'tăm-bărg.
Wyandots, wī'ăn-dŏts.
Wyclitfe, wĭk'lĭf.
Wyoming, wi-o'mĭng.

X.

Xantheine, zăn'the-ĭn.
Xanthite, zăn'thīt.
Xanthium, zăn'the-ŭm.
Xanthocone, zăn'tho-kōn.
Xanthophyll, zăn'tho-fil.
Xanthorhamnine, zăn-thōr-hăm'nĭn.
Xanthorriza, zăn-tho-ri'zau.
Xanthoxylum, zăn-thŏk'se-lŭm.
Xanthus, zăn'thŭs.
Xantippe, zăn-tĭp'pe.
Xavier, za've-ŭr.
Xebec, ze'bĕk.
Xenodochium, ze-no-do'ke-ŭm.
Xenophon, zĕn'o-fŏn.
Xerasia, ze-ra'zhah.
Xerxes, zŭrk'sēs.
Xeres, { *Eng,* ze'rēs. *Sp,* ha'rāth.
Xiphias, zĭf'e-ăs.
Xister, zĭs'tŭr.
Xylanthrax, ze-lăn'thrăks.
Xyloidine, zĭl'oid-ĭn.
Xylophagan, ze-lŏf'a-găn.
Xylopia, ze-lo'pe-ah.
Xyloretine, zĭl'ŏr-e-tĭn.
Xylotile, zĭl'o-tĭl.
Xyridaceæ, zĭr-e-da'se-e.
Xystarch, zĭst'ärk.

Y.

Yacca, yăk'kah.
Yager, yah'gār.
Yagnarundi, yah-gwah-roon'de.
Yallobusha, yăl-lo-bŭsh'ah.
Yang-tse-Kiang, yăng-se-ke'ăng.
Yanina, yah-ne'nah.
Yankee, yăng'ke.
Yapon, yah-pŏn'.
Yarkand, yăr-kahnd'.
Yarmouth, yär'mŭth.
Yataghan, yät'a-gahn.
Yazoo, yah-zoo'.
Yearn, yŭrn.
Yeddo, yŏd'do.
Yemen, yĕm'ĕn.
Yenite, ye'nīt.
Yeomanry, yo'măn-re.
Yergas, yĕr'gahs.
Yesso, yĕs'so.
Yesterday, yĭs'tŭr-da.
Yew, yoo.
Yokohama, yo-ko-ah'mah.
Yola, yo'lah.
Yonker, yŭngk'ŭr.
Yorkshire, yŏrk'shŭr.
Yosemite, yo-sĕm'e-te.
Young, yŭng.
Yttrium, ĭt'tre-ŭm.
Yttrocerite, ĭt'tro-se-rīt.
Yttrotantalite, ĭt'tro-tăn'tah-līt.
Yucatan, yoo-kah-tahn'.
Yucca, yŭk'kah.
Yvetot, eev-to'.

Z.

Zacco, zăk'ko.
Zacharias, zăk-a-rī'ăs.
Zaffre, zăf'fŭr.
Zain, zān.
Zambo, săm'bo.
Zamia, za'me-ah.
Zante, zăn'ta.
Zany, za'ne.
Zapatosa, zah-pah-to'zah.
Zea, ze'ah.
Zebedee, zĕb'e-de.
Zebra, ze'brah.
Zebu, ze'bŭ.
Zedoary, zĕd'o-a-re.
Zenana, ze-nah'nah.
Zend-Avesta, zĕnd-a-vĕs'tah.
Zenith, ze'nĭth.
Zenjan, zĕn'yahn.
Zeno, ze'no.
Zenobia, ze-no'be-ah.
Zeolite, ze'o-līt.
Zephyr, zĕf'ŭr.
Zerba, zĕr'bah.
Zerubbabel, ze-rŭb'ah-bĕl.
Zeta, ze'tah.
Zeticula, ze-tĭk'u-lah.
Zenglodon, zūg'lo-dŏn.
Zengma, zūg'mah.
Zeuxis, zūks'ĭs.
Zibet, ze'bĕt.
Ziega, ze-a'gah.
Zinc, zĭngk.
Zinziberaceous, zĭn-ze-bŭr-a'shŭs.
Zion, zi'ŭn.
Zireonium, zŭr-ko'ne-ŭm.
Zizania, ze-za'ne-ah.
Zoanthus, zo-ăn'thŭs.
Zoarces, zo'ăr-sēz.
Zodiac, zo'de-ăk.
Zoilus, zoi'lŭs.
Zollverein, zŏl'vŭr-īn.
Zombor, zŏm'bŏr.
Zonotrichia, zo-no-trĭk'e-ah.
Zoöchemy, zo-ŏk'e-me.
Zoölatry, zo-ŏl'a-tre.
Zoölogy, zo-ŏl'o-je.
Zoöphyte, zo'o-fīt.
Zoospore, zo'o-spōr.
Zorndorf, zŏrn'dŏrf.
Zoroaster, zŏr-o-ăs'tŭr.
Zosimus, zŏs'e-mŭs.
Zonave, zoo-ahv'.
Zuccaro, tzook-kah'ro.
Zufolo, zoo-fo'lo.
Zumology, zu-mŏl'o-je.
Zygadite, zĭg'a-dīt.
Zygæna, ze-ge'nah.
Zygoma, ze-go'mah.
Zymology, ze-mŏl'o-je.
Zythepsary, zi-thĕp'sa-re.
Zythum, zi'thŭm.

POPULATION OF THE UNITED STATES

By STATES AND TERRITORIES, COUNTIES, CITIES, TOWNS, VILLAGES AND BOROUGHS

As returned at the TWELFTH CENSUS, JUNE, 1900

Prepared under the direction of

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Chief Statistician for Population

INTRODUCTORY REMARKS.

By the terms of the census act, approved March 3, 1899, the Census Office was charged with the duty of enumerating the population of each of the states and organized territories, including the District of Columbia, and, in addition, the population of Alaska, Hawaii, and Indian Territory. For the purposes of this enumeration 300 supervisors' districts were established, and in 297 of these districts, comprehending all the area to be canvassed, with the exception of Alaska and Hawaii, the conduct of the work was vested in officers termed by the census act Supervisors of Census, appointed by the President and confirmed by the Senate. In the remaining 3 districts, namely, 2 in Alaska and 1 in Hawaii, the enumeration was placed in charge of special agents, appointed by the Director of the Census, under the discretion given him by the census act. For purposes of the enumeration the area comprising the 297 supervisors' districts was divided into 52,726 enumeration districts, and, similarly, that comprising the 3 districts in Alaska and Hawaii into 145 districts. The census was taken as of June 1, 1900, and was to be completed in two weeks in places of 8,000 inhabitants or more at the census of 1890, and in one month in rural districts.

By special arrangement with the Secretary of War and the Secretary of the Navy, the enumeration of persons in the military and naval service, either at stations in this country or abroad, was made in behalf of this office through the agencies of the War and Navy Departments.

The first returns of population were received June 13, 1900, and the count of population was begun shortly thereafter.

AGGREGATE POPULATION.

The population of the United States, including that of Alaska, Hawaii, Indian Territory, and Indian reservations, taken as of June 1, 1900, is 76,303,387, distributed by states and territories as follows:

STATES AND TERRITORIES.	Population in 1900.	Indians not taxed in 1900.
The United States	76,303,387	129,518
States.		
Alabama	1,828,697	.....
Arkansas	1,311,564	.....
California	1,485,053	1,549
Colorado	539,700	597
Connecticut	908,420	.....
Delaware	184,735	.....
Florida	528,542	.....
Georgia	2,216,331	.....
Idaho	161,772	2,297
Illinois	4,821,550	.....
Indiana	2,516,462	.....
Iowa	2,231,853	.....
Kansas	1,470,495	.....
Kentucky	2,147,174	.....
Louisiana	1,381,625	.....
Maine	694,466	.....
Maryland	1,188,044	.....
Massachusetts	2,805,346	.....
Michigan	2,420,982	.....
Minnesota	1,751,394	1,768
Mississippi	1,551,270	.....
Missouri	3,106,665	.....
Montana	243,329	10,746
Nebraska	1,066,300	.....
Nevada	42,335	1,665
New Hampshire	411,588	.....
New Jersey	1,883,669	.....
New York	7,268,894	4,711
North Carolina	1,893,810	.....
North Dakota	319,146	4,692
Ohio	4,157,545	.....
Oregon	413,536	.....
Pennsylvania	6,302,115	.....
Rhode Island	428,556	.....
South Carolina	1,340,316	.....
South Dakota	401,570	10,932
Tennessee	2,020,616	.....
Texas	3,048,710	.....
Utah	276,749	1,472
Vermont	343,641	.....
Virginia	1,854,184	.....
Washington	518,103	2,531
West Virginia	958,800	.....
Wisconsin	2,069,042	1,657
Wyoming	92,531	.....
Total for 45 states	74,607,225	44,617
Territories.		
Alaska	63,592	.....
Arizona	122,931	24,644
District of Columbia	278,718	.....
Hawaii	154,001	.....
Indian Territory	392,060	51,393
New Mexico	195,310	2,937
Oklahoma	398,331	5,927
Total for 7 territories	1,604,943	84,901
Persons in the military and naval service of the United States (including civilian employees, etc.) stationed abroad.	91,219	.....

As shown by the preceding table, 129,518 Indians not taxed were enumerated at the census of 1900, and are included in the statement of the aggregate population of the country and of the several states and territories in which they are found; but, under the provisions of the Constitution, the number of Indians not taxed living in the 45 states (44,617) should be deducted from the total population of the states and from that of each state affected thereby, for the purpose of determining the population to be used in the apportionment of representatives.

The 91,219 persons enumerated at military or naval stations abroad, including naval vessels, are distributed as follows:

LOCATION OF STATIONS.	Total.	Officers and enlisted men.	Civilian employees, etc.
Aggregates	91,219	87,538	3,681
Naval vessels	14,701	14,305	396
Cuba	11,048	9,666	1,382
Guam	147	147	.....
Philippines	62,095	60,883	1,212
Porto Rico	3,201	2,537	664
Tutuila	27	.....	27

The 396 persons reported under the heading of "civilian employees, etc.," as being on naval vessels include boys and other persons (not officers or enlisted men) on vessels loaned to certain states for use as school ships and on vessels under the control of other departments of the government, but which are operated by officers and enlisted men detailed by the Navy Department. The remaining 3,285 persons classed under the same heading include not only civilian employees, but also officers' servants and members of the families of certain of the officers and enlisted men and of civilian employees.

No provision was made by the census act for the enumeration of the inhabitants of Porto Rico, but a census for that island taken as of November 10, 1899, under the direction of the War

Department, showed a population of 953,243. A similar enumeration, under the direction of the War Department, was made of the island of Cuba, and this census, taken as of October 16, 1899, showed a population of 1,572,797. No census of the Philippines, or of the islands of Guam and Tutuila, has been taken since they have been in the possession of the United States, although an attempt is now being made to take a partial census of the Philippines, under the direction of the civil commission, popularly known as the Taft Commission, appointed by the President April 7, 1900.

There was no enumeration made as a part of the United States census, prior to 1890 of the Indians and other persons living in Indian Territory and on Indian reservations, or prior to 1880 of the population of Alaska. Hawaii was annexed August 12, 1898, and the census of 1900 is, therefore, the first census of the islands taken under the supervision of the United States. The Hawaiian Government, however, took a census every six years from 1866 to 1896, inclusive, and the figures derived from the census taken as of December 28, 1890, are used for comparison with similar results for 1900.

The total population in 1890, with which the aggregate population at the present census should be compared, is 63,069,756, comprising 62,622,250 persons enumerated in the states and organized territories at that census; 32,052 persons in Alaska; 180,182 Indians and other persons in Indian Territory; 145,282 Indians and other persons on Indian reservations, etc.; and 89,990 persons in Hawaii, this last-named figure being taken from the census of December 28, 1890, as explained in the preceding paragraph. These figures for 1890 are compared with similar figures for 1900 as follows:

	1900	1890
States and organized territories	75,559,258	62,622,250
Alaska	63,592	32,052
Hawaii	154,001	89,990
Indian Territory	392,060	180,182
Indian reservations, etc	134,476	145,282
Total population	76,303,387	63,069,756

On the basis of the above figures, the aggregate population of the entire area of enumeration in 1900 is 76,303,387, which, compared with the population of equivalent areas in 1890, namely, 63,069,756, shows an increase during the decade of 13,233,631, or 21 per cent.

POPULATION AT EACH CENSUS: 1790 TO 1900.

In order to make a direct comparison of the population in 1890 and 1900 with that comprehended by preceding censuses, it is necessary to exclude from the statements of population in 1890 and 1900 the population of those areas which have been included only recently in the Federal census, as indicated by the following table:

CENSUS YEARS.	States and organized territories, etc.	Indian Territory, Indian reservations, etc.	Alaska.	Hawaii.
1900	75,559,258	526,536	63,592	154,001
1890	62,622,250	325,464	32,052	89,990
1880	50,155,783	.....	33,426	.....
1870	38,558,371	.....	.....	.....
1860	31,443,321	.....	.....	.....
1850	23,191,876	.....	.....	.....
1840	17,069,453	.....	.....	.....
1830	12,866,020	.....	.....	.....
1820	9,638,453	.....	.....	.....
1810	7,239,881	.....	.....	.....
1800	5,308,483	.....	.....	.....
1790	3,929,214	.....	.....	.....

Eliminating the population of Alaska, Hawaii, Indian Territory and Indian reservations in 1900, there remains, as shown by the above table, 75,559,258, which figure can be compared with the population obtained in 1890 as a part of the general enumeration (62,622,250), and with the population returned at each census from 1790 to 1880, inclusive. There has been an increase in the population of the states and organized territories of the United States since 1890, on this basis, of 12,937,008, or 20.7 per cent, as compared with an increase from 1880 to 1890 for the same area of 12,466,467, or 24.9 per cent, as shown by the following table:

INCREASE AT EACH CENSUS.

CENSUS YEARS.	Population, excluding Alaska, Hawaii, Indian Territory, Indian reservations, etc.	INCREASE.	
		Number.	Per cent.
1900	75,559,258	12,937,008	20.7
1890	62,622,250	12,466,467	24.9
1880	50,155,783	11,597,412	30.1
1870	38,558,371	7,115,050	22.6
1860	31,443,321	8,251,445	35.6
1850	23,191,876	6,122,423	35.9
1840	17,069,453	4,203,433	32.7
1830	12,866,020	3,227,567	33.5
1820	9,638,453	2,398,572	33.1
1810	7,239,881	1,931,398	36.4
1800	5,308,483	1,379,269	35.1
1790	3,929,214	.....	.....

As stated in the census report of 1890, there was a deficiency in the enumeration of the population in the southern states in 1870, which not only gave an exaggerated rate of increase between 1870 and 1880 in the population of those states, but affected materially the rate of increase in the country at large. There is no means of ascertaining accurately the extent of these omissions, but an approximate correction in the population for 1870 was made in the census report of 1890, by which the population in 1870 was said to be 39,818,449 instead of 38,558,371, resulting in the following changes in the percentages of increase from 1860 to 1870 and from 1870 to 1880, respectively:

CENSUS YEARS.	Population.	INCREASE.	
		Number.	Per cent.
1860	31,443,321	.....	.....
1870	[a] 39,818,449	8,375,128	26.6
1880	50,155,783	10,337,334	26.0

[a] Corrected population.

Using the corrected population for 1870, an increase of 26 per cent is shown for the decade from 1870 to 1880, or practically the same rate of increase that was attained during the preceding ten years. There was an increase in the population of the states and organized territories from 1880 to 1890 of not quite 25 per cent, and from 1890 to 1900, as previously stated, of not quite 21 per cent.

The population of states and territories as returned at each census from 1790 to 1900, inclusive, is presented in the table printed on pages 12–13, while the increase in the population of states and territories at each decennial period, based upon the figures given in the table referred to above, is presented in the table printed on pages 14–15.

POPULATION ARRANGED GEOGRAPHICALLY.

In order that the aggregate population returned at the census of 1900 may be compared with the population of equivalent areas in 1890, as stated on page 4, it is necessary to add 447,506 persons, specially enumerated, to the population of the states and organized territories in 1890, giving a total population of 63,069,756, distributed by states and territories, arranged geographically, as follows:

STATES AND TERRITORIES.	1900	1890		
		Total.	Included in general enumeration.	Specially enumerated.
The United States..	*76,303,387	63,069,756	62,622,250	447,506
North Atlantic division ..	21,046,695	17,406,969	17,401,545	5,424
Maine	694,466	661,086	661,086	.....
New Hampshire ..	411,588	376,530	376,530	.....
Vermont	343,641	332,422	332,422	.....
Massachusetts	2,805,346	2,238,947	2,238,943	4
Rhode Island.....	428,556	345,506	345,506	.....
Connecticut	908,420	746,258	746,258	.....
New York	7,268,894	6,003,174	5,997,853	5,321
New Jersey	1,883,669	1,444,933	1,444,933	.....
Pennsylvania.....	6,302,115	5,258,113	5,258,014	99
South Atlantic division ..	10,443,480	8,857,922	8,857,920	2
Delaware.....	184,735	168,493	168,493	.....
Maryland	1,188,044	1,042,390	1,042,390	.....
District of Columbia.....	278,718	230,392	230,392	.....
Virginia	1,854,184	1,655,980	1,655,980	.....
West Virginia	958,800	762,794	762,794	.....
North Carolina ...	1,893,810	1,617,949	1,617,947	2
South Carolina ...	1,340,316	1,151,149	1,151,149	.....
Georgia.....	2,216,331	1,837,353	1,837,353	.....
Florida.....	528,542	391,422	391,422	.....
North Central division ...	26,333,004	22,410,417	22,362,279	48,138
Ohio.....	4,157,545	3,672,329	3,672,316	13
Indiana	2,516,462	2,192,404	2,192,404	.....
Illinois	4,821,550	3,826,352	3,826,351	1
Michigan	2,420,982	2,093,890	2,093,889	1
Wisconsin	2,069,042	1,693,330	1,686,880	6,450
Minnesota	1,751,394	1,310,283	1,301,826	8,457
Iowa	2,231,853	1,912,297	1,911,896	401
Missouri	3,106,665	2,679,185	2,679,184	1
North Dakota.....	319,146	190,983	182,719	8,264
South Dakota	401,570	348,600	328,808	19,792
Nebraska	1,066,300	1,062,656	1,058,910	3,746
Kansas	1,470,495	1,428,108	1,427,096	1,012
South Central division....	14,080,047	11,170,137	10,972,893	197,244
Kentucky.....	2,147,174	1,858,635	1,858,635	.....
Tennessee	2,020,616	1,767,518	1,767,518	.....
Alabama	1,828,697	1,513,401	1,513,017	384
Mississippi	1,551,270	1,289,600	1,289,600	.....
Louisiana	1,381,625	1,118,588	1,118,587	1
Texas.....	3,048,710	2,235,527	2,235,523	4
Oklahoma	398,331	78,475	61,834	16,641
Arkansas	1,311,564	1,128,211	1,128,179	32
Indian Territory..	392,060	180,182	.....	180,182
Western division	4,091,349	3,102,269	3,027,613	74,656
Montana.....	243,329	142,924	132,159	10,765
Wyoming	92,531	62,555	60,705	1,850
Colorado.....	539,700	413,249	412 198	1,051
New Mexico	195,310	160,282	153 593	6,689
Arizona	122,931	88,243	59.620	28.623
Utah	276,749	210,779	207,905	2,874
Nevada.....	42,335	47,355	45,761	1,594
Idaho.....	161,772	88,548	84,385	4,163
Washington	518,103	357,232	349,390	7,842
Oregon	413,536	317,704	313,767	3,937
California	1,485,053	1,213,398	1,208,130	5,268
Alaska	63,592	32,052	.....	32,052
Hawaii	154,001	89,990	.....	89,990

* Includes 91,219 persons in the military and naval service of the United States (including civilian employees, etc.) stationed abroad, not credited to any state or territory.

INCREASE ARRANGED GEOGRAPHICALLY.

The increase in the population of the several states and territories since 1890, based upon the figures given in the preceding table, is shown in the first two columns of the following table, in comparison with the increase as shown in the table printed on pages 14, reproduced in the last two columns of the following table:

STATES AND TERRITORIES.	Increase, including in 1890 population specially enumerated.		Increase, excluding in 1890 population specially enumerated.	
	Number.	Per cent.	Number.	Per cent.
The United States	13,233,631	21.0	12,937,008	20.7
North Atlantic division	3,639,726	20 9	3,639,285	20.9
Maine.....	33,380	5.0	33,380	5.0
New Hampshire	35,058	9.3	35,058	9.3
Vermont	11,219	3.4	11,219	3.4
Massachusetts.....	566,399	25.3	566,403	25.3
Rhode Island	83,050	24.0	83,050	24.0
Connecticut.....	162,162	21.7	162,162	21.7
New York.....	1,265,720	21.1	1,265,257	21.1
New Jersey.....	438,736	30.4	438,736	30.4
Pennsylvania	1,044,002	19.9	1,044.020	19.9
South Atlantic division	1,585,558	17.9	1,585,560	17.9
Delaware	16,242	9.6	16,242	9.6
Maryland.....	145,654	14.0	145,654	14.0
District of Columbia ...	48,326	21.0	48,326	21.0
Virginia	198,204	12.0	198,204	12.0
West Virginia	196,006	25.7	196,006	25 7
North Carolina	275,861	17.1	275,863	17.1
South Carolina.....	189,167	16.4	189,167	16.4
Georgia	378,978	20.6	378,978	20 6
Florida.....	137,120	35.0	137,120	35 0
North Central division.....	3,922,587	17 5	3,928,190	17.6
Ohio	485,216	13.2	485,229	13.2
Indiana.....	324,058	14.8	324,058	14.8
Illinois	995,198	26.0	995,199	26.0
Michigan.	327,092	15.6	327,093	15.6
Wisconsin.....	375,712	22.2	376,036	22.3
Minnesota	441,111	33.7	440,160	33.8
Iowa.....	319,556	16.7	319,572	16.7
Missouri.....	427,480	16.0	427,481	16.0
North Dakota	128,163	67.1	129,520	70.9
South Dakota	52,970	15.2	55.079	16.8
Nebraska.....	3,644	0.3	7,390	0.7
Kansas.....	42,387	3.0	41,373	2.9
South Central division	2,909,910	26.1	2,699,004	24.6
Kentucky	288,539	15.5	288,539	15.5
Tennessee	253,098	14.3	253,098	14.3
Alabama.....	315,296	20.8	315,680	20.9
Mississippi.....	261,670	20.3	261,670	20.3
Louisiana	263,037	23.5	263,038	23.5
Texas	813,183	36.4	813,187	36.4
Oklahoma	319,856	407.6	320,407	518.2
Arkansas	183,353	16.3	183,385	16.3
Indian Territory.....	211,878	117.6	.....	.....
Western division	989,080	31.9	993,750	32.8
Montana	100,405	70.3	99,400	75.2
Wyoming	29,976	47.9	29,865	49.2
Colorado	126,451	30.6	126,357	30.7
New Mexico	35,028	21.9	29,727	19.4
Arizona.....	34,688	39.3	39,930	67.0
Utah	65,970	31.3	67,047	32.2
Nevada	a 5,020	a 10.6	a 5,099	a 11.1
Idaho	73,224	82.7	74,762	88.6
Washington	160,871	45.0	162,194	46.4
Oregon.....	95,832	30.2	95,518	30.4
California	271,655	22.4	274,049	22.7
Alaska	31,540	98.4	.....	.....
Hawaii.....	64,011	71.1	.....	.....

a Decrease.

As shown by the above table (columns 1 and 2), there has been an increase of 21 per cent in the population of the entire area of enumeration in 1900 as compared with the population of the same area in 1890, representing a total numerical increase of 13,233,631. Excluding the population of Alaska,

Hawaii, Indian Territory and Indian reservations in 1890 and 1900, there has been an increase in the population of the states and organized territories during the decade, as shown by the last table (columns 3 and 4), of 12,937,008, or 20.7 per cent, as compared with an increase of 12,466,467, or 24.9 per cent, for the equivalent area from 1880 to 1890.

Among the several states and territories, Oklahoma shows the largest percentage of increase since 1890. The territory of Oklahoma was opened to settlement in May, 1890, and at the census taken one month later, in June, 1890, had a population of 78,475, including 16,641 Indians and other persons specially enumerated, but not included in the general report on population at that census. At the census of 1900 it had a population of 398,331, or an increase since 1890 of 407.6 per cent; in other words, its population in 1900 is more than five times as large as the entire population returned in 1890.

The second largest percentage of increase in population since 1890 is found in Indian Territory, being somewhat more than 100 per cent. The population of Indian Territory was specially enumerated in 1890, but no part of the population thus enumerated was included in the general report on population. There were 180,182 Indians and other persons enumerated in Indian Territory in 1890, but this number has been increased to 392,060 in 1900, showing an increase of 211,878, or 117.6 per cent, during the ten years.

The population of Idaho has increased 82.7 per cent since 1890, while the population of Montana has increased 70.3 per cent, and that of North Dakota 67.1 per cent. The 5 states and territories named are the only ones in which the population has increased more than 50 per cent during the ten years from 1890 to 1900, but Wyoming has increased its population during the same period by 47.9 per cent, and Washington its population by 45 per cent.

Nevada is the only state that shows an actual decrease in its population since 1890, but for this state there was a much larger decrease reported for the preceding decade, or 26.5 per cent from 1880 to 1890 as against 10.6 per cent from 1890 to 1900. The smallest percentage of increase during the ten years is that shown by Nebraska, being less than one-half of 1 per cent, while for the same period there has been an increase of only 3 per cent in the population of Kansas, 3.4 per cent in that of Vermont, and 5 per cent in that of Maine.

There has been a gain during the decade of not quite 10 per cent in the population, respectively, of Delaware and New Hampshire, and of between 10 and 40 per cent in the population of each of the remaining states and territories, the largest percentage among this class being that for Arizona, or 39.3 per cent, and the smallest percentage that for Virginia, or 12 per cent.

DENSITY OF POPULATION.

The gross area (land and water surface) of the United States, exclusive of Alaska and Hawaii, is 3,025,600 square miles. The United States at the first census, in 1790, comprised only the territory between the Atlantic ocean and the Mississippi river, representing a gross area of 827,844 square miles. There was no change in the gross area of the country at the census of 1800, but in 1803 there were added by the Louisiana purchase more than a million square miles, making the gross area of the country 1,999,775 square miles. In 1819 our territory was increased, by the purchase of the Floridas from Spain, to 2,059,043 square miles, which represented the gross area of the country at the censuses of 1820, 1830 and 1840. Between 1840 and 1850 there was a large acquisition of territory from Mexico, so that at the census of 1850 the gross area of the United States comprised 2,980,959 square miles. By the Gadsden purchase, in 1853, our territory was further increased to 3,025,600 square miles, which constitutes the present area of the country, exclusive of the areas of Alaska and Hawaii. The territory of Alaska, comprising 590,884 square miles, was purchased from Russia in 1867, and the territory of Hawaii, comprising 6,449 square miles, was acquired by annexation in 1898. Including Alaska and Hawaii, the entire area of enumeration at the present census comprises 3,622,933 square miles.

GROSS AREA, EXCLUSIVE OF ALASKA AND HAWAII, AT EACH CENSUS: 1790 TO 1900.

The gross area (land and water surface) which the country, exclusive of Alaska and Hawaii, had at the date of each census, from 1790 to 1900, inclusive, is summarized as follows:

CENSUS YEARS.	Gross area in square miles.	CENSUS YEARS.	Gross area in square miles.
1900	3,025,600	1840	2,059,043
1890	3,025,600	1830	2,059,043
1880	3,025,600	1820	2,059,043
1870	3,025,600	1810	1,999,775
1860	3,025,600	1800	827,844
1850	2,980,959	1790	827,844

The area in square miles, including land and water surface, of the several states and territories at the census of 1900 is presented in the following table:

STATES AND TERRITORIES.	Gross area.	Water surface.	Land surface.
Total	3,622,933	55,562	2,970,038
Alabama	52,250	710	51,540
Alaska	590,884	.....	.....
Arizona	113,020	100	112,920
Arkansas	53,850	805	53,045
California	158,360	2,380	155,980
Colorado	103,925	280	103,645
Connecticut	4,990	145	4,845
Delaware	2,050	90	1,960
District of Columbia	70	10	60
Florida	58,680	4,440	54,240
Georgia	59,475	495	58,980
Hawaii	6,449	.....	.....
Idaho	84,800	510	84,290
Illinois	56,650	650	56,000
Indiana	36,350	440	35,910
Indian Territory	31 400	400	31,000
Iowa	56,025	550	55,475
Kansas	82,080	380	81,700
Kentucky	40,400	400	40,000
Louisiana	48,720	3,300	45,420
Maine	33,040	3,145	29,895
Maryland	12,210	2,350	9,860
Massachusetts	8,315	275	8,040
Michigan	58,915	1,485	57,430
Minnesota	83,365	4,160	79,205
Mississippi	46,810	470	46,340
Missouri	69,415	680	68,735
Montana	146,080	770	145,310
Nebraska	77,510	670	76,840
Nevada	110,700	960	109,740
New Hampshire	9,305	300	9,005
New Jersey	7,815	290	7,525
New Mexico	122,580	120	122,460
New York	49,170	1,550	47,620
North Carolina	52,250	3,670	48,580
North Dakota	70,795	600	70,195
Ohio	41,060	300	40,760
Oklahoma	39,030	200	38,830
Oregon	96,030	1,470	94,560
Pennsylvania	45,215	230	44,985
Rhode Island	1,250	197	1,053
South Carolina	30,570	400	30,170
South Dakota	77,650	800	76,850
Tennessee	42,050	300	41,750
Texas	265,780	3,490	262,290
Utah	84,970	2,780	82,190
Vermont	9,565	430	9,135
Virginia	42,450	2,325	40,125
Washington	69,180	2,300	66,880
West Virginia	24,780	135	24,645
Wisconsin	56,040	1,590	54,450
Wyoming	97,890	315	97,575
Delaware bay	620	620	.....
Raritan bay and Lower New York bay	100	100	.....

The density of population of the United States, exclusive of Alaska and Hawaii, according to the census of 1900, is 25.6,

that is, there are in the United States in 1900, on the average, 25.6 inhabitants to the square mile, using land surface only. At the census of 1790 there were less than 5 inhabitants to the square mile, so that the density of the population of the country has increased in 110 years more than fivefold, although the land area of the country in 1900, exclusive of Alaska and Hawaii, is more than three and one-half times what it was in 1790.

The density of population of the several states and territories at each census is shown in detail in the table printed on page 16.

Excluding the District of Columbia, which is in effect a municipality, Rhode Island, with 407 inhabitants to the square mile in 1900, is the most densely settled state in the Union, while Massachusetts comes next, with not quite 349 inhabitants to the square mile. New Jersey, with a little more than 250 inhabitants to the square mile in 1900, is the third state in point of density of population, while Connecticut, with somewhat more than 187 inhabitants to the square mile, occupies fourth place. Four other states have more than 100 inhabitants to the square mile in 1900, namely, New York, with 152.6 inhabitants; Pennsylvania, with 140.1 inhabitants; Maryland, with 120.5 inhabitants; and Ohio, with 102 inhabitants to the square mile.

Alaska has, on the average, but one-tenth of 1 person to the square mile in 1900, and, similarly, Nevada has only four-tenths of 1 person to the square mile. Wyoming has not quite 1 inhabitant to the square mile in 1900, while Arizona has an average to the square mile of 1.1 inhabitants; New Mexico of 1.6 inhabitants; Montana of 1.7 inhabitants; and Idaho of 1.9 inhabitants.

The newly acquired territory of Hawaii shows an average density of population in 1900 of not quite 24 persons, ranking in this respect between Maine, with 23.2 persons, and Arkansas, with 24.7 persons to the square mile.

THE CENTER OF POPULATION AND ITS MEDIAN POINT.

By the Twelfth Census the center of population in 1900 was in the following position:

Latitude	39° 9′ 36″
Longitude	85° 48′ 54″

In ten years the center of population has moved westward 16′ 1″, or about fourteen miles, and southward 2′ 20″, or about two and one-half miles. It rests now in southern Indiana, at a point about six miles southeast of Columbus, the county seat of Bartholomew county, Indiana. The surroundings of its location are shown upon the sketch map printed on page 11.

The center of population is the center of gravity of the population of the country, each individual being assumed to have the same weight. In order that the result might be comparable with those obtained in 1880 and 1890, the population of Alaska and Hawaii, although included in the Twelfth Census, has not been included here. The method used was in brief as follows:

The population of the country was first distributed by "square degrees," as the area included between consecutive parallels and meridians has been designated. A point was then assumed, tentatively, as the center, and corrections in latitude and longitude to this tentative position were computed. In this case the center was assumed to be at the intersection of the parallel of 39° north with the meridian of 86° west of Greenwich. The population of each square degree was assumed to be located at the center of that square degree, except in cases where it was manifest that this assumption would be untrue, as, for instance, where a part of the square degree was occupied by the sea or other large body of water, or where it contained a city of considerable magnitude which was situated "off center." In these cases the position of the center of the population of the square degree was estimated as nearly as possible. The shortest distances between each such center of population of a square degree (whether assumed to be at, or at a distance from, the center of the square degree) and the assumed parallel and meridian were obtained. The population of each square degree was then multiplied by the shortest distance of its center of population from the assumed parallel of latitude, and the sums of the products, or moments, north and south of that parallel were obtained. Their difference, divided by the total population of the country, gave a correction to the latitude of the assumed center of population. In a similar manner, the east and west moments were obtained, and from them a correction to the longitude of the assumed center was obtained.

In 1790 the center of population was at 39° 16.5′ north latitude and 76° 11.2′ west longitude, which a comparison of the best maps available would seem to place about 23 miles east of Baltimore. During the decade from 1790 to 1800 it appears to have moved almost due west to a point about 18 miles west of the same city, being in latitude 39° 16.1′ and longitude 76° 56.5′.

From 1800 to 1810 it moved westward and slightly southward to a point about 40 miles northwest by west of Washington, being in latitude 39° 11.5′ and longitude 77° 37.2′. The southward movement during this decade appears to have been due to the annexation of the territory of Louisiana, which contained quite extensive settlements.

From 1810 to 1820 it moved westward and again slightly southward to a point about 16 miles north of Woodstock, Virginia, being in latitude 39° 5.7′ and longitude 78° 33′. This second southward movement appears to have been due to the extension of settlements in Mississippi, Alabama, and eastern Georgia.

From 1820 to 1830 it moved still westward and southward to a point about 19 miles southwest of Moorefield, in the present state of West Virginia, being in latitude 38° 57.9′ and longitude 79° 16.9′. This is the most decided southward movement that it has made during any decade. It appears to have been due in part to the addition of Florida to our territory, and in part to the great extension of settlements in Alabama, Louisiana, Mississippi, and Arkansas, or generally, it may be said, in the southwest.

From 1830 to 1840 it moved still farther westward, but slightly changed its direction northward, reaching a point 16 miles south of Clarksburg, in the present state of West Virginia, being in latitude 39° 2′ and longitude 80° 18′. During this decade settlement had made decided advances in the prairie states and in the southern portions of Michigan and Wisconsin, the balance of increased settlement evidently being in favor of the northwest.

From 1840 to 1850 it moved westward and slightly southward again, reaching a point about 23 miles southeast of Parkersburg, in the present state of West Virginia, in latitude 38° 59′ and longitude 81° 19′, the change of direction southward being largely due to the annexation of Texas.

From 1850 to 1860 it moved westward and slightly northward, reaching a point 20 miles south of Chillicothe, Ohio, this being in latitude 39° 0.4′, longitude 82° 48.8′.

From 1860 to 1870 it moved westward and sharply northward, reaching a point about 48 miles east by north of Cincinnati, Ohio, in latitude 39° 12′, longitude 83° 35.7′ This northward movement was due in part to waste and destruction in the south, consequent upon the civil war, and in part, probably, to the fact that the census of 1870 was defective in its enumeration of the southern people, especially of the newly enfranchised negro population.

In 1880 the center of population had returned southward to nearly the same latitude which it had in 1860, being in latitude 39° 4.1′, longitude 84° 39.7′. This southward movement was due only in part to an imperfect enumeration at the south

in 1870. During the decade from 1870 to 1880 the southern states made a larger positive increase, both from natural growth and from migration southward.

In 1890 the center of population had moved northward into practically the same latitude it occupied in 1870. This northward movement was largely due to the great development in the cities of the northwest and in the state of Washington, and also to the increase of population in New England. Its position was in latitude 39° 11′ 56″ and longitude 85° 32′ 53″.

During the past decade the center of population has moved westward 16′ 1″, a little over 14 miles, and southward 2′ 20″, a little less than 3 miles. This is the smallest movement that has ever been noted. The slight southward movement is due largely to the great increase in population of Indian Territory, Oklahoma, and Texas, while the great decrease in the westward movement of the center is, undoubtedly, due to the large increase in the population of the North Atlantic states. It also shows that the population of the western states has not increased as rapidly as in former decades.

The closeness with which the center of population, through its rapid westward movement, has clung to the parallel of 39° of latitude can not fail to be noticed. The most northern point reached was at the start, in 1790; the most southern point was in 1830, the preceding decade having witnessed a rapid development of population in the southwest—Alabama, Arkansas, Mississippi, and Louisiana having been admitted as states, and Florida annexed and organized as a territory. The extreme variation in latitude has been less than 19 minutes, while the 110 years of record have accomplished a movement in longitude of a little over 9.5 degrees. Assuming the westward movement to have been uniformly along the parallel of 39° of latitude, the westward movement of the several decades has been as follows: 1790–1800, 41 miles; 1800–1810, 36 miles; 1810–1820, 50 miles; 1820–1830, 39 miles; 1830–1840, 55 miles; 1840–1850, 55 miles; 1850–1860, 81 miles; 1860–1870, 42 miles; 1870–1880, 58 miles; 1880–1890, 48 miles; 1890–1900, 14 miles. This is a total westward movement of 519 miles since 1790. The sudden acceleration of movement between 1850 and 1860 was due to the transfer of a considerable body of population from the Atlantic to the Pacific coast, twelve individuals in San Francisco exerting as much pressure at the then pivotal point, namely, the crossing of the 83d meridian and the 39th parallel, as forty individuals in Boston.

POSITION OF THE CENTER OF POPULATION: 1790 TO 1900.

The following table and the sketch map printed on page 11 show the movement of the center of population since 1790:

CENSUS YEARS.	North latitude.	West longitude.	Approximate location by important towns.	Westward movement in miles during preceding decade.
1790...	39° 16.5′	76° 11.2′	23 miles east of Baltimore, Md.	.....
1800...	39 16.1	76 55.5	18 miles west of Baltimore, Md.	41
1810...	39 11.5	77 37.	40 miles northwest by west of Washington, D. C.	36
1820...	39 5.7	78 33.0	16 miles north of Woodstock, Va.	50
1830...	38 57.9	79 16.9	19 miles west-southwest of Moorefield, in the present state of West Virginia.	39
1840...	39 2.0	80 18.0	16 miles south of Clarksburg, in the present state of West Virginia.	55
1850...	38 59.0	81 19.0	23 miles southeast of Parkersburg, in the present state of West Virginia.	55
1860...	39 0.4	82 48.8	20 miles south of Chillicothe, Ohio.	81
1870...	39 12.0	83 35.7	48 miles east by north of Cincinnati, Ohio.	42
1880...	39 4.1	84 39.7	8 miles west by south of Cincinnati, Ohio.	58
1890...	39 11.9	85 32.9	20 miles east of Columbus, Ind.	48
1900...	39 9.5	85 48.9	6 miles southeast of Columbus, Ind.	14

The center of area of the United States, excluding Alaska and Hawaii and other recent accessions, is in northern Kansas, in approximate latitude 39° 55′, and approximate longitude 98° 50′. The center of population is, therefore, about three-fourths of a degree south and more than thirteen degrees east of the center of area.

The median point is the point of intersection of the line dividing the population equally north and south with the line dividing it equally east and west. In short, it is the central point of the population. It differs from the center of population in the fact that distance from the center is not considered. Its movements from census to census bear no relation to the movements of the population, since only movements by which bodies of population are transferred across its parallel or its meridian have any influence upon its position. To illustrate this, a million people may move from Minnesota to Washington state without affecting its position, while the movement of a hundred persons from Michigan to Wisconsin might affect it appreciably. In 1900 the meridian of 84° 51′ 29″ equally divided the population of the United States east and west, and the parallel of 40° 04′ 22″ equally divided it north and south. The median point, therefore, is located at Spartanburg, Ind.

In order to make a comparison with the movement of the center of population, computations were also made for the Tenth and Eleventh Censuses. The following table shows the location of the median point at each census:

YEAR.	Longitude.	Latitude.	Location.
1880....	84° 07′ 12″	39° 57′ 00″	16.2 miles nearly due west of Springfield, Ohio.
1890....	84 40 01	40 02 51	4.8 miles southwest of Greenville, Ohio.
1900....	84 51 29	40 04 22	In Spartanburg, Ind.

The movement of the median point from 1880 to 1890 was north 5′ 51″ and west 32′ 49″. From 1890 to 1900 it moved north 1′ 31″ and west 11′ 28″. The comparison of the movements of the center of population and the median point shows that they do not move in parallel lines, as from 1880 to 1890 the median point moved west 27 miles and north 6.6 miles, while the center of population moved west 48 miles and north 9 miles. From 1890 to 1900 the median point moved west 10.8 miles and north 2.4 miles, while the center of population moved west 14 miles and south 2.5 miles.

THE TERRITORY OF ALASKA.

The territory of Alaska was acquired by treaty from Russia in 1867. No systematic enumeration of the entire population was ever undertaken by the Russian Government, although various counts and estimates were made at different times of certain elements of the population and of specific districts and settlements. An effort was made, however, in 1839, by Veniaminof, a Russian priest, to summarize all existing information as to the total population of the Russian possessions in America. In doing this he grouped the inhabitants as those "known and counted," those "known but not counted," and those "estimated only," and the sum of these three made a total population of 39,813, of which only 10,313 were in the class of "known and counted." Twenty-four years later, in 1863, Kostlivtzof, a special inspector of the Russian Government, made another estimate, based upon a partial enumeration, in which the population was classified by tribes, the result of which was a total of 30,434. Examples of less careful, though semi-official, statements of the total population of Alaska, during the Russian occupation, are found in the biennial reports of the Russian-American Company, in which the total is given

in round numbers as from 56,000 to 70,000, and later, in the report of Major General Halleck, U. S. A., at the time of the acquisition, in which the total was fixed at, approximately, 82,400, an estimate which, it is said, was "largely augmented by the unconscious duplication of tribes and the inclusion of others which had no existence."

No attempt was made by the United States Government to enumerate the people of Alaska at the decennial census of 1870, three years after the purchase; but in 1880 the Superintendent of Census designated special agents to canvass the territory and make such an enumeration as the difficulties of the situation permitted. The result of this effort was an actual count of all accessible settlements, supplemented by estimates, based for the most part on the records and personal knowledge of the missionary priests, for those regions which could not be visited in person by the special agents. The figures thus obtained made up a total of 33,426. At the taking of the Eleventh Census, in 1890, it was found possible to make a somewhat more extended canvass of various parts of the territory, and the count of the people which resulted therefrom showed a total of 32,052, with probably a smaller element of uncertainty in it than in any preceding total.

The Twelfth Census has been taken under more favorable conditions, owing to the greatly increased facilities for communication and to the introduction of a new and large element attracted from the United States and elsewhere by the recently discovered gold fields.

For purposes of census enumeration the territory of Alaska in 1900 was divided arbitrarily into 2 districts, namely, the Northern district, which embraces the valley of the Yukon river and all the territory north of it, and the Southern district, which embraces all the remainder of the territory, including the Alaskan peninsula and the chain of Aleutian Islands. At the census of 1880 the territory was subdivided into 6 districts, 2 of which correspond with the Northern district, as at present defined, and 4 with the Southern district. Likewise, at the census of 1890, 7 districts were formed for enumeration purposes, the boundaries of 2 of which conform substantially with the present Northern district, and the boundaries of the remainder with the present Southern district. In the absence of any survey or established lines in Alaska, the natural barrier interposed by the mountain range between the valley of the Yukon and that of the Kuskokwim rivers has been assumed as a sufficiently well-defined boundary for census purposes, and this range has, in fact, constituted the dividing line between districts in each of the preceding censuses.

Owing to the exceptional difficulties to be encountered in making an enumeration of these remote and sparsely settled regions, the work of the Twelfth Census was assigned to two special agents, Mr. Samuel C. Dunham for the Northern district, and Mr. William A. Kelly for the Southern district, both well equipped for the service by previous residence in the territory and personal knowledge of the places and people within their respective districts. As a consequence of the changed conditions, and of the zeal and knowledge of the special agents in charge of the census work, the enumeration has been successful to a degree not before attained, and the results may be accepted with corresponding confidence.

The total population of Alaska, as shown by the returns of the Twelfth Census, is 63,592. The territory had a population of 32,052 in 1890, and according to these figures, the population has nearly doubled during the decade. The actual increase from 1890 to 1900 is 31,540 and the percentage of increase, 98.4.

There are no civil divisions in Alaska corresponding to the counties and townships of other territories.

THE TERRITORY OF HAWAII.

The Hawaiian Islands were annexed to the United States by the act of Congress approved July 7, 1898, which act took effect in Hawaii August 12, 1898. The act of Congress approved April 30, 1900, made provision for a territorial government, and under this act Mr. Sanford B. Dole, formerly President of the Provisional Government, took the oath of office as governor on June 14, 1900.

The first census of the Hawaiian Islands was taken in 1832, and was followed by the censuses in 1836, 1850, 1853, and 1860. These censuses are said to have been very simple and rudimentary in character, and a census taken at regular periods was not provided for until 1865, when the Legislative Assembly made it "the duty of the Board of Education, every sixth year, counting from the year 1860, to make a complete census of the inhabitants of the Kingdom, to be laid before the King and Legislature for their consideration."

Under the terms of this requirement a census of the Hawaiian Islands was taken every six years from 1866 to 1896, inclusive. The present census, that of 1900, has been taken as a part of the work of the Twelfth Census of the United States, the Director of the Census having been authorized and directed by section 7 of the census act to make suitable provisions for the enumeration of the population and products of the Hawaiian Islands, and to employ for the purpose either supervisors and enumerators or special agents, as he should deem necessary.

The census of Hawaii was accordingly taken by special agents, under the supervision of Mr. Alatau T. Atkinson, as chief special agent, Mr. Atkinson having previously served as the general superintendent of the Hawaiian census in 1896.

The census of Hawaii in 1900, as previously stated, was taken as of June 1 of that year, but the censuses from 1866 to 1896, inclusive, were taken as of different dates, as follows: 1866—December 7; 1872—December 27; 1878—December 27; 1884—December 27; 1890—December 28; 1896—September 27. No information is available concerning the dates as of which the census prior to 1866 were taken.

The population of Hawaii at each census from 1832 to 1900, inclusive, was as follows: 1832, 130,313; 1836, 108,579; 1850, 84,165; 1853, 73,138; 1860, 69,700; 1866, 62,959; 1872, 56,897; 1878, 57,985; 1884, 80,578; 1890, 89,990; 1896, 109,020; 1900, 154,001.

According to the returns of the Twelfth Census, taken as of June 1, 1900, the territory of Hawaii had a population of 154,001, as compared with a population of 89,990 in 1890, as shown by the census taken as of December 28 of that year, under the direction of the Hawaiian Government. On the basis of these two censuses the population of Hawaii has increased 64,011, or 71.1 per cent, during the last ten years.

APPORTIONMENTS.

The apportionment of representatives in Congress, according to the enumeration of the First, Second, Third, Fourth, Fifth, and Sixth Censuses, was made by Congress. At these apportionments Congress set the ratio of population for each member allowed, and also at each apportionment fixed the total number of members of the House.

The law for the taking of the Seventh Census (act of May 23, 1850) was intended to be permanent. It presented a rule of apportionment, fixed the number of members of the House at 233, and directed the Secretary of the Interior thereafter to make the apportionment to each state.

The apportionment under the Eighth Census was made under this law, but on March 4, 1862, Congress fixed the total number

of members at 241, and the Secretary of the Interior apportioned the new quotas to the states.

The ninth and tenth apportionments were made by Congress; hence it may be assumed that the power conferred on the Secretary of the Interior by the act of May 23, 1850, was repealed by implication. Heretofore all apportionments have been made at the long sessions of Congress, being the second session after each census year, but early enough for the election of representatives to the next ensuing Congress.

The apportionments under the Eleventh and Twelfth Censuses were made at the short session of Congress immediately following the date of the census enumeration, the apportionment act under the Eleventh Census having been approved February 7, 1891, and that under the Twelfth Census, January 16, 1901.

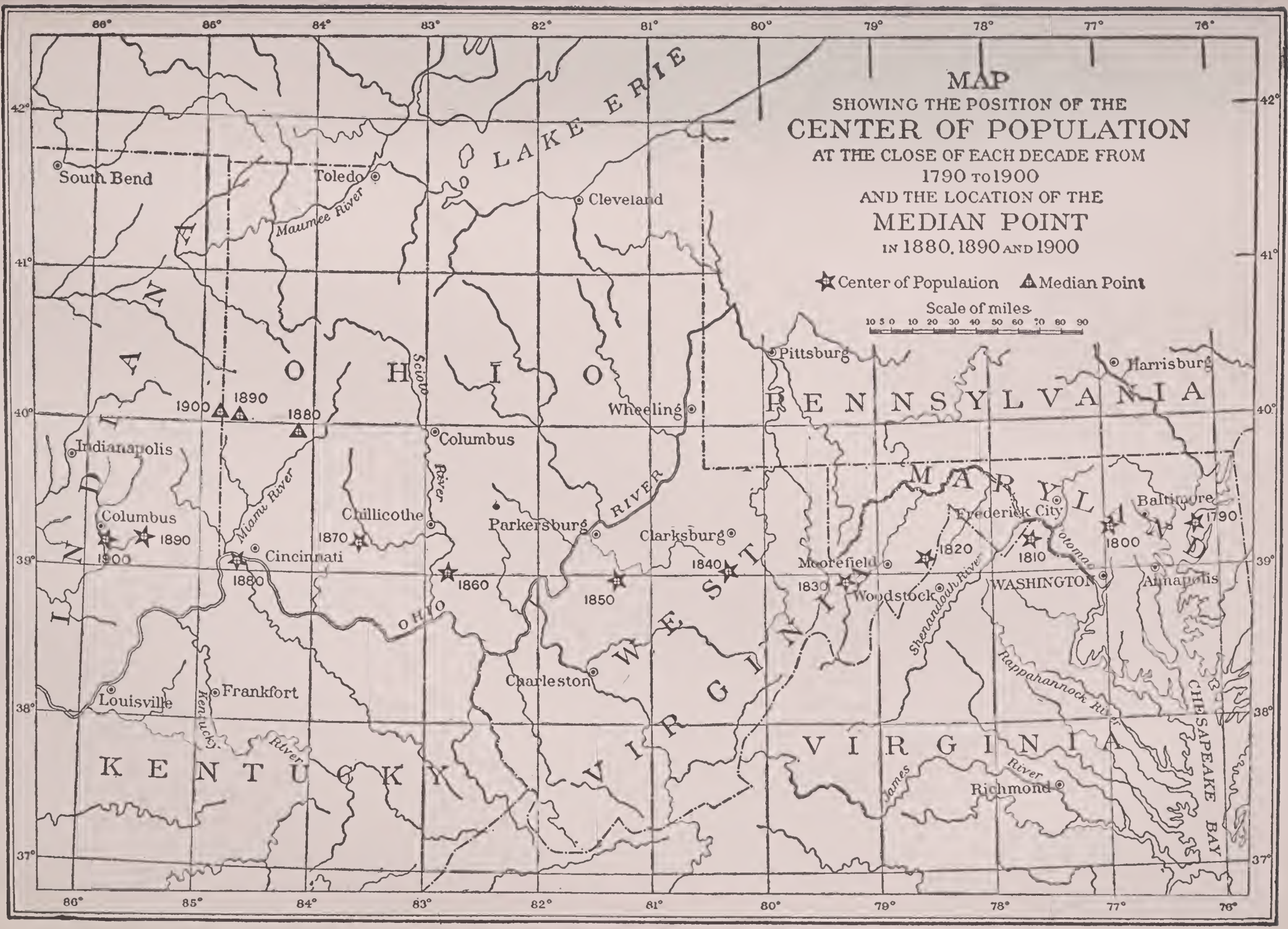
NUMBER OF REPRESENTATIVES AS APPORTIONED ON THE ENUMERATION OF THE SEVERAL CENSUSES.

APPORTIONMENT UPON THE ENUMERATION OF THE SEVERAL CENSUSES.			Assigned after apportionment.	MEMBERSHIP AT CLOSE OF SESSION BEFORE NEW ACT TAKES EFFECT.		
Census.	Act of—	Number.		Number	Congress.	Date ending—
Prior to 1790	Constitution	65	.....	65	.....	.....
First Census	April 14, 1792	105	1	106	Second	March 2, 1793
Second Census	January 14, 1802	141	1	142	Seventh	March 3, 1803
Third Census	December 21, 1811	181	12	193	Twelfth	March 3, 1813
Fourth Census	March 7, 1822	213	.....	213	Seventeenth	March 3, 1823
Fifth Census	May 22, 1832	240	2	242	Twenty-second	March 3, 1833
Sixth Census	June 25, 1842	223	9	232	Twenty-seventh	March 3, 1843
Seventh Census	May 23, 1850	233	4	237	Thirty-second	March 3, 1853
Eighth Census	May 23, 1850	241	2	243	Thirty-seventh	March 3, 1863
Ninth Census	February 2, 1872	283	10	293	Forty-second	March 3, 1873
Tenth Census	February 25, 1882	325	7	332	Forty-seventh	March 3, 1883
Eleventh Census	February 7, 1891	356	1	357	Fifty-second	March 3, 1893
Twelfth Census	January 16, 1901	386	.....	.....	.....	.....

The apportionment of representatives, based upon the enumeration at the Twelfth Census, as provided by the act of Congress approved January 16, 1901, is shown by states in the following table:

APPORTIONMENT OF REPRESENTATIVES UNDER THE TWELFTH CENSUS, BY STATES.

STATES.	Membership prior to apportionment.	Membership after apportionment.	Gain.	STATES.	Membership prior to apportionment.	Membership after apportionment.	Gain.
Total	357	386	29	Montana	1	1	.....
				Nebraska	6	6	.....
Alabama	9	9	.....	Nevada	1	1	.....
Arkansas	6	7	1	New Hampshire	2	2	.....
California	7	8	1	New Jersey	8	10	2
Colorado	2	3	1	New York	34	37	3
Connecticut	4	5	1	North Carolina	9	10	1
Delaware	1	1	.....	North Dakota	1	2	1
Florida	2	3	1	Ohio	21	21	.....
Georgia	11	11	.....	Oregon	2	2	.....
Idaho	1	1	.....	Pennsylvania	30	32	2
Illinois	22	25	3	Rhode Island	2	2	.....
Indiana	13	13	.....	South Carolina	7	7	.....
Iowa	11	11	.....	South Dakota	2	2	.....
Kansas	8	8	.....	Tennessee	10	10	.....
Kentucky	11	11	.....	Texas	13	16	3
Louisiana	6	7	1	Utah	1	1	.....
Maine	4	4	.....	Vermont	2	2	.....
Maryland	6	6	.....	Virginia	10	10	.....
Massachusetts	13	14	1	Washington	2	3	1
Michigan	12	12	.....	West Virginia	4	5	1
Minnesota	7	9	2	Wisconsin	10	11	1
Mississippi	7	8	1	Wyoming	1	1	.....
Missouri	15	16	1				


MAP
SHOWING THE POSITION OF THE
CENTER OF POPULATION
AT THE CLOSE OF EACH DECADE FROM
1790 TO 1900
AND THE LOCATION OF THE
MEDIAN POINT
IN 1880, 1890 AND 1900
Center of Population
Median Point
Scale of miles
10 5 0 10 20 30 40 50 60 70 80 90
LAKE ERIE
INDIANA
OHIO
PENNSYLVANIA
WEST VIRGINIA
KENTUCKY
VIRGINIA
MARYLAND
South Bend
Toledo
Cleveland
Maumee River
Pittsburg
Harrisburg
Wheeling
Columbus
Scioto River
Indianapolis
Miami River
Chillicothe
Parkersburg
Ohio River
Clarksburg
Frederick City
Baltimore
Potomac
Columbus
Cincinnati
Moorefield
Woodstock
WASHINGTON
Annapolis
Shenandoah River
Rappahannock River
Charleston
Louisville
Frankfort
Kentucky River
James River
Richmond
CHESAPEAKE BAY
1900
1890
1880
1870
1860
1850
1840
1830
1820
1810
1800
1790
42°
41°
40°
39°
38°
37°
86°
85°
84°
83°
82°
81°
80°
79°
78°
77°
76°

[The first column under each census year shows the order of the states

	STATES AND TERRITORIES.	1900		1890		1880		1870		1860	
1	The United States		[1] 76,303,387		[2] 62,622,250		[3] 50,155,783		38,558,371		31,443,321
2	Alabama	18	1,828,697	17	1,513,017	17	1,262,505	16	996,992	13	964,201
3	Alaska	51	63,592	..	([2])	..	([3])	..	.....	..	.....
4	Arizona	49	122,931	48	59,620	44	40,440	46	9,658	..	.....
5	Arkansas	25	1,311,564	24	1,128,179	25	802,525	26	484,471	25	435,450
6	California	21	1,485,053	22	1,208,130	24	864,694	24	560,247	26	379,994
7	Colorado	31	539,700	31	412,198	35	194,327	41	39,864	38	34,277
8	Connecticut	29	908,420	29	746,258	28	622,700	25	537,454	24	460,147
9	Delaware	46	184,735	42	168,493	38	146,608	35	125,015	32	112,216
10	District of Columbia	42	278,718	39	230,392	36	177,624	34	131,700	35	75,080
11	Florida	32	528,542	32	391,422	34	269,493	33	187,748	31	140,424
12	Georgia	11	2,216,331	12	1,837,353	13	1,542,180	12	1,184,109	11	1,057,286
13	Hawaii	48	154,001	..	([2])	..	.....	..	.....	..	.....
14	Idaho	47	161,772	45	84,385	46	32,610	44	14,999	..	.....
15	Illinois	3	4,821,550	3	3,826,351	4	3,077,871	4	2,539,891	4	1,711,951
16	Indiana	8	2,516,462	8	2,192,404	6	1,978,301	6	1,680,637	6	1,350,428
17	Indian Territory	39	392,060	..	([2])	..	.....	..	.....	..	.....
18	Iowa	10	2,231,853	10	1,911,896	10	1,624,615	11	1,194,020	20	674,913
19	Kansas	22	1,470,495	19	1,427,096	20	996,096	29	364,399	33	107,206
20	Kentucky	12	2,147,174	11	1,858,635	8	1,648,690	8	1,321,011	9	1,155,684
21	Louisiana	23	1,381,625	25	1,118,587	22	939,946	21	726,915	17	708,002
22	Maine	30	694,466	30	661,086	27	648,936	23	626,915	22	628,279
23	Maryland	26	1,188,044	27	1,042,390	23	934,943	20	780,894	19	687,049
24	Massachusetts	7	2,805,346	6	2,238,943	7	1,783,085	7	1,457,351	7	1,231,066
25	Michigan	9	2,420,982	9	2,093,889	9	1,636,937	13	1,184,059	16	749,113
26	Minnesota	19	1,751,394	20	1,301,826	26	780,773	28	439,706	30	172,023
27	Mississippi	20	1,551,270	21	1,289,600	18	1,131,597	18	827,922	14	791,305
28	Missouri	5	3,106,665	5	2,679,184	5	2,168,380	5	1,721,295	8	1,182,012
29	Montana	44	243,329	44	132,159	45	39,159	43	20,595	..	.....
30	Nebraska	27	1,066,300	26	1,058,910	30	452,402	36	122,993	39	28,841
31	Nevada	52	42,335	49	45,761	43	62,266	40	42,491	41	6,857
32	New Hampshire	36	411,588	33	376,530	31	346,991	31	318,300	27	326,073
33	New Jersey	16	1,883,669	18	1,444,933	19	1,131,116	17	906,096	21	672,035
34	New Mexico	45	195,310	43	153,593	41	119,565	37	91,874	34	93,516
35	New York	1	7,268,894	1	5,997,853	1	5,082,871	1	4,382,759	1	3,880,735
36	North Carolina	15	1,893,810	16	1,617,947	15	1,399,750	14	1,071,361	12	922,622
37	North Dakota	41	319,146	41	182,719	40	[6] 135,177	45	[c] 14,181	42	[6] 4,837
38	South Dakota	37	401,570	37	328,803						
39	Ohio	4	4,157,545	4	3,672,316	3	3,198,062	3	2,665,260	3	2,339,511
40	Oklahoma	38	398,331	46	61,834	..	.....	..	.....	..	.....
41	Oregon	35	413,536	38	313,767	37	174,768	38	90,923	36	52,465
42	Pennsylvania	2	6,302,115	2	5,258,014	2	4,282,891	2	3,521,951	2	2,906,215
43	Rhode Island	34	428,556	35	345,506	33	276,531	32	217,353	29	174,620
44	South Carolina	24	1,340,316	23	1,151,149	21	995,577	22	705,606	18	703,708
45	Tennessee	14	2,020,616	13	1,767,518	12	1,542,359	9	1,258,520	10	1,109,801
46	Texas	6	3,048,710	7	2,235,523	11	1,591,749	19	818,579	23	604,215
47	Utah	43	276,749	40	207,905	39	143,963	39	86,786	37	40,273
48	Vermont	40	343,641	36	332,422	32	332,286	30	330,551	28	315,098
49	Virginia	17	1,854,184	15	1,655,980	14	1,512,565	10	1,225,163	5	1,596 318
50	Washington	33	518,103	34	349,390	42	75,116	42	23,955	40	11,594
51	West Virginia	28	958,800	28	762,794	29	618,457	27	442,014	..	.....
52	Wisconsin	13	2,069,042	14	1,686,880	16	1,315,497	15	1,054,670	15	775,881
53	Wyoming	50	92,531	47	60,705	47	20,789	47	9,118	..	.....

[1] Includes 91,219 persons in the military and naval service of the United States (including civilian employees, etc.) stationed abroad, not credited to any state or territory.

[2] 32,052 persons in Alaska, 180,182 Indians and other persons in Indian Territory, and 145,282 Indians and other persons on Indian reservations, etc., were specially enumerated under the law but were not included in the general report on population in 1890; Hawaii had a population in 1890 of 89,990, according to the census taken as of December 28, 1890, under the direction of the Hawaiian Government; including these persons, the total population was 63,069,756.

and territories when arranged according to population.]

1850		1840		1830		1820		1810		1800		1790		
23,191,876		[4] 17,069,453		[5] 12,866,020		9,638,453		7,239,881		5,308,483		3,929,214		1
12	771,623	12	590,756	15	309,527	19	127,901	..	.....	..	.....	..	.....	2
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	3
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	4
26	209,897	25	97,574	28	30,388	26	14,273	..	.....	..	.....	..	.....	5
29	92,597	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	6
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	7
21	370,792	20	309,978	16	297,675	14	275,248	9	261,942	8	251,002	8	237,946	8
30	91,532	26	78,085	24	76,748	22	72,749	19	72,674	17	64,273	16	59,096	9
33	51,687	28	43,712	25	39,834	25	33,039	22	24,023	19	14,093	..	.....	10
31	87,445	27	54,477	26	34,730	..	.....	..	.....	..	.....	..	.....	11
9	906,185	9	691,392	10	516,823	11	340,989	11	252,433	12	162,686	13	82,548	12
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	13
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	14
11	851,470	14	476,183	20	157,445	24	55,211	24	12,282	..	.....	..	.....	15
7	988,416	10	685,866	13	343,031	18	147,178	21	24,520	21	5,641	..	.....	16
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	17
27	192,214	29	43,112	..	.....	..	.....	..	.....	..	.....	..	.....	18
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	19
8	982,405	6	779,828	6	687,917	6	564,317	7	406,511	9	220,955	14	73,677	20
18	517,762	19	352,411	19	215,739	17	153,407	18	76,556	..	.....	..	.....	21
16	583,169	13	501,793	12	399,455	12	298,335	14	228,705	14	151,719	11	96,540	23
17	583,034	15	470,019	11	447,040	10	407,350	8	380,546	7	341,548	6	319,728	23
6	994,514	8	737,699	8	610,408	7	523,287	5	472,040	5	422,845	4	378,787	24
20	397,654	23	212,267	27	31,639	27	8,896	25	4,762	..	.....	..	.....	25
36	6,077	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	26
15	606,526	17	375,651	22	136,621	21	75,448	20	40,352	20	8,850	..	.....	27
13	682,044	16	383,702	21	140,455	23	66,586	23	20,845	..	.....	..	.....	28
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	29
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	30
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	31
22	317,976	22	284,574	18	269,328	15	244,161	16	214,460	11	183,858	10	141,885	32
19	489,555	18	373,306	14	320,823	13	277,575	12	245,562	10	211,149	9	184,139	33
32	61,547	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	34
1	3,097,394	1	2,428,921	1	1,918,608	1	1,372,812	2	959,049	3	589,051	5	340,120	35
10	869,039	7	753,419	5	737,987	4	638,829	4	555,500	4	478,103	3	393,751	36
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	37
														38
3	1,980,329	3	1,519,467	4	937,903	5	581,434	13	280,760	18	45,365	..	.....	39
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	40
34	13,294	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	41
2	2,311,786	2	1,724,033	2	1,348,233	3	1,049,458	3	810,091	2	602,365	2	434,573	42
28	147,545	24	108,830	23	97,199	20	83,059	17	76,931	16	69,122	15	68,825	43
14	688,507	11	594,398	9	581,185	8	502,741	6	415,115	6	345,591	7	249,073	44
5	1,002,717	5	829,210	7	681,904	9	422,823	10	261,727	15	105,602	17	35,691	45
25	212,592	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	46
35	11,380	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	47
23	314,120	21	291,948	17	280,652	16	235,981	15	217,895	13	154,465	12	85,425	48
4	1,421,661	4	1,239,797	3	1,211,405	2	1,065,366	1	974,600	1	880,200	1	747,610	49
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	50
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	51
24	305,391	30	30,945	..	.....	..	.....	..	.....	..	.....	..	.....	52
..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	53

[3] 33,426 persons in Alaska were specially enumerated under the law but were not included in the general report on population in 1880.

[4] Includes 6,101 persons on public ships in the service of the United States, not credited to any state or territory.

[5] Includes 5,318 persons on public ships in the service of the United States not credited to any state or territory.

[6] Dakota territory.

	STATES AND TERRITORIES.	1890 to 1900		1880 to 1890		1870 to 1880		1860 to 1870	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1	The United States	[1] 12,937,008	20.7	12,466,467	24.9	11,597,412	30.1	7,115,150	22.6
2	Alabama	315,680	20.9	250,512	19.8	265,513	26.6	32,791	3.4
3	Alaska	.....	.....	.....	.....	.....	.....	.....	.....
4	Arizona	[3] 39,930	67.0	19,180	47.4	30,782	318.7	9,658	.....
5	Arkansas	183,385	16.3	325,654	40.6	318,054	65.6	49,021	11.3
6	California	[3] 274,049	22.7	343,436	39.7	304,447	54.3	180,253	47.4
7	Colorado	[3] 126,357	30.7	217,871	112.1	154,463	387.5	5,587	16.3
8	Connecticut	162,162	21.7	123,558	19.8	85,246	15.9	77,307	16.8
9	Delaware	16,242	9.6	21,885	14.9	21,593	17.3	12,799	11.4
10	District of Columbia	48,326	21.0	52,768	29.7	45,924	34.9	56,620	75.4
11	Florida	137,120	35.0	121,929	45.2	81,745	43.5	47,324	33.7
12	Georgia	378,978	20.6	295,173	19.1	358,071	30.2	126,823	12.0
13	Hawaii	.....	.....	.....	.....	.....	.....	.....	.....
14	Idaho	[3] 74,762	88.6	51,775	158.8	17,611	117.4	14,999	.....
15	Illinois	995,199	26.0	748,480	24.3	537,980	21.2	827,940	48.4
16	Indiana	324,058	14.8	214,103	10.8	297,664	17.7	330,209	24.5
17	Indian Territory	.....	.....	.....	.....	.....	.....	.....	.....
18	Iowa	[3] 319,572	16.7	287,281	17.7	430,595	36.1	519,107	76.9
19	Kansas	[3] 41,373	2.9	431,000	43.3	631,697	173.4	257,193	239.9
20	Kentucky	288,539	15.5	209,945	12.7	327,679	24.8	165,327	14.3
21	Louisiana	263,038	23.5	178,641	19.0	213,031	29.3	18,913	2.7
22	Maine	33,380	5.0	12,150	1.9	22,021	3.5	[5] 1,364	[5] 0.2
23	Maryland	145,654	14.0	107,447	11.5	154,049	19.7	93,845	13.7
24	Massachusetts	566,403	25.3	455,858	25.6	325,734	22.4	226,285	18.4
25	Michigan	327,093	15.6	456,952	27.9	452,878	38.2	434,946	58.1
26	Minnesota	[3] 440,160	33.8	521,053	66.7	341,067	77.6	267,683	155.6
27	Mississippi	261,670	20.3	158,003	14.0	303,675	36.7	36,617	4.6
28	Missouri	427,481	16.0	510,804	23.6	447,085	26.0	539,283	45.6
29	Montana	[3] 99,400	75.2	93,000	237.5	18,564	90.1	20,595	.....
30	Nebraska	7,390	0.7	606,508	134.1	329,409	267.8	94,152	326.5
31	Nevada	[4] 5,009	[4] 11.1	[5] 16,505	[5] 26.5	19,775	46.5	35,634	519.7
32	New Hampshire	35,058	9.3	29,539	8.5	28,691	9.0	[5] 7,773	[5] 2.4
33	New Jersey	438,736	30.4	313,817	27.7	225,020	24.8	234,061	34.8
34	New Mexico	[3] 29,727	19.4	34,028	28.5	27,691	30.1	[5] 1,642	[5] 1.8
35	New York	[3] 1,265,257	21.1	914,982	18.0	700,112	16.0	502,024	12.9
36	North Carolina	275,863	17.1	218,197	15.6	328,389	30.7	78,739	7.9
37	North Dakota	[3] 129,520	70.9	[6] 376,350	[6] 278.4	[7] 120,996	[7] 853.2	[7] 9,344	[7] 193.2
38	South Dakota	[3] 55,079	16.8						
39	Ohio	485,229	13.2	474,254	14.8	532,802	20.0	325,749	13.9
40	Oklahoma	[3] 320,407	518.2	61,834	.....	.....	.....	.....	.....
41	Oregon	[3] 95,518	30.4	138,999	79.5	83,845	92.2	38,458	73.3
42	Pennsylvania	[3] 1,044,020	19.9	975,123	22.8	760,940	21.6	615,736	21.2
43	Rhode Island	83,050	24.0	68,975	24.9	59,178	27.2	42,733	24.5
44	South Carolina	189,167	16.4	155,572	15.6	289,971	41.1	1,898	0.3
45	Tennessee	253,098	14.3	225,159	14.6	283,839	22.6	148,719	13.4
46	Texas	813,187	36.4	643,774	40.4	773,170	94.5	214,364	35.5
47	Utah	[3] 67,047	32.2	63,942	44.4	57,177	65.9	46,513	115.5
48	Vermont	11,219	3.4	136	([8])	1,735	0.5	15,453	4.9
49	Virginia	[3] 198,204	12.0	143,415	9.5	287,402	23.5	371,155	[9] 23.3
50	Washington	162,194	46.4	274,274	365.1	51,161	213.6	12,361	106.6
51	West Virginia	196,006	25.7	144,337	23.3	176,443	39.9	442,014	.....
52	Wisconsin	[3] 376,036	22.3	371,383	28.2	260,827	24.7	278,789	35.9
53	Wyoming	[3] 29,865	49.2	39,916	192.0	11,671	128.0	9,118	.....

[1] Inclusive in 1900 of 91,219 persons in the military and naval service of the United States (including civilian employees, etc.) stationed abroad, not credited to any state or territory, but exclusive of 63,592 persons in Alaska, 154,001 persons in Hawaii, 392,060 persons in Indian Territory, and 134,476 persons on Indian reservations, credited to states and territories, as follows: Arizona, 23,381; California, 2,874; Colorado, 1,145; Idaho, 2,625; Iowa, 385; Kansas, 2,026; Minnesota, 9,408; Montana, 11,770; Nevada, 1,673; New Mexico, 11,990; New York, 5,784; North Dakota, 6,907; Oklahoma, 16,090; Oregon, 4,251; Pennsylvania, 81; South Dakota, 17,683; Utah, 1,797; Washington, 6,519; Wisconsin, 6,126; and Wyoming, 1,961.

[2] The population of the United States in 1830 included 5,318 persons, and similarly, the population of the United States in 1840 included 6,100 persons, on public ships in the service of the United States, not credited to any state or territory.

1850 to 1860		1840 to 1850		1830 to 1840		1820 to 1830		1810 to 1820		1800 to 1810		1790 to 1800		
Number.	Per cent.	Number	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
8,251 445	35.6	[2]6,122,423	35.9	[2]4,203,433	32.7	[2]3,227,567	33.5	2,398 572	33.1	1,931,398	36.4	1,379,269	35.1	1
192,578	25.0	180,867	30.6	281,229	90.9	181,626	142.0	127,901	.....	.....	.....	.....	.....	2
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
225,553	107.5	112,323	115.1	67,186	221.1	16,115	112.9	14,273	.....	.....	.....	.....	.....	5
287,397	310.4	92,597	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
34,277	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
89,355	24.1	60,814	19.6	12,303	4.1	22,427	8.1	13,306	5.1	10,940	4.4	13,056	5.5	8
20,684	22.6	13,447	17.2	1,337	1.7	3,999	5.5	75	0.1	8,401	13.1	5,177	8.8	9
23,393	45.3	7,975	18.2	3,878	9.7	6,795	20.6	9,016	37.5	9,930	70.5	14,093	.....	10
52,979	60.6	32,968	60.5	19,747	56.9	34,730	.....	.....	.....	.....	.....	.....	.....	11
151,101	16.7	204,793	31.1	174,569	33.8	175,834	51.6	88,556	35.1	89,747	55.2	80,138	97.1	12
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
860,481	101.1	375,287	78.8	318,738	202.4	102,234	185.2	42,929	349.5	12,282	.....	.....	.....	15
362,012	36.6	302,550	44.1	342,835	99.9	195,853	133.1	122,658	500.2	18,879	334.7	5,641	.....	16
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17
482,699	251.1	149,102	345.8	43,112	.....	.....	.....	.....	.....	.....	.....	.....	.....	18
107,206	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19
173,279	17.6	202,577	26.0	91,911	13.4	123,600	21.9	157,806	38.8	185,556	84.0	147,278	199.9	20
190,240	36.7	165,351	46.9	136,672	63.4	62,332	40.6	76,851	100.4	76,556	.....	.....	.....	21
45,110	7.7	81,376	16.2	102,338	25.6	101,120	33.9	69,630	30.4	76,986	50.7	55,179	57.2	22
104,015	17.8	113,015	24.0	22,979	5.1	39,690	9.7	26,804	7.0	38,998	11.4	21,820	6.8	23
236,552	23.8	256,815	34.8	127,291	20.9	87,121	16.6	51,247	10.9	49,195	11.6	44,058	11.6	24
351,459	88.4	185,387	87.3	180,628	570.9	22,743	255.7	4,134	86.8	4,762	.....	.....	.....	25
165,946	2,730.7	6,077	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26
184,779	30.5	230,875	61.5	239,030	175.0	61,173	81.1	35,096	87.0	31,502	356.0	8,850	.....	27
499,968	73.3	298,342	77.8	243,247	173.2	73,869	110.9	45,741	219.4	20,845	.....	.....	.....	28
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29
28,841	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30
6,857	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31
8,097	2.5	33,402	11.7	15,246	5.7	25,167	10.3	29,701	13.8	30,602	16.6	41,907	29.6	32
182,480	37.3	116,249	31.1	52,483	16.4	43,248	15.6	32,013	13.0	34,413	16.3	27,010	14.7	33
31,969	51.9	61,547	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34
783,341	25.3	68,473	27.5	510,313	26.6	545,796	39.8	413,763	43.1	369,992	62.8	248,931	73.2	35
125,583	14.2	115,620	15.3	15,432	2.1	99,158	15.5	83,329	15.0	77,397	16.2	84,352	21.4	36
[7]4,837	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37 38
359,182	18.1	460,862	30.3	581,564	62.0	356,469	61.3	350,674	152.0	185,395	408.7	45,365	.....	39
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	40
39,171	294.7	13,294	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	41
594,429	25.7	587,753	34.1	375,800	27.9	298,775	28.5	239,367	29.5	207,726	34.5	167,992	38.7	42
27,075	18.4	38,715	35.6	11,631	12.0	14,140	17.0	6,128	8.0	7,809	11.3	297	0.4	43
35,201	5.3	74,109	12.5	13,213	2.3	78,444	15.6	87,626	21.1	69,524	20.1	96,518	38.8	44
107,084	10.7	173,507	20.9	147,306	21.6	259,081	61.3	161,096	61.6	156,125	147.8	69,911	195.9	45
391,623	184.2	212,592	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	46
28,893	253.9	11,380	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	47
978	0.3	22,172	7.6	11,296	4.0	44,671	18.9	18,086	8.3	63,430	41.1	69,040	80.8	48
174,657	12.3	181,864	14.7	28,392	2.3	146,039	13.7	90,766	9.3	94,400	10.7	132,590	17.7	49
11,594	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	51
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	52
470,490	154.1	274,446	886.9	30,945	.....	.....	.....	.....	.....	.....	.....	.....	.....	53
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

[3] Exclusive of persons on Indian reservations.

[4] Decrease; exclusive of persons on Indian reservations.

[5] Decrease.

[6] North and South Dakota combined. Apportioning the population of Dakota territory in 1880, North Dakota (36,909 in 1880) increased 145,810, or 395.1 per cent. and South Dakota (98,268 in 1880) increased 230,540, or 234.6 per cent.

[7] Dakota territory.

[8] Less than one-tenth of 1 per cent.

[9] Decrease; due to loss of territory, West Virginia having been set off from Virginia December 31, 1862.

DENSITY OF POPULATION OF STATES AND TERRITORIES AT EACH CENSUS: 1790 TO 1900.

[The density of population is obtained by dividing the population of each state and territory and of the United States by its total land area in square miles at each census. In computing density of population for the United States, the areas and population of Alaska and Hawaii in 1900, of Alaska in 1890, and of Indian Territory in 1860, 1870 and 1880 are not considered. The area of Indian reservations, outside of Indian Territory, is included in the area of the states and territories in which they are severally situated, and in that of the United States prior to 1890, although the population of these Indian reservations was not ascertained and, for this reason, can not be considered in figuring density of population at the censuses prior to 1890.]

STATES AND TERRITORIES.	1900	1890	1880	1870	1860	1850	1840	1830	1820	1810	1800	1790
The United States	25.6	21.2	17.3	13.3	10.8	7.9	8.4	6.4	4.8	3.7	6.6	4.9
Alabama	35.5	29.4	24.5	19.3	18.7	15.0	11.5	6.0	2.5	.....	.....	.....
Alaska	0.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arizona	1.1	0.8	0.4	0.1	.....	.....	.....	.....	.....	.....	.....	.....
Arkansas	24.7	21.3	15.1	9.1	8.2	4.0	1.8	0.6	0.3	.....	.....	.....
California	9.5	7.8	5.5	3.6	2.4	0.6	.....	.....	.....	.....	.....	.....
Colorado	5.2	4.0	1.9	0.4	0.3	.....	.....	.....	.....	.....	.....	.....
Connecticut	187.5	154.0	128.5	110.9	95.0	76.5	64.0	61.4	56.8	54.1	51.8	49.1
Delaware	94.3	86.0	74.8	63.8	57.3	46.7	39.8	39.2	37.1	37.1	32.8	30.2
District of Columbia	4,645.3	3,839.9	2,960.4	2,195.0	1,251.3	861.5	485.7	442.6	367.1	266.9	156.6	.....
Florida	9.7	7.2	5.0	3.5	2.6	1.6	1.0	0.6	.....	.....	.....	.....
Georgia	37.6	31.2	26.1	20.1	17.9	15.4	11.7	8.8	5.8	4.3	2.8	1.4
Hawaii	23.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Idaho	1.9	1.1	0.4	0.2	.....	.....	.....	.....	.....	.....	.....	.....
Illinois	86.1	68.3	55.0	45.4	30.6	15.2	8.5	2.8	1.0	0.1	.....	.....
Indiana	70.1	61.1	55.1	46.8	37.6	27.5	19.1	9.6	4.1	0.7	[1]	.....
Indian Territory	12.6	5.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Iowa	40.2	34.5	29.3	21.5	12.2	3.5	0.2	.....	.....	.....	.....	.....
Kansas	18.0	17.5	12.2	4.5	0.9	.....	.....	.....	.....	.....	.....	.....
Kentucky	53.7	46.5	41.2	33.0	28.9	24.6	19.5	17.2	14.1	10.2	5.5	1.8
Louisiana	30.4	24.6	20.7	16.0	15.6	11.4	7.8	4.7	3.4	1.7	.....	.....
Maine	23.2	22.1	21.7	21.0	21.0	19.5	16.8	13.4	10.0	7.7	5.1	3.2
Maryland	120.5	105.7	94.8	79.2	69.7	59.1	47.7	45.3	41.3	38.6	34.6	32.2
Massachusetts	348.9	278.5	221.8	181.3	153.1	123.7	91.8	75.9	65.1	58.7	52.6	47.1
Michigan	42.2	36.5	28.5	20.6	13.0	6.9	3.7	0.2	0.1	0.1	.....	.....
Minnesota	22.1	16.5	9.9	5.6	2.2	[2]	.....	.....	.....	.....	.....	.....
Mississippi	33.5	27.8	24.4	17.9	17.1	13.1	8.1	2.9	1.6	0.4	0.2	.....
Missouri	45.2	39.0	31.5	25.0	17.2	9.9	5.6	2.1	1.0	0.3	.....	.....
Montana	1.7	1.0	0.3	0.1	.....	.....	.....	.....	.....	.....	.....	.....
Nebraska	13.9	13.8	5.9	1.6	0.1	.....	.....	.....	.....	.....	.....	.....
Nevada	0.4	0.4	0.6	0.4	0.1	.....	.....	.....	.....	.....	.....	.....
New Hampshire	45.7	41.8	38.5	35.3	36.2	35.3	31.6	29.9	27.1	23.8	20.4	15.8
New Jersey	250.3	193.8	151.7	121.5	90.1	65.7	50.1	43.0	37.2	32.9	28.3	24.7
New Mexico	1.6	1.3	1.0	0.8	0.4	0.3	.....	.....	.....	.....	.....	.....
New York	152.6	126.1	106.7	92.0	81.5	65.0	51.0	40.3	28.8	20.1	12.4	7.1
North Carolina	39.0	33.3	28.8	22.1	20.4	17.9	15.5	15.2	13.2	11.4	9.8	8.1
North Dakota	4.5	2.7	[3]	[3]	[3]	.....	.....	.....	.....	.....	.....	.....
Ohio	102.0	90.1	78.5	65.4	57.4	48.6	37.3	23.0	14.3	5.7	1.1	.....
Oklahoma	10.3	2.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oregon	4.4	3.4	1.8	1.0	0.6	[4]	.....	.....	.....	.....	.....	.....
Pennsylvania	140.1	116.9	95.2	78.3	44.6	51.4	38.3	30.0	23.3	18.0	13.4	9.7
Rhode Island	407.0	318.4	254.9	200.3	160.9	136.0	100.3	89.6	76.6	70.9	63.7	63.4
South Carolina	44.4	38.2	33.0	23.4	23.3	22.2	19.7	19.3	16.7	13.8	11.5	8.3
South Dakota	5.2	4.5	[3]	[3]	[3]	.....	.....	.....	.....	.....	.....	.....
Tennessee	48.4	42.3	36.9	30.1	26.6	24.0	19.9	16.3	10.1	6.3	2.5	0.9
Texas	11.6	8.5	6.1	3.1	2.3	0.8	.....	.....	.....	.....	.....	.....
Utah	3.4	2.6	1.8	1.1	0.2	0.1	.....	.....	.....	.....	.....	.....
Vermont	37.6	36.4	36.4	36.2	34.5	34.4	32.0	30.7	25.8	23.9	16.9	9.4
Virginia	46.2	41.3	37.7	30.5	24.6	21.9	19.1	18.7	16.4	15.0	13.6	11.5
Washington	7.7	5.3	1.1	0.4	0.1	.....	.....	.....	.....	.....	.....	.....
West Virginia	38.9	31.0	25.1	17.9	.....	.....	.....	.....	.....	.....	.....	.....
Wisconsin	38.0	31.1	24.2	19.4	14.2	5.6	0.5	.....	.....	.....	.....	.....
Wyoming	0.9	0.6	0.2	0.1	.....	.....	.....	.....	.....	.....	.....	.....

[1] 0.02. [2] 0.03. [3] Dakota territory, 1880, 0.9; 1870, 0.1; 1860, 0.03. [4] 0.04.

POPULATION OF STATES AND TERRITORIES BY COUNTIES IN 1900, WITH POPULATION FOR 1890.

ALABAMA.

[Organized as a territory March 3, 1817. Admitted as a state December 14, 1819.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,828,697	1,513,017	Cullman	17,849	13,439	Marengo	38,315	33,095
			Dale	21,189	17,225			
Autauga	17,915	13,330	Dallas	54,657	49,350	Marion	14,494	11,347
Baldwin	13,194	8,941	Dekalb	23,558	21,106	Marshall	23,289	18,935
Barbour	35,152	34,898				Mobile	62,740	51,587
Bibb	18,498	13,824	Elmore	26,099	21,732	Monroe	23,666	18,990
Blount	23,119	21,927	Escambia	11,320	8,666	Montgomery	72,047	56,172
			Etowah	27,361	21,926			
Bullock	31,944	27,063	Fayette	14,132	12,823	Morgan	28,820	24,089
Butler	25,761	21,641	Franklin	16,511	10,681	Perry	31,783	29,332
Calhoun	34,874	33,835				Pickens	24,402	22,470
Chambers	32,545	26,319	Geneva	19,096	10,690	Pike	29,172	24,423
Cherokee	21,096	20,459	Greene	24,182	22,007	Randolph	21,647	17,219
			Hale	31,011	27,501			
Chilton	16,522	14,549	Henry	36,147	24,847	Russell	27,083	24,093
Choctaw	18,136	17,526	Jackson	30,508	28,026	St. Clair	19,425	17 353
Clarke	27,790	22,624				Shelby	23,684	20,886
Clay [1]	17,099	15,765	Jefferson [4]	140,420	88,501	Sumter	32,710	29,574
Cleburne	13,206	13,218	Lamar	16,084	14,187	Talladega [1]	35,773	29,346
			Lauderdale	26,559	23,739			
Coffee	20,972	12,170	Lawrence [5]	20,124	20,725	Tallapoosa	29,675	25,460
Colbert [2]	22,341	20,189	Lee	31,826	28,694	Tuscaloosa	36,147	30,352
Conecuh	17,514	14,594				Walker [6]	25,162	16,078
Coosa	16,144	15,906	Limestone	22,387	21,201	Washington	11,134	7,935
Covington	15,346	7,536	Lowndes	35,651	31,550	Wilcox	35,631	30,816
			Macon	23,126	18,439	Winston	9,544	6,552
Crenshaw	19,668	15,425	Madison	43,702	38,119			

[1] Part of Talladega annexed to Clay in 1895.
[2] Part annexed to Franklin and part of Lawrence annexed since 1890.
[3] Part of Colbert annexed since 1890.
[4] Part of Shelby annexed between 1880 and 1890 and part annexed to Walker since 1890.
[5] Part annexed to Colbert since 1890.
[6] Part of Jefferson annexed since 1890.

ARIZONA.

[Organized as a territory February 24, 1863.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The Territory	122,931	59,620	Graham	[3] 14,162	5,670	Santa Cruz [5]	4,545	.....
			Maricopa [4]	20,457	10,986			
Apache [1]	8,297	4,281	Mohave	3,426	1,444	Yavapai [2]	13,799	8,685
Cochise	9,251	6,938	Navajo [4]	[3] 8,829	.....	Yuma	4,145	2,671
Coconino [2]	5,514	.....	Pima	14,689	12,673	San Carlos Indian reservation [6]	3,065	.....
Gila	[3] 4,973	2,021	Pinal	7,779	4,251			

[1] Parts taken to form part of Graham in 1881 and Navajo in 1895.
[2] Coconino organized from part of Yavapai in 1891.
[3] Exclusive of population of San Carlos Indian reservation.
[4] Organized from part of Apache in 1895.
[5] Organized from part of Pima in 1899.
[6] In Gila, Graham and Navajo counties, but the population in each county was not separately returned.

ARKANSAS.

[Organized as a territory March 2, 1819. Admitted as a state June 15, 1836.

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,311,564	1,128,179	Craighead	19,505	12,025	Izard	13,506	13,038
			Crawford [2]	21,270	21,714	Jackson	18,383	15,179
			Crittenden	14,529	13,940	Jefferson	40,972	40,881
Arkansas	12,973	11,432	Cross	11,051	7,693			
Ashley	19,734	13,295	Dallas	11,518	9,296	Johnson	17,448	16,758
Baxter	9,298	8,527				Lafayette	10,594	7,700
Benton	31,611	27,716	Desha	11,511	10,324	Lawrence	16,491	12,984
Boone	16,396	15,816	Drew	19,451	17,352	Lee	19,409	18,886
			Faulkner	20,780	18,342	Lincoln	13,389	10,255
Bradley	9,651	7,972	Franklin [3]	17,395	19,934			
Calhoun	8,539	7,267	Fulton	12,917	10,984	Little River	13,731	8,903
Carroll	18,848	17,288				Logan	20,563	20,774
Chicot	14,528	11,419	Garland	18,773	15,328	Lonoke	22,544	19,263
Clark	21,289	20,997	Grant	7,671	7,786	Madison	19,864	17 402
			Greene [1]	16,979	12,908	Marion	11,377	10,390
Clay [1]	15,886	12,200	Hempstead	24,101	22,796			
Cleburne	9,628	7,884	Hot Spring	12,748	11,603	Miller [5]	.....	.....
Cleveland	11,620	11,362				Miller	17,558	14,714
Columbia	22,077	19,893	Howard [4]	14,076	13,789	Mississippi	16,384	11,635
Conway	19,772	19,459	Independence	22,557	21,961	Monroe	16,816	15,336

[1] Part of Greene annexed to Clay since 1890.
[2] Part of Franklin annexed since 1890.
[3] Part of Madison annexed in 1885 and part annexed to Crawford since 1890.
[4] Part annexed to Sevier since 1890.
[5] Was southwestern county of the state; that part north of Red river now in Indian Territory and that part south of Red river now in Texas.

ARKANSAS—Continued.

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
Montgomery	9 444	7 923	Pope	21,715	19,458	Sevier [6]	16,339	10,072
Nevada	16 609	14,832	Prairie	11,875	11,374	Sharp	12,199	10,418
Newton	12 538	9 550	Pulaski	63,179	47,329	Stone	8,100	7,043
Ouachita	20 892	17 063	Randolph	17,156	14,485	Union	22,495	14,977
Perry	7,294	5,538	St. Francis	17,157	13,543	Van Buren	11,220	8,567
Phillips	26,561	25 341	Saline	13,122	11,311	Washington	34,256	32,024
Pike	10,301	8,537	Scott	13,183	12,635	White	24,864	22,946
Poinsett	7,025	4,272	Searcy	11,988	9,664	Woodruff	16,304	14,009
Polk	18,352	9,283	Sebastian	36,935	33,200	Yell	22,750	18,015

[6] Part of Howard annexed since 1890.

CALIFORNIA.

[Admitted as a state September 9, 1850.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,485,053	1,208,130	Los Angeles	170,298	101,454	San Joaquin	35,452	28,629
			Madera [1]	6,364	.....	San Luis Obispo	16,637	16,072
						San Mateo	12,094	10,087
Alameda	130,197	93,864	Marin	15,702	13,072	Santa Barbara	18,934	15,754
Alpine	509	667	Mariposa	4,720	3,787	Santa Clara	60,216	48,005
Amador	11,116	10,320	Mendocino	20,465	17,612			
Butte	17,117	17,939	Merced	9,215	8,085	Santa Cruz	21,512	19,270
Calaveras	11,200	8,882				Shasta	17,318	12,133
			Modoc	5,076	4,986	Sierra	4,017	5,051
Colusa	7,364	14,640	Mono	2,167	2,002	Siskiyou	16,962	12,163
Contra Costa	18,046	13,515	Monterey	19,380	18,637	Solano	24,143	20,946
Del Norte	2,408	2,592	Napa	16,451	16,411			
Eldorado	8,986	9,232				Sonoma	38,480	32,721
Fresno [1]	37,862	32,026	Nevada	17,789	17,369	Stanislaus	9,550	10,040
			Orange	19,696	13,589	Sutter	5,886	5,469
Glenn	5,150	.....	Placer	15,786	15,101	Tehama	10,996	9,916
Humboldt	27,104	23,469	Plumas	4,657	4,933	Trinity	4,383	3,719
Inyo	4,377	3,544	Riverside [3]	17,897	.....			
Kern	16,480	9,808				Tulare [2]	18,375	24,574
Kings [2]	9,871	.....	Sacramento	45,915	40,339	Tuolumne	11,166	6,082
			San Benito	6,633	6,412	Ventura	14,367	10,071
Klamath	.....	.....	San Bernardino [3]	27,929	25,497	Yolo	13,618	12,684
Lake	6,017	7,101	San Diego [3]	35,090	34,987	Yuba	8,620	9,636
Lassen	4,511	4,239	San Francisco	342,782	298,997			

[1] Madera organized from part of Fresno in 1893.
[2] Kings organized from part of Tulare in 1893.
[3] Riverside organized from parts of San Bernardino and San Diego in 1893.

COLORADO.

[Organized as a territory February 28, 1861. Admitted as a state August 1, 1876.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	539,700	412,198	Garfield	5,835	4,478	Morgan	3,268	1,601
			Gilpin	6,690	5,867	Otero	11,522	4,192
			Grand	741	604	Ouray	4,731	6,510
Arapahoe	153,017	132,135	Greenwood	.....	.....	Park	2,998	3,548
Archuleta	2,117	826	Gunnison	5,331	4,359	Phillips	1,583	2,642
Baca	759	1,479						
Bent	3,049	1,313	Hinsdale [4]	1,609	862	Pitkin	7,020	8,929
Boulder	21,544	14,082	Huerfano	8,395	6,882	Prowers	3,766	1,969
			Jefferson	9,306	8,450	Pueblo	34,448	31,491
Chaffee [1]	7,085	6,612	Kiowa	701	1,243	Rio Blanco	1,690	1,200
Cheyenne	501	534	Kit Carson	1,580	2,472	Rio Grande [4]	4,080	3,451
Clear Creek	7,082	7,184						
Conejos	8,794	7,193	Lake	18,054	14,663	Routt	3,661	2,369
Costilla	4,632	3,491	La Plata	7,016	5,509	Saguache [4]	3,853	3,313
			Larimer	12,168	9,712	San Juan	2,342	1,572
Custer	2,937	2,970	Las Animas	21,842	17,208	San Miguel	5,379	2,909
Delta	5,487	2,534	Lincoln	926	689	Sedgwick	971	1,293
Dolores	1,134	1,498						
Douglas	3,120	3,006	Logan	3,292	3,070	Summit	2,744	1,906
Eagle	3,008	3,725	Mesa	9,267	4,260	Teller [5]	29,002	.....
			Mineral	1,913	.....	Washington	1,241	2,301
Elbert	3,101	1,856	Montezuma	3,058	1,529	Weld	16,808	11,736
El Paso [2]	31,602	21,239	Montrose	4,535	3,980	Yuma	1,729	2,596
Fremont [3]	15,636	9,156						

[1] Part annexed to Fremont since 1890.
[2] Part taken to form part of Teller in 1899.
[3] Part taken to form part of Teller in 1899; part of Chaffee annexed since 1890.
[4] Mineral organized from parts of Hinsdale, Rio Grande and Saguache in 1893.
[5] Organized from parts of El Paso and Fremont in 1899.

CONNECTICUT.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	908,420	746,258	Hartford	195,480	147,180	New London	82,758	76,634
			Litchfield	63,672	53,542	Tolland	24,523	20,081
			Middlesex	41,760	39,524	Windham	46,861	45,158
Fairfield	184,203	150,081	New Haven	269,163	209,058			

DELAWARE.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	184,735	168,493	Newcastle	109,697	97,182	Sussex	42,276	38,647
Kent	32,762	32,664						

DISTRICT OF COLUMBIA.

[Formed March 30, 1791. Virginia portion receded to that state July 9, 1846.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The District	278,718	230,392	Alexandria [1]	.....	.....	Washington [2]	.....	.....

[1] Receded to Virginia in 1846.

[2] County government abolished in 1874.

FLORIDA.

[Organized as a territory March 30, 1822. Admitted as a state March 3, 1845.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	528,542	391,422	Hernando	3,638	2,476	New River	.....	.....
			Hillsboro	36,013	14,941	Orange	11,374	12,584
Alachua	32,245	22,934	Holmes	7,762	4,336	Osceola	3,444	3,133
Baker	4,516	3,333	Jackson	23,377	17,544	Pasco [1]	6,054	4,249
Bradford	10,295	7,516	Jefferson	16,195	15,757			
Brevard	5,158	3,401				Polk [2]	12,472	7,905
Calhoun	5,132	1,681	Lafayette	4,987	3,686	Putnam	11,641	11,186
			Lake	7,467	8,034	St. John	9,165	8,712
Citrus	5,391	2,394	Lee	3,071	1,414	St. Lucie	.....	.....
Clay	5,635	5,154	Leon	19,887	17,752			
Columbia	17,094	12,877	Levy	8,608	6,586	Santa Rosa	10,293	7,961
Dade	4,955	861				Sumter	6,187	5,363
De Soto	8,047	4,944	Liberty	2,956	1,452	Suwanee	14,554	10,524
			Madison	15,446	14,316	Taylor	3,999	2,122
Duval	39,733	26,800	Manatee	4,663	2,895			
Escambia	28,313	20,188	Marion	24,403	20,796	Volusia	10,003	8,467
Franklin	4,890	3,308	Monroe	18,206	18,786	Wakulla	5,149	3,117
Gadsden	15,294	11,894				Walton	9,346	4,816
Hamilton	11,881	8,507	Nassau	9,654	8,294	Washington	10,154	6,426

[1] Organized from part of Hernando in 1887; part annexed to Polk since 1890.

[2] Part of St. Lucie annexed between 1850 and 1860 and part of Pasco annexed since 1890.

GEORGIA.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	2,216,331	1,837,353	Camden	7,669	6,178	Colquitt	13,636	4,794
			Campbell	9,518	9,115	Columbia	10,653	11,281
Appling	12,336	8,676	Carroll	26,576	22,301	Coweta	24,980	22,354
Baker	6,704	6,144	Catoosa	5,823	5,431	Crawford	10,368	9,315
Baldwin	17,768	14,608	Charlton	3,592	3,335	Dade	4,578	5,707
Banks	10,545	8,562	Chatham	71,239	57,740	Dawson	5,442	5,612
Bartow	20,823	20,616	Chattahoochee	5,790	4,902	Decatur	29,454	19,949
Berrien	19,440	10,694	Chattooga	12,952	11,202	Dekalb	21,112	17,189
Bibb	50,473	42,370	Cherokee	15,243	15,412	Dodge	13,975	11,452
Brooks	18,606	13,979	Clarke	17,708	15,186	Dooly	26,567	18,146
Bryan	6,122	5,520	Clay	8,568	7,817	Dougnerty	13,679	12,206
Bulloch	21,377	13,712	Clayton	9,598	8,295	Douglas	8,745	7,794
Burke	30,165	28,501	Clinch	8,732	6,652	Early	14,828	9,792
Butts	12,805	10,565	Cobb	24,664	22,286	Echols	3,209	3,079
Calhoun	9,274	8,438	Coffee	16,169	10,483	Effingham	8,334	5,599

GEORGIA—Continued.

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
Elbert	19,729	15,376	Lincoln	7,156	6,146	Schley	5,499	5,443
Emanuel	21,279	14,703	Lowndes	20,036	15,102	Screven	19,252	14,424
			Lumpkin	7,433	6,867	Spalding	17,619	13,117
Fannin	11,214	8,724	McDuffie	9,804	8,789			
Fayette	10,114	8,728	McIntosh	6,537	6,470	Stewart	15,856	15,682
Floyd	33,113	28,391				Sumter	26,212	22,107
Forsyth	11,550	11,155	Macon	14,093	13,183	Talbot	12,197	13,258
Franklin	17,700	14,670	Madison	13,224	11,024	Taliaferro	7,912	7,291
			Marion	10,080	7,728	Tattnall	20,419	10,253
Fulton	117,363	84,655	Meriwether	23,339	20,740			
Gilmer	10 198	9,074	Miller	6,319	4,275	Taylor	9,846	8,666
Glascock	4,516	3,720				Telfair	10,083	5,477
Glynn	14,317	13,420	Milton	6,763	6,208	Terrell	19,023	14,503
Gordon	14,119	12,758	Mitchell	14,767	10,906	Thomas	31,076	26,154
			Monroe	20,682	19,137	Towns	4,748	4,064
Greene	16,542	17,051	Montgomery	16,359	9,248			
Gwinnett	25,585	19,899	Morgan	15,813	16,041	Troup	24,002	20,723
Habersham	13,604	11,573				Twiggs	8,716	8,195
Hall	20,752	18,047	Murray	8,623	8,461	Union	8,481	7,749
Hancock	18,277	17,149	Muscogee	29,836	27,761	Upson	13,670	12,188
			Newton	16,734	14,310	Walker	15,661	13,282
Haralson	11,922	11,316	Oconee	8,602	7,713			
Harris	18,009	16,797	Oglethorpe	17,881	16,951	Walton	20,942	17,467
Hart	14,492	10,887				Ware	13,761	8,811
Heard	11,177	9,557	Paulding	12,969	11,948	Warren	11,463	10,957
Henry	18,602	16,220	Pickens	8,641	8,182	Washington	28,227	25,237
			Pierce	8,100	6,379			
Houston	22,641	21,613	Pike	18,761	16,300	Wayne	9,449	7,485
Irwin	13,645	6,316	Polk	17,856	14,945	Webster	6,618	5,695
Jackson	24,039	19,176				White	5,912	6,151
Jasper	15,033	13,879	Pulaski	18,489	16,559	Whitfield	14,509	12,916
Jefferson	18,212	17,213	Putnam	13,436	14,842			
			Quitman	4,701	4,471	Wilcox	11,097	7,980
Johnson	11,409	6,129	Rabun	6,285	5,606	Wilkes	20,866	18,081
Jones	13,358	12,709	Randolph	16,847	15,267	Wilkinson	11,440	10,781
Laurens	25,908	13,747				Worth	18,664	10,048
Lee	10,344	9,074	Richmond	53,735	45,194			
Liberty	13,093	12,887	Rockdale	7,515	6,813			

IDAHO.

[Organized as a territory March 3, 1863. Admitted as a state July 3, 1890.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	161,772	84,385	Boise	4,174	3,342	Lemhi [7]	3,446	1,915
			Canyon [1]	7,497	.....	Lincoln [8]	1,784	.....
			Cassia	3,951	3,143	Logan [9]	.....	4,169
Ada [1]	11,559	8,368	Custer	2,049	2,176	Nez Perce	13,748	2,847
Alturas [2]	.....	2,629	Elmore	2,286	1,870			
Bannock [3]	11,702	.....				Oneida	8,933	6,819
Bear Lake	7,051	6,057	Fremont [6]	12,821	.....	Owyhee	3,804	2,021
Bingham [4]	10,447	13,575	Idaho	9,121	2,955	Shoshone	11,950	5,382
			Kootenai	10,216	4,108	Washington	6,882	3,836
Blaine [5]	4,900	.....	Latah	13,451	9,173			

[1] Canyon organized from part of Ada in 1892.
[2] Parts taken to form part of Custer in 1881, Elmore and Logan in 1889, and the remainder taken to form part of Blaine in 1895.
[3] Organized from part of Bingham in 1893.
[4] Organized from part of Oneida in 1885; parts taken to form Bannock and part of Fremont in 1893.
[5] Organized from Alturas and part of Logan in 1895.
[6] Organized from parts of Bingham and Lemhi in 1893.
[7] Parts taken to form part of Custer in 1881 and part of Fremont in 1893.
[8] Organized from part of Logan in 1895.
[9] Organized from part of Alturas in 1889; taken to form Lincoln and part of Blaine in 1895.

ILLINOIS.

[Organized as a territory March 1, 1809. Admitted as a state December 3, 1818.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	4,821,550	3,826,351	Cook	1,838,735	1,191,922	Hamilton	20,197	17,800
			Crawford	19,240	17,283	Hancock	32,215	31,907
			Cumberland	16,124	15,443	Hardin	7,448	7,234
Adams	67,058	61,888	Dekalb	31,756	27,066			
Alexander	19,384	16,563	Dewitt	18,972	17,011	Henderson	10,836	9,876
Bond	16,078	14,550				Henry	40,049	33,338
Boone	15,791	12,203	Douglas	19,097	17,669	Iroquois	38,014	35,167
Brown	11,557	11,951	Dupage	28,196	22,551	Jackson	33,871	27,809
			Edgar	28,273	26,787	Jasper	20,160	18,188
Bureau	41,112	35,014	Edwards	10,345	9,444			
Calhoun	8,917	7,652	Effingham	20,465	19,358	Jefferson	28,133	22,590
Carroll	18,963	18,320				Jersey	14,612	14,810
Cass	17,222	15,963	Fayette	28,065	23,367	Jo Daviess	24,533	25,101
Champaign	47,622	42,159	Ford	18,359	17,035	Johnson	15,667	15,013
			Franklin	19,675	17,138	Kane	78,792	65,061
Christian	32,790	30,531	Fulton	46,201	43,110			
Clark	24,033	21,899	Gallatin	15,836	14,935	Kankakee	37,154	28,732
Clay	19,553	16,772				Kendall	11,467	12,106
Clinton	19,824	17,411	Greene	23,402	23,791	Knox	43,612	38,752
Coles	34,146	30,093	Grundy	24,136	21,024	Lake	34,504	24,235

ILLINOIS—Continued.

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
Lasalle	87,776	80,798	Montgomery	30,836	30,003	Scott	10,455	10,304
Lawrence	16,253	14,693	Morgan	35,006	32,636	Shelby	32,126	31,191
Lee	29,894	26,187	Moultrie	15,224	14,481	Stark	10,186	9,982
Livingston	42,035	38,455	Ogle	29,129	28,710	Stephenson	34,933	31,338
Logan	28,680	25,489	Peoria	88,608	70,378	Tazewell	33,221	29,556
McDonough	28,412	27,467	Perry	19,830	17,529	Union	22,610	21,549
McHenry	29,759	26,114	Piatt	17,706	17,062	Vermilion	65,635	49,905
McLean	67,843	63,036	Pike	31,595	31,000	Wabash	12,583	11,866
Macon	44,003	38,083	Pope	13,585	14,016	Warren	23,163	21,281
Macoupin	42,256	40,380	Pulaski	14,554	11,355	Washington	19,526	19,262
Madison	64,694	51,535	Putnam	4,746	4,730	Wayne	27,626	23,806
Marion	30,446	24,341	Randolph	28,001	25,049	White	25,386	25,005
Marshall	16,370	13,653	Richland	16,391	15,019	Whiteside	34,710	30,854
Mason	17,491	16,067	Rock Island	55,249	41,917	Will	74,764	62,007
Massac	13,110	11,313	St. Clair	86,685	66,571	Williamson	27,796	22,226
Menard	14,336	13,120	Saline	21,685	19,342	Winnebago	47,845	39,938
Mercer	20,945	18,545	Sangamon	71,593	61,195	Woodford	21,822	21,429
Monroe	13,847	12,948	Schuyler	16,129	16,013			

INDIANA.

[Organized as a territory July 4, 1800. Admitted as a state December 11, 1816.]

COUNTIES	1900	1890	COUNTIES.	1900	1980	COUNTIES.	1900	1890
The State	2,516,462	2,192,404	Hancock	19,189	17,829	Perry	18,778	18,240
			Harrison	21,702	20,786	Pike	20,486	18,544
			Hendricks	21,292	21,498	Porter	19 175	18,052
Adams	22,232	20,181	Henry	25,088	23,879	Posey	22,333	21,529
Allen	77,270	66,689				Pulaski	14,033	11,233
Bartholomew	24,594	23,867	Howard	28,575	26,186			
Benton	13,123	11,903	Huntington	28,901	27,644	Putnam	21,478	22,335
Blackford	17,213	10,461	Jackson	26,633	24,139	Randolph [4]	.....	.....
			Jasper	14,292	11,185	Randolph	28,653	28,085
Boone	26,321	26,572	Jay	26,818	23,478	Ripley	19,881	19,350
Brown [1]	.....	.....				Rush	20,148	19,034
Brown	9,727	10,308	Jefferson	22,913	24,507			
Carroll	19,953	20,021	Jennings	15,757	14,608	St. Clair [4]	.....	.....
Cass	34,545	31,152	Jersey [2]	.....	.....	St. Joseph	58,881	42,457
			Johnson	20,223	19,561	Scott	8,307	7,833
Clark	31,835	30,259	Knox	32,746	28,044	Shelby	26,491	25,454
Clay	34,285	30,536				Spencer	22,407	22,060
Clinton	28,202	27,370	Kosciusko	29,109	28,645			
Crawford [1]	.....	.....	Lagrange	15,284	15,615	Starke	10,431	7,339
Crawford	13,476	13,941	Lake	37,892	23,886	Steuben	15,219	14,478
			Laporte	38,386	34,445	Sullivan	26,005	21,877
Daviess	29,914	26,227	Lawrence	25,729	19,792	Switzerland	11,840	12,514
Dearborn	22,194	23,364				Tippecanoe	38,659	35,078
Decatur	19,518	19,277	Madison	70,470	36,487			
Dekalb	25,711	24,307	Marion	197,227	141,156	Tipton	19,116	18,157
Delaware	49,624	30,131	Marshall	25,119	23,818	Union	6,748	7,006
			Martin	14,711	13,973	Vanderburg	71,769	59,809
Dubois	20,357	20,253	Miami	28,344	25,823	Vermilion	15,252	13,154
Elkhart	45,052	39,201				Vigo	62,035	50,195
Fayette	13,495	12,630	Michilimackinac [3]	.....	.....			
Floyd	30,118	29,458	Monroe	20,873	17,673	Wabash	28,235	27,126
Fountain	21,446	19,558	Montgomery	29,388	28,025	Warren	11,371	10,955
			Morgan	20,457	18,643	Warrick	22,329	21,161
Franklin	16,388	18,366	Newton	10,448	8,803	Washington	19,409	18,619
Fulton	17,453	16,746						
Gibson	30,099	24,920	Noble	23,533	23,359	Wayne	38,970	37,628
Grant	54,693	31,493	Ohio	4,724	4,955	Wells	23,449	21,514
Greene	28,530	24,379	Orange	16,854	14,678	White	19,138	15,671
			Owen	15,149	15,040	Whitley	17,328	17,768
Hamilton	29,914	26,123	Parke	23,000	20,296			

[1] Now in Wisconsin.
[2] Now in Illinois.
[3] Now in Michigan and known as Mackinac.
[4] Now in Illinois.

IOWA.

[Organized as a territory July 3, 1838. Admitted as a state March 3, 1845. Readmitted with enlarged boundaries December 28, 1846.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	2,231,853	1,911,896	Blackhawk	32,399	24,219	Cedar	19,371	18,253
			Boone	28,200	23,772	Cerro Gordo	20,672	14,864
			Bremer	16,305	14,630	Cherokee	16,570	15,659
Adair	16,192	14,534	Buchanan	21,427	18,997	Chickasaw	17,037	15,019
Adams	13,601	12,292				Clarke	12,440	11,332
Allamakee	18,711	17,907	Buena Vista	16,975	13,548			
Appanoose	25,927	18,961	Butler	17,955	15,463	Clay	13,401	9,309
Audubon	13,626	12,412	Calhoun	18,569	13,107	Clayton	27,750	26,733
			Carroll	20,319	18,828	Clinton	43,832	41 199
Benton	25,177	24,178	Cass	21,274	19,645	Crawford	21,685	18,894

IOWA—Continued.

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
Dallas	23,058	20,479	Jasper	26,976	24,943	Plymouth	22,209	19,568
Davis	15,620	15,258	Jefferson	17,437	15,184	Pocahontas	15,339	9,553
Decatur	18,115	15,643	Johnson	24,817	23,082	Polk	82,624	65,410
Delaware	19,185	17,349	Jones	21,954	20,233	Pottawattamie	54,336	47,430
Des Moines	35,989	35,324	Keokuk	24,979	23,862	Poweshiek	19,414	18,394
Dickinson	7,995	4,328	Kossuth	22,720	13,120	Ringgold	15,325	13,556
Dubuque	56,403	49,848	Lee	39,719	37,715	Sac	17,639	14,522
Emmet	9,936	4,274	Linn	55,392	45,303	Scott	51,558	43,164
Fayette	29,845	23,141	Louisa	13,516	11,873	Shelby	17,932	17,611
Floyd	17,754	15,424	Lucas	16,126	14,563	Sioux	23,337	18,370
Franklin	14,996	12,871	Lyon	13,165	8,680	Story	23,159	18,127
Fremont	18,546	16,842	Madison	17,710	15,977	Tama	24,585	21,651
Greene	17,820	15,797	Mahaska	34,273	28,805	Taylor	18,784	16,384
Grundy	13,757	13,215	Marion	24,159	23,058	Union	19,928	16,900
Guthrie	18,729	17,380	Marshall	29,991	25,842	Van Buren	17,354	16,253
Hamilton	19,514	15,319	Mills	16,764	14,548	Wapello	35,426	30,426
Hancock	13,752	7,621	Mitchell	14,916	13,299	Warren	20,376	18,269
Hardin	22,794	19,003	Monona	17,980	14,515	Washington	20,718	18,468
Harrison	25,597	21,356	Monroe	17,985	13,666	Wayne	17,491	15,670
Henry	20,022	18,895	Montgomery	17,803	15,848	Webster	31,757	21,582
Howard	14,512	11,182	Muscatine	28,242	24,504	Winnebago	12,725	7,325
Humboldt	12,667	9,836	O'Brien	16,985	13,060	Winneshick	23,731	22,528
Ida	12,327	10,705	Osceola	8,725	5,574	Woodbury	54,610	55,632
Iowa	19,544	18,270	Page	24,187	21,341	Worth	10,887	9,247
Jackson	23,615	22,771	Palo Alto	14,354	9,318	Wright	18,227	12,057

KANSAS.

[Organized as a territory May 30, 1854. Admitted as a state January 29, 1861.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,470,495	1,427,096	Graham	5,173	5,029	Osage	23,659	25,062
			Grant	442	1,308	Osborne	11,844	12,083
Allen	19,507	13,569	Gray	1,264	2,415	Otoe	.....	.....
Anderson	13,938	14,203				Ottawa	11,182	12,581
Arapahoe	.....	.....	Greeley	493	1,264			
Atchison	28,606	26,758	Greenwood	16,196	16,309	Pawnee	5,084	5,204
Barber	6,594	7,973	Hamilton [3]	1,426	2,027	Phillips	14,442	13,661
			Harper	10,310	13,266	Pottawatomie	18,470	17,722
Barton	13,784	13,172	Harvey	17,591	17,601	Pratt	7,085	8,118
Bourbon	24,712	28,575				Rawlins	5,241	6,756
Breckenridge	.....	.....	Haskell	457	1,077			
Brown	22,369	20,319	Hodgeman	2,032	2,395	Reno	29,027	27,079
Buffalo	.....	.....	Howard	.....	.....	Republic	18,248	19,062
			Jackson	17,117	14,626	Rice	14,745	14,451
Butler	23,363	24,055	Jefferson	17,533	16,620	Riley	13,828	13,183
Chase	8,246	8,233				Rooks	7,960	8,018
Chautauqua	11,804	12,297	Jewell	19,420	19,349			
Cherokee	42,694	27,770	Johnson	18,104	17,385	Rush	6,134	5,204
Cheyenne	2,640	4,401	Kearny	1,107	1,571	Russell	8,489	7,333
			Kingman	10,663	11,823	Saline	17,076	17,442
Clark	1,701	2,357	Kiowa	2,365	2,873	Scott	1,098	1,262
Clay	15,823	16,146				Sedgwick	44,037	43,626
Cloud	18,071	19,295	Labette	27,387	27,586			
Coffey	16,643	15,856	Lane	1,563	2,060	Sequoyah	.....	.....
Comanche	1,619	2,549	Leavenworth	40,940	38,485	Seward	822	1,503
			Lincoln	9,886	9,709	Shawnee	53,727	49,172
Cowley	30,156	34,478	Linn	16,689	17,215	Sheridan	3,819	3,733
Crawford	38,809	30,286				Sherman	3,341	5,261
Decatur	9,234	8,414	Logan	1,962	3,384			
Dickinson	21,816	22,273	Lyon	25,074	23,196	Smith	16,384	15,613
Doniphan	15,079	13,535	McPherson	21,421	21,614	Stafford	9,829	8,520
			Madison	.....	.....	Stanton	327	1,031
Douglas	25,096	23,961	Marion	20,676	20,539	Stevens	620	1,418
Edwards	3,682	3,600				Sumner	25,631	30,271
Elk	11,443	12,216	Marshall	24,355	23,912			
Ellis	8,626	7,942	Meade	1,581	2,542	Thomas	4,112	5,538
Ellsworth	9,626	9,272	Miami	21,641	19,614	Trego	2,722	2,535
			Mitchell	14,647	15,037	Wabaunsee	12,813	11,720
Finney [1]	3,469	3,350	Montgomery	29,039	23,104	Wallace	1,178	2,468
Foote	.....	.....				Washington	21,963	22,894
Ford	5,497	5,308	Morris	11,967	11,381			
Franklin	21,354	20,279	Morton	304	724	Wichita	1,197	1,827
Garfield [2]	.....	881	Nemaha	20,376	19,249	Wilson	15,621	15,286
			Neosho	19,254	18,561	Woodson	10,022	9,021
Geary	10,744	10,423	Ness	4,535	4,944	Wyandotte	73,227	54,407
Gove	2,441	2,994						
			Norton	11,325	10,617			

[1] Organized from Arapahoe and Sequoyah and parts of Buffalo, Foote, Grant and Kearny in 1884; parts taken to form Haskell and parts of Garfield, Grant, Gray and Kearny in 1887; Garfield annexed in 1893.

[2] Organized from parts of Finney and Hodgeman in 1887; annexed to Finney in 1893.

[3] Stanton and parts of Grant and Kearny annexed in 1884; parts taken to form Stanton and parts of Grant and Kearny in 1887.

KENTUCKY.

[Admitted as a state June 1, 1792.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	2,147.174	1,858,635	Garrard	12,042	11,138	Mason	20,446	20,773
Adair	14,888	13,721	Grant	13,239	12,671	Meade	10,533	9,484
Allen	14,657	13,692	Graves	33,204	28,534	Menifee	6,818	4,666
Anderson	10,051	10,610	Grayson	19,878	18,688	Mercer	14,426	15,034
Ballard	10,761	8,390	Green	12,255	11,463	Metcalfe	9,988	9,871
Barren	23,197	21,490	Greenup	15,432	11,911	Monroe	13,053	10,989
Bath	14,734	12,813	Hancock	8,914	9,214	Montgomery	12,834	12,367
Bell	15,701	10,312	Hardin	22,937	21,304	Morgan	12,792	11,249
Boone	11,170	12,246	Harlan	9,838	6,197	Muhlenberg	20,741	17,955
Bourbon	18,069	16,976	Harrison	18,570	16,914	Nelson	16,587	16,417
Boyd	18,834	14,033	Hart	18,390	16,439	Nicholas	11,952	10,764
Boyle	13,817	12,948	Henderson	32,907	29,536	Ohio	27,287	22,946
Bracken	12,137	12,369	Henry	14,620	14,164	Oldham	7,078	6,754
Breathitt	14,322	8,705	Hickman	11,745	11,637	Owen	17,553	17,676
Breckinridge	20,534	18,976	Hopkins	30,995	23,505	Owsley	6,874	5,975
Bullitt	9,602	8,291	Jackson	10,561	8,261	Pendleton	14,947	16,346
Butler	15,896	13,956	Jefferson	232,549	188,598	Perry	8,276	6,331
Caldwell	14,510	13,186	Jessamine	11,925	11,248	Pike	22,686	17,378
Calloway	17,633	14,675	Johnson	13,730	11,027	Powell [2]	6,443	4,698
Campbell	54,223	44,208	Kenton	63,591	54,161	Pulaski	31,293	25,731
Carlisle	10,195	7,612	Knott	8,704	5,438	Robertson	4,900	4,684
Carroll	9,825	9,266	Knox	17,372	13,762	Rockcastle	12,416	9,841
Carter	20,228	17,204	Larue	10,764	9,433	Rowan	8,277	6,129
Casey	15,144	11,848	Laurel	17,592	13,747	Russell	9,695	8,136
Christian	37,962	34,118	Lawrence	19,612	17,702	Scott	18,076	16,546
Clark	16,694	15,434	Lee	7,988	6,205	Shelby	18,340	16,521
Clay	15,364	12,447	Leslie	6,753	3,964	Simpson	11,624	10,878
Clinton	7,871	7,047	Letcher	9,172	6,920	Spencer	7,406	6,760
Crittenden	15,191	13,119	Lewis	17,868	14,803	Taylor	11,075	9,353
Cumberland	8,962	8,452	Lincoln	17,059	15,962	Todd	17,371	16,814
Daviess	38,667	33,120	Livingston	11,354	9,474	Trigg	14,073	13,902
Edmonson	10,080	8,005	Logan	25,994	23,812	Trimble	7,272	7,140
Elliott	10,387	9,214	Lyon	9,319	7,628	Union	21,326	18,229
Estill [1]	11,669	10,836	McCracken	28,733	21,051	Warren	29,970	30,158
Fayette	42,071	35,698	McLean	12,448	9,887	Washington	14,182	13,622
Fleming	17,074	16,078	Madison	25,607	24,348	Wayne	14,892	12,852
Floyd	15,552	11,256	Magoffin	12,006	9,196	Webster	20,097	17,196
Franklin	20,852	21,267	Marion	16,290	15,648	Whitley	25,015	17,590
Fulton	11,546	10,005	Marshall	13,692	11,287	Wolfe	8,764	7,180
Gallatin	5,163	4,611	Martin	5,780	4,209	Woodford	13,134	12,380

[1] Part annexed to Powell since 1890.

[2] Part of Estill annexed since 1890.

LOUISIANA.

[Admitted as a state April 30, 1812.]

PARISHES.	1900	1890	PARISHES.	1900	1890	PARISHES.	1900	1890
The State	1,381,625	1,118,587	Grant	12,902	8,270	St. Charles	9,072	7,737
			Iberia	29,015	20,997	St. Helena	8,479	8,062
Acadia	23,483	13,231	Iberville	27,006	21,848	St. James	20,197	15,715
Ascension	24,142	19,545	Jackson	9,119	7,453	St. John the Baptist	12,330	11,359
Assumption	21,620	19,629	Jefferson	15,321	13,221	St. Landry	52,906	40,250
Avoyelles	29,701	25,112	Lafayette	22,825	15,966	St. Martin	18,940	14,884
Bienville	17,588	14,108				St. Mary	34,145	22,416
			Lafourche	28,882	22,095	St. Tammany	13,335	10,160
Bossier	24,153	20,330	Lincoln	15,898	14,753	Tangipahoa	17,625	12,655
Caddo	44,499	31,555	Livingston	8,100	5,769	Tensas	19,070	16,647
Calcasieu	30,428	20,176	Madison	12,322	14,135			
Caldwell	6,917	5,814	Morehouse	16,634	16,786	Terrebonne	24,464	20,167
Cameron	3,952	2,828				Union	18,520	17,304
			Natchitoches	33,216	25,836	Vermilion	20,705	14,234
Carroll			Orleans	287,104	242,039	Vernon	10,327	5,903
Catahoula	16,351	12,002	Ouachita	20,947	17,985	Washington	9,628	6,700
Claiborne	23,029	23,312	Plaquemines	13,039	12,541			
Concordia	13,559	14,871	Pointe Coupee	25,777	19,613	Webster	15,125	12,466
De Soto	25,063	19,860				West Baton Rouge	10,285	8,363
			Rapides	39,578	27,642	West Carroll	3,685	3,748
East Baton Rouge	13,153	25,922	Red River	11,548	11,318	West Feliciana	15,994	15,062
East Carroll	11,373	12,362	Richland	11,116	10,230	Winn	9,648	7,082
East Feliciana	20,443	17,903	Sabine	15,421	9,390			
Franklin	8,890	6,900	St. Bernard	5,031	4,326			

MAINE.

[Admitted as a state March 15, 1820.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	694,466	661,086	Hancock	37,241	37,312	Piscataquis	16,949	16,134
			Kennebec	59,117	57,012	Sagadahoc	20,330	19,452
Androscoggin	54,242	48,968	Knox	30,406	31,473	Somerset	33,849	32,627
Aroostook	60,744	49,589	Lincoln	19,669	21,996	Waldo	24,185	27,759
Cumberland	100,689	90,949	Oxford	32,238	30,586	Washington	45,232	44,482
Franklin	18,444	17,053	Penobscot	76,246	72,865	York	64,885	62,829

MARYLAND.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,188,044	1,042,390	Carroll	33,860	32,376	Montgomery	30,451	27,185
			Cecil	24,662	25,851	Prince George	29,898	26,080
			Charles	17,662	15,191	Queen Anne	18,364	18,461
Allegany	53,694	41,571	Dorchester	27,962	24,843	St. Mary	17,182	15,819
Anne Arundel	39,620	34,094				Somerset	25,923	24,155
Baltimore	90,755	72,909	Frederick	51,920	49,512			
Baltimore city	508,957	434,439	Garrett	17,701	14,213	Talbot	20,342	19,736
Calvert	10,223	9,860	Harford	28,269	28,993	Washington	45,133	39,782
			Howard	16,715	16,269	Wicomico	22,852	19,930
Caroline	16,248	13,903	Kent	18,786	17,471	Worcester	20,865	19,747

MASSACHUSETTS.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	2,805,346	2,238,943	Essex	357,030	299,995	Nantucket	3,006	3,268
						Norfolk	151,539	118,950
Barnstable	27,826	29,172	Franklin	41,209	38,610	Plymouth	113,985	92,700
Berkshire	95,667	81,108	Hampden	175,603	135,713	Suffolk	611,417	484,780
Bristol	252,029	186,465	Hampshire	58,820	51,859	Worcester	346,958	280,787
Dukes	4,561	4,369	Middlesex	565,696	431,167			

MICHIGAN.

[Organized as a territory June 30, 1805. Admitted as a state January 26, 1837.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	2,420,982	2,093,889	Grand Traverse	20,479	13,355	Menominee [10]	27,046	33,639
Alcona	5,691	5,409	Gratiot	29,889	28,668	Midland	14,439	10,657
Alger	5,868	1,238	Hillsdale	29,865	30,660	Missaukee	9,308	5,048
Allegan	38,812	38,961	Houghton	66,063	35,389	Monroe	32,754	32,337
Alpena	18,254	15,581	Huron	34,162	28,545	Montcalm	32,754	32,637
Antrim	16,568	10,413	Ingham	39,818	37,666	Montmorency	3,234	1,487
Arenac	9,821	5,683	Ionia	34,329	32,801	Muskegon	37,036	40,013
Baraga	4,320	3,036	Iosco	10,246	15,224	Newaygo	17,673	20,476
Barry	22,514	23,783	Iowa [1]	.....	.....	Oakland	44,792	41,245
Bay [5]	62,378	56,412	Iron [5]	8,990	4,432	Oceana	16,644	15,698
Benzie	9,685	5,237	Isabella	22,784	18,784	Ogemaw	7,765	5,583
Berrien	49,165	41,285	Isle Royal [6]	.....	135	Ontonagon	6,197	3,756
Branch	27,811	26,791	Jackson	48,222	45,031	Osceola	17,859	14,630
Brown [1]	.....	.....	Kalamazoo	44,310	39,273	Oscoda	1,468	1,904
Calhoun	49,315	43,501	Kalkaska	7,133	5,160	Otsego	6,175	4,272
Cass	20,876	20,953	Kent	129,714	109,922	Ottawa	39,667	35,358
Charlevoix [2]	13,956	9,686	Keweenaw [7]	3,217	2,894	Presque Isle	8,821	4,687
Cheboygan	15,516	11,986	Lake	4,957	6,505	Roscommon	1,787	2,033
Chippewa	21,338	12,019	Lapeer	27,641	29,213	Saginaw	81,222	82,273
Clare	8,360	7,558	Leelanaw [8]	10,556	7,944	St. Clair	55,228	52,105
Clinton	25,136	26,509	Lenawee	48,406	48,448	St. Joseph	23,889	25,356
Crawford [1]	.....	.....	Livingston	19,664	20,858	Sanilac	35,055	32,589
Crawford	2,943	2,962	Luce	2,983	2,455	Schoolcraft	7,889	5,818
Delta	23,881	15,330	Mackinac	7,703	7,830	Shiawassee	33,866	30,952
Dickinson [3]	17,890	.....	Macomb	33,244	31,813	Tuscola	35,890	32,508
Eaton	31,668	32,094	Manistee	27,856	24,230			
Emmet [4]	15,931	8,756	Manitou [9]	.....	860	Van Buren	33,274	30,541
Genesee	41,804	39,430	Marquette [10]	41,239	39,521	Washtenaw	47 761	42,210
Gladwin	6,564	4,208	Mason	18,885	16,385	Wayne	348,793	257,114
Gogebic	16,738	13,166	Mecosta	20,693	19,697	Wexford	16,845	11,278

[1] Now in Wisconsin. [2] Part annexed to Emmet since 1890 and part of Manitou annexed in 1896. [3] Organized from parts of Iron, Marquette and Menominee in 1891. [4] Part of Charlevoix annexed since 1890. [5] Organized from parts of Marquette and Menominee in 1885, and parts of Marquette and Menominee annexed since 1890. part taken to form part of Dickinson in 1891. [6] Annexed to Keweenaw in 1897. [7] Isle Royal annexed in 1897. [8] Part of Manitou annexed in 1896. [9] Annexed to Charlevoix and Leelanaw in 1896. [10] Parts taken to form part of Iron in 1885 and part of Dickinson in 1891; part annexed to Iron since 1890.

MINNESOTA.

[Organized as a territory March 3, 1849. Admitted as a state May 11, 1858.

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,751,394	1,301,826	Isanti	11,675	7,607	Polk [6]	35,429	30,192
			Itasca	4,573	743	Pope	12,577	10,032
Aitkin	6,743	2,462	Jackson	14,793	8,924	Ramsey	170,554	139,796
Anoka	11,313	9,884	Kanabec	4,614	1,579	Red Lake [6]	12,195	.....
Becker	14,375	9,401	Kandiyohi	18,416	13,997			
Beltrami	11,030	312				Redwood	17,261	9,386
Benton	9,912	6,284	Kittson [4]	7,889	5,387	Renville	23,693	17,099
			Lac qui Parle	.....	.....	Rice	26,080	23,968
Bigstone	8,731	5,722	Lac qui Parle	14,289	10,382	Rock	9,668	6,817
Blue Earth	32,263	29,210	Lake	4,654	1,299	Roseau [7]	6,994	.....
Breckinridge	.....	.....	Lesueur	20,234	19,057			
Brown	19,787	15,817				St. Louis	82,932	44,862
Buchanan	.....	.....	Lincoln	8,966	5,691	Scott	15,147	13,831
			Lyon	14,591	9,501	Sherburne	7,281	5,908
Carlton	10,017	5,272	McLeod	19,595	17,026	Sibley	16,862	15,199
Carver	17,544	16,532	Mankahta [5]	.....	.....			
Cass [1]	7,777	1,247	Manomin	.....	.....	Stearns	44,464	34,844
Chippewa [2]	12,499	8,555				Steele	16,524	13,232
Chisago	13,248	10,359	Marshall	15,698	9,130	Stevens	8,721	5,251
			Martin	16,936	9,403	Swift	13,503	10,161
Clay	17,942	11,517	Meeker	17,753	15,456	Todd	22,214	12,930
Cook	810	98	Millelacs	8,066	2,845			
Cottonwood	12,069	7,412	Monongalia	.....	.....	Traverse	7,573	4,516
Crow Wing [2]	14,250	8,852				Wabasha	18,924	16,972
Dakota	21,733	20,240	Morrison	22,891	13,325	Wadena	7,921	4,053
			Mower	22,335	18,019	Wahuata [5]	.....	.....
Dodge	13,340	10,864	Murray	11,911	6,692	Waseca	14,760	13,313
Douglas	17,964	14,606	Nicollet	14,774	13,382			
Faribault	22,055	16,708	Nobles	14,932	7,958	Washington	27,808	25,992
Fillmore	28,238	25,966				Watonwan	11,496	7,746
Freeborn	21,838	17,962	Norman [6]	15,045	10,618	Wilkin	8,080	4,346
			Olmstead	23,119	19,806	Winona	35,686	33,797
Goodhue	31,137	28,806	Ottertail	45,375	34,232	Wright	29,157	24,164
Grant	8,935	6,875	Pierce	.....	.....			
Hennepin	228,340	185,294	Pine	11,546	4,052	Yellow Medicine	14,602	9,854
Houston	15,400	14,653				White Earth Indian reservation	3,486	.....
Hubbard [3]	6,578	1,412	Pipestone	9,264	5,132			

[1] Part taken to form Hubbard in 1883 and parts annexed to Crow Wing and Hubbard since 1890.
[2] Part of Cass annexed since 1890.
[3] Organized from part of Cass in 1883 and part of Cass annexed since 1890.
[4] Name changed from Pembina in 1878. Part taken to form Roseau in 1895.
[5] No records by which to account for its disappearance.
[6] Parts of Polk taken to form Norman in 1881 and Red Lake in 1897.
[7] Organized from part of Kittson in 1895.

MISSISSIPPI.

[Organized as a territory April 7, 1798. Admitted as a state December 10, 1817.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,551,270	1,289,600	Issaquena	10,400	12,318	Perry	14,682	6,494
			Itawamba	13,544	11,708	Pike	27,545	21,203
Adams	30,111	26,031	Jackson	16,513	11,251	Pontotoc	18,274	14,940
Alcorn	14,987	13,115	Jasper	15,394	14,785			
Amite	20,708	18,198	Jefferson	21,292	18,947	Prentiss	15,788	13,679
Attala	26,248	22,213				Quitman	5,435	3,286
Baldwin [1]	.....	.....	Jones	17,846	8,333	Rankin	20,955	17,922
			Kemper	20,492	17,961	Scott	14,316	11,740
Benton	10,510	10,585	Layafette	22,110	20,553	Sharkey	12,178	8,382
Bolivar	35,427	29,980	Lauderdale	38,150	29,661			
Calhoun	16,512	14,688	Lawrence	15,103	12,318	Simpson	12,800	10,138
Carroll	22,116	18,773				Smith	13,055	10,635
Chickasaw	19,892	19,891	Leake	17,360	14,803	Sunflower	16,084	9,384
			Lee	21,956	20,040	Tallahatchie	19,600	14,361
Choctaw	13,036	10,847	Leflore	23,834	16,869	Tate	20,618	19,253
Claiborne	20,787	14,516	Lincoln	21,552	17,912			
Clarke	17,741	15,826	Lowndes	29,095	27,047	Tippah	12,983	12,951
Clay	19,563	18,607				Tishomingo	10,124	9,302
Coahoma	26,293	18,342	Madison [1]	.....	.....	Tunica	16,479	12,158
			Madison	32,493	27,321	Union	16,522	15,606
Copiah	34,395	30,233	Marion [2]	13,501	9,532	Warren	40,912	33,164
Covington	13,076	8,299	Marshall	27,674	26,043			
De Soto	24,751	24,183	Monroe	31,216	30,730	Washington [4]	.....	.....
Franklin	13,678	10,424				Washington	49,216	40,414
Greene	6,795	3,906	Montgomery	16,536	14,459	Wayne	12,539	9,817
			Neshoba	12,726	11,146	Webster	13,619	12,060
Grenada	14,112	14,974	Newton	19,708	16,625	Wilkinson	21,453	17,592
Hancock [3]	11,886	8,318	Noxubee	30,846	27,338	Winston	14,124	12,089
Harrison	21,002	12,481	Oktibbeha	20,183	17,694	Yalobusha	19,742	16,629
Hinds	52,577	39,279				Yazoo	43,948	36,394
Holmes	36,828	30,970	Panola	29,027	26,977			
			Pearl River [3]	6,697	2,957			

[1] Now in Alabama.
[2] Part taken to form part of Pearl River in 1890.
[3] Organized from parts of Hancock and Marion in 1890.
[4] Now in Alabama.

MISSOURI.

[Organized as a territory December 7, 1812. Admitted as a state August 10, 1821.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	3,106,665	2,679,184	Greene	52,713	48,616	Perry	15,134	13,237
Adair	21,728	17,417	Grundy	17,832	17,876	Pettis	32,438	31,151
Andrew	17,332	16,000	Harrison	24,398	21,033	Phelps	14,194	12,636
Atchison	16,501	15,533	Henry	28,054	28,235	Pike	25,744	26,321
Audrain	21,160	22,074	Hickory	9,985	9,453	Platte	16,193	16,248
Barry	25,532	22,943	Holt	17,083	15,469	Polk	23,255	20,339
Barton	18,253	18,504	Howard	18,337	17,371	Pulaski	10,394	9,387
Bates	30,141	32,223	Howell	21,834	18,618	Putnam	16,688	15,365
Benton	16,556	14,973	Iron	8,716	9,119	Ralls	12,287	12,294
Bollinger	14,650	13,121	Jackson	195,193	160,510	Randolph	24,442	24,893
Boone	28,642	26,043	Jasper	84,018	50,500	Ray	24,805	24,215
Buchanan	121,838	70,100	Jefferson	25,712	22,484	Reynolds	8,161	6,803
Butler	16,769	10,164	Johnson	27,843	28,132	Ripley	13,186	8,512
Caldwell	16,656	15,152	Knox	13,479	13,501	St. Charles	24,474	22,977
Callaway	25,984	25,131	Laclede	16,523	14,701	St. Clair	17,907	16,747
Camden	13,113	10,040	Lafayette	31,679	30,184	Ste. Genevieve	10,359	9,883
Cape Girardeau	24,315	22,060	Lawrence	31,662	26,228	St. Francois	24,051	17,347
Carroll	26,455	25,742	Lewis	16,724	15,935	St. Louis	50,040	36,307
Carter	6,706	4,659	Lincoln	18,352	18,346	St. Louis city	575,238	451,770
Cass	23,636	23,301	Linn	25,503	24,121	Saline	33,703	33,762
Cedar	16,923	15,620	Livingston	22,302	20,668	Schuyler	10,840	11,249
Chariton	26,826	26,254	McDonald	13,574	11,283	Scotland	13,232	12,674
Christian	16,939	14,017	Macon	33,018	30,575	Scott	13,092	11,228
Clark	15,383	15,126	Madison	9,975	9,268	Shannon	11,247	8,898
Clay	18,903	19,856	Maries	9,616	8,600	Shelby	16,167	15,642
Clinton	17,363	17,138	Marion	26,331	26,233	Stoddard	24,669	17,327
Cole	20,578	17,281	Mercer	14,706	14,581	Stone	9,892	7,090
Cooper	22,532	22,707	Miller	15,187	14,162	Sullivan	20,282	19,000
Crawford	12,959	11,961	Mississippi	11,837	10,134	Taney	10,127	7,973
Dade	18,125	17,526	Moniteau	15,931	15,630	Texas	22,192	19,406
Dallas	13,903	12,647	Monroe	19,716	20,790	Van Buren	.....	.....
Daviess	21,325	20,456	Montgomery	16,571	16,850	Vernon	31,619	31,505
Dekalb	14,418	14,539	Morgan	12,175	12,311	Warren	9,919	9,913
Dent	12,986	12,149	New Madrid	11,280	9,317	Washington	14,263	13,153
Dodge	.....	.....	Newton	27,001	22,108	Wayne	15,309	11,927
Douglas	16,802	14,111	Nodaway	32,938	30,914	Webster	16,640	15,177
Dunklin	21,706	15,085	Oregon	13,906	10,467	Worth	9,832	8,738
Franklin	30,581	28,056	Osage	14,096	13,080	Wright	17,519	14,844
Gasconade	12,298	11,706	Ozark	12,145	9,795			
Gentry	20,554	19,018	Pemiscot	12,115	5,975			

MONTANA.

[Organized as a territory May 26, 1864. Admitted as a state November 8, 1889.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	243,329	132,159	Fergus	6,937	3,514	Park [13]	7,341	6,881
			Flathead [7]	9,375	.....	Ravalli [14]	7,822	.....
Beaverhead	5,615	4,655	Gallatin	9,553	6,246	Silverbow	47,635	23,744
Broadwater [1]	2,641	.....	Granite [8]	4,328	.....	Sweet Grass [15]	3,086	.....
Carbon [2]	7,533	.....						
Cascade [3]	25,777	8,755	Jefferson [9]	5,330	6,026	Teton [16]	5,080	.....
			Lewis and Clarke [10]	19,171	19,145	Valley [5]	4,355	.....
Choteau [4]	10,966	4,741	Madison	7,695	4,692	Yellowstone [17]	6,212	2,065
Custer	7,891	5,308	Meagher [11]	2,526	4,749	Crow Indian reservation	2,660	.....
Dawson [5]	2,443	2,056	Missoula [12]	13,964	14,427			
Deerlodge [6]	17,393	15,155						

[1] Organized from parts of Jefferson and Meagher in 1897.

[2] Organized from parts of Park and Yellowstone in 1895.

[3] Organized from parts of Choteau, Lewis and Clarke, and Meagher in 1887; part of Meagher annexed since 1890.

[4] Parts taken to form Teton in 1893 and part of Cascade in 1887.

[5] Valley organized from part of Dawson in 1893.

[6] Parts taken to form Silverbow in 1881 and Granite in 1893; parts annexed to Flathead and Lewis and Clarke since 1890.

[7] Organized from part of Missoula in 1893; part of Deerlodge subsequently annexed.

[8] Organized from part of Deerlodge in 1893.

[9] Part taken to form part of Broadwater in 1897.

[10] Part taken to form part of Cascade in 1887; parts of Deerlodge and Meagher annexed since 1890.

[11] Parts taken to form Fergus in 1885, part of Cascade in 1887, part of Sweet Grass in 1895, and part of Broadwater in 1897; parts annexed to Cascade and Lewis and Clarke since 1890.

[12] Parts taken to form Flathead and Ravalli in 1893.

[13] Organized from part of Gallatin in 1887; parts taken to form parts of Carbon and Sweet Grass in 1895.

[14] Organized from part of Missoula in 1893.

[15] Organized from parts of Meagher, Park and Yellowstone in 1895.

[16] Organized from part of Choteau in 1893.

[17] Organized from parts of Custer and Gallatin in 1881; parts taken to form parts of Carbon and Sweet Grass in 1895.

NEBRASKA.

[Organized as a territory May 30, 1854. Admitted as a state March 1, 1867.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,066,300	1,058,910	Furnas	12,373	9,840	Nemaha	14,952	12,930
Adams	18,840	24,303	Gage	30,051	36,344	Nuckolls	12,414	11,417
Antelope	11,344	10,399	Garfield	2,127	1,659	Otoe	22,288	25,403
Arthur [1]	.....	91	Gosper	5,301	4,816	Pawnee	11,770	10,340
Banner	1,114	2,435	Grant [3]	.....	.....	Perkins	1,702	4,364
Blaine	603	1,146	Grant	763	458	Phelps	10,772	9,869
Boone	11,689	8,683	Greeley	5,691	4,869	Pierce	8,445	4,864
Boxbutte	5,572	5,494	Green [3]	.....	.....	Platte	17,747	15,437
Boyd [2]	7,332	695	Hall	17,206	16,513	Polk	10,542	10,817
Brown	3,470	4,359	Hamilton	13,330	14,096	Redwillow	9,604	8,837
Buffalo	20,254	22,162	Harlan	9,370	8,158	Richardson	19,614	17,574
Burt	13,040	11,069	Harrison [4]	.....	.....	Rock	2,809	3,083
Butler	15,703	15,454	Hayes	2,708	3,953	Saline	18,252	20,097
Calhoun	.....	.....	Hitchcock	4,409	5,799	Sarpy	9,080	6,875
Cass	21,330	24,080	Holt	12,224	13,672	Saunders	22,085	21,577
Cedar	12,467	7,028	Hooker	432	426	Scotts Bluff	2,552	1,888
Chase	2,559	4,807	Howard	10,343	9,430	Seward	15,690	16,140
Cherry	6,541	6,428	Jackson [4]	.....	.....	Sheridan	6,033	8,687
Cheyenne	5,570	5,693	Jefferson	15,196	14,850	Sherman	6,550	6,399
Clay	15,735	16,310	Johnson	11,197	10,333	Shorter [4]	.....	.....
Colfax	11,211	10,453	Jones	.....	.....	Sioux	2,055	2,452
Cuming	14,584	12,265	Kearney	9,866	9,061	Stanton	6,959	4,619
Custer	19,758	21,677	Keith	1,951	2,556	Taylor [4]	.....	.....
Dakota	6,286	5,386	Keyapaha	3,076	3,920	Thayer	14,325	12,738
Dawes	6,215	9,722	Kimball	758	959	Thomas	628	517
Dawson	12,214	10,129	Knox	14,343	8,582	Thurston	6,517	3,176
Deuel	2,630	2,893	Lancaster	64,835	76,395	Valley	7,339	7,092
Dixon	10,535	8,084	Lincoln	11,416	10,441	Washington	13,086	11,869
Dodge	22,298	19,260	Logan	960	1,378	Wayne	9,862	6,169
Douglas	140,590	158,008	Loup	1,305	1,662	Webster	11,619	11,210
Dundy	2,434	4,012	Lyon [4]	.....	.....	Wheeler	1,362	1,683
Fillmore	15,087	16,022	McPherson [1]	517	401	York	18,205	17,279
Fort Randall [3]	.....	.....	Madison	16,976	13,669	Unorganized territory	.....	.....
Franklin	9,455	7,693	Merrick	9,255	8,758	Winnebago Indian reservation	.....	.....
Frontier	8,781	8,497	Monroe [4]	.....	.....			
			Nance	8,222	5,773			

[1] Formed from unorganized territory in 1887; Arthur annexed to McPherson since 1890.
[2] Unorganized territory in 1890; formerly part of Dakota; annexed to Nebraska between 1880 and 1890; organized as Boyd, March 20, 1891.
[3] No records by which to account for its disappearance.
[4] Never had a legal existence.

NEVADA.

[Organized as a territory March 2, 1861. Admitted as a state October 31, 1864.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	42,335	45,761	Eureka	1,954	3,275	Roop	.....	.....
Carson [1]	.....	.....	Humboldt	4,463	3,434	St. Marys [1]	.....	.....
Churchill	830	703	Lander	1,534	2,266	Storey	3,673	8,806
Douglas	1,534	1,551	Lincoln	3,284	2,466	Washoe	9,141	6,437
Elko	6,688	4,794	Lyon	2,268	1,987	White Pine	1,961	1,721
Esmeralda	1,972	2,148	Nye	1,140	1,290			
			Ormsby	2,893	4,883			

[1] No records by which to account for its disappearance.

NEW HAMPSHIRE

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	411,588	376,530	Coos	29,468	23,211	Merrimack	52,430	49,435
Belknap	19,526	20,321	Grafton	40,844	37,217	Rockingham	51,118	49,650
Carroll	16,895	18,124	Hillsboro	112,640	93,247	Strafford	39,337	38,442
Cheshire	31,321	29,579				Sullivan	18,009	17,304

NEW JERSEY.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,883,669	1,444,933	Essex	359,053	256,098	Ocean [2]	19,747	15,974
			Gloucester	31,905	28,649	Passaic	155,202	105,046
Atlantic	46,402	28,836	Hudson	386,048	275,126	Salem	25,530	25,151
Bergen	78,441	47,226	Hunterdon	34,507	35,355	Somerset	32,948	28,311
Burlington [1]	58,241	58,528						
Camden	107,643	87,687	Mercer	95,365	79,978	Sussex	24,134	22,259
			Middlesex	79,762	61,754	Union	99,353	72,467
Cape May	13,201	11,268	Monmouth	82,057	69,128	Warren	37,781	36,553
Cumberland	51,193	45,438	Morris	65,156	54,101			

[1] Part annexed to Ocean since 1890.

[2] Part of Burlington annexed since 1890.

NEW MEXICO.

[Organized as a territory December 13, 1850.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The Territory	195,310	153,593	Grant	12,883	9,657	Santa Ana	.....	.....
			Guadalupe [5]	5,429	.....	Santa Fe [9]	14,658	13,562
Arizona [1]	.....	.....	Lincoln [6]	4,953	7,081	Sierra	3,158	3,630
Bernalillo [2]	28,630	20,913	Mora [4]	10,304	10,618	Socorro [10]	12,195	9,595
Chaves [3]	4,773	.....						
Colfax [4]	10,150	7,974	Otero [7]	4,791	.....	Taos	10,889	9,868
			Rio Arriba	13,777	11,534	Union [11]	4,528	.....
Donna Ana	10,187	9,191	San Juan	4,828	1,890	Valencia	13,895	13,876
Eddy [3]	3,229	.....	San Miguel [8]	22,053	24,204			

[1] Originally embraced the country now constituting Arizona territory.

[2] Santa Anna annexed in 1876; part of Santa Fe annexed since 1890.

[3] Organized from part of Lincoln in 1891.

[4] Part taken to form part of Union in 1893.

[5] Organized from parts of Lincoln and San Miguel in 1891.

[6] Part annexed to Donna Ana between 1880 and 1890; parts taken to form Chaves, Eddy and part of Guadalupe in 1891, and part of Otero in 1899.

[7] Organized from parts of Donna Ana, Lincoln and Socorro in 1899.

[8] Parts taken to form part of Guadalupe in 1891 and part of Union in 1893.

[9] Part annexed to Bernalillo since 1890.

[10] Parts taken to form part of Sierra in 1884 and part of Otero in 1899.

[11] Organized from parts of Colfax, Mora and San Miguel in 1893.

NEW YORK.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	7,268,894	5,997,853	Herkimer	51,049	45,608	Richmond	67,021	51,693
			Jefferson	76,748	68,806	Rockland	38,289	35,162
Albany	165,571	164,555	Kings	1,166,582	838,547	St. Lawrence	89,083	85,048
Allegany	41,501	43,240	Lewis	27,427	29,806	Saratoga	61,089	57,663
Broome	69,149	62,973	Livingston	37,059	37,801			
Cattaraugus	65,643	60,866				Schenectady	46,852	29,797
Cayuga	66,234	65,302	Madison	40,545	42,892	Schoharie	26,854	29,164
			Montoe	217,854	189,586	Schuyler	15,811	16,711
Chautauqua	88,314	75,202	Montgomery	47,488	45,699	Seneca	28,114	28,227
Chemung	54,063	48,265	Nassau [1]	55,448	.....	Steuben	82,822	81,473
Chenango	36,568	37,776	New York [2]	2,050,600	1,515,301			
Clinton	47,430	46,437				Suffolk	77,582	62,491
Columbia	43,211	46,172	Niagara	74,961	62,491	Sullivan	32,306	31,031
			Oneida	132,800	122,922	Tioga	27,951	29,935
Cortland	27,576	28,657	Onondaga	168,735	146,247	Tompkins	33,830	32,923
Delaware	46,413	45,496	Ontario	49,605	48,453	Ulster	88,422	87,062
Dutchess	81,670	77,879	Orange	103,859	97,859			
Erie	433,686	322,981				Warren	29,943	27,866
Essex	30,707	33,052	Orleans	30,164	30,803	Washington	45,624	45,690
			Oswego	70,881	71,883	Wayne	48,660	49,729
Franklin	42,853	38,110	Otsego	48,939	50,861	Westchester [3]	184,257	146,772
Fulton	42,842	37,650	Putnam	13,787	14,849	Wyoming	30,413	31,193
Genesee	34,561	33,265	Queens [3]	152,999	128,059	Yates	20,318	21,001
Greene	31,478	31,598						
Hamilton	4,947	4,762	Rensselaer	121,697	124,511			

[1] Organized from part of Queens in 1899.

[2] Part of Westchester annexed to New York since 1890.

[3] Part taken to form Nassau in 1899.

NORTH CAROLINA.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,893,810	1,617,947	Forsyth	35,261	28,434	Pamlico	8,045	7,146
			Franklin	25,116	21,090	Pasquotank	13,660	10,748
Alamance	25,665	18,271	Gaston	27,903	17,764	Pender	13,381	12,514
Alexander	10,960	9,430				Perquimans	10,091	9,293
Alleghany	7,759	6,523	Gates	10,413	10,252	Person	16,685	15,151
Anson	21,870	20,027	Graham	4,343	3,313			
Ashe	19,581	15,628	Granville	23,263	24,484	Pitt	30,889	25,519
			Greene	12,038	10,039	Polk	7,004	5,902
Beaufort	26,404	21,072	Guilford	39,074	28,052	Randolph	28,232	25,195
Bertie	20,538	19,176				Richmond [1]	15,855	23,948
Bladen	17,677	16,763	Halifax	30,793	28,908	Robeson	40,371	31,483
Brunswick	12,657	10,900	Harnett	15,988	13,700			
Buncombe	44,288	35,266	Haywood	16,222	13,346	Rockingham	33,163	25,363
			Henderson	14,104	12,589	Rowan	31,066	24,123
Burke	17,699	14,939	Hertford	14,294	13,851	Rutherford	25,101	18,770
Cabarrus	22,456	18,142				Sampson	26,380	25,096
Caldwell	15,694	12,298	Hyde	9,278	8,903	Scotland [1]	12,553	.....
Camden	5,474	5,667	Iredell	29,064	25,462			
Carteret	11,811	10,825	Jackson	11,853	9,512	Stanly	15,220	12,136
			Johnston	32,250	27,239	Stokes	19,866	17,199
Caswell	15,028	16,028	Jones	8,226	7,403	Surry	25,515	19,281
Catawba	22,133	18,689				Swain	8,401	6,577
Chatham	23,912	25,413	Lenoir	18,639	14,879	Transylvania	6,620	5,881
Cherokee	11,860	9,976	Lincoln	15,498	12,586			
Chowan	10,258	9,167	McDowell	12,567	10,939	Tyrrell	4,980	4,225
			Macon	12,104	10,102	Union	27,156	21,259
Clay	4,532	4,197	Madison	20,644	17,805	Vance	16,684	17,581
Cleveland	25,078	20,394				Wake	54,626	49,207
Columbus	21,274	17,856	Martin	15,383	15,221			
Craven	24,160	20,533	Mecklenburg	55,268	42,673	Warren	19,151	19,360
Cumberland	29,249	27,321	Mitchell	15,221	12,807	Washington	10,608	10,200
			Montgomery	14,197	11,239	Watauga	13,417	10,611
Currituck	6,529	6,747	Moore	23,622	20,479	Wayne	31,356	26,100
Dare	4,757	3,768						
Davidson	23,403	21,702	Nash	25,478	20,707	Wilkes	26,872	22,675
Davie	12,115	11,621	New Hanover	25,785	24,026	Wilson	23,596	18,644
Duplin	22,405	18,690	Northampton	21,150	21,242	Yadkin	14,083	13,790
			Onslow	11,940	10,303	Yancey	11,464	9,490
Durham	26,233	18,041	Orange	14,690	14,948			
Edgecombe	26,591	24,113						

[1] Scotland organized from part of Richmond in 1890.

NORTH DAKOTA.

[Dakota organized as a territory March 2, 1861. North Dakota admitted as a state November 2, 1889.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	319,146	182,719	Grand Forks	24,459	18,357	Richland	17,387	10,751
			Griggs	4,744	2,817	Rolette	7,995	2,427
Alred [1]	.....	.....	Hettinger [10]	.....	81	Sargent	6,039	5,076
Barnes	13,159	7,045	Howard	.....	.....	Sheridan [18]	.....	5
Benson [2]	8,320	2,460	Kidder	1,754	1,211	Stark [19]	7,621	2,304
Billings [3]	975	170	Lamcure	6,048	3,187			
Bottineau [4]	7,532	2,893				Steele	5,888	3,777
			Logan	1,625	597	Stevens [20]	.....	16
Bowman [5]	.....	6	McHenry [11]	5,253	1,584	Stutsman	9,143	5,266
Buford [6]	.....	803	McIntosh	4,818	3,248	Towner	6,491	1,450
Burleigh	6,081	4,247	McKenzie [12]	.....	3	Traill	13,107	10,217
Cass	28,625	19,613	McLean [13]	4,791	860			
Cavalier	12,580	6,471				Wallace [21]	.....	24
			Mercer [14]	1,778	428	Wallette	.....	.....
Church [7]	.....	74	Morton	8,069	4,728	Walsh	20,288	16,587
De Smet	.....	.....	Mountraille [15]	.....	122	Ward [22]	7,961	1,681
Dickey	6,061	5,573	Nelson	7,316	4,293	Wells	8,310	1,212
Dunn [8]	.....	159	Oliver	990	464			
Eddy	3,330	1,377				Williams [23]	.....	109
			Pembina	17,869	14,334	Williams [24]	1,530	.....
Emmons	4,349	1,971	Pierce [16]	4,765	905	Standing Rock Indian		
Flannery [6]	.....	72	Ramsey	9,198	4,418	reservation (part of)[26]	2,208	[25] 511
Foster	3,770	1,210	Ransom	6,919	5,393	Unorganized territory	.....	.....
Garfield [9]	.....	33	Renville [17]	.....	99			

[1] Organized from part of Howard in 1883; part annexed to Billings in 1897, and part taken to form part of Williams since 1890.

[2] Organized from parts of De Smet and Ramsey in 1883.

[3] Part taken to form Bowman in 1883; Bowman, McKenzie, and part of Alred annexed in 1897.

[4] Part of Renville annexed in 1897.

[5] Organized from part of Billings in 1883; annexed to Billings in 1897.

[6] Organized from part of Wallette in 1883; taken to form part of Williams since 1890.

[7] Organized from parts of McHenry and Sheridan in 1887; annexed to McHenry, McLean and Pierce since 1890.

[8] Organized from part of Howard in 1883; annexed to Stark in 1897.

[9] Annexed to McLean in 1891.

[10] Organized from part of Stark in 1883; annexed to Stark in 1897.

[11] Part taken to form part of Church in 1887; part of Church annexed since 1890.

[12] Organized from part of Howard in 1883; annexed to Billings in 1897.

[13] Organized from part of Stevens in 1883; Garfield and Sheridan annexed in 1891, and parts of Church and Stevens annexed since 1890.

[14] Part taken to form Oliver in 1885; part of former Williams annexed since 1890

[15] Annexed to Ward in 1891.

[16] Organized from De Smet in 1887; part of Church annexed since 1890.

[17] Part taken to form part of Ward in 1885; annexed to Bottineau and Ward in 1897.

[18] Part taken to form part of Church in 1887; annexed to McLean in 1891.

[19] Part taken to form Hettinger in 1883; Dunn, Hettinger and Wallace annexed in 1897, and part of former Williams annexed since 1890.

[20] Parts taken to form McLean in 1883, and Garfield and part of Ward in 1885; parts annexed to McLean and Ward since 1890.

[21] Organized from part of Howard in 1883; annexed to Stark in 1897.

[22] Organized from parts of Renville and Stevens in 1885; Mountraille annexed in 1891, part of Renville annexed in 1897, and part of Stevens annexed since 1890.

[23] Annexed to Mercer and Stark since 1890.

[24] Organized from Beauford, Flannery and part of Alred since 1890.

[25] Population of Fort Yates and Standing Rock Indian agency, exclusive of reservation Indians.

[26] Cannot be located by counties. For population of remainder of reservation see figures for South Dakota. Returned in 1890 as unorganized territory.

OHIO.

[Admitted as a state November 29, 1802.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	4,157,545	3,672,316	Guernsey	34,425	28,645	Muskingum	53,185	51,210
Adams	26,328	26,093	Hamilton	409,479	374,573	Noble	19,466	20,753
Allen	47,976	40,644	Hancock	41,993	42,563	Ottawa	22,213	21,974
Ashland	21,184	22,223	Hardin	31,187	28,939	Paulding	27,528	25,932
Ashtabula	51,448	43,655	Harrison	20,486	20,830	Perry	31,841	31,151
Athens	38,730	35,194	Henry	27,282	25,080	Pickaway	27,016	26,959
Auglaize	31,192	28,100	Highland	30,982	29,048	Pike	18,172	17,482
Belmont	60,875	57,413	Hocking	24,398	22,658	Portage	29,246	27,868
Brown	28,237	29,899	Holmes	19,511	21,139	Preble	23,713	23,421
Butler	56,870	48,597	Huron	32,330	31,949	Putnam	32,525	30,188
Carroll	16,811	17,566	Jackson	34,248	28,408	Richland	44,289	38,072
Champaign	26,642	26,980	Jefferson	44,357	39,415	Ross	40,940	39,454
Clark	58,939	52,277	Knox	27,768	27,600	Sandusky	34,311	30,617
Clermont	31,610	33,553	Lake	21,680	18,235	Scioto	40,981	35,377
Clinton	24,202	24,240	Lawrence	39,534	39,556	Seneca	41,163	40,869
Columbiana	68,590	59,029	Licking	47,070	43,279	Shelby	24,625	24,707
Coshocton	29,337	26,703	Logan	30,420	27,386	Stark	94,747	84,170
Crawford	33,915	31,927	Lorain	54,857	40,295	Summit	71,715	54,089
Cuyahoga	439,120	309,970	Lucas	153,559	102,296	Trumbull	46,591	42,373
Darke	42,532	42,961	Madison	20,590	20,057	Tuscarawas	53,751	46,618
Defiance	26,387	25,769	Mahoning	70,134	55,979	Union	22,342	22,860
Delaware	26,401	27,189	Marion	28,678	24,727	Van Wert	30,394	29,671
Erie	37,650	35,462	Medina	21,958	21,742	Vinton	15,330	16,045
Fairfield	34,259	33,939	Meigs	28,620	29,813	Warren	25,584	25,468
Fayette	21,725	22,309	Mercer	28,021	27,220	Washington	48,245	42,380
Franklin	164,460	124,087	Miami	43,105	39,754	Wayne	37,870	39,005
Fulton	22,801	22,023	Monroe	27,031	25,175	Williams	24,953	24,897
Gallia	27,918	27,005	Montgomery	130,146	100,852	Wood	51,555	44,392
Geauga	14,744	13,489	Morgan	17,905	19,143	Wyandot	21,125	21,722
Greene	31,613	29,820	Morrow	17,879	18,120			

OKLAHOMA.

[Organized as a territory May 2, 1890.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The Territory	398,331	61,834	Kay [1]	22,530	.....	Woods [1]	34,975	.....
			Kingfisher	18,501	8,332	Woodward [1]	7,469	.....
Beaver	3,051	2,674	Lincoln [1]	27,007	.....	Kaw Indian reservation [3]	768	.....
Blaine [1]	10,658	.....	Logan	26,563	12,770			
Canadian	15,981	7,158	Noble [1]	14,015	.....	Kiowa, Comanche and Apache Indian reservation [3]	4,968	.....
Cleveland	16,388	6,605						
Custer [1]	12,264	.....	Oklahoma	25,915	11,742			
			Pawnee [1]	12,366	.....	Osage Indian reservation [3]	6,717	.....
Day [1]	2,173	.....	Payne	20,909	7,215			
Dewey [1]	8,819	.....	Pottawatomie [1]	26,412	.....	Wichita Indian reservation [3]	1,420	.....
Garfield [1]	22,076	.....						
Grant [1]	17,273	.....	Roger Mills [1]	6,190	.....			
Greer [2]	17,922	5,338	Washita [1]	15,001	.....			

[1] Organized from Indian lands since 1890.
[2] Territory claimed by the United States as a part of the Indian Territory, but organized as Greer county, Texas, February 8, 1860, by an act of the Texas legislature. Returned as a part of Oklahoma in 1890. Decided by the United States Supreme Court, March 16, 1896, against the State of Texas.
[3] Cannot be located by counties.

OREGON.

[Organized as a territory August 14, 1848. Admitted as a state February 14, 1859.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	413,536	313,767	Grant [4]	5,948	5,080	Morrow	4,151	4,205
			Harney	2,598	2,559	Multomah	103,167	74,884
Baker	15,597	6,764				Polk	9,923	7,858
Benton [1]	6,706	8,650	Jackson	13,698	11,455	Sherman [5]	3,477	1,792
Clackamas	19,658	15,233	Josephine	7,517	4,878			
Clarke [2]	.....	.....	Klamath	3,970	2,444	Tillamook [1]	4,471	2,932
Clatsop	12,765	10,016	Lake	2,847	2,604	Umatilla	18,049	13,381
						Umpqua	.....	.....
Columbia	6,237	5,191	Lane	19,604	15,198	Union [6]	16,070	12,044
Coos	10,324	8,874	Lewis [2]	.....	.....	Wallowa [6]	5,538	3,661
Crook	3,964	3,244	Lincoln [1]	3,575	.....			
Curry	1,868	1,709	Linn	18,603	16,265	Wasco [7]	13,199	9,183
			Malheur	4,203	2,601	Washington	14,467	11,972
Douglas	14,565	11,864				Wheeler	2,443	.....
Gilliam [3]	3,201	3,600	Marion	27,713	22,934	Yamhill	13,420	10,692

[1] Lincoln organized from parts of Benton and Tillamook in 1893.
[2] Now in the State of Washington.
[3] Organized from parts of Umatilla and Wasco in 1885 and part taken to form part of Wheeler in 1899.
[4] Parts taken to form Harney in 1889 and part of Wheeler in 1899.
[5] Organized from part of Wasco in 1889; part of Wasco annexed since 1890.
[6] Wallowa organized from part of Union in 1887; part of Union annexed to Wallowa since 1890.
[7] Parts taken to form Crook in 1882, Sherman in 1889, part of Gilliam in 1885, and part annexed to Sherman since 1890.

PENNSYLVANIA.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	6,302,115	5,258,014	Dauphin	114,443	96,977	Montgomery	138,995	123,290
			Delaware	94,762	74,683	Montour	15,526	15,645
			Elk	32,903	22,239	Northampton	99,687	84,220
Adams	34,496	33,486	Erie	98,473	86,074	Northumberland	90,911	74,698
Allegheny	775,058	551,959				Perry	26,263	26,276
Armstrong	52,551	46,747	Fayette	110,412	80,006			
Beaver	56,432	50,077	Forest	11,039	8,482	Philadelphia	1,293,697	1,046,964
Bedford	39,468	38,644	Franklin	54,902	51,433	Pike	8,766	9,412
			Fulton	9,924	10,137	Potter	30,621	22,778
Berks	159,615	137,327	Greene	28,281	28,935	Schuykill	172,927	154,163
Blair	85,099	70,866				Snyder	17,304	17,651
Bradford	59,403	59,233	Huntingdon	34,650	35,751			
Bucks	71,190	70,615	Indiana	42,556	42,175	Somerset	49,461	37,317
Butler	56,962	55,339	Jefferson	59,113	44,005	Sullivan	12,134	11 620
			Juniata	16,054	16,655	Susquehanna	40,043	40,093
Cambria	104,837	66,375	Lackawanna	193,831	142,088	Tioga	49,086	52,313
Cameron	7,048	7,238				Union	17,592	17,820
Carbon	44,510	38,624	Lancaster	159,241	149,095			
Center	42,894	43,269	Lawrence	57,042	37,517	Venango	49,648	46,640
Chester	95,695	89,377	Lebanon	53,827	48,131	Warren	38,946	37,585
			Lehigh	93,893	76,631	Washington	92,181	71,155
Clarion	34,283	36,802	Luzerne	257,121	201,203	Wayne	30,171	31,010
Clearfield	80,614	69,565						
Clinton	29,197	28,685	Lycoming	75,663	70,579	Westmoreland	160,175	112,819
Columbia	39,896	36,832	McKean	51,343	46,863	Wyoming	17,152	15,891
Crawford	63,643	65,324	Mercer	57,397	55,744	York	116,413	99,489
			Mifflin	23,160	19,996			
Cumberland	50,344	47,271	Monroe	21,161	20,111			

RHODE ISLAND.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	428,556	345,506	Kent	29,976	26,754	Providence	328,683	255,123
			Newport	32,599	28,552	Washington	24,154	23,649
Bristol	13,144	11,428						

SOUTH CAROLINA.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,340,316	1,151,149	Darlington [7]	32,388	29,134	Marion	35,181	29,976
			Dorchester [8]	16,294	.....	Marlboro	27,639	23,500
						Newberry	30,182	26,434
Abbeville [1]	33,400	46,854						
Aiken	39,032	31,822	Edgefield [9]	25,478	49,259			
Anderson	55,728	43,696	Fairfield	29,425	28,599	Oconee	23,634	18,687
Bamberg [2]	17,296	.....	Florence [10]	28,474	25,027	Orangeburg	59,663	49,393
Barnwell [2]	35,504	44,613	Georgetown	22,846	20,857	Pendleton	.....	.....
			Greenville	53,490	44,310	Pickens	19,375	16,389
						Richland	45,589	36,821
Beaufort	35,495	34,119						
Berkeley [3]	30,454	55,428	Greenwood [11]	28,343	.....			
Charleston [4]	88,006	59,903	Hampton	23,738	20,544	Saluda [12]	18,966	.....
Cherokee [5]	21,359	.....	Horry	23,364	19,256	Spartanburg [13]	65,560	55,385
Chester	28,616	26,660	Kershaw	24,696	22,361	Sumter	51,237	43,605
			Lancaster	24,311	20,761			
Chesterfield	20,401	18,468				Union [13]	25,501	25,363
Clarendon	28,184	23,233	Laurens	37,382	31,610	Williamsburg	31,685	27,777
Colleton [6]	33,452	40,293	Lexington	27,264	22,181	York [13]	41,684	38,831

[1] Part taken to form part of Greenwood in 1897.

[2] Bamberg organized from part of Barnwell in 1897.

[3] Organized from part of Charleston in 1882; part taken to form part of Dorchester in 1897 and part annexed to Charleston since 1890.

[4] Part taken to form Berkeley in 1882; part of Berkeley annexed since 1890.

[5] Organized from parts of Spartanburg, Union and York in 1897.

[6] Part taken to form part of Dorchester in 1897.

[7] Part taken to form part of Florence in 1888; part annexed to Florence since 1890.

[8] Organized from parts of Berkeley and Colleton in 1897.

[9] Parts taken to form Saluda in 1896 and part of Greenwood in 1897.

[10] Organized from parts of Clarendon, Darlington, Marion and Williamsburg in 1888; part of Darlington annexed since 1890.

[11] Organized from parts of Abbeville and Edgefield in 1897.

[12] Organized from part of Edgefield in 1896.

[13] Part taken to form part of Cherokee in 1897.

SOUTH DAKOTA.

[Dakota organized as a territory March 2, 1861. South Dakota admitted as a state November 2, 1889.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	401,570	328,808	Hamlin	5,945	4,625	Roberts	12,216	1,997
			Hand	4,525	6,546	Sanborn	4,464	4,610
Armstrong [1]	8	34	Hanson	4,947	4,267	Schnasse	.....	.....
Aurora	4,011	5,045	Harding [8]	.....	167	Scobey [5]	.....	32
Beadle	8,081	9,586	Hughes	3,684	5,044	Shannon	.....	.....
Bonbomme	10,379	9,057	Hutchinson	11,897	10,469			
Boreman [2]	.....	.....				Spink	9,487	10,581
			Hyde	1,492	1,860	Stanley [14]	1,341	1,028
Brookings	12,561	10,132	Jackson [9]	.....	30	Sterling [9]	.....	96
Brown	15,286	16,855	Jayne	.....	.....	Sully	1,715	2,412
Brule	5,401	6,737	Jerauld	2,798	3,605	Todd [15]	.....	188
Buffalo	1,790	993	Kingsbury	9,866	8,562			
Butte [3]	2,907	1,037				Tripp [16]	.....	.....
			Lake	9,137	7,508	Turner	13,175	10,256
Campbell	4,527	3,510	Lawrence	17,897	11,673	Union	11,153	9,130
Charles Mix	8,498	4,178	Lincoln	12,161	9,143	Wagner [17]	.....	.....
Choteau [4]	.....	8	Lugenbeel	.....	.....	Walworth	3,839	2,152
Clark	6,942	6,728	Lyman [10]	2,632	233			
Clay	9,316	7,509				Washabaugb	.....	.....
			McCook	8,689	6,448	Washington	.... [18]	40
Codington	8,770	7,037	McPherson	6,327	5,940	Yankton	12,649	10,444
Custer	2,728	4,891	Marshall	5,942	4,544	Ziebach [19]	.....	510
Davison	7,483	5,449	Martin [4]	.....	7	Cheyenne River Indian reservation [20]	2,357	.....
Day	12,254	9,168	Meade [11]	4,907	4,640			
Delano [5]	.....	40				Fort Sisseton [21]	.....	.....
			Meyer [12]	.....	.....	Pine Ridge Indian reservation [22]	6,827	.....
Deuel	6,656	4,574	Miner	5,864	5,165	Rosebud Indian reservation [23]	5,201	.....
Dewey	.....	.....	Minnebaha	23,926	21,879	Sisseton and Wabpeton Indian reservation	.....	.....
Douglas	5,012	4,600	Moody	8,326	5,941			
Edmunds	4,916	4,399	Nowlin [9]	.....	149	Standing Rock Indian reservation (part of)	1,658	.....
Ewing [6]	.....	16				Unorganized territory	.....	.....
			Pennington [13]	5,610	6,540			
Fall River	3,541	4,478	Potter	2,988	2,910			
Faulk	3,547	4,062	Pratt [10]	.....	23			
Grant	9,103	6,814	Presho [10]	.....	181			
Gregory [7]	2,211	295	Rinehart [4]	.....	.....			

[1] Formed from unorganized territory in 1883, name changed from Pyatt in 1896.
[2] Located within the limits of Standing Rock Indian reservation.
[3] Organized from part of Harding and unorganized territory in 1883; Choteau, Ewing, Harding, Martin, Rhinehart and Wagner annexed in 1899.
[4] Formed from unorganized territory in 1883; annexed to Butte in 1899.
[5] Part of Delano taken to form Scobey in 1883; both annexed to Meade in 1899.
[6] Organized from part of Harding in 1883; annexed to Butte in 1899.
[7] Todd annexed in 1899.
[8] Formed from unorganized territory in 1881; parts taken to form Ewing and part of Butte in 1883; annexed to Butte in 1899.
[9] Formed from unorganized territory in 1883; annexed to Stanley in 1899.
[10] Pratt and Presho annexed to Lyman in 1899.
[11] Organized from part of Lawrence in 1889; Delano and Scobey annexed in 1899.
[12] Located within the limits of Rosebud Indian reservation.
[13] Ziebach annexed in 1899.
[14] Jackson, Nowlin, and Sterling annexed in 1899.
[15] Annexed to Gregory in 1899.
[16] Located within the limits of Rosebud Indian reservation.
[17] Formed from unorganized territory in 1883; annexed to Butte in 1899.
[18] No returns for part outside of Pine Ridge Indian reservation.
[19] Annexed to Pennington in 1899.
[20] Located in Armstrong, Dewey, Schnasse and Stanley counties, but division by counties cannot be made.
[21] Abandoned in 1888.
[22] Located in Lugenbeel, Sbannon, Stanley, Wasbabaugb and Washington counties, but division by counties cannot be made.
[23] Located in Gregory, Lugenbeel, Lyman, Meyer, Stanley, Tripp and Wasbabaugh counties, but division by counties cannot be made.

TENNESSEE.

[Admitted as a state June 1, 1796.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	2,020,616	1,767,518	Grundy	7,802	6,345	Montgomery	36,017	29,697
			Hamblen	12,728	11,418	Moore	5,706	5,975
			Hamilton	61,695	53,482	Morgan	9,587	7,639
Anderson	17,634	15,128	Hancock	11,147	10,342	Obion	28,286	27,273
Bedford	23,845	24,739	Hardeman	22,976	21,029	Overton	13,353	12,039
Benton	11,888	11,230						
Bledsoe	6,626	6,134	Hardin	19,246	17,698	Perry	8,800	7,785
Blount	19,206	17,589	Hawkins	24,267	22,246	Pickett	5,366	4,736
			Haywood	25,189	23,558	Polk	11,357	8,361
Bradley	15,759	13,607	Henderson	18,117	16,336	Putnam	16,890	13,683
Campbell	17,317	13,486	Henry	24,208	21,170	Rbea	14,318	12,647
Cannon	12,121	12,197						
Carroll	24,250	23,630	Hickman [1]	16,367	14,499	Roane	22,738	17,418
Carter	16,688	13,389	Houston	6,476	5,390	Robertson	25,029	20,078
			Humphreys	13,398	11,720	Rutherford	33,543	35,097
Cheatham	10,112	8,845	Jackson	15,039	13,325	Scott	11,077	9,794
Chester	9,896	9,069	James	5,407	4,903	Sequatcbie	3,326	3,027
Claiborne	20,696	15,103						
Clay	8,421	7,260	Jefferson	18,590	16,478	Sevier	22,021	18,761
Cocke	19,153	16,523	Johnson	10,589	8,858	Shelby	153,557	112,740
			Knox	74,302	59,557	Smith	19,026	18,404
Coffee	15,574	13,827	Lake	7,368	5,304	Stewart	15,224	12,193
Crockett	15,867	15,146	Lauderdale	21,971	18,756	Sullivan	24,935	20,879
Cumberland	8,311	5,376						
Davidson	122,815	108,174	Lawrence	15,402	12,286	Sumner	26,072	23,668
Decatur	10,439	8,995	Lewis [2]	4,455	2,555	Tipton	29,273	24,271
			Lincoln	26,304	27,382	Trousdale	6,004	5,850
Dekalb	16,460	15,650	Loudon	10,838	9,273	Unicoi	5,851	4,619
Dickson	18,635	13,645	McMinn	19,163	17,890	Union	12,894	11,459
Dyer	23,776	19,878						
Fayette	29,701	28,878	McNairy [3]	17,760	15,510	Van Buren	3,126	2,863
Fentress	6,106	5,226	Macon	12,881	10,878	Warren	16,410	14,413
			Madison	36,333	30,497	Washington	22,604	20,354
Franklin	20,392	18,929	Marion	17,281	15,411	Wayne [4]	12,936	11,471
Gibson	39,408	35,859	Marshall	18,763	18,906	Weakley	32,546	28,955
Giles	33,035	34,957						
Grainger	15,512	13,196	Maury	42,703	38,112	White	14,157	12,348
Greene	30,596	26,614	Meigs	7,491	6,930	Williamson	26,429	26,321
			Monroe	18,585	15,329	Wilson	27,078	27,148

[1] Part annexed to Lewis in 1897.
[2] Parts of Hickman and Wayne annexed in 1897.
[3] Part taken to form part of Cbester in 1882 and part annexed to same in 1887.
[4] Part annexed to Lewis in 1897.

TEXAS.

[Admitted as a state December 29, 1845.]

COUNTIES.	1900	1890
The State	3,048,710	2,235,523
Anderson	28,015	20,923
Andrews	87	24
Angelina	13,481	6,306
Aransas	1,716	1,824
Archer	2,508	2,101
Armstrong	1,205	944
Atascosa	7,143	6,459
Austin	20,676	17,859
Bailey	4	.....
Bandera	5,332	3,795
Bastrop	26,845	20,736
Baylor	3,052	2,595
Bee	7,720	3,720
Bell	45,535	33,377
Bexar	69,422	49,266
Bexar district	.....	.....
Blanco	4,703	4,649
Borden	776	222
Bosque	17,390	14,224
Bowie	26,676	20,267
Brazoria	14,861	11,506
Brazos	18,859	16,650
Brewster [1]	2,356	710
Briscoe	1,253	([2])
Brown	16,019	11,421
Buchel [3]	.....	298
Burleson	18,367	13,001
Burnet	10,528	10,747
Caldwell	21,765	15,769
Calhoun	2,395	815
Callahan	8,768	5,457
Cameron	16,095	14,424
Camp	9,146	6,624
Carson	469	356
Cass	22,841	22,554
Castro	400	9
Chambers	3,046	2,241
Cherokee	25,154	22,975
Childress	2,138	1,175
Clay	9,231	7,503
Cochran	25	.....
Coke	3,430	2,059
Coleman	10,077	6,112
Collin	50,087	36,736
Collingsworth	1,233	357
Colorado	22,203	19,512
Comal	7,008	6,398
Comanche	23,009	15,608
Concho	1,427	1,065
Cooke	27,494	24,696
Coryell	21,308	16,873
Cottle	1,002	240
Crane	51	15
Crockett	1,591	194
Crosby	788	346
Dallam	146	112
Dallas	82,726	67,042
Dawson [4]	.....	.....
Dawson	37	29
Deaf Smith	843	179
Delta	15,249	9,117
Denton	28,318	21,289
Dewitt	21,311	14,307
Dickens	1,151	295
Dimmit	1,106	1,049
Donley	2,756	1,056
Duval	8,483	7,598
Eastland	17,971	10,373
Ector	381	224
Edwards	3,108	1,970
Ellis	50,059	31,774
El Paso	24,886	15,678
Encinal [5]	.....	2,744
Erath	29,966	21,594
Falls	33,342	20,706
Fannin	51,793	38,709
Fayette [1]	36,542	31,481
Fisher	3,708	2,996
Floyd	2,020	529
Foard [6]	1,568	.....
Foley [7]	.....	25
Fort Bend	16,538	10,586
Franklin	8,674	6,481
Freestone	18,910	15,987
Frio	4,200	3,112
Gaines	55	68
Galveston	44,116	31,476
Garza	185	14
Gillespie	8,229	7,056
Glasscock	286	208
Goliad	8,310	5,910
Gonzales	28,882	18,016
Gray	480	203
Grayson	63,661	53,211
Gregg	12,343	9,402
Grimes	26,106	21,312
Guadalupe	21,385	15,217
Hale	1,680	721
Hall	1,670	703
Hamilton	13,520	9,313
Hansford	167	133
Hardeman [6]	3,634	3,904
Hardin	5,049	3,956
Harris	63,786	37,249
Harrison	31,878	26,721
Hartley	377	252
Haskell	2,637	1,665
Hays	14,142	11,352
Hemphill	815	519
Henderson	19,970	12,285
Hidalgo	6,837	6,534
Hill	41,355	27,583
Hockley	44	.....
Hood	9,146	7,614
Hopkins	27,950	20,572
Houston	25,452	19,360
Howard	2,528	1,210
Hunt	47,295	31,885
Hutchinson	303	58
Irion	848	870
Jack	10,224	9,740
Jackson	6,094	3,281
Jasper	7,138	5,592
Jeff Davis	1,150	1,394
Jefferson	14,239	5,857
Johnson	33,819	22,313
Jones	7,053	3,797
Karnes	8,681	3,637
Kaufman	33,376	21,598
Kendall	4,103	3,826
Kent	899	324
Kerr	4,980	4,462
Kimble	2,503	2,243
King	490	173
Kinney	2,447	3,781
Knox [6]	2,322	1,134
Lamar	48,627	37,302
Lamb	31	4
Lampasas	8,625	7,584
Lasalle	2,303	2,139
Lavaca	28,121	21,887
Lee	14,595	11,952
Leon	18,072	13,841
Liberty	8,102	4,230
Limestone	32,573	21,678
Lipscomb	790	632
Live Oak	2,268	2,055
Llano	7,301	6,772
Loving	33	3
Lubbock	293	33
Lynn	17	24
McCulloch	3,960	3,217
McLennan	59,772	39,204
McMullen	1,024	1,038
Madison	10,430	8,512
Marion	10,754	10,862
Martin	332	264
Mason	5,573	5,180
Matagorda	6,097	3,985
Maverick	4,066	3,698
Medina	7,783	5,730
Menard	2,011	1,215
Midland	1,741	1,033
Milam	39,666	24,773
Mills	7,851	5,493
Mitchell	2,855	2,059
Montague	24,800	18,863
Montgomery	17,067	11,765
Moore	209	15
Morris	8,220	6,580
Motley	1,257	139
Nacogdoches	24,663	15,984
Navarro	43,374	26,373
Newton	7,282	4,650
Nolan	2,611	1,573
Neuces	10,439	8,093
Ochiltree	267	198
Oldham	349	270
Orange	5,905	4,770
Palo Pinto	12,291	8,320
Panola	21,404	14,328
Parker	25,823	21,682
Parmer	34	7
Pecos	2,360	1,326
Polk	14,447	10,332
Potter	1,820	849
Presidio	3,673	1,698
Rains	6,127	3,909
Randall	963	187
Red River	29,893	21,452
Reeves	1,847	1,247
Refugio	1,641	1,239
Roberts	620	326
Robertson	31,480	26,506
Rockwall	8,531	5,972
Runnels	5,379	3,193
Rusk	26,099	18,559
Sabine	6,394	4,969
San Augustine	8,434	6,688
San Jacinto	10,277	7,360
San Patricio	2,372	1,312
San Saba	7,569	6,641
Schleicher	515	155
Scurry	4,158	1,415
Shackleford	2,461	2,012
Shelby	20,452	14,365
Sherman	104	34
Smith	37,370	28,324
Somervell	3,498	3,419
Starr	11,469	10,749
Stephens	6,466	4,926
Sterling [8]	1,127	.....
Stonewall	2,183	1,024
Sutton	1,727	658
Swisher	1,227	100
Tarrant	52,376	41,142
Taylor	10,499	6,957
Terry	48	21
Throckmorton	1,750	902
Titus	12,292	8,190
Tom Green [9]	6,804	5,152
Travis	47,386	36,322
Trinity	10,976	7,648
Tyler	11,899	10,877
Upshur	16,266	12,695
Upton	48	52
Uvalde	4,647	3,804
Valverde	5,263	2,874
Van Zandt	25,481	16,225
Victoria	13,678	8,737
Walker	15,813	12,874
Waller	14,246	10,888
Ward	1,451	77
Washington	32,931	29,161
Webb [10]	21,851	14,842
Wharton	16,942	7,584
Wheeler	636	778
Wichita	5,806	4,831
Wilbarger	5,759	7,092
Williamson	38,072	25,909
Wilson	13,961	10,653
Winkler	60	18
Wise	27,116	24,134
Wood	21,048	13,933
Yoakum	26	4
Young	6,540	5,048
Zapata	4,760	3,562
Zavalla	792	1,097

[1] Organized from part of Presidio in 1887; Buchel and Foley annexed in 1897. [2] No returns. [3] Organized from part of Presidio in 1887; annexed to Brewster in 1897. [4] No records by which to account for its disappearance. [5] Annexed to Webb in 1899. [6] Foard organized from parts of Hardeman and Knox in 1891. [7] Organized from part of Presidio in 1887; annexed to Brewster in 1897. [8] Organized from part of Tom Green in 1891. [9] Parts taken to form Midland in 1885; Crane, Ector, Glasscock, Loving, Upton, Ward and Winkler in 1887; Coke and Irion in 1889; and Sterling in 1891. [10] Encinal annexed in 1899.

UTAH.

[Organized as a territory September 9, 1850. Admitted as a state January 4, 1896.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	276,749	207,905	Iron	3,546	2,683	Sevier	8,451	6,199
			Juab	10,082	5,582	Shambip	.....	.....
Beaver	3,613	3,340	Kane [5]	1,811	1,685	Summit	9,439	7,733
Boxelder	10,009	7,642	Millard	5,678	4,033	Tooele	7,361	3,700
Cache	18,139	15,509	Morgan	2,045	1,780			
Carbon [1]	5,004	.....				Uinta	6,458	2,762
Cedar [2]	.....	.....	Piute [6]	1,954	2,842	Utah [8]	32,456	23,768
			Rich	1,946	1,527	Wasatch	4,736	3,595
Davis	7,996	6,751	Rio Virgin	.....	.....	Washington	4,612	4,009
Emery [1]	4,657	5,076	Salt Lake	77,725	58,457	Wayne [6]	1,907	.....
Garfield [3]	3,400	2,457	San Juan	1,023	365	Weber	25,239	22,723
Grand [1]	1,149	541						
Green River [4]	.....	.....	Sanpete [7]	16,313	13,146			

[1] Parts of Emery taken to form Grand in 1890 and Carbon in 1894. [2] No records by which to account for its disappearance. [3] Organized from parts of Iron and Kane in 1882; part of Kane annexed since 1890. [4] Now in Wyoming. [5] Part taken to form part of Garfield in 1882; parts annexed to Washington in 1882 and Garfield since 1890. [6] Wayne organized from part of Piute in 1892. [7] Part annexed to Utah county since 1890. [8] Part of Shambip annexed between 1860 and 1870; part of Sanpete annexed since 1890.

VERMONT.

[Admitted as a state March 4, 1791.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	343,641	332,422	Essex	8,056	9,511	Rutland	44,209	45,397
			Franklin	30,198	29,755	Washington [2]	36,607	29,606
Addison	21,912	22,277	Grand Isle	4,462	3,843	Windham	26,660	26,547
Bennington	21,705	20,448	Lamoille	12,289	12,831	Windsor	32,225	31,706
Caledonia [1]	24,381	23,436	Orange	19,313	19,575			
Chittenden	39,600	35,389	Orleans	22,024	22,101			

[1] Part of Washington annexed since 1890. [2] Part annexed to Caledonia since 1890.

VIRGINIA.

[One of the original 13 states.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	1,854,184	1,655,980	Grayson	16,853	14,394	Rappahannock	8,843	8,678
			Greene	6,214	5,622	Richmond	7,088	7,146
Accomac	32,570	27,277	Greenesville	9,758	8,230	Roanoke [12]	15,837	30,101
Albemarle	28,473	32,379	Halifax	37,197	34,424	Rockbridge. [13]	21,799	23,062
Alexandria	6,430	18,597	Hanover	17,618	17,402	Rockingham	33,527	31,299
Alleghany	16,330	9,283						
Amelia	9,037	9,068	Henrico [6]	30,062	103,394	Russell	18,031	16,126
			Henry	19,265	18,208	Scott	22,694	21,694
Amherst	17,864	17,551	Highland	5,647	5,352	Shenandoah	20,253	19,671
Appomattox	9,662	9,589	Isle of Wight	13,102	11,313	Smyth	17,121	13,360
Augusta [1]	32,370	37,005	James City [7]	3,688	5,643	Southampton	22,848	20,078
Bath	5,595	4,587						
Bedford	30,356	31,213	King and Queen	9,265	9,669	Spottsylvania [14]	9,239	14,233
			King George	6,918	6,641	Stafford	8,097	7,362
Bland	5,497	5,129	King William	8,380	9,605	Surry	8,469	8,256
Botetourt	17,161	14,854	Lancaster	8,949	7,191	Sussex	12,082	11,100
Brunswick	18,217	17,245	Lee	19,856	18,216	Tazewell	23,384	19,899
Buchanan	9,692	5,867						
Buckingham	15,266	14,383	Loudoun	21,948	23,274	Warren	8,837	8,280
			Louisa	16,517	16,997	Warwick [15]	4,888	6,650
Campbell [2]	23,256	41,087	Lunenburg	11,705	11,372	Washington [16]	28,995	29,020
Caroline	16,709	16,681	Madison	10,216	10,225	Westmoreland	9,243	8,399
Carroll	19,303	15,497	Mathews	8,239	7,584	Wise	19,653	9,345
Charles City	5,040	5,066						
Charlotte	15,343	15,077	Mecklenburg	26,551	25,359	Wythe	20,437	18,019
			Middlesex	8,220	7,458	York	7,482	7,596
Chesterfield [3]	18,804	26,211	Montgomery [8]	15,852	17,742	City of Alexandria [17]	14,528	.....
Clarke	7,927	8,071	Nansemond	23,078	19,692	City of Bristol [16]	4,579	.....
Craig	4,293	3,835	Nelson	16,075	15,336	City of Buena Vista [13]	2,388	.....
Culpepper	14,123	13,233						
Cumberland	8,996	9,482	New Kent	4,865	5,511	City of Charlottesville [18]	6,449	.....
			Norfolk [9]	50,780	77,038	City of Danville [10]	16,520	.....
Dickinson	7,747	5,077	Northampton	13,770	10,313	City of Fredericksburg [14]	5,068	.....
Dinwiddie [4]	15,374	13,515	Northumberland	9,846	7,885	City of Lynchburg [19]	18,891	.....
Elizabeth City	19,460	16,168	Nottoway	12,366	11,582	City of Manchester [20]	9,715	.....
Essex	9,701	10,047						
Fairfax	18,580	16,655	Orange	12,571	12,814	City of Newport News [15]	19,635	.....
			Page	13,794	13,092	City of Norfolk [9]	46,624	.....
Fauquier	23,374	22,590	Patrick	15,403	14,147	City of Petersburg [21]	21,810	22,680
Floyd	15,388	14,405	Pittsylvania [10]	46,894	59,941	City of Portsmouth [9]	17,427	.....
Fluvanna	9,050	9,508	Powhatan	6,824	6,791	City of Radford [8]	3,344	.....
Franklin	25,953	24,985						
Frederick [5]	13,239	17,880	Prince Edward	15,045	14,694	City of Richmond [22]	85,050	.....
			Prince George [11]	7,752	7,872	City of Roanoke [12]	21,495	.....
Giles	10,793	9,090	Princess Anne	11,192	9,510	City of Staunton [23]	7,289	.....
Gloucester	12,832	11,653	Prince William	11,112	9,805	City of Williamsburg [24]	2,044	.....
Goochland	9,519	9,958	Pulaski	14,609	12,790	City of Winchester [25]	5,161	.....

[1] Formerly included Staunton city. [2] Formerly included Lynchburg city. [3] Formerly included Manchester city and part of Petersburg city. [4] Formerly included part of Petersburg city. [5] Formerly included Winchester city. [6] Formerly included Richmond city. [7] Formerly included Williamsburg city. [8] Radford city, formerly in Montgomery county, now independent. [9] Norfolk and Portsmouth cities, formerly in Norfolk county, now independent. Part of county annexed to Portsmouth city since 1890. [10] Danville city, formerly in Pittsylvania county, now independent. Part of county annexed to city since 1890. [11] Formerly included part of Petersburg city. [12] Roanoke city, formerly in Roanoke county, now independent. Part of county annexed to city since 1890. [13] Buena Vista city, formerly in Rockbridge county, now independent. [14] Fredericksburg city formerly in Spottsylvania county, now independent. [15] Newport News city, formerly in Warwick county, now independent. [16] Bristol city, formerly in Washington county, now independent. [17] Formerly in Alexandria county; now independent. [18] Formerly in Albemarle county; now independent. [19] Formerly in Campbell county; now independent. [20] Formerly in Chesterfield county; now independent [21] Formerly in Chesterfield, Dinwiddie and Prince George counties; now independent. [22] Formerly in Henrico county; now independent. [23] Formerly in Augusta county; now independent. [24] Formerly in James city county; now independent. [25] Formerly in Frederick county; now independent.

WASHINGTON.

[Organized as a territory March 2, 1853. Admitted as a state November 11, 1889.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	518,103	349,390	Garfield	3,918	3,897	San Juan	2,928	2,072
			Island	1,870	1,787	Skagit	14,272	8,747
Adams	4,840	2,098	Jefferson	5,712	8,368	Skamania	1,688	774
Asotin	3,366	1,580	King	110,053	63,989	Snohomish	23,950	8,514
Chehalis	15,124	9,249	Kitsap	6,767	4,624	Spokane	57,542	37,487
Chelan [1]	3,931		Kittitas [3]	9,704	8,777	Stevens [5]	10,543	4,341
Clallam	5,603	2,771	Klickitat	6,407	5,167			
Clarke	13,419	11,709				Thurston	9,927	9,675
			Lewis	15,157	11,499	Wahkiakum	2,819	2,525
Columbia	7,128	6,709	Lincoln	11,969	9,312	Wallawalla	18,680	12,224
Cowlitz	7,877	5,917	Mason	3,810	2,826	Whatcom	24,116	18,591
Douglas	4,926	3,161	Okanogan [4]	4,689	1,467	Whitman	25,360	19,109
Ferry [2]	4,562		Pacific	5,983	4,358	Yakima	13,462	4,429
Franklin	486	696	Pierce	55,515	50,940			

[1] Organized from parts of Kittitas and Okanogan in 1899.
[2] Organized from part of Stevens in 1899.
[3] Organized from part of Yakima in 1883; part taken to form part of Chelan in 1899.
[4] Organized from part of Stevens in 1883; part taken to form part of Chelan in 1899.
[5] Parts taken to form Okanogan in 1883 and Ferry in 1899.

WEST VIRGINIA.

[Set off from Virginia December 31, 1862. Admitted as a state June 19, 1863.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	958,800	762,794	Jackson	22,987	19,021	Pleasants	9,345	7,539
			Jefferson	15,935	15,553	Pocahontas	8,572	6,814
Barbour	14,198	12,702	Kanawha	54,696	42,756	Preston	22,727	20,355
Berkeley	19,469	18,702	Lewis	16,980	15,895	Putnam	17,330	14,342
Boone	8,194	6,885	Lincoln	15,434	11,246	Raleigh	12,436	9,597
Braxton	18,904	13,928						
Brooke	7,219	6,660	Logan [1]	6,955	11,101	Randolph	17,670	11,633
			McDowell	18,747	7,300	Ritchie	18,901	16,621
Cabell	29,252	23,595	Marion	32,430	20,721	Roane	19,852	15,303
Calhoun	10,266	8,155	Marshall	26,444	20,735	Summers	16,265	13,117
Clay	8,248	4,659	Mason	24,142	22,863	Taylor	14,978	12,147
Doddridge	13,689	12,183						
			Mercer	23,023	16,002	Tucker	13,433	6,459
Fayette	31,987	20,542	Mineral	12,883	12,085	Tyler	18,252	11,962
Gilmer	11,762	9,746	Mingo [1]	11,359		Upshur	14,696	12,714
Grant	7,275	6,802	Monongalia	19,049	15,705	Wayne	23,619	18,652
Greenbrier	20,683	18,034	Monroe	13,130	12,429	Webster	8,862	4,783
Hampshire	11,806	11,419	Morgan	7,294	6,744	Wetzel	22,880	16,841
Hancock	6,693	6,414	Nicholas	11,403	9,309	Wirt	10,284	9,411
Hardy	8,449	7,567	Ohio	48,024	41,557	Wood	34,452	28,612
Harrison	27,690	21,919	Pendleton	9,167	8,711	Wyoming	8,380	6,247

[1] Mingo organized from part of Logan in 1895.

WISCONSIN.

[Organized as a territory July 3, 1836. Admitted as a state May 29, 1848.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	2,069,042	1,686,880	Green	22,719	22,732	Pierce	23,943	20,385
			Green Lake	15,797	15,163	Polk	17,801	12,968
Adams	9,141	6,889	Iowa	23,114	22,117	Portage	29,483	24,798
Ashland [1]	20,176	20,063	Iron [3]	6,616		Price	9,106	5,258
Barron	23,677	15,416	Jackson	17,466	15,797	Racine	45,644	36,268
Bayfield	14,392	7,390						
Brown	46,359	39,164	Jefferson	34,789	33,530	Richland	19,483	19,121
			Juneau	20,629	17,121	Rock	51,203	43,220
Buffalo	16,765	15,997	Kenosha	21,707	15,581	St. Croix	26,830	23,139
Burnett	7,478	4,393	Kewaunee	17,212	16,153	Sauk	33,006	30,575
Calumet	17,078	16,639	La Crosse	42,997	38,801	Sawyer	3,593	1,977
Chippewa	33,037	25,143						
Clark	25,848	17,708	Lafayette	20,959	20,265	Shawano	27,475	19,236
			Langlade	12,553	9,465	Sheboygan	50,345	42,489
Columbia	31,121	28,350	Lincoln	16,269	12,008	Taylor	11,262	6,731
Crawford	17,286	15,987	Manitowoc	42,261	37,831	Trempealeau	23,114	18,920
Dane	69,435	59,578	Marathon	43,256	30,369	Vernon	28,351	25,111
Dodge	46,631	44,984						
			Marinette	30,822	20,304	Vilas [5]	4,929	
Door	17,583	15,682	Marquette	10,509	9,676	Walworth	29,259	27,860
Douglas	36,335	13,468	Milwaukee	330,017	236,101	Washburn [6]	5,521	2,926
Dunn	25,043	22,664	Monroe	28,103	23,211	Washington	23,589	22,751
Eau Claire	31,692	30,673	Oconto	20,874	15,009	Waukesha	35,229	33,270
Florence	3,197	2,604	Oneida [4]	8,875	5,010	Waupaca	31,615	26,794
Fond du Lac	47,589	44,088	Outagamie	46,247	38,690	Waushara	15,972	13,507
Forest [2]	1,396	1,012	Ozaukee	16,363	14,943	Winnebago	58,225	50,097
Grant	38,881	36,651	Pepin	7,905	6,932	Wood	25,865	18,127

[1] Parts taken to form parts of Sawyer in 1883 and part of Iron in 1893.
[2] Organized from parts of Langlade and Oconto in 1885; part annexed to Oneida since 1890.
[3] Organized from parts of Ashland and Oneida in 1893.
[4] Organized from part of Lincoln in 1885; parts taken to form Vilas and part of Iron in 1893; part of Forest annexed since 1890.
[5] Organized from part of Oneida in 1893.
[6] Organized from part of Burnett in 1883.

WYOMING.

[Organized as a territory July 25, 1868. Admitted as a state July 10, 1890.]

COUNTIES.	1900	1890	COUNTIES.	1900	1890	COUNTIES.	1900	1890
The State	92,531	60,705	Crook [3]	3,137	2,338	Sweetwater	8,455	4,941
			Fremont [4]	5,357	2,463	Uinta	12,223	[6]7,414
Albany	13,084	8,865	Johnson [5]	2,361	2,357	Weston [3]	3,203	2,422
Bighorn [1]	4,328	.....	Laramie	20,181	16,777	Yellowstone National Park	369	467
Carbon [2]	9,589	6,857	Natrona [2]	1,785	1,094			
Converse	3,337	2,738	Sheridan	5,122	1,972			

[1] Organized from parts of Fremont and Johnson in 1897.
[2] Natrona organized from part of Carbon in 1890.
[3] Weston organized from part of Crook in 1890, but act did not take effect until 1891.
[4] Organized from part of Sweetwater in 1884; part taken to form part of Bighorn in 1897.
[5] Name changed from Pease in 1879; parts taken to form Sheridan in 1887 and part of Bighorn in 1897.
[6] Exclusive of population of Yellowstone National Park, returned with Uinta county in 1890.

ALASKA, HAWAII, AND INDIAN TERRITORY.

[Alaska acquired by purchase from Russia in 1867; Hawaii annexed July 7, 1898, and organized as a territory by the act of April 30, 1900, which became effective June 14, 1900; Indian Territory created by act of June 30, 1834.]

SUBDIVISIONS.	1900	1890	SUBDIVISIONS.	1900	1890	SUBDIVISIONS.	1900	1890
Alaska	63,592	32,052	Indian Territory	392,060	[7] 180,182	Quapaw reservation	800	154
						Seneca reservation	970	255
Northern district [1]	30,569	7,134				Shawnee reservation	297	79
Southern district [1]	33,023	24,918	Cherokee nation	101,754	56,309	Wyandotte reservation	1,213	288
			Chickasaw nation	139,260	57,329			
Hawaii	154,001	[2] 89,990	Choctaw nation	99,781	43,808			
			Creek nation	40,674	17,912			
Hawaii island	46,843	26,754						
Kauai island	20,562	[8] 11,859	Seminole nation	3,786	2,739			
Niihau island	172		Modoc reservation	140	84			
Maui island, Lanai island [4]	25,416	17,357 / ([5])	Ottawa reservation	2,205	137			
			Peoria reservation	1,180	227			
Molokai island	2,504	[6] 2,826						
Oahu island	58,504	31,194						

[1] The northern district embraces the valley of the Yukon and all territory north of it, and the southern district embraces all the remainder of the territory, including the Alaskan peninsula and the chain of Aleutia islands.
[2] The figures given for 1890 are derived from the census taken as of December 28, 1890, under the direction of the Hawaiian Government.
[3] Not separately returned in 1890.
[4] Not separately returned.
[5] Returned with Molokai in 1890.
[6] Includes population of Lanai.
[7] Includes 861 persons not located by nations or reservations.

POPULATION

OF

INCORPORATED CITIES, TOWNS, VILLAGES AND BOROUGHS

IN 1900,

WITH POPULATION FOR 1890.

NUMBER OF INCORPORATED PLACES IN THE UNITED STATES, 1900 AND 1890, CLASSIFIED BY SIZE.

CLASSIFIED SIZES.	NUMBER OF PLACES.	
	1900	1890
Aggregate	10,602	7,578
Places of 1,000,000 and over	3	3
Places of 500,000 and under 1,000,000	3	1
Places of 400,000 and under 500,000	.....	3
Places of 300,000 and under 400,000	5	.....
Places of 200,000 and under 300,000	8	9
Places of 100,000 and under 200,000	19	12
Places of 50,000 and under 100,000	40	30
Places of 25,000 and under 50,000	83	66
Places of 20,000 and under 25 000	52	41
Places of 15,000 and under 20,000	72	46
Places of 12,000 and under 15,000	75	55
Places of 10,000 and under 12,000	62	71
Places of 9,000 and under 10,000	50	30
Places of 8,000 and under 9,000	45	49
Places of 7,000 and under 8,000	75	57
Places of 6,000 and under 7,000	98	63
Places of 5,000 and under 6,000	147	88
Places of 4,000 and under 5,000	212	150
Places of 3,000 and under 4,000	347	267
Places of 2,500 and under 3,000	257	203
Places of 2,000 and under 2,500	413	304
Places of 1,500 and under 2,000	601	478
Places of 1,000 and under 1,500	1,116	809
Places of 500 and under 1,000	2,501	1,909
Places under 500	4,318	2,834

POPULATION OF CITIES HAVING 100,000 INHABITANTS OR MORE IN 1900 AND 1890, IN THE ORDER OF THEIR RANK AT EACH CENSUS.

Cities of 1,000,000 *and over.*

1900			1890		
Relative rank.	CITIES.	Population.	Relative rank.	CITIES.	Population.
1	New York, N. Y...	3,437,202	1	New York, N. Y..	1,515,301
2	Chicago, Ill	1,698,575	2	Chicago, Ill	1,099,850
3	Philadelphia, Pa .	1,293,697	3	Philadelphia, Pa..	1,046,964

Cities of 500,000 *and under* 1,000,000.

4	St. Louis, Mo.....	575,238	4	Brooklyn, N. Y...	806,343
5	Boston, Mass.....	560,892			
6	Baltimore, Md....	508,957			

Cities of 400,000 *and under* 500,000.

			5	St. Louis, Mo	451,770
			6	Boston, Mass	448,477
			7	Baltimore, Md	434,439

Cities of 300,000 *and under* 400,000.

7	Cleveland, Ohio ..	381,768			
8	Buffalo, N. Y.....	352,387			
9	San Francisco, Cal	342,782			
10	Cincinnati, Ohio..	325,902			
11	Pittsburg, Pa	321,616			

Cities of 200,000 *and under* 300,000.

1900			1890		
Relative rank.	CITIES.	Population.	Relative rank.	CITIES.	Population.
12	New Orleans, La .	287,104	8	San Francisco, Cal	298,997
13	Detroit, Mich	285,704	9	Cincinnati, Ohio..	296,908
14	Milwaukee, Wis...	285,315	10	Cleveland, Ohio ..	261,353
15	Washington, D. C.	278,718	11	Buffalo, N. Y.....	255,664
16	Newark, N. J	246,070	12	New Orleans, La..	242,039
17	Jersey City, N. J .	206,433	13	Pittsburg, Pa.....	238,617
18	Louisville, Ky ...	204,731	14	Washington, D. C.	230,392
19	Minneapolis, Minn.	202,718	15	Detroit, Mich.....	205,876
			16	Milwaukee, Wis ..	204,468

Cities of 100,000 *and under* 200,000.

20	Providence, R. I..	175,597	17	Newark, N. J	181,830
21	Indianapolis, Ind..	169,164	18	Minneapolis, Minn	164,738
22	Kansas City, Mo .	163,752	19	Jersey City, N. J .	163,003
23	St. Paul, Minn ...	163,065	20	Louisville, Ky ...	161,129
24	Rochester, N. Y ..	162,608	21	Omaha, Nebr	140,452
25	Denver, Colo	133,859	22	Rochester, N. Y. .	133,896
26	Toledo, Ohio.....	131,822	23	St. Paul, Minn ...	133,156
27	Allegheny, Pa....	129,896	24	Kansas City, Mo..	132,716
28	Columbus, Ohio ...	125,560	25	Providence, R. I..	132,146
29	Worcester, Mass..	118,421	26	Denver, Colo.	106,713
30	Syracuse, N. Y...	108,374	27	Indianapolis, Ind..	105,436
31	New Haven Conn.	108,027	28	Allegheny, Pa. ...	105,287
32	Paterson, N. J....	105,171			
33	Fall River, Mass..	104,863			
34	St. Joseph, Mo....	102,979			
35	Omaha, Nebr	102,555			
36	Los Angeles, Cal..	102,479			
37	Memphis, Tenn...	102,320			
38	Scranton, Pa.	102,026			

POPULATION OF CITIES HAVING 25,000

(ALSO POPULATION OF THE SAME

[The statements of population contained in this table are derived from the reports of the several censuses, so far as the population could be

	CITIES.	1900		1890		1880		1870		1860	
1	Akron, Ohio	87	42,728	109	27,601	112	16,512	116	10,006	123	3,477
2	Albany, N. Y.	40	94,151	28	94,923	20	90,758	19	69,422	12	62,367
3	Allegheny, Pa.	27	129,896	27	105,287	22	78,682	22	53,180	29	28,702
4	Allentown, Pa	114	35,416	121	25,228	103	18,063	89	13,884	94	8,025
5	Altoona, Pa	97	38,973	100	30,337	97	19,710	111	10,610	122	3,591
6	Atlanta, Ga	43	89,872	41	65,533	48	37,409	59	21,789	78	9,554
7	Atlantic City, N. J	149	27,838	155	13,055	150	5,477	148	1,043	137	687
8	Auburn, N. Y	135	30,345	119	25,858	83	21,924	77	17,225	70	10,986
9	Augusta, Ga	94	39,441	89	33,300	85	21,891	84	15,389	66	12,493
10	Baltimore, Md	6	508,957	6	434,439	6	332,313	5	267,354	3	212,418
11	Bay City, Mich.	151	27,628	107	27,839	92	20,693	131	7,064	134	1,583
12	Bayonne, N. J	125	32,722	149	19,033	140	9,372	142	3,834	.....	.....
13	Binghamton, N. Y	93	39,647	86	35,005	107	17,317	96	12,692	90	8,325
14	Birmingham, Ala	100	38,415	117	26,178	156	3,086	.....	.....	.....	.....
15	Boston, Mass	5	560,892	5	448,477	4	362,839	6	250,526	4	177,840
16	Bridgeport, Conn	54	70,996	58	48,866	70	27,643	71	18,969	64	13,299
17	Brockton, Mass	92	40,063	112	27,294	123	13,608	125	8,007	102	6,584
18	Buffalo, N. Y	8	352,387	10	255,664	13	155,134	10	117,714	9	81,129
19	Butte, Mont	133	30,470	159	10,723	153	3,363	150	241	.....	.....
20	Cambridge, Mass	41	91,886	40	70,028	30	52,669	32	39,634	32	26,060
21	Camden, N. J	52	75,935	48	58,313	43	41,659	64	20,045	55	14,358
22	Canton, Ohio	132	30,667	116	26,189	130	12,258	122	8,660	117	4,041
23	Cedar Rapids, Iowa	159	25,656	150	18,020	138	10,104	137	5,940	132	1,830
24	Charleston, S. C.	68	55,807	52	54,955	35	49,984	25	48,956	21	40,522
25	Chattanooga, Tenn.	136	30,154	103	29,100	128	12,892	135	6,093	.....	.....
26	Chelsea, Mass	118	34,072	106	27,909	87	21,782	73	18,547	63	13,395
27	Chester, Pa	119	33,988	146	20,226	119	14,997	118	9,485	111	4,631
28	Chicago, Ill	2	1,698,575	2	1,099,850	3	503,185	4	298,977	8	109,260
29	Cincinnati, Ohio	10	325,902	8	296,908	7	255,139	7	216,239	6	161,044
30	Cleveland, Ohio	7	381,768	9	261,353	11	160,146	14	92,829	20	43,417
31	Columbus, Ohio	28	125,560	29	88,150	32	51,647	41	31,274	46	18,554
32	Council Bluffs, Iowa	158	25,802	140	21,474	104	18,063	115	10,020	129	2,011
33	Covington, Ky	86	42,938	81	37,371	64	29,720	51	24,505	51	16,471
34	Dallas, Tex	88	42,638	76	38,067	137	10,358	.....	.....	.....	.....
35	Davenport, Iowa	115	35,254	114	26,872	86	21,831	65	20,038	69	11,267
36	Dayton, Ohio	45	85,333	44	61,220	46	38,678	43	30,473	42	20,081
37	Denver, Colo	25	133,859	25	106,713	49	35,629	141	4,759	110	4,749
38	Des Moines, Iowa	59	62,139	57	50,093	79	22,408	101	12,035	118	3,965
39	Detroit, Mich	13	285,704	14	205,876	17	116,340	17	79,577	18	45,619
40	Dubuque, Iowa	108	36,297	101	30,311	80	22,254	74	18,434	65	13,000
41	Duluth, Minn	72	52,969	91	33,115	152	[2] 3,483	144	3,131	138	80
42	Easton, Pa	160	25,238	154	14,481	132	11,924	108	10,987	83	8,944
43	East St. Louis, Ill	137	29,655	153	15,169	141	9,185	140	5,644	.....	.....
44	Elizabeth, N. J.	74	52,130	78	37,764	68	28,229	61	20,832	67	11,567
45	Elmira, N. Y	113	35,672	98	30,893	94	20,541	83	15,863	86	8,682
46	Erie, Pa	73	52,733	72	40,634	69	27,737	67	19,646	79	9,419
47	Evansville, Ind	64	59,007	55	50,756	65	29,280	58	21,830	68	11,484
48	Fall River, Mass.	33	104,863	39	74,398	36	48,961	48	26,766	58	14,026
49	Fitchburg, Mass.	128	31,531	135	22,037	129	12,429	104	11,260	97	7,805
50	Fort Wayne, Ind	83	45,115	85	35,393	73	26,880	75	17,738	.....	[1]
51	Fort Worth, Tex	152	26,688	130	23,076	148	6,663	.....	.....	.....	.....
52	Galveston, Tex.	103	37,789	104	29,084	81	22,248	90	13,818	98	7,307
53	Gloucester, Mass	154	26,121	125	24,651	98	19,329	85	15,389	71	10,904
54	Grand Rapids, Mich	44	87,565	46	60,278	57	32,016	78	16,507	93	8,085
55	Harrisburg, Pa.	77	50,167	74	39,385	59	30,762	55	23,104	62	13,405
56	Hartford, Conn	49	79,850	53	53,230	42	42,015	33	37,180	28	29,152
57	Haverhill, Mass.	105	37,175	111	27,412	102	18,472	91	13,092	75	9,995
58	Hoboken, N. J.	63	59,364	67	43,648	58	30,999	62	20,297	76	9,662
59	Holyoke, Mass	82	45,712	84	35,637	84	21,915	110	10,733	107	4,997
60	Honolulu, Hawaii	95	39,306	132	22,907	.....	.....	.....	.....	.....	.....
61	Houston, Tex	85	44,633	110	27,557	111	16,513	120	9,382	108	4,845
62	Indianapolis, Ind.	21	169,164	26	105,436	23	75,056	26	48,244	45	18,611
63	Jackson, Mich	161	25,180	143	20,798	113	16,105	103	11,447	109	4,799
64	Jacksonville, Fla.	143	28,429	151	17,201	145	7,650	132	6,912	128	2,118
65	Jersey City, N. J	17	206,433	18	163,003	16	102,722	16	82,546	27	29,226
66	Johnstown, Pa	112	35,936	138	21,805	143	8,380	136	6,028	116	4,185
67	Joliet, Ill	138	29,353	129	23,264	134	11,657	129	7,263	99	7,104
68	Joplin, Mo.	155	26,023	160	9,943	147	7,038	.....	.....	.....	.....
69	Kansas City, Kans.	76	51,418	75	38,316	155	3,200	.....	.....	.....	.....
70	Kansas City, Mo	22	163,752	23	132,716	29	55,785	37	32,260	112	4,418
71	Knoxville, Tenn.	126	32,637	134	22,535	139	9,693	121	8,682	.....	[1]
72	La Crosse, Wis	141	28,895	122	25,090	120	14,505	126	7,785	119	3,860
73	Lancaster, Pa.	90	41,459	93	32,011	76	25,769	63	20,233	48	17,603
74	Lawrence, Mass	57	62,559	63	44,654	45	39,151	44	28,921	47	17,639
75	Lexington, Ky	153	26,369	139	21,567	110	16,656	87	14,801	80	9,321
76	Lincoln, Nebr.	91	40,169	51	55,154	127	13,003	146	2,441	.....	.....
77	Little Rock, Ark	101	38,307	118	25,874	125	13,138	99	12,380	121	3,727
78	Los Angeles, Cal.	36	102,479	56	50,395	135	11,183	139	5,728	113	4,385
79	Louisville, Ky	18	204,731	19	161,129	15	123,758	13	100,753	11	68,033
80	Lowell, Mass.	39	94,969	36	77,696	26	59,475	30	40,928	25	36,827
81	Lynn, Mass.	55	68,513	50	55,727	47	38,274	47	28,233	44	19,083
82	McKeesport, Pa	116	34,227	145	20,741	144	8,212	145	2,523	127	2,166
83	Malden, Mass	121	33,664	131	23,031	131	12,017	128	7,367	104	5,865

[1] Not separately returned. [2] Not separately returned in 1850; in 1852, according to a census taken by local authorities, it had a population of 10,217.

CITIES AT EACH CENSUS, 1790 TO 1890.)

determined therefrom. The first column under each census year shows the order of the cities named when arranged according to population.]

1850		1840		1830		1820		1810		1800		1790		
90	3,266	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
8	50,763	6	33,721	8	24,209	8	12,630	.....	(1)	10	5,349	11	3,498	2
22	21,262	28	10,089	49	2,801	.....	.....	.....	.....	.....	.....	.....	.....	3
85	3,779	71	2,493	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
100	2,572	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
50	9,548	50	5,626	35	4,486	.....	.....	.....	.....	.....	.....	.....	.....	8
.....	(2)	44	6,403	.....	(1)	.....	(1)	32	2,476	29	2,215	.....	.....	9
2	169,054	2	102,313	2	80,620	3	62,738	3	46,555	3	26,514	5	13,503	10
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
3	136,881	4	93,383	4	61,392	4	43,298	4	33,787	4	24,937	3	18,320	15
61	7,560	62	3,294	50	2,800	.....	.....	.....	.....	.....	.....	.....	.....	16
83	3,939	66	2,616	56	1,953	.....	.....	.....	.....	.....	.....	.....	.....	17
12	42,261	16	18,213	21	8,668	42	2,095	.....	.....	.....	.....	.....	.....	18
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19
37	15,215	34	8,409	30	6,072	34	3,295	33	2,323	25	2,453	17	2,115	20
51	9,479	60	3,371	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21
99	2,603	.....	(1)	59	1,257	.....	.....	.....	.....	.....	.....	.....	.....	22
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23
11	42,985	7	29,261	6	30,289	6	24,780	5	24,711	5	18,824	4	16,359	24
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25
67	6,701	72	2,390	64	771	53	642	42	594	37	849	25	472	26
106	1,667	.....	(1)	63	847	52	657	.....	.....	.....	.....	.....	.....	27
18	29,963	54	4,470	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28
6	115,435	5	46,338	7	24,831	12	9,642	.....	.....	.....	.....	.....	.....	29
33	17,034	46	6,071	61	1,076	.....	.....	.....	.....	.....	.....	.....	.....	30
30	17,882	48	6,048	51	2,435	.....	.....	.....	.....	.....	.....	.....	.....	31
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32
52	9,408	77	2,026	65	743	.....	.....	.....	.....	.....	.....	.....	.....	33
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34
105	1,848	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	35
47	10,977	47	6,067	47	2,950	49	1,000	.....	.....	.....	.....	.....	.....	36
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37
116	502	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38
23	21,019	31	9,102	53	2,222	48	1,422	.....	.....	.....	.....	.....	.....	39
93	3,108	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	40
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	41
62	7,250	51	4,865	43	3,529	41	2,370	36	1,657	36	1,045	.....	.....	42
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	43
72	5,583	56	4,184	44	3,455	33	3,515	26	2,977	.....	.....	.....	.....	44
57	8,166	52	4,791	48	2,892	39	2,945	.....	.....	.....	.....	.....	.....	45
71	5,858	59	3,412	57	1,465	54	635	44	394	42	81	.....	.....	46
92	3,235	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	47
44	11,524	43	6,738	40	4,158	47	1,594	40	1,296	.....	.....	.....	.....	48
75	5,120	67	2,604	54	2,169	45	1,736	37	1,566	34	1,390	22	1,151	49
80	4,282	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	51
81	4,177	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	52
60	7,786	45	6,350	25	5,510	20	6,384	14	5,943	12	5,313	8	5,317	53
96	2,686	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	54
59	7,834	49	5,980	36	4,312	36	2,990	34	2,287	33	1,472	.....	.....	55
29	17,966	29	9,468	26	7,074	23	4,726	22	3,955	11	5,347	.....	.....	56
70	5,877	55	4,336	42	3,896	35	3,070	30	2,682	23	2,730	14	2,408	57
97	2,668	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	58
91	3,245	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	59
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	60
101	2,396	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	61
58	8,091	65	2,692	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	62
102	2,363	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	63
114	1,045	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	64
65	6,856	64	3,072	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65
112	1,269	83	949	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	66
98	2,659	69	2,558	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	67
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	68
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	69
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	70
104	2,076	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	71
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	72
42	12,369	32	8,417	23	7,704	18	6,633	17	5,405	17	4,292	.....	.....	73
56	8,282	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	74
.....	(1)	40	6,997	32	6,026	21	5,279	20	4,326	30	1,795	24	834	75
103	2,167	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	76
110	1,610	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	77
10	43,194	10	21,210	17	10,341	27	4,012	39	1,357	39	359	27	200	78
17	33,383	12	20,796	28	6,474	.....	.....	.....	.....	.....	.....	.....	.....	79
29	14,257	30	9,367	29	6,138	25	4,515	21	4,087	22	2,837	15	2,291	80
111	1,392	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	81
88	3,520	70	2,514	55	2,010	46	1,731	38	1,384	35	1,059	23	1,033	82
														83

* Includes Duluth village (population 2,645), set apart by act of legislature Feb. 23, 1877, but which again became part of the city by the act of Mch. 2, 1887.

POPULATION OF CITIES HAVING 25,000

(ALSO POPULATION OF THE SAME

[The statements of population contained in this table are derived from the reports of the several censuses, so far as the population could be

	CITIES	1900		1890		1880		1870		1860	
84	Manchester, N. H	65	56,987	65	44,126	55	32,630	54	23,536	41	20,107
85	Memphis, Tenn	37	102,320	42	64,495	53	33,592	31	40,226	35	22,623
86	Milwaukee, Wis	14	285,315	15	204,468	18	115,587	18	71,440	19	45,246
87	Minneapolis, Minn	19	202,718	17	164,738	37	46,887	92	13,066	126	2,564
88	Mobile, Ala	99	38,469	96	31,076	67	29,132	38	32,034	26	29,258
89	Montgomery, Ala	134	30,346	136	21,883	109	16,713	112	10,588	85	8,843
90	Nashville, Tenn	47	80,865	37	76,168	39	43,350	50	25,865	50	16,988
91	Newark, N. J	16	246,070	16	181,830	14	136,508	12	105,059	10	71,941
92	New Bedford, Mass	58	62,442	71	40,733	74	26,845	60	21,320	37	22,300
93	New Britain, Conn	157	25,998	152	16,519	133	11,800	119	9,480	106	5,212
94	Newcastle, Pa	144	28,339	158	11,600	142	8,418	134	6,164	131	1,882
95	New Haven, Conn	31	108,027	34	81,298	25	62,882	24	50,840	22	39,267
96	New Orleans, La	12	287,104	11	424,039	9	216,090	8	191,418	5	168,675
97	Newport, Ky	145	28,301	124	24,918	95	20,433	86	15,087	73	10,046
98	Newton, Mass	123	33,587	127	24,379	108	16,995	94	12,825	89	8,382
99	New York, N. Y	1	3,437,202	1	1,515,301	1	1,206,299	1	942,292	1	813,669
100	Norfolk, Va	80	46,624	87	34,871	82	21,966	70	19,229	54	14,620
101	Oakland, Cal	56	66,960	59	48,682	50	34,555	113	10,500	135	1,543
102	Omaha, Nebr	35	102,555	20	140,452	62	30,518	81	16,083	130	1,883
103	Oshkosh, Wis	146	28,284	133	22,836	116	15,748	97	12,663	103	6,086
104	Passaic, N. J	150	27,777	156	13,028	149	6,532	.....	.....	.....	.....
105	Paterson, N. J	32	105,171	35	78,347	33	51,031	36	33,579	43	19,586
106	Pawtucket, R. I	96	39,231	108	27,633	99	19,030	133	6,619	115	4,200
107	Peoria, Ill	67	56,100	70	41,024	66	29,259	57	22,849	57	14,045
108	Philadelphia, Pa	3	1,293,697	3	1,046,964	2	847,170	2	674,022	2	565,529
109	Pittsburg, Pa	11	321,616	12	238,617	12	156,389	15	86,076	16	49,221
110	Portland, Me	78	50,145	82	36,425	52	33,810	40	31,413	31	26,341
111	Portland, Oreg	42	90,426	60	46,385	106	17,577	123	8,293	124	2,874
112	Providence, R. I	20	175,597	24	132,146	19	104,857	20	68,904	15	50,666
113	Pueblo, Colo	148	28,157	126	24,558	154	3,217	149	666	.....	.....
114	Quincy, Ill	109	36,252	95	31,494	72	27,268	53	24,052	61	13,718
115	Racine, Wis	140	29,102	141	21,014	115	16,031	117	9,880	96	7,822
116	Reading, Pa	50	78,961	47	58,661	40	43,278	35	33,930	34	23,162
117	Richmond, Va	46	85,050	33	81,388	24	63,600	23	51,038	24	37,910
118	Rochester, N. Y	24	162,608	21	133,896	21	89,366	21	62,386	17	48,204
119	Rockford, Ill	130	31,051	128	23,584	126	13,129	105	11,049	101	6,979
120	Sacramento, Cal	139	29,282	115	26,386	88	21,420	79	16,283	59	13,785
121	Saginaw, Mich	89	42,345	61	46,322	136	10,525	127	7,460	133	1,699
122	St. Joseph, Mo	34	102,979	54	52,324	56	32,431	68	19,565	84	8,932
123	St. Louis, Mo	4	575,238	4	451,770	5	350,518	3	310,864	7	160,773
124	St. Paul, Minn	23	163,065	22	133,156	44	41,473	66	20,030	72	10,401
125	Salem, Mass	111	35,956	99	30,801	71	27,563	52	24,117	39	22,252
126	Salt Lake City, Utah	70	53,531	62	44,843	90	20,768	93	12,854	91	8,236
127	San Antonia, Tex	71	53,321	80	37,673	93	20,550	100	12,256	92	8,235
128	San Francisco, Cal	9	342,782	7	298,997	8	233,959	9	149,473	14	56,802
129	Savannah, Ga	69	54,244	68	43,189	61	30,709	46	28,235	38	22,292
130	Schenectady, N. Y	127	31,682	148	19,902	122	13,655	106	11,026	77	9,579
131	Scranton, Pa	38	102,026	38	75,215	38	45,850	34	35,092	82	9,223
132	Seattle, Wash	48	80,671	69	42,837	151	3,533	147	1,107	.....	.....
133	Sioux City, Iowa	124	33,111	77	37,806	146	7,366	143	3,401	.....	.....
134	Somerville, Mass	61	61,643	73	40,152	77	24,933	88	14,685	95	8,025
135	South Bend, Ind	110	35,999	137	21,819	124	13,280	130	7,206	120	3,832
136	South Omaha, Nebr	156	26,001	161	8,062	.....	.....	.....	.....	.....	.....
137	Spokane, Wash	106	36,848	147	19,922	158	350	.....	.....	.....	.....
138	Springfield, Ill	117	34,159	123	24,963	96	19,743	76	17,364	81	9,320
139	Springfield, Mass	60	62,059	64	44,179	54	33,340	49	26,703	53	15,199
140	Springfield, Ohio	102	38,253	94	31,895	91	20,730	98	12,652	100	7,002
141	Superior, Wis	129	31,091	157	11,983	.....	.....	.....	.....	.....	.....
142	Syracuse, N. Y	30	108,374	30	88,143	31	51,792	28	43,051	30	28,119
143	Tacoma, Wash	104	37,714	83	36,006	157	1,098	151	73	.....	.....
144	Taunton, Mass	131	31,036	120	25,448	89	21,213	72	18,629	52	15,376
145	Terre Haute, Ind	107	36,673	102	30,217	75	26,042	80	16,103	88	8,594
146	Toledo, Ohio	26	131,822	32	81,434	34	50,137	39	31,584	60	13,768
147	Topeka, Kans	122	33,608	97	31,007	117	15,452	138	5,790	136	759
148	Trenton, N. J	53	73,307	49	57,458	63	29,910	56	22,874	49	17,228
149	Troy, N. Y	62	60,651	45	60,956	28	56,747	27	46,465	23	39,235
150	Utica, N. Y	66	56,383	66	44,007	51	33,914	45	28,804	36	22,529
151	Washington, D. C	15	278,718	13	230,392	10	177,624	11	109,199	13	61,122
152	Waterbury, Conn	81	45,859	105	28,646	105	17,806	109	10,826	74	10,004
153	Wheeling, W. Va	98	38,878	88	34,522	60	30,737	69	19,280	56	14,083
154	Wilkesbarre, Pa	75	51,721	79	37,718	78	23,339	114	10,174	114	4,253
155	Williamsport, Pa	142	28,757	113	27,132	100	18,934	82	16,030	105	5,664
156	Wilmington, Del	51	76,508	43	61,431	41	42,478	42	30,841	40	21,258
157	Woonsocket, R. I	147	28,204	142	20,830	114	16,050	102	11,527	.....	.....
158	Worcester, Mass	29	118,421	31	84,655	27	58,291	29	41,105	33	24,960
159	Yonkers, N. Y	79	47,931	92	32,033	101	18,892	95	12,733	.....	.....
160	York, Pa	120	33,708	144	20,793	121	13,940	107	11,003	87	8,605
161	Youngstown, Ohio	84	44,885	90	33,220	118	15,435	124	8,075	125	2,759

[1] Not separately returned.

INHABITANTS OR MORE IN 1900.

CITIES AT EACH CENSUS, 1790 TO 1890.)

determined therefrom. The first column under each census year shows the order of the cities named when arranged according to population.]

1850		1840		1830		1820		1810		1800		1790		
41	13,932	63	3,235	62	877	50	761	41	615	38	557	26	362	84
54	8,841	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	85
28	20,061	79	1,712	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	86
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	87
25	20,515	23	12,672	45	3,194	.....	.....	.....	.....	.....	.....	.....	.....	88
55	8,728	75	2,179	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	89
49	10,165	41	6,929	34	5,566	.....	.....	.....	.....	.....	.....	.....	.....	90
15	38,894	17	17,290	16	10,953	19	6,507	12	8,008	.....	.....	.....	.....	91
34	16,443	24	12,087	24	7,592	28	3,947	16	5,651	16	4,361	12	3,313	92
94	3,029	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	93
109	1,614	84	611	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	94
26	20,345	21	12,960	18	10,180	17	7,147	15	5,772	18	4,149	.....	.....	95
5	116,375	.....	(1)	5	46,082	5	27,176	6	17,242	.....	.....	.....	.....	96
69	5,895	.....	(1)	66	715	.....	(1)	43	413	41	106	.....	.....	97
73	5,258	61	3,351	52	2,376	44	1,850	35	1,709	32	1,491	21	1,360	98
1	515,547	1	312,710	1	202,589	1	123,706	1	95,373	1	60,515	1	33,131	99
38	14,326	27	10,920	19	9,814	14	8,478	10	9,193	8	6,926	13	2,959	100
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	101
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	102
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	103
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	104
46	11,334	38	7,596	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	105
86	3,753	74	2,184	58	1,459	.....	.....	.....	.....	.....	.....	.....	.....	106
78	5,095	80	1,467	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	107
4	121,376	3	93,665	3	80,462	2	63,802	2	53,722	2	41,220	2	28,522	108
9	46,601	11	21,115	14	12,568	16	7,248	19	4,768	31	1,565	.....	.....	109
24	20,815	19	15,218	13	12,598	13	8,581	13	7,169	20	3,822	16	2,240	110
115	821	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	111
13	41,513	9	23,171	10	16,833	10	11,767	8	10,071	7	7,614	7	6,380	112
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	113
63	6,902	73	2,319	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	114
77	5,107	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	115
35	15,743	33	8,410	33	5,856	26	4,332	24	3,462	27	2,386	.....	.....	116
20	27,570	14	20,153	11	16,060	9	12,067	9	9,735	9	5,737	10	3,761	117
16	36,403	13	20,191	20	9,207	43	2,063	.....	.....	.....	.....	.....	.....	118
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	119
66	6,820	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	120
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	121
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	122
7	77,860	18	16,469	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	123
113	1,112	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	124
27	20,264	20	15,082	12	13,895	11	11,346	7	12,613	6	9,457	6	7,921	125
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	126
89	3,488	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	127
.....	(2)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	128
36	15,312	25	11,214	.....	(1)	15	7,523	18	5,215	14	5,146	.....	.....	129
53	8,921	42	6,784	37	4,268	30	3,939	.....	(1)	13	5,289	.....	.....	130
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	131
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	132
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	133
87	3,540	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	134
107	1,652	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	135
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	136
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	137
79	4,533	68	2,597	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	138
43	11,766	26	10,985	27	6,784	31	3,914	29	2,767	28	2,312	20	1,574	139
76	5,108	76	2,062	60	1,080	.....	.....	.....	.....	.....	.....	.....	.....	140
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	141
21	22,271	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	142
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	143
48	10,441	37	7,645	31	6,042	24	4,520	23	3,907	19	3,860	9	3,804	144
82	4,051	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	145
84	3,829	82	1,222	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	146
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	147
68	6,461	57	4,035	41	3,925	29	3,942	25	3,002	.....	(1)	19	1,946	148
19	28,785	15	19,334	15	11,556	22	5,264	.....	(1)	15	4,926	.....	.....	149
31	17,565	22	12,782	22	8,323	37	2,972	.....	.....	.....	.....	.....	.....	150
14	40,001	8	23,364	9	18,826	7	13,247	11	8,208	.....	.....	.....	.....	151
74	5,137	58	3,668	46	3,071	40	2,882	27	2,874	21	3,256	.....	.....	152
45	11,435	36	7,885	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	153
95	2,723	78	1,718	.....	(1)	51	755	.....	.....	.....	.....	.....	.....	154
108	1,615	81	1,353	.....	(1)	55	624	45	344	40	131	.....	.....	155
40	13,979	35	8,367	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	156
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	157
32	17,049	39	7,497	39	4,173	38	2,962	31	2,577	26	2,411	18	2,095	158
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	159
64	6,863	53	4,779	38	4,216	32	3,545	28	2,847	24	2,503	.....	.....	160
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	161

[2] The returns for 1850 for San Francisco were destroyed by fire; the state census for 1852 reports a population of 34,776.

INCREASE IN POPULATION OF CITIES HAVING

(ALSO POPULATION OF THE SAME

	CITIES.	1890 to 1900		1880 to 1890		1870 to 1880		1860 to 1870	
		Number	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1	Akron, Ohio	15,127	54.8	11,089	67.2	6,506	65.0	6,529	187.8
2	Albany, N. Y. [1]	[2] 772	[2] 0.8	4,165	4.6	21,336	30.7	7,055	11.3
3	Allegheny, Pa	24,609	23.4	26,605	33.8	25,502	48.0	24,478	85.3
4	Allentown, Pa	10,188	40.4	7,165	39.7	4,179	30.1	5,859	73.0
5	Altoona, Pa	8,636	28.5	10,627	53.9	9,100	85.8	7,019	195.5
6	Atlanta, Ga	24,339	37.1	28,124	75.2	15,620	71.7	12,235	128.1
7	Atlantic City, N. J	14,783	113.2	7,578	138.4	4,434	425.1	356	51.8
8	Auburn, N. Y	4,487	17.4	3,934	17.9	4,699	27.3	6,239	56.8
9	Augusta, Ga. [3]	6,141	18.4	11,409	52.1	6,502	42.3	2,896	23.2
10	Baltimore, Md	74,518	17.2	102,126	30.7	64,959	24.3	54,936	25.9
11	Bay City, Mich	[2] 211	[2] 0.8	7,146	34.5	13,629	192.9	5,481	346.2
12	Bayonne, N. J	13,689	71.9	9,661	103.1	5,538	144.4	.....	.....
13	Binghamton, N. Y	4,642	13.3	17,688	102.1	4,625	36.4	4,367	52.5
14	Birmingham, Ala	12,237	46.7	23,092	748.3	.....	.....	.....	.....
15	Boston, Mass	112,415	25.1	85,638	23.6	112,313	44.8	72,686	40.9
16	Bridgeport, Conn	22,130	45.3	21,223	76.8	8,674	45.7	5,670	42.6
17	Brockton, Mass	12,769	46.8	13,686	100.6	5,601	70.0	1,423	21.6
18	Buffalo, N. Y	96,723	37.8	100,530	64.8	37,420	31.8	36,585	45.1
19	Butte, Mont	19,747	184.2	7,360	218.9	3,122	1,295.4	.....	.....
20	Cambridge, Mass	21,858	31.2	17,359	33.0	13,035	32.9	13,574	52.1
21	Camden, N. J	17,622	30.2	16,654	40.0	21,614	107.8	5,687	39.6
22	Canton, Ohio	4,478	17.1	13,931	113.6	3,598	41.5	4,619	114.3
23	Cedar Rapids, Iowa	7,636	42.4	7,916	78.3	4,164	70.1	4,110	224.6
24	Charleston, S. C	852	1.6	4,971	9.9	1,028	2.1	8,434	20.8
25	Chattanooga, Tenn	1,054	3.6	16,208	125.7	6,799	111.6	.....	.....
26	Chelsea, Mass	6,163	22.1	6,127	28.1	3,235	17.4	5,152	38.5
27	Chester, Pa. [4]	13,762	68.0	5,229	34.9	5,512	58.1	4,854	104.8
28	Chicago, Ill	598,725	54.4	596,665	118.6	204,208	68.3	189,717	173.6
29	Cincinnati, Ohio	28,994	9.8	41,769	16.4	38,900	18.0	55,195	34.3
30	Cleveland, Ohio	120,415	46.1	101,207	63.2	67,317	72.5	49,412	113.8
31	Columbus, Ohio	37,410	42.4	36,503	70.7	20,373	65.1	12,720	68.6
32	Council Bluffs, Iowa	4,328	20.2	3,411	18.9	8,043	80.3	8,009	398.3
33	Covington, Ky	5,567	14.9	7,651	25.7	5,215	21.3	8,034	48.8
34	Dallas, Tex	4,571	12.0	27,709	267.5	.....	.....	.....	.....
35	Davenport, Iowa	8,382	31.2	5,041	23.1	1,793	8.9	8,771	77.8
36	Dayton, Ohio	24,113	39.4	22,542	58.3	8,205	26.9	10,392	51.8
37	Denver, Colo	27,146	25.4	71,084	199.5	30,870	648.7	10	0.2
38	Des Moines, Iowa	12,046	24.0	27,685	123.5	10,373	86.2	8,070	203.5
39	Detroit, Mich	79,828	38.8	89,536	77.0	36,763	46.2	33,958	74.4
40	Dubuque, Iowa	5,986	19.7	8,057	36.2	3,820	20.7	5,434	41.8
41	Duluth, Minn	19,854	60.0	29,632	850.8	352	11.2	3,051	3,813.8
42	Easton, Pa	10,757	74.3	2,557	21.4	937	8.5	2,043	22.8
43	East St. Louis, Ill	14,486	95.5	5,984	65.1	3,541	62.7	.....	.....
44	Elizabeth, N. J	14,366	38.0	9,535	33.8	7,397	35.5	9,265	80.1
45	Elmira, N. Y	4,779	15.5	10,352	50.4	4,678	29.5	7,181	82.7
46	Erie, Pa	12,099	29.8	12,897	46.5	8,091	41.2	10,277	108.6
47	Evansville, Ind	8,251	16.3	21,476	73.3	7,450	34.1	10,346	90.1
48	Fall River, Mass	30,465	40.9	25,437	52.0	22,195	82.9	12,740	90.8
49	Fitchburg, Mass	9,494	43.1	9,608	77.3	1,169	10.4	3,455	44.3
50	Fort Wayne, Ind	9,722	27.5	8,513	31.7	9,162	51.7	.....	.....
51	Fort Worth, Tex	3,612	15.7	16,413	246.3	.....	.....	.....	.....
52	Galveston, Tex	8,705	29.9	6,836	30.7	8,430	61.0	6,511	89.1
53	Gloucester, Mass	1,470	6.0	5,322	27.5	3,940	25.6	4,485	41.1
54	Grand Rapids, Mich	27,287	45.3	28,262	88.3	15,509	94.0	8,422	104.2
55	Harrisburg, Pa	10,782	27.4	8,623	28.0	7,658	33.1	9,699	72.4
56	Hartford, Conn	26,620	50.0	11,215	26.7	4,835	13.0	8,028	27.5
57	Haverhill, Mass	9,763	35.6	8,940	48.4	5,380	41.1	3,097	31.0
58	Hoboken, N. J	15,716	36.0	12,649	40.8	10,702	52.7	10,635	110.1
59	Holyoke, Mass	10,075	28.3	13,722	62.6	11,182	104.2	5,736	114.8
60	Honolulu, Hawaii	16,399	71.6	.....	.....	.....	.....	.....	.....
61	Houston, Tex	17,076	62.0	11,044	66.9	7,131	76.0	4,537	93.6
62	Indianapolis, Ind	63,728	60.4	30,380	40.5	26,812	55.6	29,633	159.2
63	Jackson, Mich	4,382	21.1	4,693	29.1	4,658	40.7	6,648	138.5
64	Jacksonville, Fla	11,228	65.3	9,551	124.8	738	10.7	4,794	226.3
65	Jersey City, N. J	43,430	26.6	42,281	35.0	38,176	46.2	53,320	182.4
66	Johnstown, Pa	14,131	64.8	13,425	160.2	2,352	39.0	1,843	44.0
67	Joliet, Ill	6,089	26.2	11,607	99.6	4,394	60.5	159	2.2
68	Joplin, Mo	16,080	161.7	2,905	41.3	.....	.....	.....	.....
69	Kansas City, Kans	13,102	34.2	35,116	1,097.4	.....	.....	.....	.....
70	Kansas City, Mo	31,036	23.4	76,931	137.9	23,525	72.9	27,842	630.2
71	Knoxville, Tenn	10,102	44.8	12,842	132.5	1,011	11.6	.....	.....
72	Lacrosse, Wis	3,805	15.2	10,585	73.0	6,720	86.3	3,925	101.7
73	Lancaster, Pa	9,448	29.5	6,245	24.2	5,538	27.4	2,630	14.9
74	Lawrence, Mass	17,905	40.1	5,503	14.1	10,230	35.4	11,282	64.0
75	Lexington, Ky [5]	4,802	22.3	4,911	29.5	1,855	12.5	5,480	58.8
76	Lincoln, Nebr	[2] 14,985	[2] 27.2	42,151	324.2	10,562	432.7	.....	.....
77	Little Rock, Ark	12,433	48.1	12,736	96.9	758	6.1	8,653	232.2
78	Los Angeles, Cal	52,084	103.4	39,212	350.6	5,455	95.2	1,343	30.6
79	Louisville, Ky	43,602	27.1	37,371	30.2	23,005	22.8	32,720	48.1
80	Lowell, Mass	17,273	22.2	18,221	30.6	18,547	45.3	4,101	11.1
81	Lynn, Mass	12,786	22.9	17,453	45.6	10,041	35.6	9,150	47.9

[1] Not separately returned in 1860.

[2] Decrease.

[3] Not separately returned in 1850, 1830, and 1820.

CITIES AT EACH CENSUS, 1790 TO 1890.)

1850 to 1860		1840 to 1850		1830 to 1840		1820 to 1830		1810 to 1820		1800 to 1810		1790 to 1800		
Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Percent.	Number.	Per cent.	
211	6.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
11,604	22.9	17,042	50.5	9,512	39.3	11,579	91.7	.....	.....	.....	.....	1,851	52.9	2
7,440	35.0	11,173	110.7	7,288	260.2	.....	.....	.....	.....	.....	.....	.....	.....	3
4 246	112.4	1,286	51.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
6,982	271.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
1,438	15.1	3,922	69.7	1,140	25.4	.....	.....	.....	.....	.....	.....	.....	.....	8
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	261	11.8	.....	.....	9
43,364	25.7	66,741	65.2	21,693	26.9	17,882	28.5	16,183	34.8	20,041	75.6	13,011	964	10
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
40,959	29.9	43,498	46.6	31,991	52.1	18,094	41.8	9,511	28.1	8,850	35.5	6,617	36.1	15
5,739	75.9	4,266	129.5	294	17.6	.....	.....	.....	.....	.....	.....	.....	.....	16
2,645	67.1	1,323	50.6	663	33.9	.....	.....	.....	.....	.....	.....	.....	.....	17
38,868	92.0	24,048	132.0	9,545	110.1	6,573	313.7	.....	.....	.....	.....	.....	.....	18
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19
10,845	71.3	6,806	80.9	2,337	38.5	2,777	84.3	972	41.8	[2]130	[2]5.3	338	16.0	20
4,879	51.5	6,108	181.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21
1,438	55.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23
[2]2,463	[2]5.7	13,724	46.9	[2]1,028	[2]3.4	5,509	22.2	69	0.3	5,887	31.3	2,465	51.1	24
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25
6,694	99.9	4,311	180.4	1,619	210.0	129	20.1	48	8.1	[2]255	[2]30.0	377	79.9	26
2,964	177.8	.....	.....	.....	.....	190	28.9	.....	.....	.....	.....	.....	.....	27
79,297	264.6	25,493	570.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28
45,609	39.5	69,097	149.1	21,507	86.6	15,189	157.5	.....	.....	.....	.....	.....	.....	29
26,383	154.9	10,963	180.6	4,995	464.2	.....	.....	.....	.....	.....	.....	.....	.....	30
672	3.8	11,834	195.7	3,613	148.4	.....	.....	.....	.....	.....	.....	.....	.....	31
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32
7,063	75.1	7,382	364.4	1,283	172.7	.....	.....	.....	.....	.....	.....	.....	.....	33
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34
9,419	509.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	35
9,104	82.9	4,910	80.9	3,117	105.7	1,950	195.0	.....	.....	.....	.....	.....	.....	36
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37
3,463	689.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38
24,600	117.0	11,917	130.9	6,880	309.6	800	56.3	.....	.....	.....	.....	.....	.....	39
9,892	318.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	40
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	41
1,694	23.4	2,385	49.0	1,336	37.9	1,159	48.9	713	43.0	612	58.6	.....	.....	42
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	43
5,984	107.2	1,399	33.4	729	21.1	[2]60	[2]1.7	538	18.1	.....	.....	.....	.....	44
516	6.3	3,375	70.4	1,899	65.7	[2]53	[2]1.8	.....	.....	.....	.....	.....	.....	45
3,561	60.8	2,446	71.7	1,947	132.9	830	130.7	421	61.2	313	386.4	.....	.....	46
8,249	255.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	47
2,502	21.7	4,786	71.0	2,580	62.0	2,564	160.9	298	23.0	.....	.....	.....	.....	48
2,685	52.4	2,516	96.6	435	20.1	433	24.9	170	10.9	176	12.7	239	20.8	49
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	51
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	52
3,130	74.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	[2]4	[2]0.1	53
3,118	40 0	1,436	22.6	[2]1,160	[2]15.4	1,126	17.6	441	7.4	630	11.9	.....	.....	54
5,399	201.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	55
5,571	71.1	1,854	31.0	1,668	38.7	1,322	44.2	703	30.7	815	55.4	.....	.....	56
11,186	62.3	8,498	89.8	2,394	33.8	2,348	49.7	771	19.5	[2]1,392	[2]26.0	.....	.....	57
4,118	70.1	1,541	35.5	440	11.3	826	26.9	388	14.5	[2]48	[2]1.8	322	13.4	58
6,994	262.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	59
1,752	54.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	60
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	61
2,449	102.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	62
10,520	130.0	5,399	200.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	63
2,436	103.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	64
1,073	102.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65
22,370	326.3	3,784	123.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	66
2,916	229.8	320	33.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	67
4,445	167.2	101	3.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	68
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	69
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	70
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	71
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	72
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	73
5,234	42.3	3,952	47.0	713	9.3	1,071	16.1	1,228	22.7	1,113	25.9	.....	.....	74
9,357	113.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	75
.....	.....	.....	.....	971	16.1	747	14.2	953	22.0	2,531	141.0	961	115.2	76
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	77
1,560	72.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	78
2,775	172.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	79
24,839	57.5	21,984	103.6	10,869	105.1	6,329	157.8	2,655	195.7	998	278.0	159	79.5	80
3,444	10.3	12,587	60.5	14,322	221.2	.....	.....	.....	.....	.....	.....	.....	.....	81
4,826	33.9	4,890	52.2	3,229	52.6	1,623	35.9	428	10.5	1,250	44.1	546	23.8	

[4] Not separately returned in 1840.

[5] Not separately returned in 1850.

INCREASE IN POPULATION OF CITIES HAVING

(ALSO POPULATION OF THE SAME

	CITIES.	1890 to 1900		1880 to 1890		1870 to 1880		1860 to 1870	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
82	McKeesport, Pa	13,486	65.0	12,529	152.6	5.689	225.5	357	16.5
83	Malden, Mass	10,633	46.2	11,014	91.7	4,650	63.1	1,502	25.6
84	Manchester, N. H	12,861	29.1	11,496	35.2	9,094	38.6	3,429	17.1
85	Memphis, Tenn	37,825	58.6	30,903	92.0	[2] 6,634	[2] 16.5	17,603	77.8
86	Milwaukee, Wis	80,847	39.5	88,881	76.9	44,147	61.8	26,194	57.9
87	Minneapolis, Minn	37,980	23.1	117,851	251.4	33,821	258.8	10,502	409.6
88	Mobile, Ala	7,393	23.8	1,944	6.7	[1] 2,902	[1] 9.1	2,776	9.5
89	Montgomery, Ala	8,463	38.7	5,170	30.9	6,125	57.8	1,745	19.7
90	Nashville, Tenn	4,697	6.2	32,818	75.7	17,485	67.6	8,877	52.3
91	Newark, N. J	64,240	35.3	45,322	33.2	31,449	29.9	33,118	46.0
92	New Bedford, Mass	21,709	53,3	13,888	51.7	5,525	25.9	[1] 980	[1] 4 .4
93	New Britain, Conn	9,479	57.4	4,719	40.0	2,320	24.5	4,268	81.9
94	Newcastle, Pa	16,739	144.3	3,182	37.8	2.254	36.6	4,282	227.5
95	New Haven, Conn	26,729	32.9	18,416	29.3	12,042	23.7	11,573	29.5
96	New Orleans, La [3]	45,065	18.6	25,949	12.0	24,672	12.9	22,743	13.5
97	Newport, Ky [3]	3,383	13.6	4,485	21.9	5,346	35.4	5,041	50.2
98	Newton, Mass	9.208	37.8	7,381	43.4	4,170	32.5	4,443	53.0
99	New York, N. Y	1,921,901	126.8	309,002	25.6	264,007	28.0	128,623	15.8
100	Norfolk, Va	11,753	33.7	12,905	58.7	2 ,737	14.2	4,609	31.5
101	Oakland, Cal	18,278	37.5	14,127	40.9	24,055	229.1	8,957	580.5
102	Omaha, Nebr	[1] 37,897	[1] 27.0	109,934	360.2	14,435	89.8	14.200	754.1
103	Oshkosh, Wis	5,448	23.9	7,088	45.0	3,085	24.4	6,577	108.1
104	Passaic, N. J	14,749	113.2	6,496	99.4	.....	.....	.....	.....
105	Paterson, N. J	26,824	34.2	27,316	53.5	17,452	52.0	13,993	71.4
106	Pawtucket, R. I	11,598	42.0	8,603	45.2	12,411	187.5	2,419	57 6
107	Peoria, Ill	15,076	36.7	11,765	40.2	6,410	28.1	8,804	62.7
108	Philadelphia, Pa	246,733	23.6	199,794	23.6	173,148	25.7	108,493	19.2
109	Pittsburg, Pa	82,999	34.8	82,228	52.6	70, 313	81.7	36,855	74.9
110	Portland, Me	13,720	37.7	2,615	7.7	2,397	7.6	5,072	19.3
111	Portland, Oreg	44,041	94.9	28,808	163.9	9,284	111.9	5,419	188.6
112	Providence, R. I	43,451	32.9	27,289	26.0	35,953	52.2	18,238	36.0
113	Pueblo, Colo	3,599	14.7	21,341	663.4	2,551	383.0	.....	.....
114	Quincy, Ill	4,758	15.1	4,226	15.5	3,216	13.4	10,334	75.3
115	Racine, Wis	8,088	38.5	4,983	31.1	6,151	62.3	2,058	26.3
116	Reading, Pa	20,300	34.6	15,383	35.5	9,348	27.6	10,768	46.5
117	Richmond, Va	3,662	4.5	17,788	28.0	12,562	24.6	13,128	34.6
118	Rochester, N. Y	28,712	21.4	44,530	49.8	26,980	43.2	14,182	29.4
119	Rockford, Ill	7,467	31.7	10,455	79.6	2,080	18.8	4,070	58.3
120	Sacramento, Cal	2,896	11.0	4,966	23.2	5,137	31.5	2,498	18.1
121	Saginaw, Mich	[1] 3,977	[1] 8.6	35,797	340.1	3,065	41.1	5,761	339.1
122	St. Joseph, Mo	50,655	96.8	19,893	61.3	12,866	65.8	10,633	119.0
123	St. Louis, Mo	123,468	27.3	101,252	28.9	39,654	12.8	150,091	93.4
124	St. Paul, Minn	29,909	22.5	91,683	221.1	21,443	107.1	9,629	92.6
125	Salem, Mass	5,155	16.7	3,238	11.7	3,446	14.3	1,865	8.4
126	Salt Lake City, Utah	8,688	19.4	24,075	115.9	7,914	61.6	4,618	56.1
127	San Antonio, Tex	15,648	41.5	17,123	83.3	8,294	67.7	4,021	48.8
128	San Francisco, Cal	43,785	14.6	65,038	27.8	84,486	56.5	92,671	163.1
129	Savannah, Ga [4]	11,055	25.6	12,480	40.6	2,474	8.8	5,943	26.7
130	Schenectady, N. Y	11,780	59.2	6,247	45.7	2,629	23.8	1,447	15.1
131	Scranton, Pa	26,811	35.6	29,365	64.0	10,758	30.7	25,869	280.5
132	Seattle, Wash	37,834	88.3	39,304	1,112.5	2,426	219.2	.....	.....
133	Sioux City, Iowa	[1] 4,695	[1] 12.4	30,440	413.3	3,965	116.6	.....	.....
134	Somerville, Mass	21,491	53.5	15,219	61.0	10,248	69.8	6,660	83.0
135	South Bend, Ind	14,180	65.0	8,539	64.3	6,074	84.3	3,374	88.0
136	South Omaha, Nebr	17,939	222.5	.....	.....	.....	.....	.....	.....
137	Spokane, Wash	16,926	85.0	19,572	5,592.0	.....	.....	.....	.....
138	Springfield, Ill	9,196	36.8	5,220	26.4	2,379	13.7	8,044	86.3
139	Springfield, Mass	17,880	40.5	10,839	32.5	6,637	24.9	11,504	75.7
140	Springfield, Ohio	6,358	19.9	11,165	53.9	8,078	63.8	5,650	80.7
141	Superior, Wis	19,108	159.5	.....	.....	.....	.....	.....	.....
142	Syracuse, N. Y	20,231	23.0	36,351	70.2	8,741	20.3	14,932	53.1
143	Tacoma, Wash	1,708	4.7	34,908	3,179.2	1,025	1,404.1	.....	.....
144	Taunton, Mass	5,588	22.0	4,235	20.0	2,584	13.9	3,253	21.2
145	Terre Haute, Ind	6,456	21.4	4,175	16.0	9,939	61.7	7,509	87.4
146	Toledo, Ohio	50,388	61.9	31,297	62.4	18,553	58.7	17,816	129.4
147	Topeka, Kans	2,601	8.4	15,555	100.7	9,662	166.9	5,031	662.8
148	Trenton, N. J	15,849	27.6	27,548	92.1	7,036	30.8	5,646	32.8
149	Troy, N. Y	[1] 305	[1] 0.5	4,209	7.4	10,282	22.1	7,230	18.4
150	Utica, N. Y	12,376	28.1	10,093	29.8	5,110	17.7	6,275	27.9
151	Washington, D. C	48,326	21.0	51,768	29.7	68,425	62.7	48,077	78.7
152	Waterbury, Conn	17,213	60.1	10,840	60.9	6,980	64.5	822	8.2
153	Wheeling, Va	4.356	12.6	3,785	12.3	11,457	59.4	5,197	36.9
154	Wilkesbarre, Pa	14,003	37.1	14,379	61.6	13,165	129.4	5,921	139.2
155	Williamsport, Pa [4]	1,625	6.0	8,198	43.3	2,904	18.1	10,366	183.0
156	Wilmington, Del	15,077	24.5	18,953	44.6	11,637	37.7	9,583	45.1
157	Woonsocket, R. I	7,374	35.4	4,780	29.8	4,523	39.2	.....	.....
158	Worcester, Mass	33.766	39.9	26,364	45.2	17,186	41.8	16,145	64.7
159	Yonkers, N. Y	15.898	49.6	13,141	69.6	6,159	48.4	.....	.....
160	York, Pa	12,915	62.1	6,853	49.2	2,937	26.7	2,398	27.9
161	Youngstown, Ohio	11,665	35.1	17,785	115.2	7,360	91.1	5,316	192.7

[1] Decrease.

[2] Not separately returned in 1840.

[3] Not separately returned in 1840 and 1820.

CITIES AT EACH CENSUS, 1790 TO 1890.)

1850 to 1860		1840 to 1850		1830 to 1840		1820 to 1830		1810 to 1820		1800 to 1810		1790 to 1800		
Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number	Per cent.	Number	Per cent.	
774	55.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	82
2,345	66.6	1,006	40.0	504	25.1	279	16.1	347	25.1	325	30.7	26	2.5	83
6,175	44.3	10,697	330.7	2,358	268.9	116	15.2	146	23.7	58	10.4	195	53.9	84
13,782	155.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	85
25,185	125.5	18,349	1,071.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	86
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	87
8,743	42.6	7,843	61.9	9,478	296.7	.....	.....	.....	.....	.....	.....	.....	.....	88
115	1.3	6,549	300.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	89
6,823	67.1	3,236	46.7	1,363	24.5	.....	.....	.....	.....	.....	.....	.....	.....	90
33,047	85.0	21,604	125.0	6,337	57.9	4,446	68.3	[1]1,501	[1]18.7	.....	.....	.....	.....	91
5,857	35.6	4,356	36.0	4,495	59.2	3,645	92.3	[1]1,704	[1]30.2	1,290	29.6	1,048	31.6	92
2,183	72.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	93
268	16.6	1,003	164.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	94
18,922	93.0	7,385	57.0	2,780	27.3	3,033	42.4	1,375	23.8	1,723	42.6	.....	.....	95
52,300	44.9	.....	.....	.....	.....	18,906	69.6	9,934	57.6	.....	.....	.....	.....	96
4,151	70.4	.....	.....	.....	.....	.....	.....	.....	.....	307	289.6	.....	.....	97
3,124	59.4	1,907	56.9	975	41.0	526	28.4	141	8.3	218	14.6	131	9.6	98
298,122	57.8	202,837	64.9	110,121	54.4	78,883	63.8	27,333	28.4	35,858	59.3	27,384	82.7	99
294	2.1	3,406	31.2	1,106	11.3	1,336	15.8	[1]715	[1]7.8	2,267	32.7	3,967	134.1	100
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	101
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	102
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	103
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	104
8,252	72.8	3,738	49.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	105
447	11.9	1,569	71.8	725	49.7	.....	.....	.....	.....	.....	.....	.....	.....	106
8,950	175.7	3,628	247.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	107
444,153	365.9	27,711	29.6	13,203	16.4	16 660	26.1	10,080	18.8	12,502	30.3	12,698	44.5	108
2,620	5.6	25,486	120.7	8,547	68.0	5,320	73.4	2,480	52.0	3,203	204.7	.....	.....	109
5,526	26.5	5,597	36.8	2,620	20.8	4,017	46.8	1,412	19.7	3,347	87.6	1,582	70.6	110
2,053	250.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	111
9,153	22.0	18,342	79.2	6,338	37.7	5,066	43.1	1,696	16.8	2,457	32.3	1,234	19.3	112
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	113
6,816	98.8	4,583	197.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	114
2,715	53.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	115
7,419	47.1	7,333	87.2	2,554	43.6	1,524	35.2	870	25.1	1,076	45.1	.....	.....	116
10,340	37.5	7,417	36.8	4,093	25.5	3,993	33.1	2,332	24.0	3,998	69.7	1,976	52.5	117
11,801	32.4	16,212	80.3	10,984	119.3	7,144	346.3	.....	.....	.....	.....	.....	.....	118
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	119
6,965	102.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	120
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	121
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	122
82,913	106.5	61,391	372.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	123
9,289	835.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	124
1,988	9.8	5,182	34.4	1,187	8.5	2,549	22.5	[1]1,267	[1]10.0	3,156	33.4	1,536	19.4	125
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	126
4,747	136.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	127
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	128
6,980	45.6	4,098	36.5	.....	.....	.....	.....	2,308	44.3	69	1.3	.....	.....	129
658	7.4	2,137	31.5	2,516	59.0	329	8.4	.....	.....	.....	.....	.....	.....	130
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	131
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	132
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	133
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	134
4,485	126.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	135
2,180	132.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	136
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	137
4,787	105.6	1,954	75.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	138
3,433	29.2	781	7.1	4,201	61.9	2,870	73.3	1,147	41.5	455	19.7	738	46.9	139
1,894	37.1	3,046	147.7	982	90.9	.....	.....	.....	.....	.....	.....	.....	.....	140
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	141
5,848	26.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	142
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	143
4,935	47.3	2,796	36.6	1,603	26.5	1,522	33.7	613	15.7	47	1.2	56	1.5	144
4,543	112.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	145
9,939	259.6	2,607	213.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	146
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	147
10,767	166.6	2,426	60.1	110	2.8	[1]17	[1]0.4	940	31.3	.....	.....	.....	.....	148
10,450	36.3	9,451	48.9	7,778	67.3	6,292	119.5	.....	.....	.....	.....	.....	.....	149
4,964	28.3	4,783	37.4	4,459	53.6	5,351	180.0	.....	.....	.....	.....	.....	.....	150
21,121	52.8	16,637	71.2	4,538	24.1	5,579	42.1	5,039	61.4	.....	.....	.....	.....	151
4,867	94.7	1,469	40.0	597	19.4	189	6.6	8	0.3	[1]382	[1]11.7	.....	.....	152
2,648	23.2	3,550	45.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	153
1,530	56.2	1,005	58.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	154
4,049	250.7	262	19.4	.....	.....	.....	.....	280	814	213	162.6	.....	.....	155
7,279	52.1	5,612	67.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	156
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	157
7,911	46.4	9,552	127.4	3,324	79.7	1,211	40.9	385	149.9	166	6.9	316	15.1	158
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	159
1,742	25.4	2,084	43.6	563	13.4	671	18.9	698	24.5	344	13.7	.....	.....	160
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	161

[1] Not separately returned in 1830.

POPULATION OF INCORPORATED CITIES, TOWNS, VILLAGES AND BOROUGHS IN 1900, WITH POPULATION FOR 1890.

[This table gives the population of all incorporated places in the United States, so far as they have been returned by the census enumerators, separate from the population of the townships, precincts, districts, etc., of which they form a part. There are no incorporated places in Alaska.]

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
Alabama.		
Abbeville (t)	889	465
Alabama City (t)	2,276	.....
Alexander (c)	1,061	679
Andalusia (t)	551	270
Anniston (t)	9,695	9,998
Ashford (v)	286	.....
Ashland (t)	422	635
Ashville (t)	362	.....
Athens (t)	1,010	940
Attalla (t)	1,692	1,254
Auburn (v)	1,447	1,440
Avondale (t)	3,060	1,642
Banks (t)	198	.....
Batesville (t)	137	.....
Berry Station (t)	245	.....
Bessemer (t)	6,358	4,544
Birmingham (c)	38,415	26,178
Boaz (t)	253	.....
Bolling (t)	175	.....
Brantley (t)	390	.....
Brewton (t)	1,382	1,115
Bridgeport (t)	1,247	.....
Brookside (t)	658	380
Brundidge (t)	537	.....
Calera (t)	770	753
Camden (t)	478	545
Camp Hill (v)	686	366
Carbon Hill (t)	830	568
Cardiff (t)	562	203
Carrollton (t)	278	.....
Castleberry (t)	167	.....
Center (t)	282	347
Centerville (t)	422	239
Cherokee (t)	261	.....
Childersburg (t)	372	777
Chulafinnee (t)	34	.....
Citronelle (v)	696	.....
Clanton (t)	611	623
Clayton (v)	998	997
Clio (t)	326	.....
Coal City (t)	509	.....
Collinsville (t)	524	367
Columbia (t)	1,132	960
Columbiana (t)	1,075	654
Cordova (t)	567	.....
Courtland (t)	488	579
Cuba (t)	384	265
Cullman (c)	1,255	1,017
Dadeville (t)	1,136	873
Dayton (v)	427	412
Decatur (c)	3,144	2,765
Deer Creek (t)	332	.....
Demopolis (c)	2,606	1,898
Dothan (t)	3,275	247
Dundee (t)	249	.....
Eden (t)	177	.....
Edwardsville (t)	448	446
Elba (t)	635	285
Elkmont (t)	174	.....
Ensley (c)	2,100	.....
Enterprise (t)	610	.....
Epes (t)	331	.....
Estaboga (t)	398	.....
Eufaula (c)	4,532	4,394
Eunola (t)	132	.....
Eutaw (t)	884	1,115
Evergreen (t)	1,277	1,783
Falkville (t)	343	.....
Faunsdale (v)	333	211
Fayette (t)	452	.....
Fitzpatrick (t)	447	357
Flint (t)	229	.....
Florence (c)	6,478	6,012
Fort Deposit (t)	1,078	518
Fort Payne (c)	1,037	2,698
Fruithurst (t)	374	.....
Fulton (t)	140	.....
Furman (t)	184	195
Gadsden (t)	4,282	2,901
Gainesville (t)	817	1,017
Gaylesville (t)	266	.....
Geneva (t)	1,032	637
Georgiana (c)	567	456
Girard (c)	3,840	.....
Goodwater (t)	728	589
Gordon (v)	356	.....
Graysville (t)	319	.....
Greensboro (t)	2,416	1,759
Greenville (c)	3,162	2,806
Guin (t)	249	.....
Guntersville (t)	618	471
Gurley (t)	831	570
Haleysville (t)	165	.....
Hamilton (t)	235	.....
Hardaway (v)	200	.....
Hartford (t)	382	.....
Hartsell (t)	670	596
Headland (v)	602	.....
Heflin (t)	460	383
Highland Park (t)	467	.....
Hillsboro (t)	256	.....
Hobson (c)	292	.....
Hollins (t)	238	422
Holly Pond (t)	144	.....
Hollywood (t)	168	.....
Horse Creek (t)	385	.....
Huntsville (t)	8,068	7,995
Hurtsboro (t)	407	433
Ironaton (t)	735	562
Irondale (t)	525	.....
Jackson (v)	1,039	.....
Jacksonville (t)	1,176	1,237
Jasper (t)	1,661	780
Jemison (t)	245	.....
Jenifer (t)	331	323
Joppa (t)	130	.....
Kennedy (t)	166	.....
Kinsey (v)	342	.....
Lafayette (t)	1,629	1,369
Lanett (t)	2,909	777
Langston (t)	270	.....
Leighton (t)	506	.....
Lineville (t)	211	234
Livingston (t)	851	850
Louisville (t)	416	288
Luverne (v)	731	451
McFall (t)	820	.....
Madison (t)	412	.....
Marion (t)	1,698	1,982
Midland City (v)	304	.....
Midway (t)	430	612
Millport (t)	357	244
Mobile (c)	38,469	31,076
Monroeville (v)	422	.....
Montgomery (c)	30,346	21,883
Mooresville (t)	150	143
Morris (t)	187	156
Moulton (t)	290	.....
Muscadine (t)	132	100
Newbern (t)	564	.....
New Decatur (c)	4,437	3,565
New Hope (t)	208	.....
Newton (t)	457	520
Northport (t)	424	413
Oakman (t)	503	421
Oneonta (t)	583	.....
Opelika (c)	4,245	3,703
Oxanna (t)	1,184	748
Oxford (t)	1,372	1,473
Ozark (v)	1,570	1,195
Paint Rock (t)	394	.....
Pell City (t)	98	.....
Phoenix (c)	4,163	3,700
Pickensville (t)	241	.....
Piedmont (v)	1,745	711
Pinckard (t)	711	.....
Pineapple (t)	623	520
Pollard (v)	267	389
Pratt City (t)	3,485	1,946
Prattville (t)	1,929	724
Ragland (t)	309	.....
Reform (t)	198	.....
Renfroe (v)	180	202
Repton (t)	170	.....
Riverside (t)	300	.....
Roanoke (t)	1,155	631
Rock Mills (t)	420	385
Russellville (t)	1,602	920
Rutledge (v)	346	314
Scottsboro (t)	1,014	959
Seale (t)	386	299
Seddon (t)	229	.....
Selma (c)	8,713	7,622
Sheffield (c)	3,333	2,731
Springville (t)	496	.....
Stevenson (t)	560	586
Sulligent (t)	303	.....
Sylacauga (t)	880	464
Talladega (c)	5,056	2,063
Thomasville (v)	686	291
Thompson (t)	145	.....
Town Creek (t)	280	201
Townly (t)	124	.....
Trinity (t)	191	.....
Troy (c)	4,097	3,449
Trussville (t)	742	462
Tuscaloosa (c)	5,094	4,215
Tuscumbia (c)	2,348	2,491
Tuskegee (t)	2,170	1,803
Union Springs (t)	2,634	2,049
Uniontown (t)	1,047	854
Vernon (t)	291	192
Vienna (t)	74	.....
Vincent (t)	765	.....
Walnut Grove (t)	251	.....
Warrior (t)	1,018	.....
Wetumka (c)	562	619
White Oak Springs (v)	475	.....
Wilsonville (t)	1,095	.....
Winfield (t)	316	.....
Woodlawn (t)	2,848	1,506
Wyeth City (t)	299	.....
York (t)	528	415
Arizona.		
Chloride (t)	465	.....
Flagstaff (t)	1,271	963
Globe (t)	1,495	8 03
Jerome (t)	2,861	250
Mesa (t)	722	.....
Nogales (t)	1,761	1,194
Phoenix (c)	5,544	3,152
Pima (t)	521	750
Prescott (c)	3,559	1,759
Solomonville (c)	629	287
Tempe (t)	885	.....
Thatcher (t)	644	320

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
ARIZONA—Continued.		
Tombstone (c)	646	1,875
Tucson (c)	7,531	5,150
Winslow (t)	1,305	363
Yuma (c)	1,519	1,773
Arkansas.		
Alexander (t)	173	146
Alma (t)	440	486
Altus (t)	500	469
Antoine (t)	197	.....
Arkadelphia (t)	2,739	2,455
Arkansas City (t)	1,091	.....
Ashdown (t)	400	.....
Atkins (t)	745	660
Augusta (t)	1,040	519
Austin Station (t)	196	.....
Bald Knob (t)	707	.....
Baring Cross (t)	389	.....
Batesville (c)	2,327	2,150
Bearden (t)	341	.....
Beebe (t)	904	.....
Bee Branch (t)	122	.....
Belleville (t)	552	247
Benton (t)	1,025	647
Bentonville (t)	1,843	1,677
Berryville (t)	551	549
Black Rock (t)	1,400	761
Blythesville (t)	302	.....
Bonanza (t)	906	.....
Booneville (t)	988	496
Bradford (t)	223	.....
Brinkley (t)	1,648	1,510
Bryant (t)	113	.....
Buckner (t)	400	312
Cabot (t)	294	.....
Camden (c)	2,840	2,571
Cargile (t)	417	.....
Carlisle (t)	212	185
Center Point (t)	334	297
Chester (t)	174	222
Clarendon (t)	1,840	1,060
Clarksville(c)	1,086	937
Cleveland (t)	202	303
Clinton (t)	297	176
Coal Hill (t)	1,341	802
Collins (t)	212	.....
Conway (t)	2,003	1,207
Corning (t)	1,041	584
Cotton Plant (t)	458	429
Dalark (t)	174	208
Danville (t)	600	.....
Dardanelle (t)	1,602	1,456
De Queen (t)	1,200	.....
Dermott (t)	467	.....
Des Arc (t)	640	546
De Valls Bluff (t)	605	380
Dewitt (t)	318	246
Douglas (t)	117	.....
Dryden (t)	637	.....
Dyer (t)	343	.....
Eldorado (t)	1,069	455
Emmet (t)	277	.....
England (t)	368	.....
Eureka Springs (c)	3,572	3,706
Fayetteville (c)	4,061	2,942
Fordyce (t)	1,710	980
Forrest (c)	1,361	1,021
Fort Smith (c)	11,587	11,311
Frostville (t)	225	.....
Fulton (t)	504	337
Gentry City (t)	419	.....
Gravett (t)	447	.....
Green Forest (t)	469	.....
Greenway (t)	165	33
Greenwood (t)	491	587
Gurdon (t)	1,045	802
Hackett (c)	330	458
Hamburg (t)	1,260	655
Hardy (t)	347	.....
Harrisburg (t)	462	482
Harrison (t)	1,551	1,438
Hartford (t)	460	.....
Hazen (t)	429	458
Helena (c)	5,550	5,189
Holly Grove (c)	391	353
Hope (t)	1,644	1,937
Horatio (t)	625	.....
Hot Springs (c)	9,973	8,086
Hoxie (t)	125	102
Huntington (t)	1,298	913
Imboden (t)	411	157
Jacksonport (t)	265	421
Jamestown (t)	130	.....
Jonesboro (c)	4,508	2,065
Judsonia (t)	600	475
Junction City	1,251	.....
Kingsland (t)	364	464
Knobel (t)	410	.....
Kress (c)	264	.....
Lake City (t)	434	.....
Lamar (t)	474	.....
Little Rock (c)	38,307	25,874
Lockesburg (t)	550	451
London (t)	268	.....
Lonoke (t)	951	858
Luxora (t)	943	.....
McCrory (t)	225	299
McNeil (t)	260	294
Magazine (t)	897	183
Magnolia (t)	1,614	1,486
Malvern (t)	1,582	1,520
Mammoth Spring (t)	717	.....
Mansfield (t)	368	243
Marianna (t)	1,707	1,126
Marked Tree (t)	352	.....
Marshall (t)	260	278
Marvel (t)	391	.....
Maynard (t)	358	.....
Melbourne (t)	256	209
Mena (t)	3,423	.....
Mineral Springs (t)	278	.....
Monticello (t)	1,579	1,285
Morrillton (c)	1,707	1,644
Mountain Home (t)	363	242
Mountainview (t)	226	.....
Mt. Nebo (t)	27	.....
Mulberry (t)	361	321
Murfreesboro (t)	200	159
Nashville (t)	928	810
Nettleton (t)	613	.....
Newark (t)	315	.....
New Lewisville (t)	548	500
Newport (t)	2,866	1,571
Osceola (t)	953	458
Ozan (t)	118	91
Ozark (t)	848	862
Palestine (t)	196	163
Paragould (t)	3,324	1,666
Paris (t)	836	547
Perryville (t)	300	310
Piggott (t)	597	.....
Pike City (t)	703	.....
Pine Bluff (c)	11,496	9,952
Plummerville (t)	296	214
Pocahontas (t)	967	507
Portia (t)	400	571
Portland (t)	426	.....
Pottsville (t)	192	.....
Powhatan (t)	249	220
Prairie Grove (t)	551	412
Prescott (t)	2,005	1,287
Princeton (t)	168	.....
Quitman (t)	383	327
Rector (t)	520	525
Redfield (t)	333	400
Reyno (t)	138	.....
Rison (t)	453	.....
Rogers (t)	2,158	1,265
Russell (t)	200	.....
Russellville (t)	1,832	1,321
St. Francis (t)	420	356
St. Paul (t)	345	417
Sayre (t)	300	.....
Searcy (t)	1,995	1,203
Sedgwick (t)	309	.....
Sheridan (t)	210	184
Shiloh (t)	190	.....
Siloam Springs (t)	1,748	821
Springdale (t)	1,251	906
Stamps (t)	1,021	.....
Star City (t)	251	204
Stephens (t)	407	379
Stuttgart (c)	1,258	1,165
Sugarloaf (t)	552	322
Sulphur Rock (t)	213	387
Sulphur Springs (t)	315	.....
Swifton (t)	206	.....
Texarkana (c)	4,914	3,528
Tuckerman (t)	260	.....
Upland (t)	385	.....
Van Buren (c)	2,573	2,291
Waldo (t)	929	709
Waldron (c)	487	487
Walnut Ridge (t)	845	457
Warren (t)	954	492
Washington (t)	374	519
West Point (t)	111	.....
Wilmar (t)	844	.....
Wilmot (v)	378	.....
Wynne (t)	1,629	565
Yellville (t)	578	263
California.		
Alameda (c)	16,464	11,165
Anaheim (t)	1,456	1,273
Antioch (t)	674	635
Arcata (t)	952	962
Auburn (c)	2,050	1,595
Azusa (c)	863	.....
Bakersfield (c)	4,836	2,626
Belvedere (t)	434	.....
Benicia (c)	2,751	2,361
Berkeley (c)	13,214	5,101
Calistoga (t)	690	.....
Chico (c)	2,640	2,894
Cloverdale (t)	750	763
Colton (c)	1,285	1,315
Colusa (t)	1,441	1,336
Corona (c)	1,434	.....
Coronado (c)	935	.....
Crescent City	699	907
Dixon (t)	783	1,082
Downieville (t)	500	.....
Elsinore (c)	279	.....
Emeryville (c)	1,016	228
Escondido (c)	755	541
Etna (t)	500	271
Eureka (c)	7,327	4,858
Ferndale (t)	846	763
Fort Bragg (c)	1,590	945
Fort Jones (t)	356	266
Fresno (c)	12,470	10,818
Gilroy (c)	1,820	1,694
Grass Valley (c)	4,719	.....
Hanford (c)	2,929	942
Hayward (t)	1,965	1,419
Healdsburg (c)	1,869	1,485
Hollister (t)	1,315	1,234
Hornitos (t)	205	276
Kelseyville (t)	994	282
Kern (c)	1,291	.....
Lakeport (t)	726	991
Lincoln (c)	1,061	961
Livermore (t)	1,493	1,391
Lompoc (t)	972	1,015
Long Beach (c)	2,252	564
Los Angeles (c)	102,479	50,395
Los Gatos (c)	1,915	1,652
Martinez (t)	1,380	1,600
Marysville (c)	3,497	3,991
Merced (c)	1,969	2,009
Modesto (c)	2,024	2,402
Monrovia (c)	1,205	907
Monterey (c)	1,748	1,662
Napa (c)	4,036	4,395
National City	1,086	1,353
Nevada City (t)	3,250	2,524

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
CALIFORNIA—Continued.		
Oakland (c)	66,960	48,682
Oceanside (c)	330	.....
Ontario (c)	722	683
Orange (c)	1,216	866
Pacific Grove (c)	1,411	1,336
Palo Alto (t)	1,658	.....
Pasadena (c)	9,117	4,882
Paso Robles (c)	1,224	827
Petaluma (c)	3,871	3,692
Placerville (c)	1,748	1,690
Pleasanton (t)	1,100	.....
Pomona (c)	5,526	3,634
Potter Valley (t)	563	.....
Red Bluff (c)	2,750	2,608
Redding (c)	2,946	1,821
Redlands (c)	4,797	1,904
Redondo Beach (c)	855	603
Redwood (c)	1,653	1,572
Rio Vista (t)	682	648
Riverside (c)	7,973	4,683
Rocklin (c)	1,050	1,056
Sacramento (c)	29,282	26,386
St. Helena (t)	1,582	1,705
Salinas (c)	3,304	2,339
San Bernardino (c)	6,150	4,012
San Diego (c)	17,700	16,159
San Francisco (c)	342,782	298,997
San Jacinto (c)	583	661
San Jose (c)	21,500	18,060
San Juan (t)	449	463
San Leandro (t)	2,253	.....
San Luis Obispo (c)	3,021	2,995
San Mateo (c)	1,832	.....
San Pedro (c)	1,787	1,240
San Rafael (c)	3,879	3,290
Santa Ana (c)	4,933	3,628
Santa Barbara (c)	6,587	5,864
Santa Clara (t)	3,650	2,891
Santa Cruz (c)	5,659	5,596
Santa Monica (c)	3,057	1,580
Santa Rosa (c)	6,673	5,220
Sausalito (t)	1,628	1,334
Selma (t)	1,083	1,150
Sonoma (t)	652	757
Sonora (c)	1,922	1,441
South Pasadena (c)	1,001	623
Stockton (c)	17,506	14,424
Suisun (t)	625	499
Tulare (c)	2,216	2,697
Ukiah (c)	1,850	1,627
Vacaville (t)	1,220	725
Vallejo (c)	7,965	6,343
Ventura (c)	2,470	2,320
Visalia (c)	3,085	2,885
Watsonville (c)	3,528	2,149
Wheatland (t)	492	630
Whittier (c)	1,590	585
Willits (t)	791	815
Willows (t)	893	1,176
Winters (t)	785	.....
Woodland (c)	2,886	3,069
Yreka (t)	1,254	1,100
Colorado.		
Aguilar (c)	698	.....
Akron (t)	351	559
Alamosa (t)	1,141	973
Alma (t)	297	367
Altman (t)	659	.....
Anaconda (t)	1,059	.....
Animas (t)	154	180
Antonito (t)	347	315
Argo (t)	443	.....
Aspen (c)	3,303	5,108
Basalt (t)	382	.....
Bed Rock (t)	35	.....
Bellvue (t)	99	.....
Berkeley (t)	707	.....
Berthoud (v)	305	228
Black Hawk (t)	1,200	1,067
Bonanza (v)	141	96
Boulder (c)	6,150	3,330
Breckenridge (t)	976	.....
Brighton (t)	366	306
COLORADO—Continued.		
Brush (t)	381	112
Buena Vista (t)	1,006	.....
Burlington (t)	183	146
Canyon City	3,775	2,825
Carbondale (t)	173	166
Castle Rock (t)	304	315
Central City (t)	3,114	2,480
Coal Creek (t)	698	.....
Colorado City (t)	2,914	1,788
Colorado Springs (c)	21,085	11,140
Como (t)	407	374
Conejos (t)	348	.....
Cortez (t)	125	332
Creede (c)	938	.....
Creede (t) (Amethyst P. O.)	235	.....
Crested Butte (t)	988	857
Cripple Creek (t)	10,147	.....
Dallas (t)	50	541
De Beque (t)	83	.....
Del Norte (t)	705	736
Delta (t)	819	470
Denver (c)	133,859	106,713
Dolores (t)	108	.....
Dubois (t)	23	.....
Durango (c)	3,317	2,726
Eagle (t)	124	.....
Eaton (t)	384	.....
Edith (t)	282	.....
Eldora (t)	395	.....
Elizabeth (t)	215	.....
Elyria (t)	1,384	.....
Empire (t)	276	134
Erie (t)	697	662
Eureka (v)	39	49
Evans (t)	400	306
Fairplay (t)	319	301
Fletcher (t)	202	.....
Florence (c)	3,728	.....
Florissant (t)	131	439
Fort Collins (c)	3,053	2,011
Fort Lupton (t)	214	113
Fort Morgan (t)	634	488
Freshwater (t)	77	.....
Fruita (t)	126	.....
Georgetown (t)	1,418	1,927
Gillett (t)	524	.....
Gilman (t)	222	442
Glenwood Springs (t)	1,350	920
Globeville (t)	2,192	.....
Golden City	2,152	2,383
Goldfield (t)	2,191	.....
Gothic (t)	20	.....
Granada (t)	204	163
Grand Junction (c)	3,503	2,030
Granite (t)	250	.....
Greeley (c)	3,023	2,395
Green Mountain Falls (t)	40	.....
Gunnison (t)	1,200	1,105
Gypsum (t)	76	.....
Holly (t)	364	.....
Holyoke (t)	451	649
Hooper (t)	177	.....
Hotchkiss (t)	261	.....
Idaho Springs (t)	2,502	1,338
Ironton (t)	71	.....
Irwin (v)	26	.....
Jamestown (t)	164	212
Julesburg (t)	371	202
Lafayette (t)	970	410
La Jara (t)	208	.....
La Junta (t)	2,513	1,439
Lake City (t)	700	607
Lamar (t)	987	566
Las Animas (t)	1,192	611
La Veta (t)	254	361
Lawrence (t)	299	.....
Leadville (c)	12,455	10,384
Littleton (t)	738	.....
Longmont (t)	2,201	1,543
Louisville (t)	966	596
Loveland (v)	1,091	698
Lyons (t)	547	574
Mannassa (t)	739	642
Mancos (t)	383	.....
Manitou (t)	1,303	1,439
COLORADO—Continued.		
Marble (t)	101	.....
Meeker (t)	507	260
Montclair (t)	415	380
Monte Vista (t)	556	780
Montezuma (t)	40	.....
Montrose (t)	1,217	1,330
Monument (t)	156	177
Nevadaville (t)	823	933
Newcastle (t)	431	311
Ophir (t)	127	113
Ordway (t)	138	.....
Ouray (c)	2,196	2,534
Pagosa Springs (t)	367	.....
Palmer Lake (t)	166	.....
Pitkin (v)	203	371
Platteville (t)	263	213
Poncha Springs (t)	97	101
Portland (t)	69	116
Pueblo (c)	28,157	24,558
Redcliff (t)	256	383
Red Mountain (t)	30	.....
Rico (t)	811	1,134
Ridgway (t)	245	.....
Rifle (t)	273	.....
Rockvale (c)	870	.....
Rocky Ford (t)	2,018	468
Rosita (t)	110	304
Saguache (t)	389	660
St. Elmo (t)	64	.....
Salida (c)	3,722	2,586
San Rafael (t)	700	.....
Saw Pit (t)	94	.....
Sheridan (t)	442	.....
Silver Cliff (t)	576	546
Silver Plume (t)	775	908
Silverton (t)	1,360	.....
South Canyon City	958	.....
Spencer (t)	52	.....
Springfield (t)	44	90
Sterling (t)	998	540
Sugar City (t)	689	.....
Telluride (t)	2,446	766
Tin Cup (v)	64	.....
Trinidad (c)	5,345	5,523
Valverde (t)	665	.....
Victor (c) (Hastings P. O.)	1,174	.....
Victor (t) (Teller county)	4,986	.....
Villa Grove (t)	103	.....
Walden (t)	141	67
Walsenburg (t)	1,033	928
Ward (t)	300	424
Westcliffe (t)	256	192
West Creek (t)	161	.....
White Pine (v)	69	143
Williamsburg (t)	337	.....
Windsor (t)	305	173
Woodland Park (t)	269	.....
Wray (t)	271	125
Yuma (t)	139	241
Connecticut.		
Ansonia (c)	12,681	.....
Bethel (b)	2,561	2,335
Branford (b)	2,473	.....
Bridgeport (c)	70,996	48,866
Bristol (b)	6,268	.....
Colchester (b)	858	.....
Danbury (c)	16,537	16,552
Danielson (b)	2,823	.....
Derby (c)	7,930	.....
Fenwick (b)	23	.....
Greenwich (b)	2,420	.....
Guilford (b)	1,512	.....
Hartford (c)	79,850	53,230
Jewett City (b)	2,224	1,934
Litchfield (b)	1,120	1,058
Meriden (c)	24,296	21,652
Middletown (c)	9,589	9,013
Naugatuck (b)	10,541	.....
New Britain (c)	25,998	16,519
New Canaan (b)	1,304	.....
New Haven (c)	108,027	81,298
New London (c)	17,548	13,757

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
CONNECTICUT—Continued.		
Newtown (b)	254	.....
Norwalk (c)	6,125	.....
Norwich (c)	17,251	16,156
Putnam (c)	6,667	.....
Rockville (c)	7,287	7,772
Shelton (b)	2,837	1,952
Southington (b)	3,411	.....
South Norwalk (c)	6,591	.....
Stafford Springs (b)	2,460	2,353
Stamford (c)	15,997	.....
Stonington (b)	2,278	.....
Torrington (b)	8,360	4,283
Wallingford (b)	6,737	4,230
Waterbury (c)	45,859	28,646
West Haven (b)	5,247	.....
Willimantic (c)	8,937	8,648
Winsted (b)	6,804	4,846
Delaware.		
Bridgeville (t)	613	576
Camden (t)	536	553
Cheswold (t)	201	129
Clayton (t)	819	540
Dagsboro (t)	190	.....
Delaware City	1,132	969
Delmar (t)	444	360
Dover (t)	3,329	3,061
Felton (t)	400	403
Frankford (t)	424	519
Frederica (t)	706	621
Georgetown (t)	1,658	1,353
Harrington (t)	1,242	.....
Kenton (t)	192	241
Laurel (t)	1,825	2,388
Leipsic (t)	305	355
Lewes (t)	2,259	.....
Little Creek (t)	259	285
Magnolia (t)	208	216
Middletown (t)	1,567	1,454
Milford (t)	2,500	2,565
Millsboro (t)	391	324
Milton (t)	948	1,074
Newark (t)	1,213	1,191
Newcastle (c)	3,380	4,010
Newport (t)	657	711
Odessa (t)	575	640
Port Penn (t)	304	310
Rehoboth (t)	198	.....
St. Georges (t)	325	323
Seaford (t)	1,724	1,462
Smyrna (t)	2,168	2,455
Townsend (t)	399	387
Wilmington (c)	76,508	61,431
Wyoming (t)	450	497
District of Columbia.		
Washington	278,718	230,392
Florida.		
Anthony (t)	198	231
Apalachicola (t)	3,077	2,727
Apopka (t)	218	490
Arcadia (t)	799	.....
Aucilla (v)	173	216
Bartow (t)	1,983	1,386
Bellair (t)	113	.....
Belleview (t)	137	130
Brooksville (t)	641	512
Carrabelle (t)	923	482
Cedar Keys (t)	739	.....
Chipley (t)	652	354
Citra (t)	322	387
Clear Water Harbor (t)	343	.....
Cocoa (t)	382	312
Crescent City (t)	352	554
Dade City	509	321
Daytona (t)	1,690	771
De Land (t)	1,449	1,113
Deleon Springs (t)	183	235
Dunedin (t)	113	.....
Dunnellon (t)	700	532

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
FLORIDA—Continued.		
Eatonville (t)	125	.....
Eau Gallie (t)	172	88
Eustis (t)	411	.....
Federal Point (t)	172	.....
Fernandina (c)	3,245	2,803
Fort Brook (t)	1,135	448
Fort Meade (t)	261	267
Fort White (t)	600	376
Gainesville (c)	3,633	2,790
Goldsboro (t)	71	.....
Green Cove Springs (t)	929	1,106
Hampton (t)	198	.....
Hawthorn (t)	296	.....
High Springs (t)	1,562	.....
Interlachen (c)	147	207
Jacksonville (c)	28,429	17,201
Jasper (t)	993	.....
Key West (c)	17,114	18,080
Kissimmee (c)	1,132	1,086
Lake Butler (t)	431	.....
Lake City (t)	4,013	2,020
Lake Helen (v)	203	.....
Lakeland (t)	1,180	552
Lake Maitland (t)	136	.....
Leesburg (t)	765	722
Live Oak (t)	1,659	687
Macclenny (t)	350	334
Madison (t)	849	781
Manatee (t)	254	298
Marianna (t)	900	926
Melbourne (t)	131	99
Miami (c)	1,681	.....
Micanopy (t)	645	494
Milton (t)	1,204	1,455
Monticello (t)	1,076	1,218
Myers (t)	943	575
New Augustine (c)	693	553
New Smyrna (t)	543	287
Ocala (c)	3,380	2,904
Orange City (t)	365	.....
Orange Park (t)	245	228
Orlando (c)	2,481	2,856
Ormond (v)	595	239
Palatka (c)	3,301	3,039
Palatka Heights (t)	354	454
Palmetto (t)	569	224
Pensacola (c)	17,747	11,750
Plant City (t)	720	349
Port Tampa City (t)	1,367	.....
Punta Gorda (t)	860	262
Quincy (t)	847	681
St. Augustine (c)	4,272	4,742
St. Petersburg (t)	1,575	273
Sanford (c)	1,450	2,016
San Mateo (t)	267	.....
Sneads (t)	368	.....
Starke (t)	972	669
Tallahassee (c)	2,981	2,934
Tampa (c)	15,839	5,532
Tarpon Springs (t)	541	327
Tavares (t)	113	.....
Titusville (t)	756	746
Vernon (t)	141	.....
Welaka (t)	215	.....
West Palm Beach (c)	564	.....
West Tampa (c)	2,355	.....
White Springs (t)	690	543
Wildwood (t)	244	419
Williston (t)	184	.....
Winter Park (t)	366	270
Georgia.		
Abbeville (t)	1,152	657
Acree (t)	159	.....
Acworth (t)	937	815
Adairsville (t)	616	531
Adel (t)	721	527
Adrian (t)	833	.....
Aikenton (t)	136	.....
Ailey (t)	271	.....
Alapaha (t)	429	449
Albany (c)	4,606	4,008

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
GEORGIA—Continued.		
Alpharetta (t)	310	256
Alto (t)	74	.....
Americus (c)	7,674	6,398
Andersonville (v)	245	.....
Arabi (v)	505	.....
Arlington (v)	755	417
Ashburn (t)	1,301	403
Athens (c)	10,245	8,639
Atlanta (c)	89,872	65,533
Auburn (t)	161	.....
Augusta (c)	39,441	33,300
Austell (t)	648	582
Bainbridge (t)	2,641	1,668
Baldwin (t)	130	.....
Ball Ground (t)	302	296
Barnesville (t)	3,036	1,839
Barnett (t)	381	73
Barrington (t)	34	.....
Bartow (t)	286	437
Battle Hill (t)	223	.....
Baxley (t)	488	337
Bellton (t)	257	211
Blackshear (t)	876	656
Blairsville (t)	141	114
Blakely (t)	804	441
Blue Ridge (t)	1,148	264
Bluffton (t)	312	298
Bolingbroke (t)	157	.....
Boston (t)	722	646
Bowdon (t)	307	354
Bowersville (t)	294	275
Bowman (t)	367	323
Braswell (t)	100	.....
Bremen (t)	291	312
Brewton (t)	292	.....
Bronwood (t)	359	406
Brunswick (c)	9,081	8,459
Buchanan (t)	359	324
Buckhead (t)	240	.....
Buena Vista (t)	1,161	788
Buford (t)	1,352	496
Butler (t)	707	712
Cairo (t)	690	521
Calhoun (t)	851	680
Camak (t)	115	.....
Camilla (t)	1,051	866
Canton (t)	847	659
Carlton (t)	277	.....
Carnesville (t)	305	275
Carrollton (t)	1,998	1,451
Cartersville (c)	3,135	3,171
Cave Springs (t)	824	952
Cecil (t)	384	203
Cedartown (t)	2,823	1,625
Chauncey (t)	422	633
Chickamauga (t)	95	.....
Chipley (t)	459	.....
Chokee (v)	120	153
Clarkston (t)	362	271
Clarksville (t)	491	396
Claxton (t)	553	.....
Clayton (t)	199	.....
Cochran (t)	1,531	.....
Cohutta (t)	283	268
Coleman (t)	263	211
College Park (t)	517	.....
Colquitt (t)	320	.....
Columbus (c)	17,614	17,303
Comer (t)	336	.....
Concord (v)	231	360
Conyers (t)	1,605	1,349
Cordele (t)	3,473	1,578
Cornelia (t)	467	175
Covington (c)	2,062	1,823
Crawford (t)	308	.....
Crawfordville (t)	597	584
Culloden (v)	334	.....
Culverton (t)	283	.....
Cumming (t)	239	356
Cusseta (v)	301	241
Cuthbert (t)	2,641	2,328
Dahlonega (t)	1,255	896
Dallas (t)	644	455

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
GEORGIA—Continued.		
Dalton (c)	4,315	3,046
Danielsville (t)	194	149
Darien (c)	1,739	1,491
Davisboro (v)	387	221
Dawson (t)	2,926	2,284
Dawsonville (t)	217	.....
Decatur (t)	1,418	1,013
Demorest (t)	560	208
Dennard (t)	16	.....
De Soto (v)	250	.....
Dexter (t)	199	.....
Doerun (t)	325	.....
Donalsonville (t)	519	.....
Douglas (t)	617	.....
Douglasville (t)	1,140	863
Dublin (c)	2,987	862
Duluth (t)	336	319
Eastman (t)	1,235	1,082
East Point (t)	1,315	738
East Rome (t)	671	514
Eatonton (c)	1,823	1,682
Edgewood (t)	1,285	.....
Elberton (c)	3,834	1,572
Elko (t)	171	.....
Ellaville (t)	474	.....
Ellijay (t)	581	437
Emerson (t)	111	.....
Etna (t)	128	.....
Fairburn (t)	761	695
Fairmount (t)	191	.....
Fayetteville (t)	430	380
Fitzgerald (c)	1,817	.....
Five Forks (t)	141	.....
Flintstone (t)	257	.....
Flovilla (t)	523	422
Flowery Branch (t)	420	350
Folkston (t)	167	.....
Forsyth (c)	1,172	920
Fort Gaines (t)	1,305	1,097
Fort Valley (t)	2,022	1,752
Franklin (t)	21[illegible]	250
Frazier (t)	68	.....
Gainesville (c)	4,382	3,202
Geneva (t)	264	.....
Georgetown (v)	348	348
Gibson (t)	293	197
Glenville (t)	269	.....
Gordon (t)	509	.....
Grantville (t)	769	654
Graysville (t)	183	306
Greensboro (c)	1,511	1,313
Greenville (t)	815	.....
Griffin (c)	6,857	4,503
Grovetown (t)	527	.....
Guyton (t)	500	541
Hahira (t)	302	.....
Hamilton (t)	418	.....
Hampton (t)	468	422
Hapeville (t)	430	.....
Harlem (t)	527	647
Harmony Grove (t)	1,454	611
Harrison (t)	322	575
Harrisonville (t)	711	.....
Hartwell (t)	1,672	.....
Hawkinsville (t)	2,103	1,755
Hazlehurst (t)	793	290
Helena (t)	604	.....
Hephzibah (t)	541	.....
Hilton (t)	104	.....
Hiram (t)	105	.....
Hogansville (t)	893	518
Homer (t)	221	.....
Homerville (t)	434	.....
Hoschton (t)	290	207
Irwinton (t)	227	.....
Jackson (t)	1,487	922
Jakin (t)	267	.....
Jasper (t)	379	333
Jefferson (t)	726	540
Jenkinsburg (t)	255	.....
Jesup (t)	805	907
Jonesboro (c)	877	803
Kenesaw (t)	320	168
GEORGIA—Continued.		
Kingston (t)	512	559
Kirkwood (t)	699	.....
Kite (t)	156	.....
Knoxville (v)	300	580
Lafayette (t)	491	377
La Grange (c)	4,274	3,090
Lake Park (t)	319	.....
Lavonia (t)	699	283
Lawrenceville (t)	853	566
Leary (t)	396	267
Leesburg (t)	413	442
Leslie (v)	213	.....
Lexington (t)	635	.....
Lincolnton (t)	221	220
Lithia Springs (t)	330	290
Lithonia (t)	1,208	1,182
Locust Grove (t)	254	255
Loganville (t)	431	338
Louisville (t)	1,009	836
Louvale (t)	53	.....
Lovett (t)	114	.....
Lula (t)	217	.....
Lumber City (t)	760	471
Lumpkin (t)	1,470	.....
Luthersville (t)	209	.....
Lyerly (t)	234	.....
Lyons (t)	534	.....
McDonough (t)	683	515
McIntosh (t)	262	315
McRae (t)	1,020	.....
Machen (t)	210	228
Macon (c)	23,272	22,746
Madison (c)	1,992	2,131
Marietta (c)	4,446	3,384
Marshallville (v)	879	1,086
Martin (t)	160	.....
Maysville (t)	453	327
Meansville (t)	155	.....
Meigs (t)	617	.....
Mesena (t)	124	.....
Metcalf (t)	259	156
Metter (t)	213	.....
Midville (v)	275	.....
Milledgeville (c)	4,219	3,322
Millen (t)	411	.....
Milner (v)	440	.....
Mineral Bluff (t)	158	76
Mitchell (t)	246	.....
Molina (v)	394	198
Monroe (c)	1,846	983
Montezuma (t)	903	706
Monticello (t)	1,106	849
Moreland (t)	229	.....
Morgan (t)	240	180
Moultrie (t)	2,221	.....
Mt. Airy (t)	310	201
Mt. Vernon (v)	573	707
Mountville (t)	224	.....
Mystic (t)	97	.....
Nashville (v)	203	426
Nellieville (t)	476	.....
Nelson (t)	254	266
Newborn (t)	695	230
New England City	138	201
Newman (c)	3,654	2,859
Newton (t)	329	.....
Norcross (t)	797	713
North Rome (t)	960	771
Norwood (t)	299	332
Oakland City (t)	823	.....
Ochlockonee (t)	244	202
Ocilla (t)	805	.....
Oconee (t)	27	.....
Oglethorpe (t)	545	486
Omaha (t)	152	.....
Oxford (t)	800	791
Palmetto (t)	620	552
Parrott (t)	267	.....
Patterson (t)	314	.....
Pavo (t)	262	.....
Pearson (t)	336	.....
Pelham (t)	945	385
Pendergrass (t)	232	.....
GEORGIA—Continued.		
Penfield (t)	375	.....
Pepperton (t)	500	.....
Perry (c)	650	665
Pinehurst (t)	330	.....
Plains (v)	346	.....
Poulan (t)	474	.....
Powder Springs (t)	280	262
Powellville (t)	79	.....
Preston (t)	146	.....
Princeton (t)	244	.....
Quitman (t)	2,281	1,868
Raccoon Mills (t)	441	.....
Reidsville (t)	257	.....
Resaca (t)	128	197
Reynolds (t)	436	283
Rhine (t)	191	.....
Richland (t)	1,014	457
Riddleville (v)	178	.....
Ringgold (t)	437	465
Rising Fawn (t)	212	927
Roberta (t)	252	.....
Rochelle (t)	793	.....
Rockmart (t)	575	411
Rome (c)	7,291	6,957
Roopville (v)	109	123
Roswell (t)	1,329	1,138
Royston (t)	579	340
Ruckersville (t)	99	.....
Rutledge (c)	469	588
St. Charles (t)	66	.....
St. Marys (t)	529	575
Sandersville (c)	2,023	1,760
Sasser (t)	322	.....
Savannah (c)	54,244	43,189
Seney (t)	121	.....
Senoia (t)	782	863
Seville (t)	1,277	291
Shady Dale (t)	300	152
Sharon (t)	216	172
Sharpsburg (t)	137	177
Shellman (t)	584	462
Smithville (t)	597	.....
Smyrna (t)	238	416
Social Circle (t)	1,229	737
Sparks (t)	683	307
Sparta (t)	1,150	1,540
Spring Place (t)	213	194
Springvale (t)	166	.....
Statesboro (t)	1,197	425
Statham (t)	172	.....
Stellaville (t)	171	.....
Sterling (t)	97	.....
Stillmore (t)	741	.....
Stone Mountain (t)	835	929
Sugar Valley (t)	231	164
Summerville (t) (Chattooga county)	486	560
Summerville (t) (Richmond county)	3,245	.....
Summit (t)	264	.....
Sumner (t)	333	.....
Suwanee (t)	247	166
Swainsboro (t)	895	395
Sycamore (t)	274	.....
Sylvania (t)	545	338
Sylvester (t)	552	.....
Talbotton (t)	1,131	1,140
Talking Rock (t)	102	141
Tallapoosa (c)	2,128	1,699
Tallulah Falls (t)	134	149
Taylorsville (t)	139	87
Temple (t)	397	240
Tennille (t)	1,121	953
The Rock (t)	180	.....
Thomaston (t)	1,714	1,181
Thomasville	5,322	5,514
Thomson (t)	1,154	836
Tifton (t)	1,384	.....
Tilton (t)	194	182
Toccoa (t)	2,176	1,120
Toombsboro (t)	50	.....
Trenton (t)	349	378
Trion (t)	1,926	807
Tunnelhill (t)	302	360

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
GEORGIA—Continued.		
Turin (t)	196	161
Tybee (t)	381	.....
Ty Ty (t)	175	353
Unadilla (v)	524	.....
Valdosta (c)	5,613	2,854
Vidalia (t)	503	
Vienna (t)	1,035	536
Villa Rica (t)	576	426
Waco (t)	345	357
Wadley (t)	630	522
Waleska (t)	170	.....
Waresboro (t)	269	.....
Warrenton (t)	1,113	974
Warthen (t)	148	.....
Washington (v)	3,300	2,631
Wassaw (t)	592	.....
Watkinsville (t)	351	314
Waycross (t)	5,919	3,364
Waynesboro (v)	2,030	1,711
West Buford (t)	211	.....
Weston (t)	273	215
West Point (c)	1,797	1,254
Whigham (t)	392	264
Whitehall (t)	660	.....
White Plains (t)	290	510
Whitesburg (t)	296	294
Willacoochee (t)	471	398
Winder (t)	1,145	202
Woodbury (t)	566	369
Woodstock (t)	276	.....
Wrightsville (t)	1,127	479
Yatesville (t)	283	.....
Young Harris (t)	249	.....
Zebulon (t)	361	315
Hawaii.		
Honolulu*	39,306	22,907
Idaho.		
Albion (v)	306	179
Bellevue (c)	356	892
Boise (c)	5,957	2,311
Bodners Ferry (t)	349	.....
Caldwell (c)	997	779
Cœur d'Alene (t)	508	491
Franklin (v)	435	.....
Genesee (t)	731	282
Grangeville (t)	1,132	340
Harrison (t)	702	.....
Idaho City	390	.....
Idaho Falls (c)	1,262	.....
Juliaetta (t)	287	.....
Kendrick (t)	490	.....
Lewiston (c)	2,425	849
Malade (v)	1,050	.....
Montpelier (c)	1,444	1,174
Moscow (t)	2,484	.....
Mountain Home (t)	529	233
Nampa (v)	799	347
Paris (c)	906	893
Payette (v)	614	.....
Placerville (t)	230	.....
Pocatello (c)	4,046	.....
Post Falls (t)	287	.....
Rathdrum (t)	407	218
Rexburg (t)	1,081	.....
St. Anthony (t)	411	.....
Salmon (c)	398	.....
Soda Springs (v)	428	.....
Troy (t)	283	.....
Wallace (c)	2,265	878
Weiser (c)	1,364	901
Illinois.		
Abingdon (c)	2,022	1,321
Addieville (v)	190	117
Addison (v)	591	485
Adeline (v)	216	256
Albany (v)	629	611
Albion (v)	1,162	937
Aledo (c)	2,081	1,601
ILLINOIS—Continued.		
Alexis (v)	915	562
Algonquin (v)	550	.....
Alhambra (v)	368	.....
Alma (v)	418	.....
Alpha (v)	355	.....
Altamont (t)	1,335	1,044
Alton (c)	14,210	10,294
Altona (t)	633	654
Alto Pass (v)	518	389
Alvin (v)	368	.....
Amboy (c)	1,826	2,257
Andalusia (v)	326	281
Andover (t)	238	259
Anna (c)	2,618	2,295
Annawan (v)	428	387
Antioch (v)	522	303
Apple River (v)	576	572
Arcola (c)	1,995	1,783
Arenzville (v)	462	356
Argenta (t)	525	.....
Arlington (v)	400	436
Arlington Heights (v)	1,380	1,424
Arrowsmith (v)	317	.....
Arthur (v)	858	536
Ashkum (v)	429	300
Ashland (t)	1,201	1,045
Ashley (c)	953	1,035
Ashmore (v)	476	446
Ashton (v)	756	680
Assumption (v)	1,702	1,076
Astoria (t)	1,684	1,357
Athens (c)	1,535	944
Atkinson (v)	762	534
Atlanta (c)	1,270	1,178
Atwood (v)	698	530
Auburn (v)	1,281	874
Augusta (v)	1,149	1,077
Aurora (c)	24,147	19,688
Ava (v)	984	807
Averyville (v)	1,573	.....
Aviston (v)	387	381
Avon (v)	809	692
Baldwin (v)	381	298
Bardolph (v)	387	447
Barrington (v)	1,162	848
Barry (c)	1,643	1,354
Bartelso (v)	274	.....
Bartlett (v)	360	263
Basco (v)	318	327
Batavia (c)	3,871	3,543
Batchtown (v)	360	.....
Bath (v)	330	384
Baylis (v)	340	368
Beardstown (c)	4,827	4,226
Beecher (v) (Will county)	410	342
Beecher City (v) (Effingham county)	340	.....
Beechwood (v)	854	.....
Belknap (v)	372	358
Belle Prairie (v)	129	.....
Belle River (t)	370	.....
Belleville (c)	17,484	15,361
Bellflower (v)	356	.....
Bellmont (v)	624	487
Belvidere (c)	6,937	3,867
Bement (v)	1,484	1,129
Bensenville (v)	374	295
Benson (v)	367	338
Bentley (c)	138	144
Benton (v)	1,341	939
Berlin (v)	256	260
Bethalto (v)	477	879
Bethany (v)	873	688
Biggsville (v)	417	487
Bingham (t)	273	178
Birds (v)	335	.....
Bishop Hill (v)	345	330
Blandinsville (v)	995	877
Bloomingdale (v)	235	463
Bloomington (c)	23,286	20,484
Blue Island (v)	6,114	3,329
Blue Mound (t)	714	696
Bluffs (v)	539	421
Bolton (v)	479	464
ILLINOIS—Continued.		
Bone Gap (v)	496	.....
Bonfield (v)	165	150
Bourbonnais (v)	595	.....
Bowen (v)	528	376
Braceville (v)	1,669	2,150
Bradford (v)	773	604
Bradley (v)	1,518	.....
Braidwood (c)	3,279	4,641
Breese (v)	1,571	808
Bridgeport (t)	487	474
Brighton (v)	660	742
Brimfield (t)	677	719
Bristol (v)	427	.....
Broadwell (v)	202	231
Brocton (v)	613	292
Brooklyn (v) (Massac Co.)	865	216
Brooklyn (v) (St. Clair county)	1,019	.....
Brookville (v)	422	.....
Broughton (v)	327	.....
Browning (t)	455	.....
Browns (v)	421	.....
Brussels (v)	270	228
Bryant (v)	355	309
Buckley (v)	490	433
Buda (v)	873	990
Buffalo (v)	531	.....
Bunker Hill (c)	1,279	1,269
Bureau (v)	545	363
Bushnell (c)	2,490	2,314
Butler (v)	292	311
Byron (v)	1,015	698
Cabery (v)	585	342
Cable (v)	697	1,276
Cairo (c)	12,566	10,324
Cambridge (v)	1,345	940
Campbell Hill (v)	497	280
Camp Point (v)	1,260	1,150
Campus (v)	226	.....
Canton (c)	6,564	5,604
Cantrall (v)	396	.....
Capron (v)	502	436
Carbondale (c)	3,318	2,382
Carbon Hill (v)	1,252	.....
Carlinville (c)	3,502	3,293
Carlyle (c)	1,874	1,784
Carmi (c)	2,939	2,785
Carpentersville (v)	1,002	754
Carrier Mills (v)	427	.....
Carrollton (c)	2,355	2,258
Carterville (c)	1,749	969
Carthage (t)	2,104	1,654
Cary (v)	398	.....
Casey (c)	1,500	844
Caseyville (v)	449	475
Catlin (v)	697	275
Cedarville (v)	377	326
Central City (Grundy Co.)	290	673
Central City (v) (Marion county)	615	304
Centralia (c)	6,721	4,763
Cerro Gordo (v)	1,008	939
Chadwick (v)	505	.....
Champaign (c)	9,098	5,839
Chandlerville (v)	940	910
Channahon (v)	261	.....
Chapin (v)	514	.....
Charleston (c)	5,488	4,135
Chatham (v)	629	482
Chatsworth (t)	1,038	827
Chebanse (t)	555	616
Chenoa (c)	1,512	1,226
Cherry Valley (v)	349	.....
Chester (c)	2,832	2,708
Chesterfield (v)	377	374
Chicago (c)	1,698,575	1,099,850
Chicago Heights (v)	5,100	.....
Chillicothe (c)	1,699	1,632
Chrisman (c)	905	820
Cisco (v)	360	.....
Cisne (v)	400	.....
Cissna Park (v)	623	.....
Claremont (t)	226	212

*Honolulu city, so called, is co-extensive with Honolulu district, but is not in reality incorporated.

(c) City; (t) Town; (v) Village; (b) Borough

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
ILLINOIS—Continued.		
Clarke City (v)	621	.....
Clay City (v)	907	.....
Clayton (v)	996	1,033
Clifton (v)	652	474
Clinton (c)	4,452	2,598
Coal City	2,607	1,672
Coal Valley (v)	259	207
Coatsburg (v)	321	308
Cobden (v)	1,034	994
Coffeen (v)	963	518
Colchester (c)	1,635	1,643
Colfax (v)	1,153	.....
Collinsville (c)	4,021	3,498
Columbia (t)	1,197	1,267
Columbus (v)	196	201
Compton (v)	428	234
Cordova (v)	414	443
Cornell (v)	521	437
Cortland (v)	261	313
Coulterville (t)	650	598
Cowden (v)	751	702
Crainville (v)	290	.....
Creal Springs (c)	940	539
Crescent City (v)	371	.....
Creston (v)	381	329
Crete (v)	760	642
Crossville (v)	523	.....
Crotty (v)	1,036	1,190
Crystal Lake (v)	950	781
Cuba (c)	1,198	1,114
Cullom (v)	456	200
Dahlgren (v)	452	301
Dakota (v)	269	283
Dallas City	970	747
Dalton City (v)	383	334
Dana (v)	310	221
Danforth (v)	407	.....
Danvers (v)	607	506
Danville (c)	16,354	11,491
Davis (v)	398	455
Dawson (v)	574	.....
Decatur (c)	20,754	16,841
Deer Creek (v)	298	125
Dekalb (c)	5,904	2,579
De Land (v)	411	.....
Delavan (c)	1,304	1,176
Depue (v)	488	455
De Soto (v)	560	376
Des Plaines (v)	1,666	986
Detroit (t)	149	161
Dewitt (v)	253	265
Diamond (v)	672	.....
Dieterich (v)	382	.....
Dixon (c)	7,917	5,161
Dolton (v)	1,229	1,110
Dongola (v)	681	733
Donnellson (v)	268	.....
Dover (v)	247	229
Downers Grove (v)	2,103	960
Dubois (v)	335	304
Duquoin (c)	4,353	4,052
Durand (v)	571	489
Dwight (v)	2,015	1,354
Earlville (c)	1,122	1,058
East Alton (v)	454	.....
East Carondelet (v)	222	404
East Dubuque (c)	1,146	1,069
East Dundee (v)	1,417	1,150
East Galesburg (v)	663	.....
Easton (v)	335	.....
East Peoria (v)	899	392
East St. Louis (c)	29,655	15,169
Eddyville (v)	162	212
Edgewood (t)	412	255
Edinburg (v)	1,071	806
Edison Park (v)	344	.....
Edwardsville (c)	4,157	3,561
Effingham (c)	3,774	3,260
Elburn (v)	606	584
Eldara (t)	249	241
Eldorado (c)	1,445	.....
Elgin (c)	22,433	17,823
Elizabeth (t)	659	495
Elizabethtown (v)	668	652
Elkhart (v)	553	414
Elkville (v)	465	145
Ellis Grove (v)	280	.....
Ellisville (v)	219	255
Elmhurst (v)	1,728	1,050
Elmwood (t)	1,582	1,548
El Paso (c)	1,141	1,353
Elsah (v)	220	271
Elvaston (v)	308	307
Elwood (v)	244	243
Emden (v)	330	.....
Emington (v)	206	129
Enfield (t)	971	870
Equality (v)	898	622
Erie (v)	768	535
Essex (v)	385	266
Eureka (c)	1,661	1,481
Evanston (c)	19,259	.....
Evansville (t)	663	407
Evergreen Park (v)	445	.....
Ewing (v)	419	290
Exeter (t)	233	244
Fairbury (c)	2,187	2,324
Fairfield (c)	2,338	1,881
Fairmount (v)	928	649
Fairview (v)	501	492
Fancher (v)	157	.....
Farina (t)	693	618
Farmer City	1,664	1,367
Farmersville (v)	315	.....
Farmington (c)	1,729	1,375
Fayetteville (v)	282	312
Ferris (v)	269	305
Fidelity (t)	222	.....
Fieldon (t)	259	292
Fillmore (v)	500	.....
Findlay (v)	479	.....
Fisher (v)	614	.....
Fithian (v)	309	.....
Flanagan (v)	509	384
Flat Rock (v)	315	151
Flora (c)	2,311	1,695
Forest City (v) (Mason Co.)	309	.....
Forrest (t) (Livingston Co.)	952	1,021
Forrest (t)	1,047	1,118
Fort Sheridan (v)	1,575	451
Fosterburg (v)	130	110
Frankfort (v)	250	431
Franklin (v)	687	578
Franklin Grove (t)	681	736
Franklin Park (v)	483	.....
Freeburg (v)	1,214	848
Freeport (c)	13,258	10,189
Fulton (c)	2,685	2,099
Galatia (v)	642	519
Galena (c)	5,005	5,635
Galesburg (c)	18,607	15,264
Galva (t)	2,682	2,409
Gardner (v)	1,036	1,094
Geneseo (c)	3,356	3,182
Geneva (c)	2,446	1,692
Genoa (v)	1,140	634
Georgetown (v)	988	662
Germantown (v) (Clinton county).	655	537
Germantown (v) (Vermilion county).	1,782	1,178
Gibson City	2,054	1,803
Gilberts (v)	222	.....
Gillespie (v)	873	948
Gilman (c)	1,441	1,112
Girard (c)	1,661	1,524
Gladstone (v)	433	.....
Glasford (v)	409	268
Glasgow (v)	235	187
Glencoe (v)	1,020	569
Glen Ellyn (v)	793	473
Godfrey (v)	29	228
Godley (v)	329	296
Golconda (v)	1,140	1,174
Golden (v)	516	466
Golden Gate (v)	345	.....
Good Hope (v)	430	368
Goreville (v)	406	.....
Grafton (v)	988	927
Grand Ridge (v)	392	328
Grand Tower (c)	881	624
Granite (c)	3,122	.....
Grant Park (v)	442	340
Granville (v)	320	148
Grape Creek (v)	610	778
Gray Lake (v)	416	.....
Grayville (c)	1,948	1,999
Greenfield (c)	1,085	1,131
Greenup (v)	1,085	858
Greenview (v)	1,019	1,106
Greenville (c)	2,504	1,868
Gridley (t)	716	474
Griggsville (c)	1,404	1,400
Grossdale (v)	1,111	.....
Gross Point (v)	669	.....
Hamburg (v)	308	.....
Hamilton (c)	1,344	1,301
Hamletsburg (v)	280	.....
Hammond (v)	481	.....
Hampshire (v)	760	696
Hampton (v)	374	341
Hanover (v)	785	743
Hardin (v)	494	311
Harlem (v)	4,085	.....
Harrisburg (c)	2,202	1,723
Hartsburg (v)	269	269
Harvard (c)	2,602	1,967
Harvel (v)	357	246
Harvey (c)	5,395	.....
Havana (c)	3,268	2,525
Hebron (v)	611	.....
Hecker (v)	200	.....
Henderson (t)	170	163
Hennepin (v)	523	574
Henry (c)	1,637	1,512
Herrick (v)	421	.....
Herrin (c)	1,559	.....
Herschel (v)	384	224
Hettick (v)	259	.....
Heyworth (v)	683	566
Highland (c)	1,970	1,857
Highland Park (c)	2,806	2,163
Hillsboro (c)	1,937	.....
Himrod (v)	426	.....
Hinckley (v)	587	496
Hindsboro (v)	343	288
Hinsdale (v)	2,578	1,584
Hodgkins (v)	195	.....
Holloway (v)	207	.....
Homer (v)	1,080	917
Homewood (v)	352	.....
Hoopeston (c)	3,823	1,911
Hopedale (v)	600	471
Hoyleton (v)	252	361
Hudson (t)	378	273
Huey (v)	267	.....
Humboldt (v)	319	279
Hume (v)	598	433
Huntley (v)	606	550
Hutsonville (v)	743	582
Illiopolis (v)	744	689
Ina (t)	317	
Indianola (v)	381	472
Industry (v)	463	432
Ipava (v)	749	667
Iroquois (v)	427	393
Irving (v)	675	630
Irvington (v)	240	.....
Itasca (v)	256	.....
Iuka (v)	421	362
Ivesdale (v)	476	323
Jacksonville (c)	15,078	12,935
Jeffersonville (v)	286	256
Jerseyville (c)	3,517	3,207
Jewett (v)	322	335
Johnsonville (v)	268	.....
Johnstown (c)	787	.....
Joliet (c)	29,353	23,264
Jonesboro (c)	1,130	.....
Kampsville (v)	330	172
Kane (v)	588	551

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
ILLINOIS—Continued.		
Kangley (v)	1,004	934
Kankakee (c)	13,595	9,025
Kansas (v)	1,049	1,037
Kappa (v)	175	.....
Kaskaskia (v)	177	.....
Keithsburg (c)	1,566	1,484
Kempton (v)	409	201
Kenilworth (v)	336	.....
Kenney (v)	584	497
Kewanee (c)	8,382	4,569
Keyesport (v)	500	.....
Kinderhook (v)	370	.....
Kingston (v) (Dekalb Co.)	305	295
Kingston (v) (Peoria Co.)	509	.....
Kinmundy (c)	1,221	1,045
Kirkman (v)	174	129
Kirkland (v)	636	410
Kirkwood (v)	1,008	949
Knoxville (c)	1,857	1,728
Lacon (c)	1,601	1,649
Ladd (v)	1,324	.....
Lafayette (v)	283	250
Lagrange (v)	3,969	2,314
Lagrange Park (v)	730	.....
La Harpe (c)	1,591	1,113
Lake Bluff (v)	490	.....
Lake Forest (c)	2,215	1,203
Lake Zurich (v)	215	.....
La Moille (v)	576	516
Lanark (c)	1,306	1,295
Lansing (v)	830	.....
La Prairie (v)	182	194
La Rose (v)	146	.....
Lasalle (c)	10,446	9,855
Lathan (v)	429	265
Lawrenceville (c)	1,300	865
Leaf River (v)	507	339
Lebanon (c)	1,812	1,636
Lee (v)	287	264
Leland (v)	634	554
Lemont (v)	2,449	.....
Lena (t)	1,252	1,270
Lenzburg (v)	343	266
L'Erable (v)	135	.....
Lerna (v)	396	.....
Leroy (c)	1,629	1,258
Lewistown (c)	2,504	2,166
Lexington (c)	1,415	1,187
Liberty (t)	499	.....
Libertyville (v)	864	550
Lima (v)	280	251
Lincoln (c)	8,962	6,725
Lisbon (v)	279	.....
Litchfield (c)	5,918	5,811
Little York (v)	334	.....
Loami (v)	481	383
Lockport (v)	2,659	2,449
Loda (v)	668	598
Lombard (v)	590	515
London Mills (v)	528	661
Long Point (v)	284	.....
Loraine (v)	349	327
Lostant (v)	480	387
Louisville (v)	646	637
Lovington (v)	815	767
Ludlow (v)	306	298
Lydon (v)	430	461
Lynnville (v)	176	.....
Lyons (v)	951	732
McHenry (v)	1,013	979
McLean (v)	532	500
McLeansboro (c)	1,758	1,355
Macedonia (v)	315	.....
Mackinaw (t)	859	545
Macomb (c)	5,375	4,052
Macon (v)	705	819
Madison (v)	1,979	.....
Magnolia (v)	264	287
Mahomet (v)	515	473
Makanda (v)	528	344
Malden (v)	309	319
Malta (v)	507	461
Mancheste. (t)	430	408
Manhattan (v)	393	257
Manito (v)	561	444
Mansfield (v)	708	533
Manteno (v)	932	627
Maple Park (v)	391	382
Maquon (v)	475	501
Marengo (c)	2,005	1,445
Marine (v)	666	637
Marion (c)	2,510	1,338
Marissa (v)	1,086	876
Maroa (c)	1,213	1,164
Marseilles (c)	2,559	2,210
Marshall (c)	2,077	1,900
Martinsville (v)	1,000	779
Martinton (v)	319	125
Marysville (v)	764	186
Mascoutah (c)	2,171	2,032
Mason City (Mason county)	1,890	1,869
Mason (t) (Effingham Co.)	369	425
Mattison (v)	449	323
Mattoon (c)	9,622	6,833
Maywood (v)	4,532	.....
Mazon (v)	447	.....
Mechanicsburg (v)	476	426
Medora (v)	449	470
Melrose Park (v)	2,592	.....
Melvin (v)	550	491
Mendon (v)	627	640
Mendota (c)	3,736	3,542
Meredosia (t)	700	621
Metamora (v)	758	758
Metcalf (v)	429	244
Metropolis (c)	4,069	3,573
Milan (t)	719	692
Milford (v)	1,077	957
Mill Creek (v)	273	.....
Milledgeville (v)	633	446
Millersburg (v)	305	.....
Millington (v)	286	301
Mill Shoals (t)	669	221
Millstadt (v)	1,172	1,186
Milton (v)	420	415
Mineral (v)	339	188
Minier (v)	746	664
Minonk (c)	2,545	2,316
Minooka (v)	424	360
Modesto (v)	299	.....
Mokena (v)	281	364
Moline (c)	17,248	12,000
Momence (c)	2,026	1,635
Monee (v)	462	445
Monmouth (c)	7,460	5,936
Montgomery (v)	350	263
Monticello (c)	1,982	1,643
Montrose (v)	300	.....
Morgan Park (v)	2,329	1,027
Morris (c)	4,273	3,653
Morrison (c)	2,308	2,088
Morrisonville (v)	934	844
Morton (v)	894	657
Morton Grove (v)	564	.....
Mound City	2,705	.....
Mound Station (t)	178	219
Mt. Auburn (v)	235	222
Mt. Carmel (c)	4,311	3,376
Mt. Carroll (c)	1,965	1,836
Mt. Erie (v)	308	266
Mt. Greenwood (v)	190	.....
Mt. Morris (v)	1,048	895
Mt. Olive (v)	2,935	1,986
Mt. Pulaski (c)	1,643	1,357
Mt. Sterling (t)	1,960	655
Mt. Vernon (c)	5,216	3,233
Mt. Zion (t)	370	.....
Moweaqua (v)	1,478	848
Mulberry Grove (v)	632	.....
Muncie (v)	324	.....
Murphysboro (c)	6,463	3,880
Murrayville (v)	467	422
Naperville (c)	2,629	2,216
Naples (t)	398	452
Nashville (c)	2,184	2,084
Nauvoo (c)	1,321	1,208
Nebo (v)	508	453
Neoga (v)	1,126	829
Neponset (v)	516	542
Newark (v)	410	390
New Athens (v)	856	624
New Baden (v)	510	.....
New Berlin (v)	533	494
New Boston (c)	703	445
New Burnside (v)	468	596
New Canton (t)	476	424
New Douglas (v)	469	555
New Grand Chain (v)	451	.....
New Grantsburg (v)	227	.....
New Haven (v)	429	336
New Holland (v)	358	.....
Newman (c)	1,166	990
New Memphis (v)	249	.....
New Minden (v)	226	217
New Salem (t)	290	307
Newton (c)	1,630	1,428
New Windsor (t)	473	477
Niantic (t)	654	639
Niles (v)	514	.....
Niles Center (v)	529	.....
Nilwood (v)	1,378	.....
Noble (t)	597	424
Nocomis (c)	1,371	1,305
Nora (v)	312	309
Normal (t)	3,795	3,459
Norris City (v)	868	223
North Alton (v)	904	763
North Chicago (v)	1,150	.....
North Chillicothe (t)	417	.....
North Peoria (v)	2,358	1,086
North Utica (v)	1,150	1,094
Nunda (v)	604	438
Oakford (v)	338	.....
Oakland (c)	1,198	995
Oakley (t)	99	.....
Oblong (v)	743	390
Oconee (v)	316	332
Odell (v)	1,000	800
Odin (v)	1,180	817
O'Fallon (v)	1,267	865
Ogden (v)	419	334
Ohio (v)	461	364
Okawville (v)	544	472
Old Marissa (v)	216	.....
Olmsted (v)	268	203
Olney (c)	4,260	3,831
Omaha (v)	569	428
Onarga (v)	1,270	994
Oneida (c)	785	699
Oquawka (v)	1,010	.....
Orangeville (v)	343	347
Oregon (c)	1,577	1,566
Orion (v)	584	624
Orland Park (v)	366	.....
Oswego (v)	618	641
Ottawa (c)	10,588	9,985
Otterville (t)	208	173
Owaneco (v)	255	.....
Palatin (v)	1,020	891
Palestine (v)	979	732
Palmer (t)	299	432
Palmyra (v)	813	505
Pana (c)	5,530	5,077
Panola (v)	148	132
Papineau (v)	188	141
Paris (c)	6,105	4,996
Parkersburg (t)	211	196
Park Ridge (v)	1,340	987
Patoka (v)	640	502
Pawnee (v)	595	.....
Pawpaw (v)	765	.....
Paxton (c)	3,036	2,187
Payson (v)	465	.....
Pearl (v) (Pike county)	722	928
Pearl City (v) (Stephenson county)	437	.....
Pecatonica (v)	1,045	1,059
Pekin (c)	8,420	6,347
Peoria (c)	56,100	41,024

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
ILLINOIS—Continued.		
Peoria Heights (v)	309	.....
Peotone (v)	1,003	717
Percy (v)	660	.....
Perry (t)	642	705
Peru (c)	6,863	5,550
Petersburg (c)	2,807	2,342
Phillipstown (v)	100	.....
Philo (v)	502	491
Pinckneyville (c)	2,357	1,298
Piper City (v)	577	460
Pittsfield (c)	2,293	2,295
Plainfield (v)	920	852
Plainville (v)	296	.....
Plano (c)	1,634	1,825
Pleasant Hill (v)	390	310
Pleasant Plains (v)	575	518
Plymouth (v)	854	710
Pocahontas (v)	482	372
Polo (c)	1,869	1,728
Pontiac (c)	4,266	2,784
Pontoosuc (v)	299	249
Poplar Grove (v)	323	232
Port Byron (v)	732	775
Prairie City (v)	818	812
Prairie du Rocher (v)	347	408
Princeton (c)	4,023	3,396
Princeville (v)	735	641
Prophetstown (v)	1,143	694
Pulaski (v)	424	.....
Quincy (c)	36,252	31,494
Raleigh (v)	333	.....
Ramsey (v)	747	598
Rankin (v)	754	314
Ransom (v)	339	338
Rantoul (v)	1,207	1,074
Rapids City (v)	212	288
Raymond (v)	906	841
Redbud (c)	1,169	1,176
Reddick (v)	261	.....
Redmon (t)	282	99
Renault (v)	217	.....
Reynolds (v)	329	.....
Richmond (v)	576	415
Richview (v)	444	465
Ridge Farm (v)	933	757
Ridgely (v)	1,169	1,007
Ridgeway (v)	839	523
Ridott (v)	212	.....
Ripley (t)	298	304
Riverdale (v)	558	.....
River Forest (v)	1,539	.....
River Grove (v)	333	287
Riverside (v)	1,551	.....
Riverton (v)	1,511	1,127
Riverview (v)	406	.....
Roanoke (v)	966	831
Roberts (v)	446	325
Robinson (c)	1,683	1,387
Rochelle (c)	2,073	1,789
Rochester (v)	365	.....
Rockbridge (v)	588	336
Rock City (v)	174	148
Rock Falls (c)	2,176	1,900
Rockford (c)	31,051	23,584
Rock Island (c)	19,493	13,634
Rockton (v)	936	892
Rockwood (v)	169	.....
Rome (t)	229	186
Romeoville (v)	113	.....
Roodhouse (c)	1,351	2,360
Roseville (v)	1,014	788
Rosiclare (v)	278	274
Rossville (v)	1,435	879
Ruma (v)	151	.....
Rushville (c)	2,292	2,031
Russellville (t)	253	284
Rutland (v)	893	509
Sadorus (v)	340	277
Sailor Springs (v)	479	.....
St. Anne (v)	1,000	718
St. Augustine (v)	229	255
St. Charles (c)	2,675	1,690
St. David (v)	481	.....
St. Elmo (t)	1,050	354
Ste Marie (v) (Jasper Co.)	406	318
St Francisville (v)	591	432
St. Jacob (v)	464	475
St. Joseph (v)	637	552
St. Libory (v)	220	.....
St. Mary (v) (Iroquois Co.)	395	.....
Salem (c)	1,642	1,493
Saline (v)	151	.....
Sandoval (v)	1,258	834
Sandwich (c)	2,520	2,516
San Jose (v)	479	307
Sato (v)	162	.....
Saunemin (v)	350	336
Savanna (c)	3,325	3,097
Saybrook (v)	879	851
Scales Mound (v)	418	.....
Sciota (v)	238	238
Scottville (v)	364	363
Sears (v)	186	.....
Seatonville (v)	909	536
Secor (v)	373	379
Shabbona (v)	587	502
Shannon (v)	678	591
Shawneetown (c)	1,698	.....
Sheffield (v)	1,265	993
Shelbyville (c)	3,546	3,162
Sheldon (v)	1,103	910
Sheridan (v)	485	425
Sherrard (v)	826	.....
Shipman (v)	396	410
Shumway (v)	258	.....
Siblev (v)	444	404
Sidell (v)	776	.....
Sidney (v)	534	581
Sigel (v)	293	258
Simpson (v)	187	.....
Smithboro (v)	314	393
Smithfield (v)	420	.....
Smithton (v)	405	411
Somonauk (v)	630	468
Sorento (v)	1,000	538
South Danville (v)	898	799
South Elgin (v)	515	505
South Holland (v)	766	1,005
South Wilmington (v)	711	.....
Sparland (t)	459	471
Sparta (c)	2,941	1,979
Spillertown (v)	348	.....
Spring Bay (v)	128	147
Springerton (v)	444	.....
Springfield (c)	34,159	24,963
Spring Forest (v)	378	.....
Spring Garden (t)	227	181
Spring Valley (c)	6,214	3,837
Stanford (v)	601	389
Staunton (c)	2,786	2,209
Steeleville (v)	562	401
Steger (v)	712	.....
Sterling (c)	6,309	5,824
Stewardson (t)	677	617
Stockton (v)	946	379
Stonington (v)	438	270
Strasburg (v)	392	258
Strawn (v)	224	233
Streator (c)	14,079	11,414
Stronghurst (v)	762	.....
Sublette (v)	306	.....
Sullivan (c)	2,399	1,468
Summerfield (v)	360	557
Summit (v)	547	.....
Sumner (c)	1,268	1,037
Swansea (v)	735	.....
Swedona (v)	111	159
Sycamore (c)	3,653	2,987
Table Grove (v)	376	.....
Tallula (v)	639	445
Tamaroa (v)	853	.....
Tampico (v)	807	429
Taylorville (c)	4,248	2,829
Tennessee (v)	327	313
Teutopolis (v)	498	.....
Thebes (v)	417	.....
Thompsonville (v)	398	309
Thomson (v)	467	374
Tilton (v)	474	474
Time (v)	125	146
Tinley Park (v)	300	.....
Tiskilwa (v)	965	801
Toledo (t)	818	676
Tolono (v)	845	902
Toluca (c)	2,629	.....
Tonica (v)	497	473
Topeka (v)	160	141
Toulon (t)	1,057	945
Towanda (v)	467	402
Tower Hill (v)	615	545
Tremont (t)	768	508
Trenton (c)	1,706	1,384
Troy (c)	1,080	826
Troy Grove (v)	316	283
Tuscola (c)	2,569	1,897
Union (v)	322	.....
Upper Alton (c)	2,373	1,803
Urbana (c)	5,728	3,511
Vandalia (c)	2,665	2,144
Varna (v)	403	398
Venedy (v)	177	193
Venice (c)	2,450	932
Vergennes (v)	416	275
Vermilion (v)	305	325
Vermont (v)	1,195	1,158
Versailles (t)	524	517
Victoria (v)	329	308
Vienna (c)	1,217	828
Viola (v)	552	421
Virden (c)	2,280	1,610
Virginia (c)	1,600	1,602
Waggoner (v)	268	.....
Waldron (v)	295	308
Walnut (v)	791	605
Walshville (v)	130	167
Wapella (v)	442	371
Warren (v)	1,327	1,172
Warrensburg (t)	503	.....
Warsaw (t)	2,335	2,721
Washburn (v)	703	598
Washington (c)	1,459	1,301
Wataga (v)	545	586
Waterloo (c)	2,114	1,860
Waterman (v)	358	351
Watseka (c)	2,505	2,017
Watson (v)	341	326
Wauconda (v)	397	368
Waukegan (c)	9,426	4,915
Waverly (c)	1,573	1,337
Wayne City (v)	522	.....
Waynesville (v)	528	368
Weldon (v)	536	.....
Wenona (c)	1,486	1,053
West Brooklyn (v)	279	.....
West Chicago (v)	1,877	1,506
West Dundee (v)	1,348	873
Western Springs (v)	662	451
Westfield (v)	820	510
West Freeport (v)	724	.....
West Hammond (v)	2,935	.....
West Point (v)	277	.....
West Salem (t)	700	476
Westville (v)	1,605	.....
Wheaton (c)	2,345	1,622
Wheeler (v)	206	.....
Wheeling (t)	231	811
Whitehall (c)	2,030	1,961
Williamsfield (v)	447	.....
Williamsville (v)	573	444
Willisville (v)	398	.....
Wilmette (v)	2,300	1,458
Wilmington (c) (Will Co)	1,420	1,576
Wilmington (v) (Greene Co)	213	.....
Winchester (c)	1,711	1,542
Windsor (c)	866	888
Winnebago (v)	405	464
Winnetka (v)	1,833	1,079
Winslow (v)	405	332
Winstanley Park (v)	1,055	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
ILLINOIS—Continued.		
Witt (v)	428	.....
Woodhull (v)	774	608
Woodland (v)	331	.....
Woodlawn (t)	350	.....
Woodson (v)	255	.....
Woodstock (c)	2,502	1,683
Worden (v)	544	522
Waynet (v)	902	670
Wyoming (c)	1,277	1,116
Xenia (v)	800	878
Yates City (v)	650	687
York (v)	353	294
Yorkville (v)	413	375
Indiana.		
Alamo (t)	241	272
Albany (t)	2,116	571
Albion (t)	1,324	1,229
Alexandria (c)	7,221	715
Alton (t)	238	277
Ambia (t)	438	293
Amboy (t)	402	402
Anderson (c)	20,178	10,741
Andrews (t)	746	1,390
Angola (t)	2,211	1,840
Arcadia (t)	1,413	670
Argos (t)	1,317	1,191
Ashley (t)	1,040	.....
Atlanta (t)	1,000	.....
Attica (c)	3,005	2,320
Auburn (c)	3,396	2,415
Aurora (c)	3,645	3,929
Avilla (t)	658	576
Bainbridge (t)	431	473
Batesville (t)	1,384	1,169
Battle Ground (t)	150	456
Bedford (c)	6,115	3,351
Bern (t)	1,037	544
Birdseye (t)	476	419
Bloomfield (t)	1,588	1,229
Bloomingdale (t)	505	431
Bloomington (c)	6,460	4,018
Bluffton (c)	4,479	3,589
Boonville (t)	2,849	1,881
Boston (t)	134	146
Boswell (t)	824	558
Bourbon (t)	1,187	1,064
Bowling Green (t)	432	467
Brazil (c)	7,786	5,305
Bremen (t)	1,671	1,076
Briant (t)	384	.....
Bristol (t)	546	535
Broadripple (t)	487	.....
Bronson (t)	177	.....
Brook (t)	677	.....
Brooksburg (t)	149	120
Brookston (t)	949	447
Brookville (t)	2,037	2,028
Brownsburg (t)	676	623
Brownstown (t)	1,685	1,422
Bunker Hill (t)	568	538
Burnettsville (t)	497	479
Butler (t)	2,063	2,521
Cadiz (t)	253	307
Cambridge City (t)	1,754	1,782
Campbellsburg (t)	672	418
Cannelburg (t)	280	276
Cannelton (c)	2,188	1,991
Carbon (t)	951	521
Carlisle (t)	699	503
Carmel (t)	498	471
Carthage (t)	1,028	482
Castleton (t)	199	.....
Cayuga (t)	832	.....
Center Point (t)	600	517
Centerville (t)	785	864
Chalmers (t)	462	.....
Charlestown (t)	915	888
Chesterton (t)	788	931
Chrisney (t)	513	.....
Churubusco (t)	884	869
Cicero (t)	1,603	631
Clarkshill (t)	539	.....
Clarksville (t)	2,370	1,692
INDIANA—Continued.		
Clay City (t)	1,503	1,004
Claypool (t)	399	.....
Claysburg (t)	116	.....
Clifford (t)	233	175
Clinton (c)	2,918	1,365
Cloverdale (t)	445	437
Cochran (t)	858	790
Colfax (t)	767	730
Columbia City	2,975	3,027
Columbus (c)	8,130	6,719
Connersville (c)	6,836	4,548
Converse (t)	1,415	921
Corydon (t)	1,610	880
Covington (c)	2,213	1,891
Crandall (t)	137	.....
Crawfordsville (c)	6,649	6,089
Crothersville (t)	765	599
Crown Point (t)	2,336	1,907
Culver (t)	505	.....
Cynthiana (t)	502	.....
Dale (t)	624	659
Dana (t)	893	495
Danville (t)	1,802	1,569
Darlington (t)	727	461
Decatur (c)	4,142	3,142
Delphi (c)	2,135	1,923
Dillsboro (t)	465	439
Dublin (t)	698	806
Dunkirk (c)	3,187	1,024
Dunreith (t)	205	168
Earl Park (t)	563	.....
East Chicago (c)	3,411	1,255
East Connersville (t)	556	458
East Germantown (t)	305	338
Eaton (t)	1,567	.....
Edinburg (t)	1,820	2,031
Elizabeth (t)	271	267
Elizabethtown (t)	407	430
Elkhart (c)	15,184	11,360
Ellettsville (t)	708	712
Elnora (t)	908	.....
Elwood (c)	12,950	2,284
English (t)	649	423
Etna Green (t)	420	411
Evansville (c)	59,007	50,756
Fairmount (t)	3,205	1,462
Farmersburg (t)	625	301
Farmland (t)	870	770
Flora (t)	1,209	639
Forest Hill (t)	152	124
Fort Branch (v)	849	748
Fortville (t)	1,006	685
Fort Wayne (c)	45,115	35,393
Fountain City (t)	455	492
Fowler (t)	1,429	1,285
Francesville (t)	596	403
Frankfort (c)	7,100	5,919
Franklin (c)	4,005	3,781
Frankton(t)	1,464	520
Fredericksburg (t)	281	211
Fremont (t)	709	672
French Lick (t)	260	.....
Garrett (c)	3,910	2,767
Gas City	3,622	145
Geneva (t)	1,076	748
Gentryville (t)	464	.....
Georgetown (t)	350	256
Goodland (t)	1,205	889
Goshen (c)	7,810	6,033
Gosport (t)	726	720
Grandview (t)	822	694
Greencastle (c)	3,661	4,390
Greendale (t)	473	435
Greenfield (c)	4,489	3,100
Greensboro (t)	284	318
Greensburg (c)	5,034	3,596
Greentown (t)	1,287	721
Greenville (t)	309	313
Greenwood (t)	1,503	862
Hagerstown (t)	862	873
Hamlet (t)	432	.....
Hammond (c)	12,376	5,428
Hanover (t)	377	459
Hardinsburg (t)	210	138
Hartford City	5,912	2,287
INDIANA—Continued.		
Hartsville (t)	439	474
Hazelton (v)	758	608
Hebron (t)	794	689
Hillsboro (t)	500	.....
Hobart (t)	1,390	1,010
Hope (t)	1,088	1,009
Howell (t)	1,421	.....
Hudson (t)	558	.....
Huntingburg (c)	2,527	3,167
Huntington (c)	9,491	7,328
Indianapolis (c)	169,164	105,436
Ingalls (t)	542	.....
Irvington (t)	1,799	650
Jamestown (t)	640	616
Jasper (t)	1,863	1,281
Jeffersonville (c)	10,774	10,666
Jonesboro (t)	1,838	687
Jonesville (t)	268	.....
Judson (t)	186	.....
Kendallville (c)	3,354	2,960
Kennard (t)	417	.....
Kentland (t)	1,006	918
Kewanna (t)	646	647
Keystone (t)	250	.....
Kirklin (t)	624	550
Knightstown (t)	1,942	1,867
Knightsville (t)	1,171	1,148
Knox (t)	1,446	790
Kokomo (c)	10,609	8,261
Laconia (t)	135	133
Ladoga (t)	1,176	857
Lafayette (c)	18,116	16,243
Lagrange (t)	1,703	1,784
Lagro (t)	456	549
Lanesville (t)	324	277
Lapel (t)	869	.....
Laporte (c)	7,113	7,126
Laurel (t)	600	.....
Lawrenceburg (c)	4,326	4,284
Leavenworth (t)	655	792
Lebanon (c)	4,465	3,682
Leesburg (t)	390	345
Lewisville (t)	404	420
Liberty (t)	1,449	1,314
Ligonier (c)	2,231	2,195
Linden (t)	572	.....
Linton (c)	3,071	958
Little York (t)	224	.....
Livonia (t)	200	194
Logansport (c)	16,204	13,328
Loogootee (t)	1,382	988
Lowell (t)	1,275	761
Lynn (t)	705	518
Macy (t)	314	316
Madison (c)	7,835	8,936
Marengo (t)	700	669
Marion (c)	17,337	8,769
Markle (t)	729	670
Martinsville (c)	4,038	2,680
Mauckport (t)	290	272
Mentone (t)	757	780
Merom (t)	478	412
Michigan City	14,850	10,776
Michigantown (t)	417	298
Middlebury (t)	572	542
Middletown (t)	1,801	851
Milan (t)	422	318
Milford (t) (Decatur Co.)	211	231
Milford (t) (Kosciusko Co.)	905	677
Millersburg (t)	481	394
Millhousen (t)	265	224
Milton (t)	682	742
Mishawaka (c)	5,560	3,371
Mitchell (t)	1,772	1,583
Modoc (t)	221	.....
Monon (t)	1,160	1,064
Monroe City (t)	688	589
Monroeville (t)	690	673
Monterey (t)	261	226
Montezuma (t)	1,172	658
Montgomery (t)	616	415
Monticello (t)	2,107	1,518
Montpelier (c)	3,405	808
Moorefield (t)	113	115
Mooreland (t)	309	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
INDIANA—Continue		
Moores Hill (t)	338	469
Mooresville (t)	974	891
Morocco (t)	920	397
Morristown (t)	565	561
Mt. Auburn (t)	163	144
Mt. Carmel (t)	153	142
Mt. Etna (t)	175	.....
Mt. Vernon (t)	5,132	4,705
Muncie (c)	20,942	11,345
Nappanee (t)	2,208	1,493
Nashville (t)	339	395
New Albany (c)	20,628	21,059
New Amsterdam (t)	200	172
Newburg (t)	1,371	1,046
New Carlisle (t)	597	607
New Castle (t)	3,406	2,697
New Harmony (t)	1,341	1,197
New Haven (t)	950	1,079
New Middletown (t)	167	212
New Palestine (t)	444	404
Newpoint (t)	451	.....
Newport (t)	610	551
New Richmond (t)	357	.....
New Ross (t)	284	270
Noblesville (c)	4,792	3,054
Normal City (t)	868	.....
North Judson (t)	944	572
North Liberty (t)	504	.....
North Manchester (t)	2,398	2,384
North Salem (t)	599	505
North Vernon (c)	2,823	2,012
Oakland City (t)	1,991	1,524
Odon (t)	923	764
Oldenburg (t)	957	690
Orestes (t)	778	.....
Orleans (t)	1,236	857
Osgood (t)	1,035	841
Ossian (t)	529	.....
Owensville (t)	1,019	759
Oxford (t)	949	808
Paoli (t)	1,186	707
Paragon (t)	413	.....
Parker City	909	.....
Patoka (t)	710	729
Patriot (t)	408	434
Pendleton (t)	1,512	996
Pennville (t)	773	697
Peru (c)	8,463	7,028
Petersburg (t)	1,751	1,494
Pierceton (t)	886	897
Pine Village	279	.....
Plymouth (c)	3,656	2,723
Poneto (t)	332	.....
Port Fulton (t)	1,101	1,104
Portland (c)	4,798	3,725
Poseyville (t)	628	571
Princeton (c)	6,041	3,076
Redkey (t)	2,206	922
Remington (t)	1,120	940
Rensselaer (c)	2,255	1,455
Reynolds (t)	393	348
Richmond (c)	18,226	16,608
Ridgeville (t)	1,098	922
Rising Sun (c)	1,548	1,689
Roachdale (t)	942	428
Roann (t)	631	582
Roanoke (t)	536	532
Rochester (t)	3,421	2,467
Rockport (t)	2,882	2,314
Rockville (c)	2,045	1,689
Rosedale (t)	865	873
Rossville (t)	598	594
Royal Center (t)	657	527
Rushville (c)	4,541	3,475
Russellville (t)	298	327
St. Joe (t)	483	.....
St. Leon (t)	369	368
St. Meinrad (t)	525	483
Salamonia (t)	168	150
Salem (t)	1,995	1,975
Saltilloville (t)	207	.....
Scottsburg (t)	1,274	618
Sellersburg (t)	761	508
Seymour (c)	6,445	5,337
Shelburn (t)	523	378
INDIANA—Continued.		
Shelbyville (c)	7,169	5,451
Sheridan (t)	1,795	1,134
Shirley (t) (Hancock Co.)	381	.....
Shirley City (t) (Allen Co.)	236	.....
Shoals (t)	683	738
Silver Grove (t)	598	.....
Silver Lake (t)	504	570
South Bend (c)	35,999	21,819
South Delphi (t)	247	168
South Peru (t)	495	253
Southport (t)	285	324
South Whitley (t)	1,113	720
Spencer (c)	2,026	1,868
Spiceland (t)	590	637
Spring Grove (t)	113	99
State Line (c)	174	201
Staunton (t)	693	549
Stinesville (t)	288	.....
Straughn (t)	186	200
Sullivan (t)	3,118	2,222
Sulphur Springs (t)	262	251
Summitville (t)	1,432	752
Sunman (t)	370	.....
Swayzee (t)	1,162	.....
Syracuse (t)	928	518
Tell City	2,680	2,094
Tennyson (t)	302	.....
Terre Haute (c)	36,673	30,217
Thorntown (t)	1,511	1,530
Tipton (c)	3,764	2,697
Troy (t)	599	554
Union City	2,716	2,681
Upland (t)	1,208	.....
Valparaiso (c)	6,280	5,090
Van Buren (t)	965	.....
Veedersburg (t)	1,638	930
Vera Cruz (t)	199	233
Vernon (t)	557	613
Versailles (t)	501	421
Vevay (c)	1,588	1,663
Vincennes (c)	10,249	8,853
Wabash (c)	8,618	5,105
Wakarusa (t)	917	.....
Walkerton (t)	1,037	885
Walton (t)	498	469
Warren (t)	1,523	1,120
Warsaw (c)	3,987	3,574
Washington (c)	8,551	6,064
Waterloo (t)	1,244	1,473
Waveland (t)	648	663
Waynetown (t)	757	576
West College Corner (t)	392	290
Westfield (t)	670	815
West Harrison (t)	304	320
West Lafayette (t)	2,302	1,242
West Lebanon (t)	688	644
West Madison (t)	482	457
Westport (t)	614	452
West Shoals (t)	330	.....
West Terre Haute (t)	651	.....
Westville (t)	468	522
Wheatfield (t)	366	.....
Whiteland (t)	334	212
Whitewater (t)	155	123
Whiting (t)	3,983	1,408
Williamsport (c)	1,245	1,027
Winamac (t)	1,684	1,215
Winchester (c)	3,705	3,014
Windfall (c)	957	561
Wingate (t)	457	.....
Winslow (t)	536	.....
Wolcott (t)	825	246
Wolcottville (t)	659	.....
Woodruff (t)	477	161
Worthington (t)	1,448	1,448
Zionsville (t)	765	825
Indian Territory.		
Adair (t)	268	.....
Afton (t)	606	.....
Ardmore (t)	5,681	.....
Bartlesville (t)	698	.....
Berwyn (t)	276	.....
INDIAN TERRITORY—Cont'd.		
Bluejacket (t)	303	.....
Bokoshe (t)	153	.....
Bristow (t)	626	.....
Caddo (t)	930	.....
Cameron (t)	316	.....
Canadian (t)	522	.....
Catoosa (t)	241	.....
Checotah (t)	805	.....
Chelsea (t)	566	.....
Chickasha (t)	3,209	.....
Claremore (t)	855	.....
Coalgate (t)	2,614	.....
Collinsville (t)	376	.....
Comanche (t)	547	.....
Connerville (t)	189	.....
Cornish (t)	307	.....
Cowlington (t)	272	.....
Cumberland (t)	343	.....
Davis (t)	1,346	.....
Dougherty (t)	437	.....
Duncan (t)	1,164	.....
Durant (t)	2,969	.....
Earl (t)	225	.....
Elmore (t)	192	.....
Emet (t)	342	.....
Eufaula (t)	757	.....
Fairland (t)	499	.....
Fort Gibson (t)	617	.....
Gans (t)	136	.....
Grove (t)	314	.....
Hanson (t)	182	.....
Hartshorne (t)	2,352	.....
Heavener (t)	234	.....
Hickory (t)	262	.....
Holdenville (t)	749	.....
Howe (t)	626	.....
Johnson (t)	204	.....
Kemp (t)	221	.....
Lehigh (t)	1,500	.....
Lenapah (t)	154	.....
Leon (t)	221	.....
Lone Grove (t)	215	.....
McAlester (t)	646	.....
McGee (t)	209	.....
Mannsville (t)	198	.....
Marietta (t)	842	.....
Marlow (t)	1,016	.....
Miami (t)	1,527	.....
Muldrow (t)	465	.....
Muscogee (t)	4,254	.....
Nowata (t)	498	.....
Oakland (t)	701	.....
Ologah (t)	308	.....
Orr (t)	222	.....
Paoli (t)	234	.....
Pauls Valley (t)	1,467	.....
Peoria (t)	144	.....
Pontotoc (t)	366	.....
Poteau (t)	1,182	.....
Pryor Creek (t)	495	.....
Purcell (t)	2,277	.....
Purdy (t)	200	.....
Ravia (t)	128	.....
Rush Springs (t)	518	.....
Sallisaw (t)	965	.....
Sapulpa (t)	891	.....
Silo (t)	246	.....
South McAlester (t)	3,479	.....
Spiro (t)	543	.....
Sterrett (t)	575	.....
Stilwell (t)	779	.....
Sulphur Springs (t)	1,198	.....
Tahlequah (t)	1,482	.....
Tamaha (t)	237	.....
Thackerville (t)	154	.....
Tulsa (t)	1,390	.....
Vian (t)	296	.....
Vinita (t)	2,339	.....
Wagoner (t)	2,372	.....
Webbers Falls (t)	211	.....
Welch (t)	334	.....
Westville (t)	296	.....
Wister (t)	313	.....
Wyandotte (t)	224	.....
Wynnewood (t)	1,907	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
Iowa.		
Ackley (t)	1,445	1,286
Ackworth (t)	134	.....
Adair (t)	879	722
Adel (t)	1,213	995
Afton (t)	1,178	1,045
Agency (t)	408	442
Ainsworth (t)	404	.....
Akron (t)	1,029	494
Albia (c)	2,889	2,359
Albion (v)	440	384
Alden (t)	700	512
Algona (c)	2,911	2,068
Allerton (t)	950	807
Allison (t)	463	.....
Alta (t)	861	768
Alta Vista (t)	179	.....
Alton (t)	1,009	708
Altoona (t)	328	326
Alvord (t)	249	.....
Ames (c)	2,422	1,276
Anamosa (c)	2,891	2,078
Andrew (t)	273	307
Angus (t)	333	704
Anita (t)	968	695
Anthon (t)	437	.....
Aplington (t)	427	427
Arcadia (t)	405	463
Arion (t)	192	.....
Arlington (t)	863	593
Armstrong (t)	907	.....
Arnolds Park (t)	251	.....
Arthur (t)	162	.....
Ashton (t)	513	309
Athelstan (t)	255	.....
Atlantic (c)	5,046	4,351
Auburn (t)	293	174
Audubon (t)	1,866	1,310
Aurelia (t)	621	663
Aurora (t)	331	.....
Avoca (t)	1,627	.....
Ayrshire (t)	329	.....
Badger (t)	240	.....
Bagley (t)	355	.....
Baldwin (t)	254	227
Bancroft (t)	839	657
Barnes City (t)	274	.....
Barnum (t)	175	.....
Bassett (t)	149	.....
Batavia (t)	533	307
Battle Creek (t)	542	387
Baxter (t) (Jasper Co.)	427	.....
Baxter (t) (Mahaska Co.)	41	.....
Bayard (t)	494	348
Beacon (t)	953	570
Beaconsfield (t)	177	.....
Beaman (t)	266	262
Bedford (c)	1,977	1,643
Belle Plaine (c)	3,283	2,623
Bellevue (c)	1,607	1,394
Belmond (c)	1,234	803
Bennett (t)	238	.....
Benton (t)	192	.....
Bentonsport (t)	254	283
Bernard (t)	113	.....
Birmingham (t)	622	545
Blairstown (t)	592	583
Blanchard (t)	520	432
Blencoe (t)	279	.....
Blockton (t)	704	.....
Bloomfield (c)	2,105	1,913
Bode (t)	409	.....
Bonaparte (t)	898	762
Bondurant (t)	297	.....
Boone (c)	8,880	6,520
Boyden (t)	336	277
Braddyville (t)	236	175
Bradgate (t)	223	.....
Brayton (t)	141	144
Breda (t)	395	256
Brighton (c)	807	861
Bristow (t)	317	257
Britt (t)	1,540	818
Brooklyn (t)	1,188	1,202
Buffalo (t)	372	379
Bunalo Center (t)	875	.....
Burlington (c)	23,201	22,565
Burt (t)	504	.....
Bussey (t)	550	.....
Calamus (t)	287	216
Calender (t)	399	.....
Calmar (t)	1,003	813
Calumet (t)	133	.....
Camanche (t)	713	753
Cambridge (t)	667	432
Cantril (t)	356	356
Carlisle (t)	553	.....
Carroll (c)	2,882	2,448
Carson (t)	632	391
Cascade (t)	1,266	955
Casey (t)	568	452
Castana (t)	355	.....
Cedar Falls (c)	5,319	3,459
Cedar Rapids (c)	25,656	18,020
Center Junction (t)	255	210
Center Point (t)	674	615
Centerville (c)	5,256	3,668
Central City (t)	623	467
Chariton (c)	3,989	3,122
Charles (c)	4,227	2,802
Charter Oak (t)	772	567
Chelsea (t)	419	318
Cherokee (c)	3,865	3,441
Chillicothe (t)	216	214
Churdan (t)	626	377
Cincinnati (t)	1,212	432
Clare (t)	374	.....
Clarence (t)	675	629
Clarinda (c)	3,276	3,262
Clarion (c)	1,475	744
Clarksville (t)	849	735
Clearfield (t)	698	452
Clear Lake (t)	1,706	1,130
Clermont (t)	513	488
Cleveland (t)	202	807
Clinton (c)	22,698	13,619
Clio (t)	218	.....
Coburg (t)	164	60
Coggon (t)	498	.....
Coin (t)	574	.....
Colesburg (t)	274	.....
Colfax (t)	2,053	957
College Springs (t)	693	491
Collins (t)	54	.....
Colo (t)	391	261
Columbus City (t)	388	459
Columbus Junction (t)	1,099	953
Conrad (t)	483	157
Conway (t)	348	379
Coon Rapids (t)	1,017	873
Coralville (t)	125	173
Corning (t)	2,145	1,682
Correctionville (t)	935	869
Corwith (t)	651	334
Corydon (t)	1,477	962
Council Bluffs (c)	25,802	21,474
Crawfordsville (t)	268	.....
Cresco (c)	2,806	2,018
Creston (c)	7,752	7,200
Cromwell (t)	208	.....
Crystal Lake (t)	246	.....
Cumberland (t)	591	.....
Cushing (t)	237	.....
Cylinder (t)	118	.....
Dakota (t)	362	353
Dallas Center (t)	625	445
Danbury (t)	480	422
Davenport (c)	35,254	26,872
Davis City (t)	617	594
Dayton (t)	753	669
Decatur City (t)	367	215
Decorah (c)	3,246	2,801
Dedham (t)	374	273
Deep River (t)	403	291
Defiance (t)	387	323
Delmar (t)	592	518
Delta (t)	691	409
Denison (c)	2,771	1,782
Denver (t)	102	.....
Des Moines (c)	62,139	50,093
De Soto (t)	345	328
Dewitt (c)	1,383	1,359
Dexter (t)	795	607
Diagonal (t)	383	.....
Donnellson (t)	270	.....
Doon (t)	545	.....
Dow City (t)	462	451
Dows (t)	818	.....
Drakesville (t)	238	303
Dubuque (c)	36,297	30,311
Dumont (t)	433	.....
Duncombe (t)	350	.....
Dunkerton (t)	217	.....
Dunlap (t)	1,355	1,088
Durant (t)	560	505
Dyersville (t)	1,323	1,272
Dysart (t)	902	775
Eaglegrove (c)	3,557	1,881
Earlham (t)	630	302
Earling (t)	340	.....
Earlville (t)	618	569
Early (t)	579	277
East Peru (t)	252	.....
Eddyville (t)	1,230	815
Edenville (t)	476	.....
Edgewood (t)	565	.....
Elheron (t)	344	.....
Eldon (t)	1,850	1,725
Eldora (c)	2,233	1,577
Eldridge (t)	207	.....
Elgin (t)	635	369
Elkader (t)	1,321	745
Elkport (t)	326	.....
Elliott (t)	516	317
Ellston (t)	242	.....
Ellsworth (t)	319	.....
Elma (t)	976	.....
Emerson (t)	502	404
Emmetsburg (c)	2,361	1,584
Epworth (t)	549	348
Essex (t)	710	564
Esterville (c)	3,237	1,475
Exira (t)	851	575
Fairbank (t)	644	448
Fairfield (c)	4,689	3,391
Farley (t)	513	582
Farmington (t)	1,332	1,002
Farnhamville (t)	348	137
Farragut (t)	514	406
Fayette (t)	1,315	1,062
Floyd (t)	353	.....
Fonda (t)	1,180	625
Fontanelle (t)	853	830
Forest City (t)	1,758	895
Fort Atkinson (t)	264	480
Fort Dodge (c)	12,162	4,871
Fort Madison (c)	9,278	7,901
Foster (t)	205	.....
Franklin (t)	210	333
Fredericksburg (t)	565	321
Frederika (t)	170	.....
Fremont (t)	542	.....
Galva (t)	456	.....
Garden Grove (t)	651	554
Garner (t)	1,288	679
Garrison (t)	482	367
Garwin (t)	470	.....
George (t)	394	.....
Germania (t)	384	.....
Gilman (t)	465	473
Gilmore City (t)	687	.....
Gladbrook (t)	842	556
Glenwood (c)	3,040	1,890
Glidden (t)	733	532
Goldfield (c)	628	343
Goodell (t)	254	.....
Gowrie (t)	681	526
Graettinger (t)	388	.....
Grafton (t)	156	.....
Grand Junction (t)	1,113	932
Grand Mound (t)	355	247
Grand River (t)	326	.....
Grant City (t)	249	.....
Granville (t)	351	.....
Gravity (t)	549	210
Gray (t)	180	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
IOWA—Continued.		
Greeley (t)	488	.....
Greene (t)	1,192	845
Greenfield (t)	1,300	1,048
Grimes (t)	186	.....
Grinnell (c)	3,860	3,332
Griswold (t)	900	752
Grundy Center (t)	1,322	1,161
Guthrie Center (t)	1,193	1,037
Guttenberg (c)	1,620	1,160
Hamburg (c)	2,079	1,634
Hamilton (t)	538	.....
Hampton (c)	2,727	2,067
Hancock (t)	276	167
Harcourt (t)	192	.....
Harlan (c)	2,422	1,765
Harper (t)	269	253
Harris (t)	217	.....
Hartley (t)	1,006	519
Hastings (t)	404	322
Havelock (t)	397	.....
Hawarden (t)	1,810	744
Hawkeye (t)	518	.....
Hazelton (t)	500	.....
Hendrick (t)	1,035	592
Henderson (t)	244	201
Hepburn (t)	118	75
Hillsdale (t)	244	193
Holland (t)	175	.....
Holstein (t)	870	539
Holy Cross (t)	115	.....
Hopeville (t)	145	.....
Hopkinton (t)	767	668
Hornick (t)	284	.....
Hospers (t)	415	.....
Hubbard (t)	676	452
Hudson (t)	359	.....
Hull (t)	626	566
Humboldt (t)	1,474	1,075
Humeston (t)	945	642
Ida Grove (t)	1,967	1,563
Imogene (t)	296	279
Independence (c)	3,656	3,163
Indianola (c)	3,261	2,254
Inwood (t)	477	.....
Ionia (t)	306	.....
Iowa City	7,987	7,016
Iowa Falls (c)	2,840	1,796
Ireton (t)	545	412
Irwin (t)	295	.....
Jackson Junction (t)	171	.....
Janesville (t)	311	.....
Jefferson (c)	2,601	1,875
Jesup (t)	690	573
Jewell (t)	947	414
Jolley (t)	266	.....
Kalona (t)	530	211
Kamrar (t)	223	.....
Kellerton (t)	458	277
Kellogg (t)	653	700
Kelly (t)	187	.....
Kensett (t)	459	.....
Kenwood Park (t)	283	136
Keokuk (c)	14,641	14,101
Keosauqua (t)	1,117	831
Keota (t)	996	777
Keystone (t)	405	.....
Kingsley (t)	720	649
Kinross (t)	132	.....
Kirkman (t)	203	.....
Kirkville (t)	402	714
Kiron (t)	89	.....
Klemme (t)	262	.....
Knowlton (t)	267	.....
Knoxville (c)	3,131	2,632
Lacona (t)	496	301
Ladora (t)	239	224
Lake City	2,703	1,160
Lake Mills (t)	1,293	604
Lake Park (t)	541	.....
Lakeview (t)	591	366
IOWA—Continued.		
Lamoni (t)	1,540	.....
Lamont (t)	636	.....
La Motte (v)	272	154
Lansing (c)	1,438	1,668
Laporte (t)	1,419	1,052
Larchwood (t)	450	.....
Larrabee (t)	125	.....
Laurens (t)	853	318
Lawler (t)	646	464
Le Claire (t)	997	906
Ledyard (t)	257	.....
Le Grand (t)	408	.....
Lehigh (t)	806	870
Leland (t)	215	.....
Le Mars (c)	4,146	4,036
Lenox (t)	1,014	706
Leon (t)	1,905	1,422
Lester (t)	225	.....
Letts (t)	387	325
Lewis (t)	613	579
Limesprings (t)	605	550
Linden (t)	314	.....
Lineville (t)	690	606
Lisbon (t)	956	1,079
Liscomb (t)	338	313
Little Rock (t)	399	.....
Little Sioux (t)	427	400
Livermore (t)	618	459
Logan (t)	1,377	827
Lohrville (t)	597	435
Lone Tree (t)	600	.....
Lorimor (t)	587	.....
Lowden (t)	544	405
Low Moor (v)	318	.....
Lucas (t)	1,132	1,320
Luverne (t)	534	.....
Luzerne (t)	169	.....
Lynnville (t)	347	261
McGregor (c)	1,498	1,160
McIntire (t)	427	.....
Macedonia (t)	295	.....
Macksburg (t)	235	186
Madrid (t)	1,021	565
Malcom (t)	404	372
Mallard (t)	292	.....
Malvern (t)	1,166	1,003
Manchester (c)	2,887	2,344
Manilla (t)	773	526
Manly (t)	359	.....
Manning (t)	1,169	1,233
Manson (t)	1,424	822
Mapleton (t)	1,099	782
Maquoketa (c)	3,777	3,077
Marathon (t)	659	.....
Marble Rock (t)	573	433
Marcus (t)	718	671
Marengo (c)	2,007	1,710
Marion (c)	4,102	3,094
Marne (t)	410	.....
Marshalltown (c)	11,544	8,914
Martelle (t)	158	.....
Martinsburg (t)	332	322
Marysville (t)	322	348
Mason City	6,746	4,007
Massena (t)	475	279
Matlock (t)	94	.....
Maurice (t)	280	.....
Maxwell (t)	810	453
Maynard (t)	495	371
Mechanicsville (t)	703	612
Mediapolis (t)	725	489
Melbourne (c)	366	.....
Melrose (t)	400	.....
Menlo (t)	428	389
Meridian (t)	432	241
Merrill (t)	389	.....
Meservey (t)	193	.....
Miles (c)	385	.....
Milford (t)	485	.....
Milo (t)	585	318
Milton (t)	849	643
Minburn (t)	317	.....
Minden (t)	328	287
Missouri Valley (c)	4,010	2,797
Mitchell (t)	245	309
IOWA—Continued.		
Mitchellville (t)	768	704
Modale (t)	383	288
Mondamin (t)	384	257
Monmouth (t)	281	.....
Monona (t)	674	460
Monroe (t)	917	952
Montezuma (t)	1,210	1,062
Monticello (c)	2,104	1,938
Montour (t)	502	409
Montrose (t)	748	778
Moorhead (t)	200	.....
Moravia (t)	632	311
Morning Sun (t)	948	881
Morrison (t)	176	165
Moulton (t)	1,420	769
Mt. Ayr (t)	1,729	1,265
Mt. Pleasant (c)	4,109	3,997
Mt. Vernon (t)	1,629	1,259
Moville (v)	507	295
Murray (t)	949	666
Muscatine (c)	14,073	11,454
Mystic (t)	1,758	875
Nashua (t)	1,268	1,240
Neola (t)	921	917
Nevada (c)	2,472	1,662
New Albin (t)	543	411
Newell (t)	762	540
New Hampton (t)	2,339	1,314
New Hartford (t)	570	.....
New London (t)	1,003	580
New Market (t)	600	320
New Providence (t)	268	.....
New Sharon (t)	1,252	1,026
Newton (c)	3,682	2,564
New Vienna (t)	245	.....
Nichols (t)	398	237
Nora Springs (t)	1,209	846
North English (t)	683	.....
North McGregor (t)	616	509
Northwood (t)	1,271	859
Norwalk (t)	287	.....
Norway (t)	533	401
Oakland (t)	913	686
Oeheyedan (t)	599	.....
Odebolt (t)	1,432	1,122
Oelwein (c)	5,142	830
Ogden (t)	993	689
Olin (t)	692	519
Ollie (t)	238	.....
Onawa (t)	1,933	1,358
Onslow (t)	263	237
Orange City (t)	1,457	1,240
Orient (t)	359	136
Orleans (t)	92	.....
Osage (c)	2,734	1,913
Osceola (c)	2,505	2,120
Oskaloosa (c)	9,212	6,558
Ossian (t)	670	609
Oto (t)	396	247
Ottumwa (c)	18,197	14,001
Oxford (t)	664	515
Oxford Junction (t)	780	752
Pacific Junction (t)	732	744
Parkwood (t)	284	.....
Panama (t)	221	379
Panora (t)	958	809
Parkersburg (t)	1,164	760
Parnell (t)	318	.....
Paton (t)	328	245
Patterson (t)	163	133
Paullina (t)	617	510
Pella (c)	2,623	2,408
Perry (c)	3,986	2,880
Persia (t)	361	.....
Peterson (t)	521	371
Pierson (t)	358	.....
Pilot Mound (t)	315	.....
Plainfield (t)	320	.....
Pleasanton (t)	164	.....
Pleasant Plain (t)	280	.....
Pleasantville (t)	738	510
Pocahontas (t)	625	.....
Polk (t)	438	446
Pomeroy (t)	910	481
Portsmouth (t)	316	250

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
Iowa—Continued.		
Postville (t)	984	884
Prairie City (t)	808	684
Prescott (t)	446	.....
Preston (c)	593	489
Primghar (t)	814	519
Princeton (t)	456	398
Protivin (t)	136	.....
Pulaski (t)	302	.....
Quincy (t)	106	146
Radcliffe (t)	645	.....
Randalia (t)	117	.....
Randolph (t)	373	276
Rathbun (t)	270	.....
Redding (t)	311	214
Redfield (t)	509	397
Red Oak (c)	4,355	3,321
Reinbeck (t)	1,203	731
Remsen (t)	835	580
Renwick (t)	350	.....
Riceville (t)	804	.....
Richland (t)	534	531
Ridgeway (t)	371	.....
Ripley (t)	395	.....
Riverside (t)	698	608
Riverton (v)	687	560
Rock Falls (t)	124	122
Rockford (t)	1,080	1,010
Rock Rapids (t)	1,766	1,394
Rock Valley (t)	1,054	542
Rockwell (t) (Cerro Gordo county).	830	381
Rockwell City (t) (Calhoun county).	1,222	516
Rodman (t)	147	.....
Rodney (t)	173	.....
Roland (t)	557	.....
Rolfe (t)	994	529
Rome (t)	255	.....
Rose Hill (t)	253	200
Rudd (t)	381	.....
Russell (t)	636	443
Ruthven (t)	787	580
Sabula (c)	1,029	918
Sac City (t)	2,079	1,249
St. Ansgar (t)	698	609
St. Anthony (t)	174	.....
St. Charles (t)	412	387
St. Olaf (t)	124	.....
St. Paul (t)	65	.....
Salem (t)	548	551
Salix (t)	387	.....
Sanborn (t)	1,247	1,075
Schaller (t)	661	333
Schleswig (t)	233	.....
Scranton (t)	983	715
Searsboro (t)	263	153
Seymour (t)	1,703	1,058
Shannon City (t)	380	.....
Sheffield (t)	688	610
Shelby (t)	692	582
Sheldahl (t)	179	.....
Sheldon (c)	2,282	1,478
Shell Rock (t)	839	733
Shellsburg (t)	511	468
Shenandoah (c)	3,573	2,440
Sibley (t)	1,289	1,090
Sidney (t)	1,143	839
Sigourney (c)	1,952	1,523
Silver City (t)	438	324
Sioux City	33,111	37,806
Sioux Center (t)	810	.....
Sioux Rapids (t)	1,005	650
Slater (t)	426	.....
Sloan (t)	643	449
Smithland (t)	435	369
Solon (t)	397	353
South English (t)	319	.....
Spencer (c)	3,095	1,813
Spillville (t)	356	.....
Spirit Lake (t)	1,219	782
Springbrook (t)	107	.....
Springville (t)	599	518
Stacyville (t)	490	.....
Stanhope (t)	297	.....
Stanton (t)	404	399
Stanwood (t)	415	302
State Center (t)	1,008	854
Steamboat Rock (t)	410	367
Storm Lake (t)	2,169	1,682
Story City (t)	1,197	536
Stratford (t)	458	.....
Strawberry Hill (t)	164	.....
Strawberry Point (t)	1,012	947
Struble (t)	172	.....
Stuart (c)	2,079	2,052
Sumner (t)	1,437	861
Superior (t)	187	.....
Sutherland (t)	722	490
Swaledale (t)	240	.....
Swan (t)	406	419
Swea City (t)	322	.....
Tabor (t)	934	503
Tama (c)	2,649	1,741
Templeton (t)	321	269
Terril (t)	217	.....
Thayer (t)	394	.....
Thompson (t)	450	.....
Thor (t)	274	.....
Thornburg (t)	267	.....
Thornton (t)	299	.....
Thurman (t)	409	395
Tingley (t)	488	295
Tipton (c)	2,513	1,599
Titonk (t)	224	.....
Toledo (c)	1,941	1,836
Traer (t)	1,458	1,014
Tripoli (t)	655	.....
Union (t)	589	514
Urbana (t)	323	.....
Ute (t)	407	.....
Vail (t)	578	538
Valley Junction (t)	1,700	.....
Vanhorn (t)	484	501
Van Meter (t)	407	467
Van Wert (t)	306	.....
Victor (t)	612	616
Villisca (c)	2,211	1,744
Vincent (t)	163	.....
Vinton (c)	3,499	2,865
Volga City (t)	444	.....
Wadena (t)	170	.....
Walcott (t)	362	.....
Walker (t)	505	.....
Wall Lake (t)	659	439
Walnut (t)	878	811
Wapello (c)	1,398	1,009
Washington (c)	4,255	3,235
Washta (t)	431	.....
Waterloo (c)	12,580	6,674
Waucoma (t)	540	406
Waukee (t)	292	240
Waukon (t)	2,153	1,610
Waverly (c)	3,177	2,346
Wayland (t)	394	.....
Webster City	4,613	2,829
Wellman (t)	654	.....
Wellsburg (t)	203	.....
Wesley (v)	730	440
West Bend (t)	538	325
West Branch (t)	647	474
West Burlington (t)	1,044	836
Westchester (t)	209	.....
West Decorah (t)	531	447
Westgate (t)	260	.....
West Liberty (t)	1,690	1,268
West McGregor (t)	100	74
West Mitchell (t)	207	232
West Point (t)	654	498
Westside (t)	396	448
West Union (c)	1,935	1,676
What Cheer (c)	2,746	3,246
Wheatland (t)	475	569
Whiting (t)	572	437
Whittemore (t)	522	578
Whitten (t)	217	195
Williams (t)	500	.....
Williamsburg (t)	1,100	635
Wilton (t)	1,233	1,212
Windsor (t)	143	.....
Winfield (t)	820	461
Winterset (c)	3,039	2,281
Winthrop (t)	618	370
Wiota (t)	218	168
Woodbine (t)	1,255	815
Woodburn (t)	467	336
Woodward (t)	550	328
Woolstock (c)	274	.....
Worthington (t)	288	.....
Wyoming (t)	794	704
Yorktown (t)	170	.....
Zearing (t)	388	242
Kansas.		
Abilene (c)	3,507	3,547
Alma (c)	966	1,125
Almena (c)	491	366
Altamont (c)	546	454
Alton (c)	287	338
Altoona (c)	299	265
Americus (c)	332	393
Anthony (c)	1,179	1,806
Arcadia (c)	538	518
Argentine (c)	5,878	4,732
Argonia (c)	309	376
Arkansas City	6,140	8,347
Arlington (c)	312	.....
Ashland (c)	493	459
Assaria (c)	214	180
Atchison (c)	15,722	13,963
Attica (c)	311	553
Atwood (c)	486	450
Augusta (c)	1 197	1,343
Axtell (c)	651	643
Baldwin (c)	1,017	935
Barnes (c)	383	.....
Baxter Springs (c)	1,641	1,248
Beattie (c)	633	648
Belle Plaine (c)	551	659
Belleville (c)	1,833	1,868
Beloit (c)	2,359	2,455
Bennington (c)	389	390
Bird (c)	88	145
Blue Mound (c)	738	689
Blue Rapids (c)	1,100	936
Bluff (c)	200	194
Bonner Springs (c)	609	.....
Brainerd (c)	70	180
Bronson (c)	361	352
Brookville (c)	292	345
Buffalo (c)	299	.....
Burden (c)	519	508
Burlingame (c)	1,436	1,472
Burlington (c)	2,418	2,239
Burr Oak (c)	671	597
Burrton (c)	627	695
Caldwell (c)	1,574	1,642
Caney (c)	887	542
Canton (c)	493	420
Carbondale (c)	625	847
Cawker (c)	816	898
Cedarvale (c)	932	640
Centralia (c)	655	534
Chanute (c)	4,208	2,826
Chapman (c)	627	435
Cheney (c)	429	304
Cherokee (c)	1,326	1,087
Cherryvale (c)	3,472	2,104
Chetopa (c)	2,019	2,265
Cimarron (c)	237	.....
Circleville (c)	223	215
Clay Center (c)	3,069	2,802
Clearwater (c)	368	408
Clifton (c)	609	622
Clyde (c)	1,157	1,137
Coffeyville (c)	4,953	2,282
Colby (c)	641	516
Coldwater (c)	263	480
Colony (c)	483	474
Columbus (c)	2,310	2,160
Colwich (c)	225	212
Concordia (c)	3,401	3,184
Conway Springs (c)	714	681
Coolidge (c)	288	472
Corning (c)	425	291
Coronado (c)	10	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
KANSAS—Continued.		
Cortland (c)	286	267
Cottonwood Falls (c)	842	770
Council Grove (c)	2,265	2,211
Cuba (c)	445	415
Delphos (c)	648	561
Denton (c)	247	.....
Dexter (c)	380	371
Dighton (c)	194	304
Dodge (c)	1,942	1,763
Doniphan (c)	196	347
Douglass (c)	755	737
Downs (c)	938	938
Dunlap (c)	400	408
Edgerton (c)	310	321
Edna (c)	374	321
Effingham (c)	634	361
Eldorado (c)	3,466	3,339
Elk (c)	709	796
Ellinwood (c)	760	684
Ellis (c)	932	1,107
Ellsworth (c)	1,549	1,620
Elwood (c)	623	377
Empire (c)	2,258	923
Emporia (c)	8,223	7,551
Englewood (c)	181	175
Enterprise (c)	798	804
Erie (c)	1,111	1,176
Eskridge (c)	612	548
Eudora (c)	640	618
Eureka (c)	2,091	2,259
Everest (c)	502	478
Fairview (c)	395	.....
Falls River (c)	371	454
Florence (c)	1,178	1,229
Fontana (c)	237	256
Ford (c)	82	148
Fort Scott (c)	10,322	11,946
Frankfort (c)	1,167	1,053
Fredonia (c)	1,650	1,515
Freeport (c)	83	138
Frontenac (c)	1,805	600
Fulton (c)	424	506
Galena (c)	10,155	2,496
Galva (c)	300	255
Garden (c)	1,590	1,490
Gardner (c)	475	515
Garnett (c)	2,078	2,191
Gaylord (c)	302	314
Geneseo (c)	466	399
Geuda (c)	218	355
Girard (c)	2,473	2,541
Glasco (c)	509	461
Glen Elder (c)	481	407
Goddard (c)	225	210
Goffs (c)	365	.....
Goodland (c)	1,059	1,027
Grove c)	162	118
Grainfield (c)	115	99
Great Bend (c)	2,470	2,450
Greeley (c)	394	514
Greenleaf (c)	854	916
Greensburg (c)	343	515
Grenola (c)	666	608
Gypsum (c)	552	530
Haddam (c)	355	419
Halstead (c)	914	771
Hamlin (c)	258	216
Hanover (c)	987	903
Harper (c)	1,151	1,579
Hartford (c)	553	441
Havensville (c)	437	.....
Hays (c)	1,136	1,242
Hazelton (c)	143	319
Hepler (c)	215	269
Herington (c)	1,607	1,353
Hiawatha (c)	2,829	2,486
Highland (c)	780	493
Hill (c)	468	545
Hillsboro (c)	754	555
Hoisington (c)	789	446
Holton (c)	3,082	2,727
Hope (c)	557	632
Horace (c)	90	150
Horton (c)	3,398	3,316
Howard (c)	1,207	1,015
Hoxie (c)	250	245
Hugoton (c)	54	136
Humboldt (c)	1,402	1,361
Hunnewell (c)	233	168
Huron (c)	200	.....
Hutchinson (c)	9,379	8,682
Independence (c)	4,851	3,127
Inman (c)	352	.....
Iola (c)	5,791	1,706
Irving (c)	366	375
Jamestown (c)	400	372
Jetmore (c)	230	324
Jewell (c)	736	702
Johnson (c)	15	143
Junction (c)	4,695	4,502
Kanopolis (c)	240	272
Kansas City	51,418	38,316
Kincaid (c)	364	284
Kingman (c)	1,785	2,390
Kinsley (c)	780	771
Kiowa (c)	765	893
Kirwin (c)	586	689
La Crosse (c)	536	513
Lacygne (c)	1,037	1,135
Laharpe (c)	610	.....
Lakin (c)	259	258
Lancaster (c)	292	.....
Larned (c)	1,583	1,861
Lawrence (c)	10,862	9,997
Leavenworth (c)	20,735	19,768
Lebanon (c)	590	301
Lebo (c)	605	538
Lecompton (c)	408	450
Lenora (c)	247	231
Leon (c)	527	456
Leonardville (c)	335	410
Leoti (c)	151	341
Le Roy (c)	772	893
Liberal (c)	426	.....
Liberty (c)	314	344
Lincoln (c)	1,262	1,100
Lindsborg (c)	1,279	968
Linwood (c)	349	306
Little River (c)	457	340
Logan (c)	449	390
Longton (c)	564	624
Louisburg (c)	665	760
Louisville (c)	336	382
Lucas (c)	277	.....
Lyndon (c)	1,004	935
Lyons (c)	1,736	1,754
McCracken (c)	312	281
McCune (c)	657	700
McLouth (c)	529	311
McPherson (c)	2,996	3,172
Macksville (c)	248	156
Madison (c)	683	623
Manhattan (c)	3,438	3,004
Mankato (c)	890	800
Marion (c)	1,824	2,047
Marquette (c)	489	367
Marysville (c)	2,006	1,913
Meade (c)	326	457
Medicine Lodge (c)	917	1,095
Melvern (c)	469	461
Meriden (c)	433	.....
Midland (c)	164	.....
Miltonvale (c)	396	591
Minneapolis (c)	1,727	1,756
Moline (c)	695	527
Moran (c)	464	463
Morganville (c)	350	233
Morrill (c)	400	308
Mound City	809	888
Mound Ridge (c)	557	443
Mound Valley (c)	533	545
Mt. Hope (c)	327	241
Mulvane (c)	667	724
Muscotah (c)	462	524
Narka (c)	258	.....
Neodesha (c)	1,772	1,528
Neosho Falls (c)	763	606
Ness (c)	505	869
Netawaka (c)	330	267
Newton (c)	6,208	5,605
Nickerson (c)	1,038	1,662
Norton (c)	1,202	1,074
Nortonville (c)	700	669
Norwich (c)	311	301
Oakley (c)	269	176
Oberlin (c)	937	976
Ogden (c)	232	173
Okeo (c)	347	334
Olathe (c)	3,451	3,294
Onaga (c)	598	423
Oneida (c)	279	311
Osage (c)	2,792	3,469
Osawatomie (c)	4,191	2,662
Osborne (c)	1,075	1,174
Oskaloosa (c)	978	773
Oswego (c)	2,208	2,574
Ottawa (c)	6,934	6,248
Oxford (c)	567	665
Paola (c)	3,144	2,943
Parker (c)	306	.....
Parkerville (c)	146	202
Parsons (c)	7,682	6,736
Pawnee Rock (c)	210	204
Peabody (c)	1,369	1,474
Perry (c)	464	.....
Phillipsburg (c)	1,008	992
Pittsburg (c)	10,112	6,697
Plainville (c)	378	347
Pleasanton (c)	1,097	1,139
Pomona (c)	547	466
Powhatan (c)	237	.....
Pratt (c)	1,213	1,418
Prescott (c)	298	241
Quenemo (c)	682	643
Randall (c)	268	239
Randolph (c)	372	305
Reading (c)	304	.....
Republic (c)	241	228
Richfield (c)	61	164
Robinson (c)	493	.....
Rosedale (c)	3,270	2,276
Rossville (c)	555	420
Russell (c)	1,143	961
Sabetha (c)	1,646	1,368
St. John (c)	869	865
St. Marys (c)	1,390	1,174
St. Paul (c)	1,047	1,097
Salina (c)	6,074	6,149
Santa Fe (c)	128	166
Scammon (c)	1,549	748
Scandia (c)	598	653
Scott (c)	212	229
Scranton (c)	1,099	1,572
Sedan (c)	1,067	970
Sedgwick (c)	622	652
Seneca (c)	1,846	2,032
Severance (c)	424	377
Severy (c)	489	389
Sharon (c)	116	.....
Sharon Springs (c)	180	178
Silver Lake (c)	259	256
Smith Center (c)	1,142	767
Soldier (c)	302	193
Solomon (c)	817	839
South Haven (c)	411	465
South Hutchinson (c)	225	321
Spearville (c)	157	.....
Spivey (c)	134	205
Springhill (c)	580	573
Stafford (c)	1,068	640
Sterling (c)	2,002	1,641
Stockton (c)	1,030	880
Strong (c)	1,128	976
Summerfield (c)	505	102
Sylvan Grove (c)	319	.....
Sylvia (c)	220	205
Syracuse (c)	460	324
Thayer (c)	542	544
Tonganoxie (c)	848	673
Topeka (c)	33,608	31,007
Toronto (c)	695	552
Tribune (c)	62	90
Troy (c)	947	730
Udall (c)	282	338
Ulysses (c)	40	198
Uniontown (c)	293	344

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
KANSAS—Continued.		
Valley Center (c)	343	167
Valley Falls (c)	1,078	1,180
Vermilion (c)	362	.....
Vining (c)	245	241
Wakeeney (c)	394	439
Wakefield (c)	322	241
Walnut (c)	603	539
Walton (c)	174	249
Wamego (c)	1,618	1,473
Washington (c)	1,575	1,613
Waterville (c)	610	577
Wathena (c)	798	694
Waverly (c)	586	548
Weir (c)	2,977	2,138
Wellington (c)	4,245	4,391
Wellsville (c)	447	392
Westmoreland (c)	620	478
Wetmore (c)	434	522
White (c)	532	391
White Cloud (c)	713	699
Whitewater (c)	267	184
Whiting (c)	384	381
Wichita (c)	24,671	23,853
Willis (c)	187	.....
Wilson (c)	939	770
Windom (c)	146	165
Winfield (c)	5,554	5,184
Yates Center (c)	1,634	1,305
Kentucky.		
Adairville (t)	720	.....
Albany (t)	234	.....
Alexandria (t)	359	.....
Allensville (t)	430	426
Anchorago (t)	421	.....
Arlington (t)	584	574
Ashland (c)	6,800	4,195
Athens (t)	186	173
Auburn (t)	697	613
Augusta (c)	1,718	1,447
Bagdad (t)	190	.....
Bandana (v)	205	148
Barbourville (t)	1,010	1,162
Bardstown (c)	1,711	1,524
Bardwell (t)	1,512	578
Barnesley (t)	380	.....
Beattyville (t)	696	.....
Beaver Dam (t)	552	274
Bedford (t)	307	250
Bellevue (c)	6,332	3,163
Benton (v)	664	344
Berea (t)	762	.....
Berry (t)	250	.....
Bethlehem (t)	66	.....
Birmingham (v)	291	273
Blackford (t)	243	.....
Blaine (t)	134	.....
Blandville (t)	277	372
Bloomfield (t)	385	.....
Bonnieville (t)	270	.....
Booneville (t)	251	.....
Boston (t)	168	114
Bowling Green (c)	8,226	7,803
Bradfordsville (t)	301	179
Brandenburg (t)	218	495
Bremen (t)	180	.....
Briensburg (v)	107	87
Brodhead (t)	337	277
Bromley (t)	543	.....
Brookville (t)	565	330
Brownsville (t)	234	113
Bryantsville (t)	92	266
Buffalo (t)	347	214
Burgin (t)	703	303
Burkley (t)	184	.....
Butler (t)	506	560
Cadiz (c)	881	890
Cairo (t)	155	209
Calhoun (t)	631	637
California (t)	292	316
Calvert (v)	127	142
Campbellsburg (t)	191	342
Campbellsville (c)	1,341	1,018
Campton (t)	276	317
KENTUCKY—Continued.		
Caneyville (t)	294	273
Canmer (t)	246	.....
Carlisle (t)	1,377	1,081
Carrollton (c)	2,205	1,720
Carrsville (t)	278	240
Caseyville (t)	217	301
Catlettsburg (c)	3,081	1,374
Cave City (t)	538	362
Centertown (t)	201	79
Central City (t)	1,348	1,144
Central Covington (t)	2,155	981
Cerulean Springs (t)	190	.....
Clay (t) (Webster county)	450	323
Clay City (t) (Powell Co.)	585	1,065
Clinton (c)	1,462	1,347
Cloverport (c)	1,656	1,527
Columbia (t)	654	.....
Columbus (c)	1,235	873
Concord (t)	200	188
Corbin (t)	1,544	.....
Corinth (t)	331	.....
Corydon (t)	782	777
Covington (c)	42,938	37,371
Crab Orchard (t)	385	453
Crescent Hill (t)	442	.....
Crittenden (t)	199	440
Crofton (t)	278	428
Cromwell (t)	225	185
Cropper (v)	162	.....
Curdsville (t)	227	341
Cynthiana (c)	3,257	3,016
Danville (c)	4,285	3,766
Dawson Springs (t)	935	525
Dayton (c)	6,104	4,264
Deanfield (t)	365	.....
Defoe (t)	122	.....
Dexter (t)	221	.....
Dixon (t)	569	546
Dover (t)	879	515
Drakesboro (t)	228	.....
Dublin (v)	99	.....
Dunmor (t)	77	82
Dunnville (t)	139	136
Dycusburg (v)	219	.....
Earlington (c)	3,012	1,748
Eastview (t)	127	.....
Eddyville (c)	1,210	680
Eden (t) (Inez P. O.)	412	309
Elizabethtown (c)	1,861	2,260
Elizaville (t)	199	164
Elkhorn (t)	87	100
Elkton (c)	1,123	1,158
Elsmere (t)	519	.....
Eminence (c)	1,018	1,002
Erlanger (t)	453	.....
Ezel (t)	149	124
Fairfield (t)	206	.....
Fairview (t)	61	183
Fallsburg (t)	159	.....
Falmouth (c)	1,134	1,146
Farmers (v)	341	367
Farmington (t)	118	89
Flat Gap (v)	106	93
Flemingsburg (t)	1,268	1,172
Florence (t)	258	.....
Ford (t)	731	381
Fordsville (t)	586	281
Foster (t)	148	.....
Frankfort (c)	9,487	7,892
Franklin (c)	2,166	2,324
Fredonia (v)	196	249
Frenchburg (t)	210	222
Fulton (t)	2,860	1,818
Georgetown (t)	3,823	.....
Germantown (v)	407	229
Gest (t)	126	.....
Ghent (t)	569	525
Glasgow (c)	2,019	2,051
Glasgow Junction (t)	224	217
Glencoe (t)	226	.....
Gordonsville (t)	117	.....
Gracey (t)	142	.....
Grange (t)	143	131
Gratz (t)	246	205
Grayson (t)	606	433
KENTUCKY—Continued.		
Greensburg (t)	564	552
Greenup (t)	711	669
Greenville (c)	1,051	968
Guthrie (c)	807	449
Hanson (t)	549	376
Hardin (t)	240	.....
Hardinsburg (t)	689	681
Hardyville (t)	166	.....
Harrodsburg (c)	2,876	3,230
Hartford (t)	785	740
Hawesville (c)	1,041	1,013
Hazel Green (t)	225	218
Henderson (c)	10,272	8,835
Hickman (t)	1,589	1,652
Hickory Grove (v)	250	145
Highland Park (t)	993	.....
Hillsboro (t)	227	212
Hindman (t)	331	.....
Hiseville (t)	178	194
Hodgensville (t)	825	542
Hopkinsville (c)	7,280	5,833
Horse Cave (t)	867	598
Huntsville (t)	120	90
Hustonville (t)	425	435
Hyden (t)	269	80
Independence (t)	193	.....
Irvine (t)	260	.....
Irvington (t)	385	.....
Jackson (t)	941	.....
Jeffersonville (t)	84	.....
Jellico (t)	322	.....
Jonesville (t)	168	.....
Junction City (t)	817	648
Kirkmansville (t)	126	103
Knottsville (t)	209	215
Kuttawa (t)	858	587
Lafayette (t)	199	215
La Grange (t)	646	670
Lamasco (t)	134	186
Lancaster (c)	1,640	.....
Latonia (t)	1,882	.....
Lawrenceburg (c)	1,253	1,382
Lebanon (c)	3,043	2,816
Lebanon Junction (t)	599	.....
Lee City (t)	171	.....
Leitchfield (t)	914	821
Lenoxburg (t)	81	.....
Lewisburg (t)	239	224
Lewisport (t)	328	435
Lexington (c)	26,369	21,567
Liberty (t)	450	136
Lisman (t)	526	.....
Livermore (t)	869	622
Livingston (t)	605	.....
Lockport (t)	166	152
London (t)	1,147	.....
Louisa (t)	1,099	834
Louisville (c)	204 731	161,129
Ludlow (t)	3,334	2,469
Lynnville (v)	56	.....
McHenry (t)	550	463
McKee (t)	106	.....
Mackville (t)	171	.....
Madisonville (c)	3,628	2,212
Manchester (t)	398	.....
Mannsville (t)	104	83
Marion (c)	1,064	840
Martinsburg (v)	148	151
Mayfield (c)	4,081	2,909
Mays Lick (t)	237	352
Maysville (c)	6,423	5,358
Maytown (t)	106	162
Middleburg (t)	182	145
Middlesboro (t)	4,162	3,271
Midway (c)	1,045	1,185
Milburn (t)	272	297
Millersburg (t)	862	850
Milton (v)	324	458
Minerva (t)	105	.....
Monterey (t)	370	312
Monticello (t)	546	413
Morehead (t)	1,100	491
Morganfield (c)	2,046	1,094
Morgantown (t)	587	250
Mortons Gap (t)	885	548

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
KENTUCKY—Continued.		
Mt. Carmel (t)	144	175
Mt. Eden (t)	111	193
Mt. Olivet (t)	352	327
Mt. Pleasant (t)	557	361
Mt. Sterling (c)	3,561	3,629
Mt. Vernon (t)	422	.....
Mt. Washington (t)	1,093	327
Munfordville (t)	440	.....
Murray (c)	1,822	518
Nebo (t)	237	183
Nepton (t)	293	212
New Castle (t)	462	485
New Columbus (t)	129	146
Newfoundland (v)	42	56
New Haven (t)	350	389
New Hope (t)	256	322
New Liberty (t)	260	.....
Newport (c)	28,301	24,918
Nicholasville (c)	2,393	2,157
North Middletown (t)	434	496
North Pleasureville (t)	228	194
Olive Hill (t)	291	186
Owensboro (c)	13,189	9,837
Owenton (t)	1,014	847
Owingsville (c)	958	763
Paducah (c)	19,446	12,797
Paintsville (v)	541	506
Paradise (t)	107	.....
Paris (c)	4,603	4,218
Patesville (t)	253	162
Pellville (t)	145	119
Pembroke (t)	654	466
Penrod (t)	80	72
Perryville (t)	431	436
Petersburg (t)	503	525
Pewee Valley (t)	464	435
Pikeville (t)	508	456
Pineville (t)	2,072	.....
Pleasureville (t)	272	202
Poole (t)	198	.....
Popular Plains (t)	236	229
Port Royal (t)	174	.....
Prestonsburg (t)	409	305
Prestonville (t)	228	.....
Princeton (t)	2,556	1,857
Proctor (t)	217	277
Providence (t)	1,286	522
Pryorsburg (v)	250	227
Quincy (t)	364	279
Raywick (t)	140	.....
Render (t)	426	.....
Richmond (c)	4,653	3,073
Richpond (t)	88	119
Robard (t)	399	682
Rochester (t)	431	510
Rockport (t)	525	435
Rocky Hill (t)	120	.....
Rosewood (t)	82	.....
Rosine (t)	224	160
Rowland (t)	390	512
Rowletts (t)	198	.....
Rumsey (t)	283	207
Russell (t)	743	323
Russellville (c)	2,591	2,253
Sacramento (v)	434	297
Sadieville (v)	532	170
St. Charles (t)	753	449
St. Helens (t)	170	.....
Salem (t)	208	.....
Saloma (t)	64	.....
Salversville (t)	265	339
Sanders (t)	218	277
Sardis (t)	257	255
Scottsville (t)	824	557
Sebree (t)	1,477	959
Shannsburg (t)	482	516
Shelbyville (c)	3,016	2,679
Shepherdsville (t)	277	251
Sherburne (t)	251	194
Simpsonville (v)	203	290
Skilesville (t)	87	.....
Slaughtersville (t)	583	493
Smithland (t)	579	541
Smiths Grove (t)	411	.....
Somerset (c)	3,384	2,625
KENTUCKY—Continued.		
Sonora (t)	256	228
South Carrollton (t)	452	525
Spottsville (t)	541	513
Springfield (t)	1,016	642
Springville (t)	520	377
Stamping Ground (v)	373	311
Stanford (c)	1,651	1,385
Stanton (t)	192	.....
Stephensport (t)	241	262
Sturgis (t)	1,258	327
Taylorsville (t)	615	619
Tilton (t)	103	96
Tompkinsville (t)	366	.....
Trenton (t)	600	455
Turners Station (t)	176	195
Tyrone (t)	350	477
Uniontown (c)	1,532	1,037
Upton (t)	125	.....
Vanceburg (t)	1,161	1,110
Vanderburg (t)	111	.....
Versailles (c)	2,337	.....
Vine Grove (t)	427	397
Waddy (t)	168	.....
Walnut Grove (t)	99	42
Walton (t)	538	484
Warsaw (t)	785	676
Washington (t)	575	529
Water Valley (v)	254	115
West Covington (t)	1,606	1,757
West Liberty (t)	205	234
West Louisville (t)	210	.....
West Point (t)	489	.....
White Plains (t)	200	59
Whitesburg (t)	194	.....
Whitesville (t)	449	398
Wickliffe (t)	995	959
Willard (t)	578	431
Williamsburg (c)	1,4 5	1,3 6
Williamstown (t)	613	573
Winchester (c)	5,964	4,519
Wingo (v)	418	451
Woodburn (t)	226	.....
Woodbury (t)	167	194
Worthville (t)	223	203
Yosemite (t)	207	307
Louisiana.		
Abbeville (t)	1,536	637
Alexandria (t)	5,648	2,861
Amite (t)	1,547	1,510
Arcadia (t)	924	862
Arnaudville (t)	327	.....
Bastrop (t)	787	.....
Baton Rouge (c)	11,269	10,478
Bayou Sara (t)	755	608
Benton (t)	463	.....
Berwick (c)	713	769
Bienville (t)	263	.....
Boyce (t)	832	301
Breaux Bridge (v)	654	654
Broussard (t)	290	.....
Bunkie (t)	873	299
Carencro (t)	445	289
Church Point (t)	278	.....
Clinton (t)	960	974
Colfax (t)	190	161
Columbia (t)	382	352
Cottonport (t)	505	.....
Coushatta (t)	600	619
Covington (t)	1,205	976
Crowley (t)	4,214	420
Donaldsonville (t)	4,105	3,121
Erath (t)	215	.....
Eunice (t)	316	.....
Evergreen (t)	322	.....
Farmerville (t)	458	472
Franklin (t)	2,692	2,127
Franklinton (t)	230	97
Gibsland (t)	555	.....
Grand Cane (v)	385	351
Grand Coteau (t)	521	333
Greensburg (t)	315	280
Gueydan (t)	376	.....
Hammond (t)	1,511	692
LOUISIANA—Continued.		
Harrisonburg (v)	303	359
Haughton (v)	194	305
Homer (c)	1,157	1,132
Houma (t)	3,212	1,280
Jackson (t)	2,012	1,276
Jeanerette (t)	1,905	1,309
Jennings (t)	1,539	412
Junction City	389	.....
Kenner (c)	1 253	953
Kentwood (t)	1,313	.....
Lafayette (t)	3,314	2,106
Lake Charles (t)	6,680	3,442
Lake Providence	1,256	642
Leesville (t)	1,148	.....
Lockport (v)	401	.....
Logansport (t)	688	281
Madisonville (t)	779	574
Mandeville (t)	1,029	1,012
Mansfield (v)	847	908
Mansura (t)	408	144
Many (t)	354	133
Marksville (t)	837	540
Marthaville (t)	228	382
Melville (t)	517	361
Mer Rouge (t)	465	.....
Minden (t)	1,561	1,298
Monroe (c)	5,428	3,256
Montgomery (t)	158	144
Morgan City	2,332	2,291
Napoleonville (t)	945	723
Natchitoches (t)	2,388	1,820
New Iberia (t)	6,815	3,447
New Orleans (c)	287,104	242,039
New Roads (t)	770	.....
Oak Ridge (t)	348	296
Oberlin (t)	213	.....
Opelousas (t)	2,951	1,572
Pineville (t)	617	540
Plain Dealing (t)	258	.....
Plaquemine (t)	3,590	3,222
Pleasant Hill (t)	300	.....
Pollock (t)	637	.....
Ponchatoula (t)	711	459
Provencal (t)	246	482
Rayne (t)	1,007	569
Robeline (t)	464	676
Ruston (t)	1,324	767
St. Francisville (t)	1,059	950
St. Joseph (t)	717	473
St. Martinsville (v)	1,926	1,814
Shreveport (c)	16,013	11,979
Slaughter (t)	259	.....
Slidell (t)	1,129	364
Tangipahoa (t)	297	.....
Thibodaux (t)	3,253	2,078
Vidalia (t)	1,022	821
Ville Platte (t)	163	.....
Washington (t)	1,197	1,064
Waterproof (t)	298	.....
Welsh (t)	320	200
West Monroe (t)	775	447
White Castle (t)	1,850	603
Wilson (t)	470	281
Youngsville (t)	200	.....
Zachary (t)	465	.....
Zwolle (t)	276	.....
Maine.		
Auburn (c)	12,951	11,250
Augusta (c)	11,683	10,527
Bangor (c)	21,850	19,103
Bath (t)	10,477	8,723
Belfast (c)	4,615	5,294
Bethel (v)	722	783
Biddeford (c)	16,145	14,443
Brewer (c)	4,835	4,193
Bridgton (v)	1,552	.....
Brunswick (v)	5,210	.....
Buckfield (v)	379	.....
Calais (c)	7,655	7,290
Clinton (v)	448	.....
Eastport (c)	5,311	4,908
Ellsworth (c)	4,297	4,804
Fairfield (v)	2,238	2,130

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
MAINE—Continued.		
Farmington (v)	1,251	1,243
Fort Fairfield (v)	1,469	.....
Freeport (v)	759	.....
Fryeburg (v)	550	495
Gardiner (c)	5,501	5,491
Hallowell (c)	2,714	3,181
Lewiston (c)	23,761	21,701
Lincoln (v)	868	.....
Madison (v)	1,850	.....
Monmouth (v)	312	.....
Norway (v)	2,034	1,737
Old Town (c)	5,763	5,312
Oxford (v)	497	.....
Paris Hill (v)	251	.....
Phillips (v)	674	629
Pittsfield (v)	2,208	1,597
Portland (c)	50,145	36,425
Presque Isle (v)	1,256	1,262
Rangeley (v)	563	.....
Rockland (c)	8,150	8,174
Rumford Falls (v)	2,595	.....
Saco (c)	6,122	6,075
Skowhegan (v)	4,266	.....
South Paris (v)	1,457	1,164
South Portland (c)	6,287	.....
Waterville (c)	9,477	7,107
Westbrook (c)	7,283	6,632
Maryland.		
Aberdeen (v)	600	448
Annapolis (c)	8,525	7,604
Baltimore (c)	508,957	434,439
Belair (t)	961	1,416
Berlin (t)	12,46	974
Bishopville (v)	243	275
Blenheim (t)	463	503
Bloomington (t)	395	295
Boonsboro (t)	700	766
Bowie (t)	443	.....
Bridgetown (t)	50	.....
Brookeville (t)	158	.....
Brunswick (t)	2,471	.....
Burkittsville (t)	229	273
Cambridge (t)	5,747	4,192
Cecilton (t)	447	485
Centerville (t)	1,231	1,309
Charlestown (t)	244	228
Chesapeake (t)	1,172	1,155
Chestertown (t)	3,008	2,632
Church Hill (v)	368	596
Clear Spring (t)	474	.....
Crisfield (t)	3,165	1,565
Crumpton (v)	207	317
Cumberland (c)	17,128	12,729
Damascus (t)	1[illegible]8	.....
Darlington (v)	260	239
Deer Park (t)	293	179
Delmar (t)	659	.....
Denton (t)	900	641
East New Market (t)	282	.....
Easton (t)	3,074	2,939
Elkton (t)	2,542	2,318
Ellicott City	1,331	1,488
Emmitsburg (t)	849	844
Federalsburg (v)	539	543
Frederick (c)	9,296	8,193
Frostburg (t)	5,274	3,804
Funkstown (t)	559	.....
Gaithersburg (t)	547	.....
Galena (t)	251	266
Garrett Park (t)	175	.....
Girdletree (t)	336	.....
Grantsville (t)	175	.....
Greensboro (t)	641	902
Hagerstown (c)	13,591	10,118
Hampstead (v)	480	521
Hancock (t)	824	815
Havre de Grace (c)	3,423	3,244
Hillsboro (t)	196	174
Hurlock (v)	280	.....
Hyattstown (t)	81	.....
Hyattsville (t)	1,222	1,509
Keedysville (t)	426	420
Kensington (t)	477	.....
MARYLAND—Continued.		
Laurel (t)	2,079	1,984
Laytonsville (t)	148	.....
Leonardtown (t)	463	521
Loch Lynn Heights (t)	215	.....
Lonaconing (v)	2,181	.....
Manchester (v)	609	273
Middletown (t)	665	667
Millington (t)	406	485
Mountain Lake Park (t)	260	.....
Mt. Airy (v)	332	.....
New Market (t)	360	423
New Windsor (t)	430	414
Northeast (t)	969	1,249
Oakland (t)	1,170	1,046
Ocean City (t)	365	85
Oxford (t)	1,243	1,135
Perryville (t)	770	344
Piscataway (v)	95	.....
Pocomoke City (t)	2,124	1,866
Poolesville (t)	236	.....
Port Deposit (t)	1,575	1,908
Preston (t)	192	.....
Princess Anne (t)	854	86[illegible]
Queenstown (t)	374	.....
Ridgely (t)	713	215
Rising Sun (v)	382	384
Rockville (t)	1,110	1,568
St. Michaels (t)	1,043	1,329
Salisbury (t)	4,277	2,905
Secretary (v)	410	.....
Sharpsburg (t)	1,030	1,163
Sharptown (t)	529	427
Smithsburg (t)	462	487
Snow Hill (t)	1,596	1,483
Sudlersville (v)	221	125
Takoma (t)	756	164
Taneytown (v)	665	566
Thurmont (t)	868	.....
Trappe (t)	279	251
Union Bridge (t)	663	743
Upper Marlboro (t)	449	439
Walkersville (t)	359	255
Westernport (v)	1,998	1,526
Westminster (t)	3,199	2,903
Williamsport (t)	1,472	1,277
Massachusetts.		
Beverly (c)	13,884	10,821
Boston (c)	560,892	448,477
Brockton (c)	40,063	27,294
Cambridge (c)	91,886	70,028
Chelsea (c)	34,072	27,909
Chicopee (c)	19,167	14,050
Everett (c)	24,336	11,068
Fall River (c)	104,863	74,398
Fitchburg (c)	31,531	22,037
Gloucester (c)	26,121	24,651
Haverhill (c)	37,175	27,412
Holyoke (c)	45,712	35,637
Lawrence (c)	62,559	44,654
Lowell (c)	94,969	77,696
Lynn (c)	68,513	55,727
Malden (c)	33,664	23,031
Marlboro (c)	13,609	13,805
Medford (c)	18,244	11,079
Melrose (c)	12,962	8,519
New Bedford (c)	62,442	40,733
Newburyport (c)	14,478	13,947
Newton (c)	33,587	24,379
North Adams (c)	24,200	16,074
Northampton (c)	18,643	14,990
Pittsfield (c)	21,766	17,281
Quincy (c)	23,899	16,723
Salem (c)	35,956	30,801
Summerville (c)	61,643	40,152
Springfield (c)	62,059	44,179
Taunton (c)	31,036	25,448
Waltham (c)	23,481	18,707
Woburn (c)	14,254	13,499
Worcester (c)	118,421	84,655
Michigan.		
Addison (v)	470	425
Adrian (c)	9,654	8,756
MICHIGAN—Continued.		
Albion (c)	4,519	3,763
Algonac (v)	1,216	.....
Allegan (v)	2,667	2,669
Alma (v)	2,047	1,655
Almont (v)	718	717
Alpena (c)	11,802	11,283
Ann Arbor (c)	14,509	9,431
Armada (v)	863	638
Ashley (v)	617	711
Athens (v)	583	441
Augusta (v)	541	498
Au Sable (c)	1,116	4,328
Bad Axe (v)	1,241	842
Baldwin (v)	343	429
Bancroft (v)	528	642
Bangor (v)	1,021	904
Baraga (v)	1,185	.....
Battle Creek (c)	18,563	13,197
Bay City	27,628	27,839
Bear Lake (v)	448	432
Belding (c)	3,282	1,730
Bellaire (v)	1,157	.....
Bellevue (v)	1,074	914
Benton Harbor (c)	6,562	3,692
Benzonia (v)	484	.....
Berrien Springs (v)	808	745
Bessemer (c)	3,911	2,566
Big Rapids (c)	4,686	5,303
Birmingham (v)	1,170	899
Blissfield (v)	1,268	1,132
Bloomingdale (v)	379	380
Boardman (v)	298	.....
Boyne (v)	912	450
Boyne Falls (v)	431	.....
Breedsville (v)	236	212
Brighton (v)	781	741
Britton (v)	345	.....
Bronson (v)	1,176	875
Brooklyn (v)	494	596
Brown City (v)	603	437
Buchanan (v)	1,708	1,994
Burlington (v)	334	304
Burr Oak (v)	744	687
Byron (v)	432	413
Cadillac (c)	5,997	4,461
Caledonia (v)	427	438
Camden (v)	376	.....
Capac (v)	547	.....
Caro (v)	2,006	1,701
Carson City (v)	906	921
Carsonville (v)	400	.....
Caseville (v)	507	508
Casnovia (v)	277	275
Cass City (v)	1,113	813
Cassopolis (v)	1,330	1,369
Cedar Springs (v)	950	1,035
Centerville (v)	645	775
Central Lake (v)	1,307	.....
Charlevoix (v)	2,079	1,496
Charlotte (c)	4,092	3,867
Cheboygan (c)	6,489	6,235
Chelsea (v)	1,635	1,356
Chesaning (v)	1,244	1,056
Clare (c)	1,326	1,174
Clarkston (v)	360	387
Clayton (v)	370	.....
Clifford (v)	339	306
Climax (v)	398	369
Clinton (v)	1,038	960
Clio (v)	640	577
Coldwater (c)	6,216	5,247
Coleman (v)	1,014	540
Coloma (v)	687	.....
Columbiaville (v)	457	578
Concord (v)	534	580
Constantine (v)	1,226	1,346
Coopersville (v)	660	790
Copemish (v)	429	.....
Corunna (c)	1,510	1,382
Croswell (v)	606	504
Croton (v)	59	125
Crystal Falls (c)	3,231	.....
Custer (v)	269	.....
Dansville (v)	874	366
Davison (v)	751	456

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
MICHIGAN—Continued.		
Dearborn (v)	844	.....
Decatur (v)	1,356	1,109
Deckerville (v)	398	.....
Deerfield (v)	440	421
Delray (v)	4,573	.....
Detour (v)	880	.....
Detroit (c)	285,704	205,876
Dexter (v)	900	879
Douglas (v)	444	404
Dowagiac (c)	4,151	2,806
Dryden (v)	328	322
Dundee (v)	1,118	1,166
Durand (v)	2,134	255
Eagle (v)	142	141
East Grand Rapids (v)	466	.....
East Jordan (v)	1,205	731
East Tawas (c)	1,736	2,200
Eaton Rapids (c)	2,103	1,970
Eau Claire (v)	281	.....
Edmore (v)	642	735
Elkton (v)	471	.....
Elsie (v)	576	396
Emmet (v)	265	.....
Empire (v)	609	.....
Escanaba (c)	9,549	6,808
Essexville (v)	1,639	1,545
Evart (v)	1,360	1,269
Farmington (v)	530	320
Farwell (v)	355	584
Fennville (v)	454	360
Fenton (v)	2,408	2,182
Fife Lake (v)	456	394
Flint (c)	13,103	9,803
Flushing (v)	900	965
Forestville (v)	282	.....
Fowler (v)	426	346
Fowlerville (v)	946	.....
Frankfort (v)	1,465	1,175
Fraser (v)	252	.....
Fremont (v)	1,331	1,097
Fruitport (v)	311	.....
Gagetown (v)	329	237
Gaines (v)	240	304
Galesburg (v)	689	702
Galien (v)	440	492
Garden (v)	465	458
Gaylord (v)	1,561	661
Gladstone (c)	3,380	1,337
Gladwin (c)	775	903
Glennwood (v)	999	.....
Gobleville (v)	505	.....
Grand Haven (c)	4,743	5,023
Grand Ledge (c)	2,161	1,606
Grand Rapids (c)	87,565	60,278
Grandville (v)	457	.....
Grant (v)	214	.....
Grass Lake (v)	648	617
Greenville (c)	3,381	3,056
Grossepoint (v)	343	298
Grossepoint Farms (v)	817	.....
Hancock (v)	4,050	1,772
Hanover (v)	378	363
Harbor Beach (v)	1,149	1,046
Harbor Springs (v)	1,643	1,052
Harrietta (v)	419	335
Harrison (c)	647	752
Harrisville (v)	403	987
Hart (v)	1,134	757
Hartford (v)	1,077	1,044
Hastings (c)	3,172	2,972
Hersey (v)	327	328
Hesperia (v)	474	506
Highland Park (v)	427	.....
Hillman (v)	253	.....
Hillsdale (c)	4,151	3,915
Holland (c)	7,790	3,945
Holly (v)	1,419	1,266
Homer (v)	1,097	1,063
Houghton (v)	3,359	2,062
Howard City (v)	1,398	1,137
Howell (v)	2,518	2,387
Hubbardston (v)	450	.....
Hudson (c)	2,403	2,178
Imlay City (v)	1,122	1,251
Ionia (c)	5,209	4,482
Iron Mountain (c)	9,242	8,599
Iron River (v)	1,482	1,117
Ironwood (c)	9,705	7,745
Ishpeming (c)	13,255	11,197
Ithaca (v)	2,020	1,627
Jackson (c)	25,180	20,798
Jonesville (v)	1,367	1,288
Kalamazoo (c)	24,404	17,853
Kalkaska (v)	1,304	1,161
Kingsley (v)	419	.....
Kingston (v)	286	.....
Laingsburg (v)	690	654
Lake Ann (v)	241	.....
Lake City (v)	816	663
Lake Linden (v)	2,597	1,862
Lake Odessa (v)	1,037	635
Lakeview (v)	935	1,024
L'Anse (v)	620	655
Lansing (c)	16,485	13,102
Lapeer (c)	3,297	2,753
Laurium (v)	5,643	1,159
Lawrence (v)	598	564
Lawton (v)	942	788
Leonard (v)	335	276
Le Roy (v)	375	452
Leslie (v)	1,114	1,058
Lexington (v)	619	712
Linden (v)	543	552
Lisbon (v)	187	136
Litchfield (v)	645	601
Lowell (v)	1,736	1,829
Ludington (c)	7,166	7,517
Luther (v)	837	1,084
Lyons (v)	656	612
McBain (v)	709	.....
McBride (v)	289	333
Mackinac Island (c)	665	750
Mackinaw City (v)	564	333
Mancelona (v)	1,226	1,205
Manchester (v)	1,209	1,191
Manistee (c)	14,260	12,812
Manistique (v)	4,126	2,940
Manton (v)	895	661
Maple Rapids (v)	579	533
Marcellus (v)	1,025	830
Marine City	3,829	3,268
Marion (v)	741	.....
Marlette (v)	996	.....
Marquette (c)	10,058	9,093
Marshall (c)	4,370	3,968
Mason (c)	1,828	1,875
Mayville (v)	825	728
Mecosta (v)	416	472
Memphis (v)	586	588
Mendon (v)	777	808
Menominee (c)	12,818	10,630
Merrill (v)	459	412
Metamora (v)	313	314
Middleville (v)	829	678
Midland (c)	2,363	2,277
Milan (v)	1,141	917
Milford (v)	1,108	1,138
Millington (v)	638	454
Minden (c)	408	394
Monroe (c)	5,043	5,258
Montague (v)	998	1,623
Montrose (v)	348	.....
Morenci (v)	1,334	1,248
Morley (v)	334	485
Morrice (v)	476	422
Mt. Clemens (c)	6,576	4,748
Mt. Morris (v)	416	351
Mt. Pleasant (c)	3,662	2,701
Muir (v)	566	490
Munising (v)	2,014	.....
Muskegon (c)	20,818	22,702
Muskegon Heights (v)	1,012	.....
Nashville (v)	1,164	1,029
Naubinway (v)	87	578
Negaunee (c)	6,935	6,078
Newaygo (v)	1,172	1,330
New Baltimore (v)	922	865
Newberry (v)	1,015	1,115
New Buffalo (v)	629	553
New Haven (v)	489	606
Niles (c)	4,287	4,197
North Adams (v)	422	504
North Branch (v)	654	705
North Muskegon (c)	513	1,590
Northville (v)	1,755	1,573
Norway (c)	4,170	.....
Oakley (v)	231	299
Olivet (v)	800	790
Onaway (v)	1,204	.....
Onekama (v)	274	.....
Ontonagon (v)	1,267	.....
Orion (v)	756	522
Oscoda (v)	1,109	3,593
Otisville (v)	291	277
Otsego (v)	2,073	1,626
Otter Lake (v)	212	243
Ovid (v)	1,293	1,423
Owosso (c)	8,696	6,564
Oxford (v)	1,172	1,128
Palmer (v)	799	1,011
Parma (v)	420	490
Paw Paw (v)	1,465	1,391
Pentwater (v)	1,061	1,510
Perrinton (v)	330	349
Perry (v)	641	440
Petersburg (v)	468	408
Petoskey (c)	5,285	2,872
Pewamo (v)	446	384
Pierson (v)	215	215
Pinckney (v)	500	449
Pinconning (v)	729	885
Plainwell (v)	1,318	1,414
Plymouth (v)	1,474	1,172
Pontiac (c)	9,769	6,200
Port Austin (v)	507	571
Port Hope (v)	319	393
Port Huron (c)	19,158	13,543
Portland (v)	1,874	1,678
Port Sanilac (v)	314	.....
Potterville (v)	495	505
Quincy (v)	1,563	1,250
Reading (v)	1,096	.....
Red Jacket (v)	4,668	3,073
Reed City (v)	2,051	1,776
Reese (v)	416	.....
Richland (v)	312	293
Richmond (v)	1,133	1,074
River Rouge (v)	1,748	.....
Rochester (v)	1,535	900
Rockford (v)	711	.....
Rogers (v)	544	431
Romeo (v)	1,580	1,687
Roscommon (v)	465	511
Royal Oak (v)	468	.....
Saginaw (c)	42,345	46,322
St. Charles (v)	1,317	.....
St. Clair (c)	2,543	2,353
St. Ignace (c)	2,271	2,704
St. Johns (v)	3,388	3,127
St. Joseph (c)	5,155	3,733
St. Louis (c)	1,989	2,246
Saline (v)	584	706
Sand Lake (v)	326	386
Sanilac Center (v)	578	403
Saranac (v)	768	790
Saugatuck (v)	707	799
Sault Ste. Marie (c)	10,538	5,760
Schoolcraft (v)	859	836
Scottville (v)	554	147
Sebewaing (v)	1,243	719
Shelby (v)	1,081	994
Shepherd (v)	635	469
Sheridan (v)	437	.....
Sherman (v)	427	.....
Sherwood (v)	366	447
South Frankfort (v)	639	.....
South Haven (v)	4,009	1,924
South Lyon (v)	657	707
Sparta (v)	1,126	904
Spring Lake (v)	696	1,168
Springport (v)	559	407
Stambaugh (v)	695	.....
Standish (v)	829	611
Stanton (c)	1,234	1,352
Stephenson (v)	395	456

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
MICHIGAN—Continued.		
Stevensville (v)	250	.....
Stockbridge (v)	677	497
Sturgis (c)	2,465	2,489
Sunfield (v)	451	.....
Suttons Bay (v)	398	.....
Tawas City	1,228	1,544
Tecumseh (v)	2,400	2,310
Tekonsha (v)	573	570
Thompsonville (v)	893	.....
Three Oaks (v)	994	885
Three Rivers (c)	3,550	3,131
Traverse City	9,407	4,833
Trenton (v)	1,167	789
Tustin (v)	303	.....
Ubly (v)	432	.....
Union City (v)	1,514	1,156
Unionville (v)	427	414
Utica (v)	562	563
Vandalia (v)	407	423
Vassar (v)	1,832	1,682
Vermontville (v)	684	730
Vernon (v)	536	585
Vicksburg (v)	972	921
Wakefield (v)	1,191	.....
Warren (v)	350	.....
Watervliet (v)	717	.....
Wayland (v)	619	523
Wayne (v)	1,361	1,226
Webberville (v)	346	404
West Bay City	13,119	12,981
West Branch (v)	1,412	1,302
Westphalia (v)	374	350
White Cloud (v)	595	743
Whitehall (v)	1,481	1,903
White Pigeon (v)	705	961
Williamston (v)	1,113	1,139
Woodland (v)	319	.....
Wyandotte (c)	5,183	3,817
Yale (v)	1,125	937
Ypsilanti (c)	7,378	6,129
Zeeland (v)	1 326	785
Minnesota.		
Ada (v)	1,253	622
Adams (v)	573	216
Adrian (v)	1,258	671
Aitkin (v)	1,719	737
Albany (v)	517	.....
Albert Lea (c)	4,500	3,305
Alden (v)	636	276
Alexandria (v)	2,681	2,118
Alpha (v)	209	.....
Amboy (v)	432	215
Annandale (v)	481	211
Anoka (c)	3,769	4,252
Appleton (v)	1,184	994
Argyle (v)	829	306
Arlington (v)	712	417
Ashby (v)	279	231
Atwater (v)	588	429
Audubon (v)	349	159
Austin (c)	5,474	3,901
Avoca (v)	338	170
Avon (v)	162	.....
Badger (v)	164	.....
Bagley (v)	248	.....
Balaton (v)	209	.....
Barnesville (c)	1,326	1,069
Barnum (v)	391	417
Barrett (v)	237	.....
Battle Lake (v)	420	.....
Beardsley (v)	449	.....
Beaver Creek (v)	186	232
Beaver Falls (v)	189	.....
Belgrade (v)	450	306
Belle Plaine (b)	1,121	814
Bellingham (v)	380	166
Belview (v)	254	.....
Bemidji (v)	2,183	.....
Benson (v)	1,525	877
Benton (v)	52	39
Bertha (v)	277	.....
Big Lake (v)	177	.....
Bingham Lake (v)	311	.....

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
MINNESOTA—Continued.		
Bird Island (v)	846	441
Biwabik (v)	1,299	.....
Blooming Prairie (v)	855	308
Blue Earth (c)	2,900	1,569
Boyd (v)	335	.....
Brainerd (c)	7,524	5,703
Brandon (v)	272	225
Breckenridge (v)	1,282	655
Brewster (v)	234	.....
Bricelyn (v)	166	.....
Brooten (v)	259	.....
Browerville (v)	466	86
Brownsdale (v)	261	282
Browns Valley (v)	721	498
Brownsville (v)	453	447
Brownton (v)	454	384
Buffalo (v)	1,040	606
Buffalo Lake (v)	389	.....
Butterfield (v)	332	.....
Byron (v)	347	291
Caledonia (v)	1,175	927
Cambridge (v)	737	258
Campbell (v)	239	.....
Canby (v)	1,100	470
Cannon Falls (v)	1,239	1,078
Canton (v)	312	281
Carlton (v)	449	612
Carver (v)	583	625
Cass Lake (v)	546	.....
Chanhassen (v)	175	.....
Chaska (c)	2,165	2,210
Chatfield (v)	1,426	1,335
Chokio (v)	309	.....
Clara City (v)	465	.....
Claremont (v)	317	.....
Clarissa (v)	233	.....
Clarkfield (v)	437	178
Clear Lake (v)	222	.....
Clearwater (v)	271	248
Climax (v)	259	.....
Clinton (v)	346	.....
Clitherall (v)	167	.....
Cloquet (v)	3,072	2,530
Cokato (v)	684	363
Cold Spring (v)	486	.....
Cologne (v)	238	193
Columbia Heights (v)	123	.....
Cottonwood (v)	549	.....
Courtland (v)	174	.....
Crookston (c)	5,359	3,457
Cyrus (v)	197	.....
Danvers (v)	112	.....
Dassel (v)	568	552
Dawson (v)	962	418
Deer Creek (v)	275	.....
Deer River (v)	251	.....
De Graff (v)	165	.....
Delano (v)	967	889
Delavan (v)	321	252
Detroit (v)	2,060	1,510
Dexter (v)	278	150
Dodge Center (v)	942	633
Donnelly (v)	164	.....
Dresbach (v)	285	.....
Duluth (c)	52,969	33,115
Dumont (v)	236	.....
Dundas (v)	493	554
Dundee (v)	217	.....
Eagle Bend (v)	547	306
East Grand Forks (c)	2,077	795
Easton (v)	318	180
Echo (v)	334	.....
Eden Valley (v)	604	.....
Edgerton (v)	450	178
Edina (v)	749	531
Elba (v)	198	.....
Elbow Lake (v)	625	267
Elgin (v)	344	.....
Elizabeth (v)	186	135
Elk River (v)	831	679
Ellsworth (v)	454	258
Elmore (v)	924	488
Ely (c)	3,717	901
Elysian (v)	459	348
Emmons (v)	179	.....

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
MINNESOTA—Continued.		
Erskine (v)	156	.....
Evansville (v)	483	452
Eveleth (v)	2,752	.....
Excelsior (v)	717	619
Eyota (v)	424	377
Fairfax (v)	642	351
Fairmont (v)	3,040	1,205
Faribault (c)	7,868	6,520
Farmington (v)	733	657
Farris (v)	135	.....
Fergus Falls (c)	6,072	3,772
Fertile (v)	587	273
Fisher (v)	410	481
Floodwood (v)	224	.....
Foley (v)	172	.....
Forest Lake (v)	241	.....
Foreston (v)	263	287
Fosston (v)	864	207
Fountain (v)	294	248
Franklin (v)	439	284
Frazee (v)	1,000	.....
Freeport (v)	313	.....
Fulda (v)	886	348
Gaylord (v)	608	387
Geneva (v)	218	.....
Ghent (v)	119	.....
Gibbon (v)	545	282
Glencoe (v)	1,780	1,649
Glenville (v)	351	.....
Glenwood (v)	1,116	627
Glyndon (v)	250	275
Golden Valley (v)	680	509
Goodhue (v)	241	.....
Good Thunder (v)	505	.....
Graceville (v)	856	508
Granada (v)	309	.....
Grand Meadow (v)	477	373
Grand Rapids (v)	1,428	.....
Granite Falls (c)	1,214	.....
Green Isle (v)	275	219
Grey Eagle (v)	313	.....
Grove City (v)	316	349
Hallock (v)	805	302
Halstad (v)	442	.....
Hamburg (v)	136	.....
Hamilton (v)	179	.....
Hammond (v)	238	.....
Hampton (v)	196	.....
Hancock (v)	415	218
Hanley Falls (v)	278	.....
Hanover (v)	259	.....
Hardwick (v)	259	.....
Harmony (v)	517	.....
Harris (v)	710	504
Hartland (v)	317	.....
Hastings (c)	3,811	3,705
Hawley (v)	536	270
Hayfield (v)	439	.....
Hector (v)	654	354
Heidelberg (v)	114	.....
Henderson (c)	904	909
Henning (v)	545	254
Herman (v)	550	322
Heron Lake (v)	928	496
Hewitt (v)	311	.....
Hibbing (v)	2,481	.....
High Forest (v)	139	163
Hinckley (v)	459	618
Hoffman (v)	270	.....
Hokah (v)	536	582
Holding (v)	191	.....
Holland (v)	255	.....
Houston (v)	542	536
Howard Lake (v)	737	610
Hutchinson (v)	2,495	1,414
Iona (v)	358	.....
Iron Junction (v)	118	.....
Jackson (v)	1,756	720
Janesville (v)	1,254	921
Jasper (v)	559	.....
Jordan (c)	1,270	1,233
Kasota (v)	764	655
Kasson (v)	1,112	992
Kellogg (v)	228	.....
Kennedy (v)	158	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
MINNESOTA—Continued.		
Kensington (v)	207	.....
Kenyon (v)	1,202	666
Kerkhoven (v)	411	299
Kilkenny (v)	245	.....
Kimball Prairie (v)	327	.....
Kinbrae (v)	137	.....
Lake City	2,744	2,128
Lake Benton (v)	890	513
Lake Crystal (v)	1,215	824
Lakefield (v)	862	275
Lake Park (v)	570	349
Lakeville (v)	373	258
Lamberton (v)	624	202
Lanesboro (v)	1,102	898
La Prairie (v)	88	.....
Leroy (v)	772	523
Lester Prairie (v)	418	189
Lesueur (b)	1,937	1,763
Lesueur Center (v)	478	169
Lewiston (v)	371	324
Lindstrom (v)	385	.....
Litchfield (v)	2,280	1,899
Little Falls (c)	5,774	2,354
Long Prairie (v)	1,385	.....
Lothrop (v)	38	.....
Lowry (v)	260	.....
Luverne (v)	2,223	1,466
Lyle (v)	488	306
McIntosh (v)	569	.....
McKinley (v)	262	.....
Mabel (v)	494	273
Madelia (v)	1,272	852
Madison (v)	1,336	625
Madison Lake (v)	300	.....
Magnolia (v)	176	.....
Mankato (c)	10,599	8,838
Mantorville (v)	602	460
Maple Lake (v)	470	.....
Mapleton (v)	1,008	607
Marietta (v)	144	.....
Marine (v)	562	679
Marshall (v)	2,088	1,203
Maynard (v)	245	.....
Mazeppa (v)	556	.....
Meire Grove (v)	165	.....
Melrose (c)	1,768	780
Menahga (v)	413	.....
Mendota (v)	282	243
Merritt (v)	74	.....
Mesaba (v)	62	.....
Milaca (v)	1,204	404
Milan (v)	396	.....
Millville (v)	149	.....
Minneapolis (c)	202,718	164,738
Minneiska (v)	372	325
Minneota (v)	777	325
Minnesota City (v)	242	.....
Minnesota Lake (v)	518	340
Minnetonka Beach (v)	101	.....
Montevideo (v)	2,146	1,437
Montgomery (v)	979	1,086
Monticello (v)	818	503
Montrose (v)	305	214
Moorhead (c)	3,730	2,088
Moose Lake (v)	354	169
Mora (v)	785	.....
Morgan (v)	592	301
Morris (v)	1,934	1,266
Morristown (v)	589	517
Morton (v)	789	453
Motley (v)	404	525
Mountain Iron (v)	470	.....
Mountain Lake (v)	959	323
Murdock (v)	275	130
Nary (v)	94	.....
Nassau (v)	134	.....
Nerstrand (v)	256	.....
New Auburn (v)	274	.....
New Brighton (v)	350	355
New London (v)	363	211
New Market (v)	137	.....
New Munich (v)	136	.....
New Paynesville (v)	485	.....
Newport (v)	307	.....
New Prague (c)	1,228	955
New Richland (v)	750	423
New Trier (v)	126	129
New Ulm (c)	5,403	3,741
New York Mills (v)	353	260
Nicollet (v)	330	263
North Branch (v)	1,211	685
Northfield (c)	3,210	2,659
North Mankato (v)	939	.....
North St. Paul (v)	1,110	1,099
Norwood (v)	500	385
Odessa (v)	204	.....
Olivia (v)	970	263
Ortonville (c)	1,247	.....
Osakis (v)	917	.....
Osseo (v)	346	353
Ottawa (v)	246	.....
Owatonna (c)	5,561	3,849
Park Rapids (v)	1,313	.....
Paynesville (v)	375	352
Pelican Rapids (v)	1,033	624
Perham (v)	1,182	761
Pierz (v)	358	.....
Pine City (v)	933	535
Pine Island (v)	832	548
Pipestone (v)	2,536	1,232
Plainview (v)	1,038	.....
Plato (v)	232	130
Porter (v)	196	.....
Preston (v)	1,278	.....
Princeton (v)	1,319	816
Prior Lake (v)	148	.....
Proctorknott (v)	784	.....
Rainy Lake (c)	7	.....
Raymond (v)	282	.....
Red Lake Falls (c)	1,885	774
Red Wing (c)	7,525	6,294
Redwood Falls (c)	1,661	1,238
Renville (v)	1,075	413
Rice (v)	232	.....
Richmond (v)	600	.....
Robbinsdale (v)	520	.....
Rochester (c)	6,843	5,321
Rockford (v)	340	.....
Rollingstone (v)	202	.....
Ronneby (v)	156	.....
Roseau (v)	301	.....
Rose Creek (v)	204	.....
Rosemount (v)	182	198
Rothsay (v)	296	174
Round Lake (v)	226	.....
Royalton (v)	664	582
Rush City (v)	987	707
Rushford (c)	1,062	968
Ruthton (v)	323	.....
Rutledge (v)	363	.....
Sacred Heart (v)	538	327
St. Charles (c)	1,304	1,178
St. Cloud (c)	8,663	7,686
St. Hilaire (v)	840	193
St. James (c)	2,607	939
St. Joseph (v)	549	503
St. Louis Park (v)	1,325	499
St. Martin (v)	170	.....
St. Michaels (v)	305	.....
St. Paul (c)	163,065	133,156
St. Peter (c)	4,302	3,671
St. Vincent (v)	256	.....
Sanborn (v)	351	.....
Sandstone (v)	1,189	517
Sauk Center (c)	2,220	1,695
Sauk Rapids (v)	1,391	1,185
Sebeka (v)	223	.....
Sedan (v)	153	.....
Shakopee (c)	2,047	1,757
Sherburne (v)	891	316
Shevlin (v)	172	.....
Silver Lake (v)	321	.....
Slayton (v)	883	380
Sleepy Eye (v)	2,046	1,513
Solway (v)	177	.....
South St. Paul (c)	2,322	2,242
South Stillwater (v)	1,422	1,304
Sparta (v)	950	.....
Springfield (v)	1,511	716
Spring Grove (v)	491	394
Spring Valley (v)	1,770	1,381
Staples (v)	1,504	.....
Starbuck (v)	469	224
Stephen (v)	513	265
Stewart (v)	407	166
Stewartville (v)	830	.....
Stillwater (c)	12,318	11,260
Swanville (v)	244	.....
Taopi (v)	115	.....
Taylors Falls (v)	535	567
Thief River Falls (c)	1,819	191
Thomson (v)	207	.....
Tintah (v)	220	.....
Tower (c)	1,366	1,110
Tracy (c)	1,911	1,400
Trosky (v)	215	.....
Truman (v)	261	.....
Twin Valley (v)	356	.....
Two Harbors (v)	3,278	.....
Tyler (v)	515	137
Ulen (v)	317	.....
Utica (v)	204	.....
Vermilion (v)	100	.....
Verndale (v)	672	635
Vernon Center (v)	311	.....
Vesta (v)	214	.....
Villard (v)	249	203
Virginia (c)	2,962	.....
Wabasha (c)	2,528	2,487
Wabasso (v)	178	.....
Waconia (v)	728	441
Wadena (v)	1,520	895
Waite Park (v)	317	.....
Walker (v)	500	.....
Walnut Grove (v)	447	127
Waltham (v)	150	.....
Warren (c)	1,276	648
Waseca (c)	3,103	2,482
Watertown (v)	490	362
Waterville (c)	1,260	937
Watkins (v)	250	.....
Watson (v)	167	.....
Waverly (v)	542	370
Wayzata (v)	276	273
Welcome (v)	549	140
Wells (v)	2,017	1,208
Wesely (v)	249	182
West Concord (v)	635	.....
West Minneapolis (v)	1,648	.....
West St. Paul (c)	1,830	1,596
Whalan (v)	134	98
Wheatland (v)	135	.....
Wheaton (v)	1,132	383
White Bear Lake (v)	1,288	1,356
Wilder (v)	174	.....
Willmar (v)	3,409	1,825
Willow River (v)	466	.....
Windom (v)	1,944	835
Winnebago City (v)	1,816	1,108
Winona (c)	19,714	18,208
Winsted (v)	281	267
Winthrop (v)	813	438
Wood Lake (v)	264	.....
Woodstock (v)	211	.....
Worthington (v)	2,386	1,164
Wykoff (v)	495	335
Young America (v)	318	287
Zumbro Falls (v)	173	.....
Zumbrota (v)	1,119	867
Mississippi.		
Abbeville (t)	255	.....
Aberdeen (c)	3,434	3,449
Ackerman (t)	706	.....
Albertson (t)	200	.....
Amory (t)	1,211	739
Arkabutla (t)	265	148
Artesia (t)	343	313
Ashland (t)	162	138
Austin (t)	142	.....
Baird (t)	300	.....
Baldwyn (t)	560	.....
Banner (t)	114	.....
Batesville (t)	556	705
Bay St Louis (c)	2 872	1,974

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
MISSISSIPPI—Continued.		
Beauregard (t)	338	.....
Belen (t)	177	184
Belzoni (t)	263	.....
Bentonia (t)	167	.....
Biloxi (c)	5.467	3,234
Black Hawk (t)	127	.....
Blue Mountain (t)	466	.....
Blue Springs (t)	198	.....
Bogue Chitto (t)	582	300
Bolton (t)	600	.....
Booneville (t)	1,050	748
Boyle (t)	538	.....
Brandon (t)	775	835
Brookhaven (t)	2,678	2,142
Brooksville (t)	612	424
Buena Vista (t)	225	.....
Burnsville (t)	222	318
Byhalia (t)	760	474
Canton (c)	3,401	2,131
Carrollton (t)	540	488
Cartbage (t)	416	322
Cascilla (t)	166	.....
Cedar Bluff (t)	193	.....
Centerville (t)	590	.....
Charleston (t)	480	412
Chester (t)	132	.....
Chesterville (t)	112	.....
Chulahoma (t)	57	.....
Clarksdale (t)	1,773	781
Cleveland (t)	479	.....
Clinton (t)	354	.....
Coahoma (t)	171	.....
Coffeeville (t)	467	465
Coldwater (t)	557	518
Columbia (t)	507	.....
Columbus (c)	6,484	4,559
Como (t)	475	178
Conehatta (t)	149	.....
Corinth (c)	3,661	2,111
Courtland (t)	282	.....
Crawford (t)	389	225
Crystal Springs (v)	1,093	997
Cumberland (t)	89	.....
Drew (v)	195	.....
Duck Hill (t)	242	332
Duncan (t)	172	.....
Durant (t)	1,766	1,259
East Side (v)	321	.....
Ebenezer (t)	170	127
Edwards (t)	586	.....
Ellisville (t)	1,899	961
Enterprise (t)	739	.....
Estabutchie (t)	400	.....
Eudora (t)	91	106
Eupora (t)	724	432
Fayette (t)	604	.....
Flora (t)	304	228
Forest (v)	761	547
Fosteria, or Speeds Addition (v)	1,422	.....
French Camp (t)	259	267
Friar Point (t)	750	674
Fulton (v)	171	172
Gallman (t)	189	.....
Gattman (t)	111	.....
Gloster (t)	1,661	1,142
Goodman (t)	442	354
Greenville (t)	7,642	6,658
Greenwood (c)	3,026	1,055
Grenada (t)	2,568	2,416
Gulfport (t)	1,060	.....
Gunnison (t)	477	.....
Guntown (t)	325	.....
Hamburg (t)	222	.....
Handsboro (t)	840	1,021
Hardy Station (t)	145	.....
Harperville (v)	130	138
Harrison (t)	180	.....
Harriston (t)	285	.....
Hattiesburg (t)	4,175	1,172
Hazleburst (t)	1,579	.....
Heidelberg (t)	228	216
Hermanville (t)	230	.....
Hernando (c)	563	602
Hickory (t)	626	.....
Hickory Flat (t)	204	293
Hollandale (t)	325	.....
Holly Springs (c)	2,815	2,246
Houlka (t)	104	99
Houston (t)	677	893
Howard (t)	114	.....
Indianola (t)	630	249
Ittabena (t)	416	.....
Iuka (t)	882	1,019
Jackson (c)	7,816	5,920
Jonestown (t)	317	286
Kilmichael (t)	227	.....
Knoxville (t)	200	.. 91
Kosciusko (t)	2,078	1,394
Kosautb (t)	162	165
Lafayette Springs (t)	124	.....
Lamar (t)	70	.....
Lauderdale (t)	288	322
Laurel (t)	3,193	.....
Learned (t)	138	119
Leland (t)	762	485
Lexington (t)	1,516	1,075
Liberty (t)	392	.....
Lodi (t)	29	.....
Louisville (t)	505	484
Love (t)	131	.....
Lula (t)	174	.....
Lumberton (t)	1,509	.....
Lyon (t)	166	.....
McComb (t)	4,477	2,383
Mc Cool (t)	317	246
Maben (t)	282	.....
Macon (t)	2,057	1,565
Madison Station (t)	323	.....
Magnolia (t)	1,038	676
Martin (t)	151	76
Mathiston (t)	170	.....
Mayersville (t)	250	.....
Mayhew (t)	139	106
Meridian (c)	14,050	10,624
Michigan City (v)	70	129
Moorhead (t)	437	.....
Morton (v)	200	.....
Mound Bayou (t)	287	.....
Mt. Pleasant (t)	139	110
Myrtle (v)	165	.....
Natchez (c)	12,210	10,101
Nesbitt (t)	192	152
Nettleton (t)	570	.....
New Albany (t)	1,033	548
Newton (t)	537	.....
Norfield (t)	347	.....
North Carrollton (t)	189	.....
Oakland (t)	209	327
Ocean Springs (t)	1,255	1,148
Okolona (t)	2,177	2,099
Olive Branch (v)	198	199
Orvisburg (t)	435	.....
Osyka (t)	784	742
Oxford (c)	1,825	1,546
Pachuta (t)	131	.....
Paris (t)	105	.....
Pascagoula (t)	708	.....
Pass Christian (t)	2,028	1,705
Pelabatchie (t)	326	139
Pheba (v)	300	.....
Pickens (t)	504	.....
Pittsboro (t)	254	.....
Plantersville (t)	187	.....
Pleasant Hill (t)	230	.....
Pontotoc (t)	1,010	535
Pope (t)	172	.....
Poplar Springs (t)	89	.....
Poplarville (t)	990	232
Port Gibson (t)	2,113	1,524
Potts Camp (t)	306	.....
Purvis (t)	564	287
Quitman (t)	498	395
Randolph (t)	162	.....
Raymond (t)	483	.....
Red Banks (t)	79	.....
Rienzi (t)	230	.....
Ripley (t)	653	574
Rodney (t)	448	702
Rosedale (t)	622	376
Roxie (t)	214	.....
Ruleville (v)	226	.....
Sallis (t)	195	156
Saltillo (t)	209	.....
Sandersville (t)	357	.....
Sardis (t)	1,002	1,044
Sarepta (t)	172	.....
Satartia (t)	146	.....
Scoby (t)	146	.....
Scooba (t)	286	.....
Scranton (t)	2,025	1,353
Senatobia (t)	1,156	1,077
Shannon (t)	434	329
Sharon (t)	173	.....
Shaw (t)	422	201
Sherman (t)	300	79
Shubuta (t)	451	589
Shuqualak (t)	600	601
Sidon (t)	148	119
Slate Springs (t)	189	.....
Smithville (t)	150	.....
Starkville (t)	1,986	1,725
State Line (t)	379	.....
Stewart (t)	165	.....
Summit (t)	1,499	1,587
Taylor (t)	101	.....
Tchula (t)	398	.....
Terry (t)	481	.....
Thornton (t)	46	.....
Tillatoba (t)	115	.....
Toccopola (t)	249	190
Tocowa (t)	114	.....
Tom Nolen (t)	87	.....
Troy (t)	144	175
Tula (t)	119	.....
Tunica (t)	485	198
Tupelo (t)	2,118	1,477
Tutwiler (t)	142	.....
Utica (t)	540	370
Vaiden (t)	474	533
Verona (t)	456	465
Vicksburg (c)	14,834	13,373
Wall Hill (t)	65	.....
Walnut Grove (t)	207	166
Waltball (t)	170	122
Waterford (t)	128	.....
Water Valley (c)	3,813	2,832
Waveland (t)	520	328
Waynesboro (t)	436	458
Webb (t)	128	.....
Weir (t)	91	.....
Wesson (t)	3,279	3,168
West Point (t)	3,193	2,762
West Station (t)	196	.....
Winona (t)	2,455	1,648
Woodville (t)	1,043	950
Yazoo City	4,944	3,286
Missouri.		
Adrian (c)	629	613
Advance (t)	221	.....
Agency (v)	380	.....
Albany (c)	2,025	1,384
Aldrich (v)	189	.....
Allenville (v)	148	173
Alma (v)	248	179
Altamont (v)	288	.....
Altenburg (t)	222	183
Alton (v)	468	.....
Altona (v)	24	.....
Amazonia (v)	407	282
Amoret (t)	215	.....
Amsterdam (t)	142	.....
Annapolis (t)	195	690
Anniston (v)	155	.....
Appleton City (St. Clair Co)	1,133	1,081
Appleton (v) (Cape Girardeau county).	99	96
Arbela (t)	169	122
Arcadia (v)	205	408
Archie (v)	285	278
Armstrong (v)	461	248
Arrow Rock (v)	358	350
Ashburn (v)	312	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
MISSOURI—Continued.		
Ash Grove (c)	1,039	1,350
Ashland (v)	401	373
Augusta (t)	238	291
Aurora (c)	6,191	3,482
Aurora Springs (t)	900	421
Auxvasse (v)	337	348
Bancroft (v)	50	101
Baring (v)	241	266
Barnard (v)	362	427
Bell City (v)	100	[illegible]
Belton (c)	1,005	988
Benton (v) (Scott county)	234	202
Benton City (v) (Audrain county)	116	109
Bernie (v)	333	.....
Bertrand (v)	266	221
Bethany (c)	2,093	1,105
Bethel (v)	225	.....
Bevier (c)	1,808	876
Bigelow (t)	195	.....
Billings (c)	702	464
Birmingham (c)	217	401
Bismarck (c)	708	837
Blackburn (v)	458	372
Blackwater (v)	285	.....
Blairstown (v)	291	.....
Blodgett (v)	209	.....
Bloomfield (c)	1,475	.....
Blue Ridge (v)	123	.....
Blue Springs (t)	468	506
Blythedale (v)	315	.....
Bogard (v)	276	300
Bolckow (v)	378	405
Bolivar (c)	1,869	1,485
Boonville (c)	4,377	4,141
Bosworth (c)	401	.....
Bowling Green (c)	1,902	1,564
Brashear (t)	401	316
Braymer (c)	767	399
Breckenridge (c)	1,012	763
Brewerville (v)	78	.....
Bridgeton (t)	178	237
Bronaugh (v)	190	148
Brookfield (c)	5,484	4,547
Browning (t)	726	527
Brownington (v)	407	329
Brunswick (c)	1,403	1,748
Bucklin (c)	642	711
Buckner (v)	234	164
Buffalo (c)	757	861
Bunceton (c)	856	493
Burfordville (v)	99	.....
Burlington Junction (c)	759	707
Burnham (v)	72	.....
Butler (c)	3,158	2,812
Cabool (v)	471	359
Cainesville (c)	743	418
Cairo (t)	173	.....
Caledonia (t)	166	.....
Calhoun (c)	561	698
California (c)	2,181	1,772
Callao (v)	498	371
Camden (c)	392	650
Camden Point (t)	170	177
Cameron (c)	2,979	2,917
Campbell (v)	737	.....
Canton (t)	2,365	2,241
Cape Girardeau (c)	4,815	4,297
Cardwell (v)	502	.....
Carl Junction (c)	1,177	699
Carrollton (c)	3,854	3,878
Carterville (c)	4,445	2,884
Carthage (c)	9,416	7,981
Caruthersville (c)	2,315	230
Cassville (c)	702	626
Cedar City (v)	287	.....
Center (v)	300	155
Centralia (c)	1,722	1,275
Chamois (c)	726	769
Charleston (c)	1,893	1,381
Chillicothe (c)	6,905	5,717
Chula (v)	282	.....
Clarence (c)	1,184	1,078
Clark (t)	223	194
Clarksburg (c)	509	.....
Clarksdale (v)	334	145
Clarksville (c)	843	1,186
Claryville (v)	122	.....
Clayton (v)	76	102
Clearmont (v)	348	246
Clinton (c)	5,061	4,737
Clyde (v)	250	.....
Coffeyburg (t)	390	.....
Cole Camp (v)	648	.....
College Mound (v)	230	.....
Collins (v)	260	.....
Columbia (c)	5,651	4,000
Commerce (v)	588	.....
Concordia (c)	889	715
Conway (v)	272	217
Corder (v)	538	1,145
Corning (t)	240	176
Cottonwood Point (v)	147	.....
Cowgill (v)	357	.....
Craig (c)	775	503
Creighton (v)	360	308
Cuba (c)	552	497
Cunningham (t)	160	196
Curryville (t)	271	302
Cyrene (v)	85	.....
Dadeville (c)	466	.....
Dalton (v)	223	332
Danville (v)	174	380
Darlington (v)	369	242
Dearborn (t)	567	239
Deepwater (c)	1,201	1,102
Deerfield (v)	222	239
Dekalb (v)	362	.....
Des Arc (t)	180	413
De Soto (c)	5,611	3,960
Dewitt (t)	550	633
Dexter (c)	1,862	792
Diehlstadt (v)	156	.....
Dixon (v)	500	404
Doniphan (c)	1,508	609
Dover (v)	242	.....
Downing (c)	501	406
Drexel (v)	453	.....
Dudley (v)	229	.....
Eagleville (v)	292	305
East Lynne (v)	353	.....
Easton (v)	227	.....
Edgerton (c)	534	482
Edina (c)	1,605	1,456
Eldon (v)	379	.....
Eldorado Springs (c)	2,137	1,543
Elmer (v)	236	.....
Elsberry (v)	816	390
Eolia (v)	158	.....
Essex (v)	163	.....
Ethel (v)	397	.....
Eversonville (v)	51	.....
Everton (c)	630	.....
Excelsior Springs (c)	1,881	2,034
Exeter (t)	438	244
Fairfax (v)	666	329
Fair Haven (t)	88	.....
Fair Play (c)	407	.....
Farber (v)	247	272
Farmington (c)	1,778	1,394
Fayette (c)	2,717	2,247
Fenton (t)	160	.....
Ferguson (c)	1,015	.....
Festus (c)	1,256	1,335
Fillmore (v)	225	261
Florissant (c)	732	.....
Forest City	632	428
Forsyth (v)	204	.....
Foster (v)	347	513
Frankford (c)	700	662
Fredericktown (c)	1,577	917
Freeman (v)	260	279
Fulton (c)	4,883	4,314
Gainesville (v)	222	175
Gallatin (c)	1,780	1,489
Galt (c)	582	653
Garden City (v)	574	227
Gayoso (v)	118	137
Gentry (t)	147	.....
Gibbs (t)	168	.....
Gilliam (v)	347	321
Gilman (v)	447	.....
Glasgow (c)	1,672	1,781
Glenwood (v)	434	451
Golden City	875	773
Gordonville (v)	125	95
Gorin (t)	87	386
Gower (t)	392	328
Graham (v)	384	353
Granby (c)	2,315	1,400
Graniteville (v)	846	721
Grant City	1,406	1,186
Green City	477	318
Greencastle (t)	390	267
Greenfield (c)	1,406	998
Green Ridge (v)	389	.....
Green Top (v)	284	238
Greenville (c)	1,051	.....
Greenwood (v)	230	296
Guilford (v)	235	.....
Gunn City (v)	147	198
Hale (v)	665	530
Hallsville (v)	157	92
Hamilton (c)	1,804	1,641
Hannibal (c)	12,780	12,857
Hardin (c)	669	656
Harris (v)	336	.....
Harrisonville (c)	1,844	1,645
Hartville (c)	445	.....
Harwood (v)	240	240
Hayti (v)	419	.....
Henrietta (t)	385	315
Hermann (t)	1,575	1,410
Hibbard (v)	388	298
Higbee (c)	1,151	1,093
Higginsville (c)	2,791	2,342
Hillsboro (t)	254	264
Holcomb (v)	189	.....
Holden (c)	2,126	2,520
Holliday (v)	585	254
Hollywood (v)	34	.....
Holt (t)	339	259
Hopkins (c)	907	846
Hornersville (v)	240	.....
Houston (c)	514	355
Houstonia (v)	307	278
Humansville (c)	1,055	791
Hume (v)	540	486
Humphreys (v)	393	327
Hunnewell (c)	473	427
Huntsville (c)	1,805	1,836
Hurdland (v)	322	248
Iberia (v)	264	.....
Independence (c)	6,974	6,380
Indian Springs (t)	55	131
Ironton (c)	797	965
Jackson (c) (Cape Girardeau county)	1,658	941
Jackson (v) (Daviess Co.)	172	.....
Jacksonville (t)	195	166
Jameson (t)	335	429
Jamesport (c)	728	790
Jamestown (t)	344	313
Jasper (c)	627	400
Jefferson City	9,664	6,742
Jerico (c)	443	486
Johnstown (v)	75	.....
Jonesburg (v)	407	437
Joplin (c)	26,023	9,943
Kahoka (c)	1,818	1,425
Kansas City	163,752	132,716
Kearney (c)	621	588
Kennett (c)	1,509	302
Keytesville (c)	1,127	819
Kidder (v)	357	322
Kimmswick (t)	212	182
King City	905	622
Kingston (c)	655	465
Kingsville (v)	323	317
Kirksville (c)	5,966	3,510
Kirkwood (t)	2,825	1,777
Knob Lick (v)	209	.....
Knobnoster (c)	673	851
Knox City (v)	365	288
Koshkonong (v)	213	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
MISSOURI—Continued.		
La Belle (t)	966	702
Laclede (c)	770	688
Laddonia (c)	619	520
La Grange (c)	1,507	1,250
Lamar (c)	2,737	2,860
Lamont (v)	637	638
Lancaster (c)	980	811
La Plata (c)	1,345	1,169
Laredo (v)	286	.....
Lathrop (c)	1,118	1,082
Lawson (c)	635	520
Lebanon (c)	2,125	2,218
Lees Summit (c)	1,453	1,369
Lewistown (t)	358	200
Lexington (c)	4,190	4,537
Liberal (c)	532	546
Liberty (c)	2,407	2,558
Licking (t)	193	.....
Lincoln (v)	357	.....
Linn (v)	491	.....
Linn Creek (v)	340	.....
Linneus (c)	878	813
Lithium (v)	93	.....
Lockspring (t)	246	212
Lockwood (c)	749	633
Longtown (v)	108	.....
Louisiana (c)	5,131	5,090
Lowry City (v)	467	368
Lucerne (v)	292	.....
Luray (v)	194	.....
Lutesville (v)	525	235
Macrall (c)	514	528
Macon (c)	4,068	3,371
Madison (c)	538	486
Maitland (c)	805	484
Malden (v)	1,462	943
Malta Bend (v)	431	449
Mansfield (c)	494	.....
Marble Hill (v)	295	257
Marceline (c)	2,638	1,977
Marionville (c)	1,290	1,159
Marshall (c)	5,086	4,297
Marshfield (c)	964	980
Martinsburg (t)	345	276
Martinsville (v)	108	.....
Maryville (c)	4,577	4,037
Maysville (c)	925	717
Mayview (v)	423	.....
Meadville (c)	760	672
Melbourne (v)	129	.....
Memphis (c)	2,195	1,780
Mendon (v)	252	137
Mercer (t)	340	.....
Merwin (t)	250	.....
Metz (v)	159	.....
Mexico (c)	5,099	4,789
Miami (c)	581	647
Middletown (c)	375	389
Milan (t)	1,757	1,234
Miller (v)	148	.....
Minden Mines (v)	335	219
Mineola (t)	128	.....
Missouri City (t)	398	422
Moberly (c)	8,012	8,215
Mokane (v)	331	.....
Monett (c)	3,115	1,699
Monroe City	1,929	1,830
Montevallo (v)	157	.....
Montgomery City	2,026	2,199
Monticello (t)	287	259
Montrose (v)	613	644
Montserrat (t)	184	.....
Morehouse (v)	900	.....
Morley (v)	437	395
Morrison (t)	276	.....
Moselle (v)	141	.....
Mound City	1,681	1,193
Moundville (v)	287	219
Mountain Grove (c)	1,004	830
Mt. Moriah (v)	412	.....
Mt. Vernon (c)	1,206	782
Napoleon (v)	132	106
Naylor (v)	202	.....
Neck City	374	.....
Neelysville (t)	114	.....
Nelson (c)	468	383
Neosho (c)	2,725	2,198
Nevada (c)	7,461	7,262
Newark (v)	265	303
Newburg (v)	481	568
New Cambria (t)	352	410
New Florence (c)	424	465
New Franklin (t)	1,156	132
New Hamburg (v)	110	.....
Newhampton (v)	261	184
New Haven (c)	883	767
New London (c)	881	683
New Madrid (c)	1,489	1,193
New Market (t)	182	.....
Newtonia (t)	355	.....
Newtown (v)	291	303
Norborne (v)	1,189	1,005
Novelty (v)	267	.....
Oak Grove (t)	408	.....
Oak Ridge (v)	252	111
Odessa (c)	1,445	1,272
Olean (v)	254	.....
Oran (v)	497	271
Oregon (c)	1,032	948
Oronongo (c)	2,073	.....
Orrick (t)	391	370
Osborn (v)	386	373
Osceola (c)	1,037	995
Otterville (t)	384	439
Ozark (c)	830	490
Pacific (c)	1,213	1,184
Palmyra (c)	2,323	2,515
Papinsville (v)	142	.....
Paris (c)	1,397	1,487
Parkville (v)	931	769
Parnell (v)	432	267
Pattonsburg (t)	1,065	532
Peculiar (v)	104	.....
Perry (c)	624	316
Perryville (c)	1,275	875
Phelps City (t)	167	203
Philadelphia (v)	211	230
Piedmont (c)	858	829
Pierce City	2,151	2,511
Pilot Grove (c)	631	560
Pilot Knob (t)	455	757
Platte City	744	706
Plattsburg (c)	1,878	1,634
Pleasant Hill (t)	2,002	2,217
Pocahontas (v)	100	.....
Point Pleasant (v)	153	137
Polo (c)	539	415
Poplar Bluff (c)	4,321	2,187
Portage des Sioux (v)	242	.....
Portageville (v)	427	.....
Potosi (t)	638	599
Prairie Home (v)	196	.....
Princeton (c)	1,575	1,410
Purdin (v)	229	.....
Purdy (v)	434	325
Puxico (v)	413	212
Queen City	770	377
Quitman (v)	356	332
Randolph (t)	92	.....
Ravanna (t)	295	348
Ravenwood (v)	285	.....
Raymore (t)	271	.....
Renick (t)	196	437
Republic (v)	856	381
Revere (t)	161	.....
Richards (v)	198	.....
Rich Hill (c)	4,053	4,008
Richland (c)	736	553
Richmond (c)	3,478	2,895
Ridgeway (c)	648	351
Rineland (t)	153	.....
Roanoke (t)	147	207
Rocheport (v)	593	631
Rockport (t)	1,080	934
Rockville (t)	580	554
Rolla (c)	1,600	1,592
Roscoe (v)	181	159
Rosendale (v)	448	288
Rush Hill (v)	181	210
Rushville (v)	412	.....
Russellville (v)	295	.....
Rutledge (t)	292	.....
St. Catharine (v)	112	.....
St. Charles (c)	7,982	6,161
St. Clair (v)	189	208
Ste. Genevieve (c)	1,707	1,586
St. James (c)	575	467
St. Joseph (c)	102,979	52,324
St. Louis (c)	575,238	451,770
St. Marys (c)	576	446
Salem (c)	1,481	1,315
Salisbury (c)	1,847	1,672
Sarcoxie (c)	1,126	1,172
Savannah (c)	1,886	1,288
Schell City (t)	668	847
Sedalia (c)	15,231	14,068
Senath (v)	241	.....
Seneca (c)	1,043	1,101
Seymour (c)	527	388
Shelbina (c)	1,733	1,691
Shelbyville (c)	777	486
Sheldon (t)	474	396
Sheridan (v)	347	.....
Sikeston (c)	1,077	636
Silex (v)	210	151
Siloam Springs (c)	98	.....
Skidmore (v)	561	.....
Slater (c)	2,502	2,400
Smithton (v)	420	369
Smithville (t)	427	372
South Gorin (t)	319	.....
South Greenfield (v)	297	430
Southwest (c)	691	707
Sparta (v)	300	.....
Spencerburg (t)	86	.....
Spickardsville (t)	584	481
Spoonerville (v)	140	.....
Sprague (v)	156	267
Springfield (c)	23,267	21,850
Stanberry (c)	2,654	2,035
Steelville (c)	686	591
Stewartsville (c)	616	557
Stockton (c)	555	508
Stotesbury (t)	154	.....
Stotts City (v)	902	.....
Stoutsville (v)	196	253
Sturgeon (t)	708	713
Sullivan (v)	714	.....
Summersville (t)	187	.....
Sumner (v)	477	286
Sweet Springs (c)	1,080	1,137
Syracuse (t)	175	187
Tarkio (c)	1,901	1,156
Thayer (v)	1,276	1,143
Tiff City (v)	164	.....
Tina (v)	368	.....
Tipton (c)	1,337	1,253
Tracy (v)	209	.....
Trenton (c)	5,396	5,039
Triplett (v)	342	313
Troy (c)	1,153	971
Turney (t)	186	163
Tuscumbia (v)	225	238
Union (c)	744	610
Union Star (c)	439	272
Unionville (c)	2,050	1,118
Urich (v)	445	312
Vandalia (c)	1,168	979
Versailles (c)	1,240	1,211
Virgil City (t)	42	.....
Wakenda (t)	329	206
Walker (v)	479	594
Warrensburg (c)	4,724	4,706
Warrenton (c)	770	664
Warsaw (t)	743	700
Washburn (t)	169	.....
Washington (c)	3,015	2,725
Watson (t)	233	238
Waverly (t)	722	826
Weatherby (v)	228	134
Weaubleau (t)	274	.....
Webb City	9,201	5,043
Webster Groves (c)	1,895	1,783
Wellington (v)	520	446
Wellsville (c)	1,160	1,138
Wentworth (v)	238	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
MISSOURI—Continued.		
Wentzville (t)	519	457
Westboro (v)	303	216
Westline (t)	131	178
Weston (c)	1,019	1,134
West Plains (c)	2,902	2,091
Wheeling (v)	381	.....
Whitewater (v)	122	.....
Whiting (v)	244	.....
Williamstown (t)	221	179
Williamsville (c)	215	435
Willow Springs (c)	1,078	1,535
Windsor (c)	1,502	1,427
Winfield (v)	440	.....
Winigan (v)	134	.....
Winona (c)	495	602
Winston (c)	457	470
Wittenberg (t)	114	133
Worland (v)	113	.....
Wright City (v)	336	383
Wyaconda (v)	507	.....
Montana.		
Anaconda (c)	9,453	3,975
Billings (c)	3,221	836
Bozeman (c)	3,419	2,143
Butte (c)	30,470	10,723
Deerlodge (t)	1,324	1,463
Dillon (c)	1,530	1,012
Fort Benton (t)	1,024	624
Great Falls (c)	14,930	3,979
Hamilton (t)	1,257	.....
Havre (t)	1,033	.....
Helena (c)	10,770	13,834
Kalispel (c)	2,526	.....
Lewistown (v)	1,096	.....
Livingston (c)	2,778	2,850
Miles City	1,938	956
Missoula (c)	4,366	3,426
Neihart (t)	833	.....
Philipsburg (c)	995	1,058
Red Lodge (t)	2,152	624
Sheridan (t)	581	207
Stevensville (t)	346	.....
Townsend (t)	446	245
Victor (t)	136	.....
Virginia City	568	675
Walkerville (c)	2,621	1,743
White Sulphur Springs (t)	446	640
Nebraska.		
Adams (v)	417	.....
Ainsworth (v)	605	733
Albion (c)	1,369	926
Alexandria (v)	332	.....
Allen (v)	236	.....
Alliance (c)	2,535	829
Alma (c)	923	905
Amherst (v)	183	.....
Anselmo (v)	145	.....
Ansley (v)	468	.....
Arapahoe (t)	701	734
Arcadia (v)	374	429
Arlington (v)	579	412
Ashland (v)	1,477	1,601
Ashton (t)	251	.....
Atkinson (t)	595	701
Auburn (c)	2,664	1,537
Aurora (c)	1,921	1,862
Avoca (v)	255	166
Axtell (v)	329	262
Ayr (v)	141	173
Bancroft (v)	733	344
Barada (v)	147	.....
Barneston (v)	250	.....
Bartley (v)	307	220
Bassett (v)	270	.....
Battle Creek (v)	506	352
Beatrice (c)	7,875	13,836
Beaver (t)	911	763
Beaver Crossing (v)	359	.....
Beemer (v)	455	350
Belden (v)	197	.....
Bellevue (v)	527	.....
Bellwood (v)	410	413
NEBRASKA—Continued.		
Belvidere (v)	458	359
Benedict (v)	292	.....
Benkelman (v)	296	357
Bennett (v)	495	474
Bennington (t)	229	.....
Benson (v)	510	.....
Berlin (v)	150	.....
Bertrand (v)	344	265
Bethany (v)	330	.....
Blair (c)	2,970	2,069
Bloomfield (v)	678	.....
Bloomington (v)	488	464
Blue Hill (v)	823	796
Blue Springs (v)	786	963
Bradshaw (v)	365	434
Brainard (v)	384	306
Brock (v)	543	348
Broken Bow (c)	1,375	1,647
Brownville (c)	718	980
Bruning (v)	255	.....
Bruno (v)	191	.....
Burchard (v)	297	201
Burwell (t)	460	378
Butte (v)	350	.....
Cairo (v)	224	.....
Calhoun (v)	346	.....
Callaway (t)	406	234
Cambridge (v)	840	510
Campbell (v)	368	.....
Carleton (v)	309	458
Carroll (t)	252	68
Cedar Bluffs (v)	371	181
Cedar Rapids (v)	559	484
Central City	1,571	1,368
Ceresco (v)	226	211
Chadron (c)	1,665	1,867
Chapman (v)	209	.....
Chester (v)	439	407
Clarks (v)	554	.....
Clarkson (v)	344	147
Clay Center (v)	590	390
Clearwater (v)	198	215
Coleridge (v)	471	315
College View (v)	865	.....
Colon (v)	193	.....
Columbus (c)	3,522	3,134
Cook (v)	278	.....
Cordova (v)	149	.....
Cortland (v)	390	509
Cozad (t)	739	542
Crab Orchard (v)	258	229
Craig (v)	462	290
Crawford (v)	731	571
Creighton (t)	909	882
Creston (v)	337	200
Crete (c)	2,199	2,310
Culbertson (v)	422	460
Curtis (v)	435	378
Dakota City (v)	521	.....
Danbury (v)	219	.....
Dannebrog (v)	301	280
Davenport (v)	446	513
David City	1,845	2,028
Dawson (v)	322	153
Daykin (v)	189	.....
Decatur (v)	800	593
Deshler (v)	258	.....
Dewitt (v)	662	751
Diller (v)	399	126
Dixon (v)	157	.....
Dodge (v)	554	338
Doniphan (v)	473	437
Dorchester (v)	521	540
Douglas (v)	253	.....
Dubois (v)	307	316
Dunbar (v)	208	.....
Dundee (v)	400	.....
Eagle (v)	297	.....
Eddyville (v)	101	.....
Edgar (c)	1,040	1,105
Elba (v)	257	.....
Elgin (v)	451	.....
Elk Creek (v)	347	216
Elkhorn (v)	299	325
Elm Creek (v)	301	357
NEBRASKA—Continued.		
Elmwood (v)	544	303
Elwood (v)	377	373
Emerson (v)	617	.....
Endicott (v)	234	256
Eustis (v)	232	145
Ewing (v)	275	348
Exeter (v)	673	754
Fairbury (c)	3,140	2,630
Fairfield (c)	1,203	.....
Fairmount (c)	784	1,029
Falls City	3,022	2,102
Farnam (v)	218	.....
Farwell (v)	130	.....
Filley (v)	248	301
Firth (v)	307	259
Florence (v)	688	.....
Fort Crook (v)	646	.....
Franklin (v)	756	556
Fremont (c)	7,241	6,747
Friend (v)	1,200	1,347
Fullerton (c)	1,464	.....
Geneva (c)	1,534	1,580
Genoa (v)	913	793
Gering (v)	433	.....
Germantown (v)	194	142
Gibbon (v)	660	646
Glenville (v)	246	.....
Gordon (v)	542	.....
Gothenburg (v)	819	535
Grafton (v)	287	.....
Grand Island (c)	7,554	7,536
Grant (v)	162	315
Greeley Center (t)	552	492
Greenwood (v)	516	495
Gresham (v)	297	.....
Gretna (v)	466	255
Gross (v)	325	.....
Guide Rock (v)	416	336
Hampton (v)	367	430
Hardy (v)	345	343
Harrison (t)	168	111
Hartington (c)	971	.....
Harvard (c)	849	1,076
Hastings (c)	7,188	13,584
Havelock (v)	1,480	.....
Hay Springs (v)	345	378
Hebron (c)	1,511	1,502
Hemingford (v)	133	.....
Henderson (v)	208	.....
Herman (v)	321	319
Hickman (v)	382	341
Hildreth (v)	249	141
Holdrege (c)	3,007	2,601
Holstein (v)	267	118
Homer (v)	341	251
Hooper (v)	840	670
Hoskins (t)	175	.....
Howard City (v) (Boelus P O)	183	150
Howell (v)	515	197
Hubbard (v)	90	.....
Hubbell (v)	375	330
Humboldt (c)	1,218	1,114
Humphrey (v)	869	691
Huntington (v) (Giltner P O)	282	195
Imperial (t)	258	159
Indianola (c)	626	579
Jackson (v)	339	308
Jansen (v)	271	.....
Johnson (v)	352	234
Julian (v)	206	.....
Juniata (v)	543	528
Kearney (c)	5,634	8,074
Kenesaw (v)	504	.....
Kennard (t)	275	.....
Kimball (v)	254	193
Laurel (v)	514	.....
Lawrence (v)	406	.....
Leigh (v)	439	249
Lexington (c)	1,343	1,392
Liberty (v)	450	469
Lincoln (c)	40,169	55,154
Lindsay (v)	316	125
Linwood (v)	317	309
Litchfield (t)	240	.....
Long Pine (v)	486	562

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
NEBRASKA—Continued.		
Louisville (v)	738	653
Loup (c)	826	671
Lynch (v)	231	.....
Lyons (v)	847	532
McCook (c)	2,445	2,346
McCool Junction (v)	276	204
Madison (c)	1,479	930
Madrid (v)	35	178
Malmo (v)	259	.....
Marquette (v)	210	261
Mason City (v)	241	.....
Maywood (v)	200	.....
Mead (v)	330	324
Meadow Grove (v)	237	.....
Merna (v)	141	.....
Milford (v)	542	555
Millard (v)	323	328
Miller (v)	194	.....
Milligan (v)	283	184
Minden (c)	1,238	1380
Monroe (v)	214	.....
Morse Bluffs (v)	177	.....
Naper (v)	94	.....
Nebraska City	7,380	11,941
Neligh (c)	1,135	1,209
Nelson (v)	978	913
Nemaha (v)	400	.....
Newcastle (v)	331	.....
Newman Grove (v)	696	330
Newport (t)	208	.....
Niobrara (v)	459	633
Norfolk (c)	3,883	3,038
North Bend (c)	1,010	897
North Loup (v)	420	386
North Platte (c)	3,640	3,055
Oakdale (v)	585	630
Oakland (c)	1,008	807
Odell (v)	359	.....
Ogalalla (v)	355	494
Obiowa (v)	319	369
Omaha (c)	102,555	140,452
O'Neill (c)	1,107	1,226
Ord (c)	1,372	1,208
Orleans (c)	656	812
Osceola (v)	882	947
Osmund (v)	501	.....
Overton (v)	255	.....
Oxford (v)	787	428
Palisade (v)	176	102
Palmyra (v)	301	.....
Papillion (v)	594	600
Pawnee (c)	1,969	1,550
Pender (t)	943	429
Peru (v)	848	624
Petersburg (v)	478	.....
Phillips (v)	186	.....
Pierce (v)	770	563
Pilger (v)	250	162
Plainview (v)	603	375
Platte Center (v)	392	302
Plattsmouth (c)	4,964	8,392
Pleasanton (v)	103	.....
Plymouth (v)	195	.....
Ponca (c)	1,043	1,009
Prague (v)	324	185
Preston (v)	149	.....
Ragan (v)	208	.....
Randolph (v)	850	374
Ravenna (v)	808	628
Raymond (v)	200	.....
Red Cloud (c)	1,554	1,839
Republican (v)	386	428
Reynolds (v)	260	271
Rising City (v)	499	610
Riverton (v)	327	389
Roca (v)	177	191
Rockville (t)	158	.....
Rogers (v)	124	.....
Roseland (v)	227	.....
Rulo (v)	877	786
Rushville (v)	483	484
St. Edwards (v)	625	293
St. Helena (v)	151	189
St. Paul (c)	1,475	1,263
Salem (v)	533	504
Sargent (v)	250	.....
Schuyler (c)	2,157	2,160
Scotia (t)	267	418
Scribner (v)	827	664
Seward (c)	1,970	2,108
Shelby (v)	425	333
Shelton (v)	861	706
Shickley (v)	372	307
Shubert (v)	303	.....
Sidney (t)	1,001	.....
Silver Creek (v)	291	.....
Snyder (v)	229	.....
Southbend (v)	141	132
South Omaha (c)	26,001	8,062
South Sioux City	889	603
Spalding (v)	148	.....
Spencer (v)	135	.....
Springfield (v)	400	.....
Springview (v)	188	.....
Stanton (c)	1,052	857
Stapleburst (v)	211	.....
Steele (v)	313	380
Steinauer (v)	213	.....
Stella (v)	498	399
Sterling (v)	782	.....
Stockbam (v)	169	211
Stockville (v)	269	227
Strang (v)	234	269
Stratton (v)	225	326
Stromsburg (c)	1,154	.....
Stuart (v)	382	245
Sumner (v)	210	.....
Superior (c)	1,577	1,614
Sutton (c)	1,365	1,541
Swanton (v)	266	184
Syracuse (v)	861	728
Table Rock (v)	852	673
Talmage (v)	489	429
Tamora (v)	139	184
Tecumseh (c)	2,005	1,654
Tekamah (c)	1,597	1,244
Tilden (v)	533	.....
Tobias (v)	672	539
Trenton (v)	329	267
Ulysses (v)	563	621
Unadilla (v)	243	195
Union (v)	282	.....
University Place (v)	1,130	571
Upland (v)	281	.....
Utica (v)	487	466
Valentine (v)	811	.....
Valley (t)	534	378
Valparaiso (v)	614	515
Verdigre (t)	200	207
Verdon (v)	340	253
Waco (v)	310	278
Waboo (v)	2,100	2,006
Wakefield (v)	755	.....
Wallace (v)	130	.....
Waterloo (v)	345	272
Wauneta (v)	181	.....
Wausa (v)	441	.....
Waverly (v)	266	.....
Wayne (t)	2,119	1,178
Weeping Water (c)	1,156	1,350
Western (v)	412	397
West Lincoln (v)	220	443
Weston (v)	426	341
West Point (c)	1,890	1,842
Wilber (v)	1,054	1,226
Wilcox (v)	266	250
Wilsonville (t)	296	.....
Winside (t)	400	130
Wisner (v)	963	610
Wood River (v)	589	481
Wymore (c)	2,626	2,420
York (c)	5,132	3,405
Yutan (v)	263	168
Nevada.		
Carson City	2,100	3,950
Reno (t)	4,500	3,563
Virginia City	2,695	8,511
New Hampshire.		
Berlin (c)	8,886	3,729
Concord (c)	19,632	17,004
Dover (c)	13,207	12,790
Franklin (c)	5,846	4,085
Keene (c)	9,165	7,446
Laconia (c)	8,042	6,143
Manchester (c)	56,987	44,126
Nasbua (c)	23,898	19,311
Portsmouth (c)	10,637	9,827
Rochester (c)	8,466	7,396
Somersworth (c)	7,023	6,207
New Jersey.		
Absecon (t)	530	501
Allendale (b)	694	.....
Allenburst (b)	165	.....
Allentown (b)	695	.....
Anglesea (b)	161	161
Asbury Park (c)	4,148	.....
Atlantic City	27,838	13,055
Atlantic Highlands (b)	1,383	945
Avalon (b)	93	.....
Bayhead (b)	247	.....
Bayonne (c)	32,722	19,033
Beach Haven (b)	239	.....
Belmar (b)	902	.....
Belvidere (t)	1,784	1,768
Bergenfields (b)	729	.....
Beverly (c)	1,950	1,957
Bloomfield (t)	9,668	7,708
Bogota (b)	337	.....
Boonton (t)	3,901	.....
Bordentown (c)	4,110	4,232
Boundbrook (b)	2,622	1,462
Bradley Beach (b)	982	.....
Branchville (b)	526	.....
Bridgeton (c)	13,913	11,424
Brigantine (c)	99	.....
Brooklyn (b)	75	.....
Burlington (c)	7,392	7,264
Caldwell (b)	1,367	.....
Camden (c)	75,935	58,313
Cape May (c)	2,257	2,136
Cape May Point (b)	153	167
Carlstadt (b)	2,574	1,549
Chatham (b)	1,361	780
Chesilhurst (b)	283	.....
Clayton (b)	1,951	1,807
Cliffside Park (b)	968	.....
Clinton (b)	816	.....
Collingswood (b)	1,633	539
Cresskill (b)	486	527
Deal (b)	70	.....
Deckertown (b)	1,306	993
Delford (b)	746	.....
Dover (t)	5,938	.....
Dumont (b)	643	.....
Dunellen (b)	1,239	1,060
East Millstone (t)	447	475
East Newark (b)	2,500	.....
East Orange (c)	21,506	13,282
East Rutherford (b)	2,640	1,438
Egg Harbor (c)	1,808	1,439
Elizabeth (c)	52,130	37,764
Elmer (b)	1,140	842
Englewood (c)	6,253	.....
Englewood Cliffs (b)	218	.....
Englishtown (b)	410	444
Fairview (b)	1,003	.....
Fanwood (b)	399	.....
Fieldsboro (b)	459	.....
Flemington (v)	2,145	1,977
Florbam Park (b)	752	.....
Freehold (t)	2,934	2,932
Frenchtown (b)	1,020	1,023
Garfield (b)	3,504	1,028
Glen Ridge (b)	1,960	.....
Glen Rock (b)	613	.....
Gloucester City	6,840	6,564
Guttenberg (t)	3,825	1,947
Hackensack (t)	9,443	6,004
Hackettstown (t)	2,474	2,417
Haddonfield (b)	2,776	2,602
Hammonton (t)	3,481	3,833

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
NEW JERSEY—Continued.		
Harrison (t)	10,596	8,338
Harvey Cedars (b)	39	.....
Hasbrouck Heights (b)	1,255	.....
Hawthorne (b)	2,096	.....
Helmetta (b)	447	.....
High Bridge (b)	1,377	.....
Highlands (b)	1,228	.....
Hightstown (b)	1,749	1,875
Hoboken (c)	59,364	43,648
Holly Beach (b)	569	217
Hopewell (b)	980	.....
Irvington (t)	5,255	.....
Island Heights (b)	316	271
Jamesburg (b)	1,063	887
Jersey City	206,433	163,003
Junction (b)	998	.....
Kearney (t)	10,896	.....
Keyport (t)	3,413	3,411
Lambertville (c)	4,637	4,142
Lavallette (c)	21	.....
Leonia (b)	804	.....
Linden (b)	402	936
Linwood (b)	495	536
Little Ferry (b)	1,240	781
Lodi (b)	1,917	998
Long Branch (t)	8,872	7,231
Longport (b)	80	.....
Madison (b)	3,754	2,469
Manasquan (b)	1,500	1,506
Matawan (b)	1,511	1,491
Maywood (b)	536	.....
Merchantsville (b)	1,608	1,225
Metuchen (b)	1,786	770
Midland Park (b)	1,348	.....
Millstone (b)	200	.....
Milltown (b)	561	.....
Millville (c)	10,583	10,002
Montclair (t)	13,962	8,656
Montvale (b)	416	.....
Morristown (t)	11,267	8,156
Mountainside (b)	367	.....
Mt. Arlington (b)	275	.....
Neptune City (b)	1,009	.....
Netcong (b)	941	.....
Newark (c)	246,070	181,830
New Brunswick (c)	20,006	18,603
New Providence (b)	565	.....
Newton (t)	4,376	3,003
North Arlington (b)	290	.....
North Caldwell (b)	297	.....
North Plainfield (b)	5,009	.....
North Spring Lake (b)	361	277
Ocean City	1,307	452
Old Tappan (b)	269	.....
Orange (c)	24,141	18,844
Palisades Park (b)	644	.....
Park Ridge (b)	870	.....
Passaic (c)	27,777	13,028
Paterson (c)	105,171	78,347
Pemberton (b)	771	834
Penngrove (b)	1,826	.....
Pennington (b)	733	588
Perth Amboy (c)	17,699	9,512
Phillipsburg (t)	10,052	8,614
Plainfield (c)	15,369	11,267
Pleasantville (b)	2,182	.....
Point Pleasant Beach (b)	746	.....
Pompton Lakes (b)	847	.....
Port Oram (b)	2,069	.....
Princeton (b)	3,899	3,422
Rahway (c)	7,935	7,105
Raritan (t)	3,244	2,556
Red Bank (t)	5,428	4,145
Ridgefield (b)	584	.....
Ridgewood (v)	2,685	1,047
Riverside (b)	561	.....
Riverton (b)	1,332	1,075
Rockaway (b)	1,483	.....
Rocky Hill (b)	354	.....
Roselle (b)	1,652	996
Rutherford (b)	4,411	2,293
Saddle River (b)	415	.....
Salem (c)	5,811	5,516
Seabright (b	1,198	.....
NEW JERSEY—Continued.		
Sea Isle City (b)	340	766
Seaside Park (b)	73	.....
Secaucus (b)	1,626	.....
Somers Point (b)	308	191
Somerville (t)	4,843	3,861
South Amboy (b)	6,349	4,330
South Atlantic City (b)	69	.....
South Boundbrook (t)	883	801
South Cape May (b)	14	.....
South Orange (v)	4,608	3,106
South River (b)	2,792	1,796
Spring Lake (b)	526	.....
Stockton (b)	590	.....
Summit (c)	5,302	3,502
Surf City (b)	9	.....
Tenafly (b)	1,746	1,046
Totowa (b)	562	.....
Trenton (c)	73,307	57,458
Undercliff (b)	1,006	.....
Union (t)	15,187	10,643
Upper Saddle River (b)	326	.....
Vailsburg (b)	2,779	786
Vineland (b)	4,370	3,822
Walling (b)	1,812	.....
Washington (b)	3,580	2,834
Wenonah (b)	498	383
West Cape May (b)	696	757
West Hoboken (t)	23,094	11,665
West New York (t)	5,267	.....
West Orange (t)	6,889	4,358
Westwood (b)	828	.....
Wildwood (b)	150	.....
Woodbury (c)	4,087	3,911
Woodcliff (b)	329	.....
Woodridge (b)	582	575
Woodstown (b)	1,371	1,516
New Mexico.		
Albuquerque (c)	6,238	3,785
Cerrillos (t)	491	446
Eddy (t)	963	.....
Gallup (t)	2,946	.....
Las Vegas (c)	3,552	2,385
Raton (c)	3,540	1,255
Roswell (t)	2,049	.....
Santa Fe (c)	5,603	6,185
Silver City	2,735	2,102
Socorro (c)	1,512	2,295
New York.		
Adams (v)	1,292	1,360
Addison (v)	2,080	2,166
Afton (v)	722	683
Akron (v)	1,585	1,492
Albany (c)	94,151	94,923
Albion (v)	4,477	4,586
Alden (v)	607	533
Alexander (v)	230	.....
Alexandria Bay (v)	1,511	1,123
Alfred (v)	756	786
Altamont (v)	689	.....
Altmar (v)	416	551
Amityville (v)	2,038	2,293
Amsterdam (c)	20,929	17,336
Andes (v)	365	416
Andover (v)	954	.....
Angelica (v)	978	953
Angola (v)	712	650
Antwerp (v)	929	912
Arcade (v)	887	.....
Ardsley (v)	404	.....
Argyle (v)	264	158
Athens (v)	2,171	2,024
Attica (v)	1,785	1,994
Auburn (c)	30,345	25,858
Avoca (v)	1,006	953
Avon (v)	1,601	1,653
Babylon (v)	2,157	.....
Bainbridge (v)	1,092	1,049
Baldwinsville (v)	2,992	3,040
Ballston Spa (v)	3,923	3,527
Batavia (v)	9,180	7,221
Bath (v)	4,994	3,261
NEW YORK—Continued.		
Bath-on-Hudson (v)	2,504	2,399
Belleville (v)	384	452
Belmont (v)	1,190	950
Bergen (v)	624	623
Binghamton (c)	39,647	35,005
Black River (v)	949	.....
Blasdell (v)	415	.....
Bolivar (v)	1,208	.....
Boonville (v)	1,745	1,613
Brewster (v)	1,192	.....
Bridgewater (v)	269	.....
Brighton (v)	888	705
Brockport (v)	3,398	3,742
Brocton (v)	900	812
Bronxville (v)	579	.....
Brookfield (v)	485	561
Brownville (v)	767	666
Buffalo (c)	352,387	255,664
Burdett (v)	409	.....
Caledonia (v)	1,073	.....
Cambridge (v)	1,578	1,598
Camden (v)	2,370	1,902
Camillus (v)	567	487
Canajoharie (v)	2,101	2,089
Canandaigua (v)	6,151	5,868
Canaseraga (v)	685	659
Canastota (v)	3,030	2,774
Canisteo (v)	2,077	2,071
Canton (v)	2,757	2,580
Cape Vincent (v)	1,310	1,324
Carthage (v)	2,895	2,278
Castile (v)	1,088	1,146
Castleton (v)	1,214	1,127
Cato (v)	350	.....
Catskill (v)	5,484	4,920
Cattaraugus (v)	1,382	878
Cayuga (v)	390	511
Cazenovia (v)	1,819	1,987
Celeron (v)	506	.....
Central Square (v)	364	.....
Champlain (v)	1,311	1,275
Charlotte (v)	1,400	930
Chateaugay (v)	973	1,172
Chatham (v)	2,018	1,912
Chaumont (v)	738	623
Cherry Creek (v)	701	676
Cherry Valley (v)	772	685
Chester (v)	1,250	.....
Chittenango (v)	787	792
Churchville (v)	505	493
Clayton (v)	1,913	1,748
Clayville (v)	568	843
Cleveland (v)	689	839
Clifton Springs (v)	1,617	1,297
Clinton (v)	1,340	1,269
Clyde (v)	2,507	2,638
Cobleskill (v)	2,327	1,822
Cohocton (v)	879	.....
Cohoes (c)	23,910	22,509
Cold Spring (v)	2,067	.....
Constableville (v)	450	.....
Cooperstown (v)	2,368	2,657
Copenhagen (v)	587	777
Corfu (v)	401	398
Corinth (v)	2,039	1,222
Corning (c)	11,061	8,550
Cornwall (v)	1,966	.....
Cortland (c)	9,014	8,590
Coxsackie (v)	2,735	1,611
Croton-on-Hudson (v)	1,533	.....
Cuba (v)	1,502	1,386
Dansville (v)	3,633	3,758
Delhi (v)	2,078	1,564
Depew (v)	3,379	.....
Deposit (v)	2,051	1,530
De Ruyter (v)	623	667
Dexter (v)	945	737
Dobbs Ferry (v)	2,888	2,083
Dolgeville (v)	1,915	.....
Dresden (v)	306	348
Dryden (v)	699	663
Dundee (v)	1,291	1,200
Dunkirk (c)	11,616	9,416
Earlville (v)	711	536

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
NEW YORK—Continued.		
East Aurora (v)	2,366	1,582
East Randolph (v)	644	.....
East Rockaway (v)	739	.....
East Syracuse (v)	2,509	2,231
Eastwood (v)	341	.....
Edwards (v)	373	.....
Elba (v)	395	428
Elbridge (v)	549	693
Elizabethtown (v)	491	573
Ellenville (v)	2,879	2,881
Ellicottville (v)	886	852
Ellisburg (v)	292	336
Elmira (c)	35,672	30,893
Elmira Heights (v)	1,763	.....
Esperance (v)	290	274
Fabius (v)	387	312
Fairhaven (v)	610	738
Fairport (v)	2,489	2,552
Falconer (v)	1,136	574
Farnham (v)	262	.....
Fayetteville (v)	1,304	1,410
Fishkill (v)	589	745
Fishkill Landing (v)	3,673	3,617
Fonda (v)	1,145	1,190
Forestville (v)	623	788
Fort Ann (v)	431	.....
Fort Covington (v)	822	870
Fort Edward (v)	3,521	.....
Fort Plain (v)	2,444	2,864
Frankfort (v)	2,664	2,291
Franklin (v)	473	581
Franklinville (v)	1,360	1,021
Fredonia (v)	4,127	3,399
Freeport (v)	2,612	.....
Freeville (v)	440	312
Friendship (v)	1,214	1,369
Fulton (v)	5,281	4,214
Fultonville (v)	977	1,122
Galway (v)	177	177
Geneseo (v)	2,400	2,286
Geneva (c)	10,433	7,557
Gilbertsville (v)	476	.....
Glen Park (v)	494	.....
Glens Falls (v)	12,613	9,509
Gloversville (c)	18,349	13,864
Goshen (v)	2,826	2,907
Gouverneur (v)	3,689	3,458
Gowanda (v)	2,143	.....
Granville (v)	2,700	.....
Greene (v)	1,236	1,067
Green Island (v)	4,770	4,463
Greenport (v)	2,366	.....
Greenwich (v)	1,869	1,663
Groton (v)	1,344	1,280
Hagerman (v)	646	596
Hamburg (v)	1,683	1,331
Hamilton (v)	1,627	1,744
Hammondsport (v)	1,169	934
Hancock (v)	1,283	1,279
Hannibal (v)	410	452
Harrisville (v)	639	617
Hastings-upon-Hudson (v)	2,002	1,466
Haverstraw (v)	5,935	5,070
Hempstead (v)	3,852	4,831
Henderson (v)	374	358
Herkimer (v)	5,555	.....
Hermon (v)	503	473
Hillburn (v)	824	.....
Hilton (v)	486	487
Hobart (v)	550	561
Holland Patent (v)	352	406
Holley (v)	1,380	1,381
Homer (v)	2,381	.....
Honeoye Falls (v)	1,175	1,128
Hoosick Falls (v)	5,671	7,014
Hornellsville (c)	11,918	10,996
Horseheads (v)	1,901	1,716
Hudson (c)	9,528	9,970
Hunter (v)	431	699
Ilion (v)	5,138	4,057
Irvington (v)	2,231	2,299
Ithaca (c)	13,136	11,079
Jamestown (c)	22,892	16,038
Johnstown (c)	10,130	7,678
NEW YORK—Continued.		
Jordan (v)	1,118	1,271
Keeseville (v)	2,110	2,103
Kenmore (v)	318	.....
Kinderhook (v)	913	963
Kingston (c)	24,535	21,261
Lacona (v)	388	333
Lakewood (v)	574	.....
Lancaster (v)	3,750	1,692
Lansingburg (v)	12,595	10,550
Larchmont (v)	945	.....
La Salle (v)	661	.....
Laurens (v)	233	255
Lawrence (v)	558	626
Leroy (v)	3,144	2,743
Lestershire (v)	3,111	.....
Lewiston (v)	697	633
Liberty (v)	1,760	734
Lima (v)	949	1,003
Limestone (v)	732	.....
Lisle (v)	392	421
Little Falls (c)	10,381	8,783
Little Valley (v)	1,085	698
Liverpool (v)	1,133	1,284
Livonia Station (v)	865	738
Lockport (c)	16,581	16,038
Lowville (v)	2,352	2,511
Lyons (v)	4,300	4,475
Lyons Falls (v)	470	.....
McGrawville (v)	750	733
Macedon (v)	592	533
Madison (v)	321	390
Malone (v)	5,935	4,986
Manchester (v)	711	.....
Manlius (v)	1,219	942
Mannsville (v)	352	389
Marathon (v)	1,092	1,198
Marcellus (v)	589	563
Margaretville (v)	640	616
Massena (v)	2,032	1,049
Mattewan (v)	5,807	4,278
Mayfield (v)	589	.....
Mayville (v)	943	1,164
Mechanicsville (v)	4,695	2,679
Medina (v)	4,716	4,492
Meridian (v)	335	.....
Mexico (v)	1,249	1,315
Middleburg (v)	1,135	1,139
Middleport (v)	1,431	1,217
Middletown (c)	14,522	11,977
Middleville (v)	667	.....
Milford (v)	532	.....
Millbrook (v)	1,027	693
Millerton (v)	802	638
Mohawk (v)	2,028	1,806
Monroe (v)	796	630
Montgomery (v)	973	1,024
Monticello (v)	1,160	1,016
Montour Falls (v)	1,193	1,751
Moores (v)	527	.....
Moravia (v)	1,442	1,486
Morris (v)	553	601
Morristown (v)	466	472
Morrisville (v)	624	726
Mt. Kisco (v)	1,346	1,095
Mt. Morris (v)	2,410	2,286
Mt. Vernon (c)	21,228	10,830
Naples (v)	1,048	1,266
Nassau (v)	418	356
Nelliston (v)	634	721
Nelsonville (v)	624	.....
Newark (v)	4,578	3,698
Newark Valley (v)	818	875
New Berlin (v)	1,156	979
Newburg (c)	24,943	23,087
Newfield (v)	378	.....
New Hartford (v)	1,007	912
New London (v)	177	.....
Newpaltz (v)	1,022	935
Newport (v)	610	659
New Rochelle (c)	14,720	9,057
New York (c)	3,437,202	1,515,301
Manhattan borough	1,850,093	.....
Bronx borough	200,507	.....
Brooklyn borough	1,166,582	.....
Richmond borough	67,021	.....
Queens borough	152,999	.....
NEW YORK—Continued.		
Niagara Falls (c)	19,457	.....
North Olean (v)	1,549	.....
North Pelham (v)	684	.....
Northport (v)	1,794	.....
North Tarrytown (v)	4,241	3,179
North Tonawanda (c)	9,069	4,793
Northville (v)	1,046	792
Norwich (v)	5,766	5,212
Norwood (v)	1,714	1,463
Nunda (v)	1,018	1,010
Nyack (v)	4,275	4,111
Oakfield (v)	714	578
Ogdensburg (c)	12,633	11,662
Olean (c)	9,462	7,358
Oneida (v)	6,364	6,083
Oneida Castle (v)	291	317
Oneonta (v)	7,147	6,272
Oriskany Falls (v)	811	625
Ossining (v)	7,939	9,352
Oswego (c)	22,199	21,842
Oswego Falls (v)	2,925	1,821
Otego (v)	658	.....
Ovid (v)	624	641
Owego (v)	5,039	.....
Oxford (v)	1,931	1,477
Painted Post (v)	775	688
Palatine Bridge (v)	360	.....
Palmyra (v)	1,937	2,131
Panama (v)	359	379
Parish (v)	548	541
Patchogue (v)	2,926	.....
Pawling (v)	781	630
Peekskill (v)	10,358	9,676
Pelham (v)	303	.....
Penn Yan (v)	4,650	4,254
Perry (v)	2,763	1,528
Phelps (v)	1,306	1,336
Philadelphia (v)	873	783
Philmont (v)	1,964	1,818
Phoenix (v)	1,532	1,466
Piermont (v)	1,153	1,219
Pike (v)	458	483
Pine Hill (v)	425	.....
Pittsford (v)	1,000	852
Plattsburg (v)	8,434	7,010
Pleasantville (v)	1,204	.....
Poland (v)	370	.....
Port Byron (v)	1,013	1,105
Port Chester (v)	7,440	5,274
Port Dickinson (v)	379	345
Port Henry (v)	1,751	2,436
Port Jervis (v)	9,385	9,327
Port Leyden (v)	746	462
Portville (v)	748	.....
Potsdam (v)	3,843	3,961
Poughkeepsie (c)	24,029	22,206
Prattsburg (v)	713	607
Prospect (v)	333	.....
Pulaski (v)	1,493	1,517
Randolph (v)	1,209	1,201
Red Creek (v)	480	492
Red Hook (v)	857	935
Remsen (v)	389	358
Rensselaer (c)	7,466	7,301
Rhinebeck (v)	1,494	1,649
Richburg (v)	343	374
Richfield Springs (v)	1,537	1,623
Richmondville (v)	651	663
Richville (v)	331	336
Rochester (c)	162,608	133,896
Rockton (v)	1,052	.....
Rockville Center (v)	1,884	.....
Rome (c)	15,343	14,991
Rosendale (v)	1,840	1,706
Rouse Point (v)	1,675	1,856
Roxbury (v)	418	.....
Rushville (v)	416	450
Sacketts Harbor (v)	1,266	787
Sag Harbor (v)	1,969	.....
St. Johnsville (v)	1,873	1,263
St. Regis Falls (v)	879	1,210
Salamanca (v)	4,251	3,692
Salem (v)	1,391	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
NEW YORK—Continued.		
Sandy Creek (v)	692	723
Sandy Hill (v)	4,473	2,895
Saranac Lake (v)	2,594	768
Saratoga Springs (v)	12,409	11,975
Saugerties (v)	3,697	4,237
Savannah (v)	573	505
Savona (v)	611	569
Schaghticoke (v)	1,061	1,258
Schenectady (c)	31,682	19,902
Schenevus (v)	613	665
Schoharie (v)	1,006	1,028
Schuylerville (v)	1,601	1,387
Sea Cliff (v)	1,558	.....
Seneca Falls (v)	6,519	6,116
Sharon Springs (v)	567	622
Sherburne (v)	899	960
Sherman (v)	760	785
Shortsville (v)	922	.....
Sidney (v)	2,331	1,358
Silver Creek (v)	1,944	1,678
Silver Springs (v)	667	.....
Sinclairville (v)	577	510
Skaneateles (v)	1,495	1,559
Sloan (v)	873	.....
Smyrna (v)	300	.....
Solvay (v)	3,493	563
Southampton (v)	2,289	.....
South Glens Falls (v)	2,025	1,606
South Nyack (v)	1,601	1,496
Spencer (v)	707	810
Spencerport (v)	715	695
Springville (v)	1,992	1,883
Stamford (v)	901	819
Stillwater (v)	1,007	747
Suffern (v)	1,619	.....
Syracuse (c)	108,314	88,143
Tannersville (v)	593	.....
Tarrytown (v)	4,770	3,562
Theresa (v)	917	1,028
Ticonderoga (v)	1,911	2,267
Tivoli (v)	1,153	1,350
Tonawanda (v)	7,421	7,145
Trenton (v)	298	284
Troy (c)	60,651	60,956
Trumansburg (v)	1,225	1,211
Tully (v)	574	498
Turin (v)	363	359
Unadilla (v)	1,172	1,157
Union (v)	982	821
Union Springs (v)	994	1,066
Unionville (v)	454	316
Upper Nyack (v)	516	668
Utica (c)	56,383	44,007
Valatie (v)	1,300	1,437
Van Etten (v)	474	567
Vernon (v)	380	377
Victor (v)	619	778
Victory Mills (v)	795	822
Voorheesville (v)	554	.....
Walden (v)	3,147	2,132
Walton (v)	2,811	2,299
Wappingers Falls (v)	3,504	3,718
Warsaw (v)	3,048	3,120
Warwick (v)	1,735	1,537
Washingtonville (v)	667	691
Waterford (v)	3,146	.....
Waterloo (v)	4,256	4,350
Watertown (c)	21,969	14,725
Waterville (v)	1,571	2,024
Watervliet (c)	14,321	12,967
Watkins (v)	2,943	2,604
Waverly (v)	4,465	4,123
Wayland (v)	1,307	679
Weedsport (v)	1,525	1,580
Wellsburg (v)	536	.....
Wellsville (v)	3,556	3,435
West Carthage (v)	1,135	932
Westfield (v)	2,430	1,983
West Haverstraw (v)	2,079	180
West Salamanca (v)	483	495
West Winfield (v)	771	741
Whitehall (v)	4,377	4,434
White Plains (v)	7,899	4,042
Whitesboro (v)	1,958	1,663
Whitney Point (v)	807	842
Williamsville (v)	905	.....
Wilson (v)	612	683
Windsor (v)	739	524
Wolcott (t)	1,279	902
Woodhull (v)	343	.....
Wurtsboro (v)	450	490
Yonkers (c)	47,931	42,033
Youngstown (v)	547	490
North Carolina.		
Aberdeen (t)	559	227
Advance (t)	273	.....
Ahoskie (t)	302	.....
Albemarle (t)	1,382	248
Alexis (t)	92	.....
Apex (v)	349	269
Archdale (t)	182	224
Arden (t)	137	229
Asheboro (t)	992	510
Asheville (c)	14,694	10,235
Aulander (t)	342	163
Aurora (t)	314	251
Autryville (t)	61	.....
Ayden (t)	557	.....
Bakersville (t)	511	.....
Bath (t)	400	.....
Battleboro (t)	229	.....
Bayboro (t)	292	252
Beaufort (t)	2,195	2,007
Belle Haven (t)	383	.....
Belmont (t)	145	.....
Benson (t)	384	191
Bessemer City (t)	1,100	.....
Bethel (t)	457	377
Big Lick (t)	132	69
Biltmore (t)	71	.....
Black Creek (t)	196	191
Black Mountain (t)	200	.....
Blowing Rock (t)	331	.....
Boardman (t)	604	.....
Boone (t)	155	144
Boonville (t)	183	.....
Bostic (t)	97	.....
Brevard (t)	584	327
Bridgersville (t)	42	.....
Bryson (t)	417	.....
Burgaw (v)	387	366
Burlington (t)	3,692	1,716
Burnsville (t)	207	.....
Cameron (t)	218	236
Canton (t)	230	.....
Caroleen (t)	1,706	.....
Carthage (t)	605	485
Cary (v)	333	423
Castalia (t)	163	159
Catawba (t)	169	196
Cedar Falls (t)	272	.....
Cerro Gordo (v)	123	129
Chadbourn (t)	243	156
Chapel Hill (t)	1,099	1,017
Charlotte (c)	18,091	11,557
Cherryville (t)	1,008	.....
China Grove (v)	887	174
Claremont (t)	160	.....
Clayton (t)	754	478
Cleveland (v)	198	.....
Clinton (t)	958	839
Clyde (t)	244	90
Colerain (t)	207	.....
Collettsville (t)	57	.....
Columbia (t)	382	209
Columbus (t)	334	.....
Concord (c)	7,910	4,339
Conetoe (v)	132	88
Conoho (t)	115	.....
Conover (t)	413	337
Creswell (t)	224	202
Cronly (t)	78	122
Cumberland (t)	343	242
Dallas (t)	514	441
Davidson College (t)	904	481
Denver (v)	199	185
Dillsboro (t)	279	.....
NORTH CAROLINA—Cont'd.		
Dobson (t)	327	.....
Dunn (t)	1,072	419
Durham (c)	6,679	5,485
East Bend (v)	444	.....
Edenton (t)	3,046	2,205
Edwards (t)	99	62
Elizabeth City (t)	6,348	3,251
Elizabethtown (t)	144	.....
Elkin (t)	860	288
Elk Park (v)	498	313
Ellenboro (t)	172	.....
Elm City (t)	560	.....
Elon College (t)	638	.....
Enfield (t)	361	568
Enochville (v)	93	.....
Eureka (t)	123	.....
Everetts (t)	127	.....
Fairbluff (v)	328	243
Faison (v)	308	256
Falkland (t)	139	61
Farmville (t)	262	140
Farrar (t)	554	.....
Fayetteville (t)	4,670	4,222
Forest City (t)	1,090	419
Forestville (t)	157	.....
Four Oaks (t)	171	62
Franklin (t)	335	281
Franklinton (t)	761	583
Fremont (t)	435	377
Garysburg (t)	269	.....
Gastonia (t)	4,610	1,033
Gatesville (t)	200	232
Germanton (v)	129	.....
Gibsonville (t)	521	.....
Glen Alpine (t)	137	252
Gold Hill (v)	514	335
Gold Point (t)	124	.....
Goldsboro (c)	5,877	4,017
Graham (t)	2,052	991
Granite Falls (v)	277	207
Greensboro (c)	10,035	3,317
Greenville (t)	2,565	1,937
Grifton (t)	229	121
Grimesland (t)	277	.....
Grover (v)	174	126
Halifax (t)	306	361
Hamilton (t)	493	781
Hamlet (v)	639	.....
Hardin Factory (t)	205	.....
Harrellsville (t)	109	110
Hayesville (t)	142	.....
Henderson (t)	3,746	4,191
Hendersonville (t)	1,917	1,216
Henrietta (t)	1,250	.....
Hertford (t)	1,382	733
Hexlena (t)	13	.....
Hickory (t)	2,535	2,023
Highlands (t)	249	233
High Point (v)	4,163	.....
Hildebran (v)	109	.....
Hillsboro (t)	707	662
Hobgood (t)	122	.....
Hoffman (v)	184	.....
Holly Springs (v)	219	218
Hookerton (t)	139	173
Hope Mills (v) No. 1	881	456
Hot Springs (t)	445	695
Huntersville (t)	533	431
Inanda (t)	150	.....
Ingold (v)	86	78
Jackson (t)	441	750
Jacksonville (v)	309	170
Jamesville (t)	235	346
Jefferson (t)	230	413
Jerome (t)	61	.....
Jonesboro (t)	640	541
Keelsville (t)	42	.....
Kelford (t)	167	.....
Kenansville (t)	271	291
Kenly (t)	260	137
Kernersville (v)	652	900
Keyser (t)	180	295
Kings Mountain (t)	2,062	429
Kinston (t)	4,106	1,726
Kittrell (t)	168	317

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
NORTH CAROLINA—Cont'd.		
La Grange (t)	853	775
Lasker (t)	121	.....
Lattimore (v)	108	.....
Laurinburg (t)	1,334	1,357
Leaksville (v)	688	726
Leicester (t)	126	.....
Lenoir (t)	1,296	673
Lewiston (t)	163	373
Lexington (t)	1,234	1,440
Liberty (t)	304	366
Lilesville (t)	213	222
Lillington (t) (Harnett Co.)	65	.....
Lillington (v) (Pender Co.)	87	80
Lincolnton (t)	828	957
Louisburg (t)	1,178	667
Lowell (t)	290	.....
Lucama (t)	236	.....
Lumber Bridge (t)	181	.....
Lumberton (t)	849	584
McAdenville (t)	1,144	.....
McFarland (t)	112	.....
Macon (t)	157	.....
Madison v)	813	450
Magnolia (t)	454	460
Maiden (t)	614	264
Marly (v)	176	192
Manteo (t)	312	.....
Margaretsville (t)	123	63
Marion (t)	1,116	799
Marlboro (v)	111	92
Marshall (t)	337	203
Mars Hill (t)	289	.....
Marshville (t)	349	.....
Matthews (t)	378	335
Maxton (t)	935	694
Mayodan)v)	904	.....
Maysville (v)	98	.....
Mebane (t)	218	.....
Middleburg (t)	169	.....
Milton (v)	490	705
Mint Hill (t)	192	.....
Mocksville (t)	745	.....
Monroe (c)	2,427	1,866
Montezuma (v)	219	.....
Montford (t)	196	.....
Mooresboro (v)	144	197
Mooresville (t)	1,533	886
Morehead City (t)	1,379	1,064
Morganton (t)	1,938	1,557
Morrisville (v)	100	149
Morven (t)	447	.....
Mountain Island (t)	450	376
Mt. Airy (t)	2,680	1,768
Mt. Gilead (t)	395	.....
Mt. Holly (t)	630	472
Mt. Olive (t)	617	393
Mt. Pleasant (v)	444	375
Murfreesboro (t)	657	674
Murphy (t)	604	803
Nashville (t)	479	401
Newbern (c)	9,090	7,843
New London (t)	299	.....
Newport (t)	328	218
Newton (t)	1,583	1,038
Newton Grove (v)	75	63
North Durham (t)	644	.....
North Wilkesboro (t)	918	.....
Norwood (t)	663	159
Oak Ridge (t)	161	.....
Old Fort (t)	253	249
Oriental (t)	300	.....
Oxford (t)	2,059	2,907
Pactolus (t)	52	105
Palmyra (t)	131	114
Pantego (t)	253	151
Parkersburg (t)	57	.....
Parmele (t)	336	.....
Peachland (t)	156	58
Pendleton (t)	86	.....
Pikeville (t)	168	.....
Pilot Mountain (t)	710	.....
Pine Level (t)	266	264
Pineville (t)	585	.....
Pittsboro (t)	424	.....
Plymouth (t)	1,011	1,212
Point Caswell (v)	77	127
Polkton (t)	276	247
Polloksville (t)	198	143
Powellsville (t)	44	.....
Princeton (t)	281	248
Princeville (t)	552	428
Raleigh (c)	13,643	12,678
Ramoth (t)	351	.....
Ramseur (t)	769	.....
Randleman (t)	2,190	1,754
Red Springs (t)	858	.....
Reidsville (t)	3,262	2,969
Renner (t)	133	.....
Richfield (t)	73	.....
Richlands (v)	160	198
Rich Square (t)	232	643
Ringwood (v)	98	92
Roanoke Rapids (t)	1,009	.....
Robersonville (t)	275	228
Rockingham (t)	1,507	.....
Rocky Mount (t)	2,937	816
Rocky Mount Mills (t)	605	.....
Rolesville (v)	155	150
Roseboro (t)	63	.....
Rowland (t)	357	72
Roxboro (t)	1,021	421
Roxobel (t)	227	.....
Rutherfordton (t)	880	.....
St. Lewis (t)	100	.....
Salem (c)	3,642	2,711
Salisbury (c)	6,277	4,418
Saluda (t)	211	.....
Sanford (t)	1,044	367
Saratoga (t)	123	102
Scotland Neck (t)	1,348	778
Seaboard (t)	287	201
Selma (t)	816	527
Shallotte City (t)	149	.....
Shelby (t)	1,874	1,394
Siler City (t)	440	254
Smithfield (t)	764	550
Snow Hill (t)	405	283
South Biltmore (t)	312	.....
Southern Pines (t)	517	.....
South Gaston (t)	44	.....
Southport (c)	1,336	1,207
South Wadesboro (t)	154	.....
Sparta (t)	501	95
Spencer Mountain Mills (t)	243	.....
Spring Hope (t)	666	248
Stanley (t)	441	.....
Star (t)	211	.....
Statesville (c)	3,141	2,318
Stonewall (t)	168	196
Swansboro (t)	265	233
Swepsonville (v)	441	326
Sylva (t)	281	.....
Tarboro (t)	2,499	1,924
Taylorsville (t)	413	.....
Thomasville (t)	751	590
Tillery (t)	258	.....
Town Creek (t)	35	.....
Trenton (v)	338	207
Trinity (t)	274	380
Trinity Park (t)	68	.....
Troy (t)	878	.....
Tryon (t)	324	.....
Union (t) (Hertford Co.)	176	102
Union City (t) (Robeson Co.)	432	.....
Vanceboro (t)	291	.....
Vandemere (t)	169	90
Waco (v)	160	105
Wadesboro (t)	1,546	1,198
Wakefield (v)	142	.....
Wake Forest College (t)	823	853
Wallace (t)	218	.....
Walnut Cove (v)	336	320
Warrenton (t)	836	740
Warsaw (t)	576	401
Washington (t)	4,842	3,545
Waxhaw (t)	752	.....
Waynesville (t)	1,307	455
Weaverville (t)	329	216
Weldon (t)	1,433	1,286
West Hickory (t)	213	.....
Whitakers (t)	388	.....
Whitehall (t)	114	.....
Whiteville (t)	634	372
Wilbanks (t)	46	.....
Wilkesboro (t)	635	336
Williamston (t)	912	751
Wilmington (c)	20,976	20,056
Wilson (t)	3,525	2,126
Winsdor (t)	597	522
Winfall (t)	222	.....
Winston (c)	20,008	8,018
Winterville (t)	243	.....
Winton (t)	688	419
Woodland (t)	242	247
Worthville (t)	467	328
Wrightsville Beach (t)	22	.....
Yadkin College (t)	210	.....
Yadkinville (v)	292	175
Youngsville (t)	345	205
North Dakota.		
Ardoch (t)	298	214
Bathgate (t)	641	377
Bismarck (c)	3,319	2,186
Bottineau (t)	888	145
Buffalo (v)	213	177
Cando (t)	1,061	200
Canton (t)	98	.....
Casselton (c)	1,207	840
Cavalier (t)	671	.....
Churchs Ferry (v)	264	.....
Conway (v)	216	.....
Cooperstown (v)	648	368
Crystal (c)	385	.....
Davenport (v)	245	.....
Devils Lake (c)	1,729	846
Dickinson (c)	2,076	897
Drayton (t)	688	318
Edgeley (v)	306	.....
Edinburg (v)	286	.....
Ellendale (c)	750	761
Enderlin (c)	636	.....
Fairmount (v)	284	91
Fargo (c)	9,589	5,664
Forest River (v)	252	.....
Forman (t)	257	178
Grafton (c)	2,378	1,594
Grand Forks (c)	7,652	4,979
Hamilton (t)	224	257
Hankinson (v)	713	.....
Hatton (v)	430	.....
Hillsboro (c)	1,172	715
Hoople (v)	174	.....
Hope (v)	606	238
Hunter (v)	407	194
Jamestown (c)	2,853	2,296
Kulm (v)	463	.....
Lakota (v)	576	227
Lamoure (v)	457	309
Langdon (c)	1,188	291
Larimore (c)	1,235	553
Leeds (v)	349	.....
Lidgerwood (v)	585	.....
Lisbon (c)	1,046	935
Mandan (c)	1,658	1,328
Mapleton (v)	322	119
Mayville (c)	1,106	657
Michigan (v)	309	.....
Milnor (t)	322	279
Milton (v)	384	202
Minnewaukan (v)	432	.....
Minot (c)	1,277	516
Minto (v)	560	467
Neche (t)	682	314
New Salem (v)	229	.....
Northwood (c)	697	268
Oakes (c)	668	379
Park River (c)	1,088	534
Pembina (c)	929	670
Pesik (v)	132	.....
Portland (t)	524	367
Reynolds (c)	389	.....
Rolla (v)	400	255
Rugby (v)	487	.....
St. Thomas (t)	661	477

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
NORTH DAKOTA—Continued.		
Sanborn (v)	259	227
Sheldon (v)	318	253
Steele (c)	185	133
Tower City (v)	468	309
Tow er (t)	331	211
Valley City	2,446	1,089
Wahpeton (c)	2,228	1,510
Walhalla (c)	377	.....
Williston (t)	763	.....
Willow City	476	.....
Wimbledon (v)	226	.....
Ohio.		
Aberdeen (v)	711	874
Ada (v)	2,576	2,079
Adamsville (v)	201	335
Addyston (v)	1,513	.....
Adelphi (v)	516	489
Akron (c)	42,728	27,601
Albany (v)	548	471
Alexandria (v)	420	296
Alger (v)	462	.....
Allentown (v)	123	.....
Alliance (c)	8,974	7,607
Alvordton (v)	482	.....
Andover (v)	815	733
Anna (v)	451	527
Ansonia (v)	676	676
Antioch (v)	212	.....
Antwerp (v)	1,206	1,331
Apple Creek (v)	387	428
Arcadia (v)	425	490
Arcanum (v)	1,225	1,134
Archbold (v)	958	780
Arlington (v)	738	.....
Arlington Heights hamlet	360	222
Arnettsville (v)	157	.....
Ashland (v)	4,087	3,566
Ashley (v)	700	628
Ashtabula (c)	12,949	8,338
Ashville (v)	654	430
Athalia (v)	346	199
Athens (v)	3,066	2,620
Attica (v)	694	682
Bainbridge (v)	954	.....
Bairdstown (v)	298	347
Baltimore (v)	460	505
Barberton (v)	4,354	.....
Barnesville (v)	3,721	3,207
Barnhill (v)	811	969
Batavia (v)	1,029	953
Batesville (v)	312	327
Beach City	364	.....
Beallsville (v)	554	512
Beaver (v)	262	.....
Beaver Dam (v)	477	397
Bedford (v)	1,486	1,043
Bellaire (c)	9,912	9,934
Bellbrook (v)	352	350
Bellecenter (v)	962	927
Bellefontaine (c)	6,649	4,245
Bellevue (v)	4,101	3,052
Bellville (v)	1,039	941
Belmont (v)	422	384
Belmore (v)	334	414
Benton Ridge (v)	359	250
Berea (v)	2,510	2,533
Berlin Heights (v)	625	517
Bethel (v)	850	625
Bettsville (v)	492	513
Beverly (v)	712	795
Blakeslee (v)	239	.....
Blanchester (v)	1,788	1,196
Bloomdale (v)	740	519
Bloomingburg (v)	636	638
Bloomville (v)	819	758
Bluffton (v)	1,783	1,290
Bond Hill (v)	1,081	.....
Boston (v)	260	292
Botkins (v)	420	.....
Bourneville (v)	356	205
Bowerston (v)	526	.....
Bowersville (v)	370	.....
Bowling Green (t)	5,067	3,467
Bradford (v)	1,254	1,338
Bradner (v)	1,148	441
Bremen (v)	466	244
Bridgeport (v)	3,963	3,369
Brilliant (v)	646	944
Brink Haven (v)	250	.....
Brookside (v)	249	.....
Brookville (v)	869	618
Broughton (v)	226	.....
Bryan (v)	3,131	3,068
Buckeye City (v)	247	215
Bucyrus (c)	6,560	5,974
Burbank (v)	325	331
Burton (v)	727	633
Butler (v)	567	266
Butlerville (v)	125	125
Byesville (v)	1,267	789
Cadiz (v)	1,755	1,716
Calais (v)	114	135
Caldwell (v)	927	1,248
Caledonia (v)	682	757
Cambridge (c)	8,241	4,361
Camden (v)	905	846
Canal Dover (v)	5,422	3,470
Canal Fulton (v)	1,172	1,173
Canal Winchester (v)	662	633
Canfield (v)	672	675
Cannelville (v)	281	177
Canton (c)	30,667	26,189
Cardington (v)	1,354	1,428
Carey (v)	1,816	1,605
Carlisle (v)	164	.....
Carroll (v)	223	293
Carrollton (v)	1,271	1,228
Carthage (v)	2,559	2,257
Casstown (v)	262	292
Catawba (v)	231	272
Cecil (v)	326	348
Cedarville (v)	1,189	1,355
Celina (v)	2,815	2,702
Centerburg (v)	706	588
Centerville (v) (Gallia Co.)	198	215
Centerville (v) (Montgomery county).	290	252
Chagrin Falls (v)	1,586	1,243
Chambersburg (v)	169	192
Chardon (v)	1,360	1,084
Chatfield (v)	298	.....
Chester Hill (v)	480	.....
Chesterville (v)	230	268
Chicago Junction (v)	2,348	1,299
Chickasaw (v)	310	.....
Chillicothe (c)	12,976	11,288
Cincinnati (c)	325,902	296,908
Circleville (v)	6,991	6,556
Clarington (v)	905	762
Clarksburg (v)	551	378
Clarksville (v)	465	339
Cleveland (c)	381,768	261,353
Cleves (v)	1,328	1,227
Clifton (v)	262	270
Clinton (v)	186	163
Clyde (v)	2,515	2,327
Coalgrove (v)	1,191	506
Coalton (v)	1,625	1,459
Coldwater (v)	627	490
College Corner (v)	378	.....
College Hill (v)	1,104	.....
Collinwood (v)	3,639	.....
Columbiana (v)	1,339	1,112
Columbus (c)	125,560	88,150
Columbus Grove (v)	1,935	1,677
Commercial Point (v)	245	265
Congress (v)	198	229
Conneaut (v)	7,133	3,241
Continental (v)	1,104	895
Convoy (v)	690	500
Coolville (v)	315	330
Copley (v)	243	241
Corning (v)	1,401	1,551
Cortland (v)	620	697
Corwin (v)	131	.....
Coshocton (v)	6,473	3,672
Covington (v)	1,791	1,778
Crestline (v)	3,282	2,911
Creston (v)	893	584
Cridersville (v)	581	465
Crooksville (v)	835	.....
Crown City (v)	248	235
Cumberland (v)	618	601
Custer (v)	293	329
Cuyahoga Falls (v)	3,186	2,614
Cygnet (v)	896	670
Dalton (v)	666	610
Danville (v)	298	292
Darbyville (v)	250	257
Dayton (c)	85,333	61,220
Deavertown (v)	154	.....
Deerfield (v)	484	.....
Deersville (v)	256	.....
Defiance (c)	7,579	7,694
Le Graffe (v)	1,150	1,0.6
Delaware (c)	7,940	8,224
Delhi (v)	829	531
Dell Roy (v)	400	511
Delphos (c)	4,517	4,516
Delta (v)	1,230	1,132
Dennison (v)	3,762	2,925
Deshler (v)	1,628	1,114
Dexter City (v)	278	217
Donnelsville (v)	200	243
Doylestown (v)	1,057	1,131
Dresden (v)	1,600	1,247
Dublin (v)	275	296
Dunkirk (v)	1,222	1,220
Dupont (v)	370	531
East Cleveland (v)	2,757	.....
East Liverpool (c)	16,485	10,956
East Palestine (v)	2,493	1,816
Eaton (v)	3,155	2,934
Edgerton (v)	1,043	967
Edison (v)	347	345
Edon (v)	740	601
Eldorado (v)	358	365
Elgin (v)	208	.....
Elida (v)	440	399
Elmore (v)	1,025	1,198
Elmwood Place (v)	2,532	.....
Elyria (c)	8,791	5,611
Empire (v)	509	441
Enon (v)	295	331
Evanston (v)	1,716	.....
Fairfield (v)	312	310
Fairport (v)	2,073	1,171
Fairview (v)	291	322
Farmersville (v)	440	472
Fayette (v)	886	890
Fayetteville (v)	323	.....
Felicity (v)	695	779
Fernbank (v)	310	367
Findlay (c)	17,613	18,553
Five Points hamlet	176	.....
Fletcher (v)	375	.....
Florida (v)	276	288
Flushing (v)	653	528
Forest (v)	1,155	1,126
Fort Jennings (v)	322	286
Fort Recovery (v)	1,097	1,186
Fostoria (c)	7,730	7,070
Frankfort (v)	717	667
Franklin (v)	2,724	2,729
Frazeysburg (v)	730	610
Fredericksburg (v)	511	600
Fredericktown (v)	890	847
Freeport (v) (Harrison Co.)	690	672
Freeport (v) (Wood Co.)	815	.....
Fremont (c)	8,439	7,141
Gahanna (v)	276	207
Galion (c)	7,282	6,326
Gallipolis (c)	5,432	4,498
Gambier (v)	751	660
Garrettsville (v)	1,145	1,046
Geneva (v)	2,342	2,194
Genoa (v)	824	839
Georgetown (v)	1,529	1,473
Germantown (v)	1,702	1,437
Gettysburg (v)	246	274
Gibsonburg (v)	1,791	585
Gilboa (v)	346	246
Girard (v)	2,630	.....
Glandorf (v)	749	571
Glendale (v)	1,545	1,444
Glenmont (v)	209	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
OHIO—Continued.		
Glenville (v)	5,588	.....
Glouster (v)	2,155	.....
Gnadenhutten (v)	547	478
Grafton (v)	1,098	600
Grand Rapids (v)	549	572
Granville (v)	1,425	1,366
Graysville (v)	174	107
Green Camp (v)	369	290
Greenfield (v)	3,979	2,460
Greenspring (v)	816	910
Greenville (c)	5,501	5,473
Greenwich (v)	849	881
Grove City (v)	656	272
Groveport (v)	519	578
Grover (v)	308	
Grover Hill (v)	655	.....
Hamden (v)	838	622
Hamersville (v)	242	264
Hamilton (c)	23,914	17,565
Hamler (v)	574	556
Hanging Rock (v)	665	846
Hanover (v)	314	288
Hanoverton (v)	399	366
Harrisburg (v)	247	211
Harrison (v)	1,456	1,690
Harrisville (v)	250	252
Harrod (v)	370	269
Hartford (v)	414	346
Hartwell (v)	1,833	1,507
Harveysburg (v)	435	402
Haskins (v)	449	321
Haviland (v)	186	.....
Hayesville (v)	332	430
Hebron (v)	455	415
Hemlock (v)	581	.....
Hicksville (v)	2,520	2,141
Higginsport (v)	650	764
Hilliard (v)	376	338
Hillsboro (v)	4,535	3,620
Hiram (v)	659	.....
Ingate (v)	1,237	1,134
Hollansburg (v)	275	.....
Holmesville (v)	304	.....
Home City (v)	868	797
Hopedale (v)	365	424
Hoytsville (v)	431	395
Hubbard (v)	1,230	1,498
Hudson (v)	983	1,143
Huntsville (v)	408	500
Huron (v)	1,708	1,380
Hyde Park (v)	1,691	.....
Irondale (v)	1,136	694
Ironton (c)	11,868	10,939
Ithaca (v)	113	135
Jackson (c)	4,672	4,320
Jacksonboro (v)	77	79
Jackson Center (v)	644	.....
Jacksonville (v)	1,047	727
Jamestown (v)	1,205	1,104
Jefferson (v)	1,319	1,346
Jeffersonville (v)	790	.....
Jenera (v)	237	.....
Jeromeville (v)	308	301
Jerry City (v)	555	530
Jerusalem (v)	245	112
Jewett (v)	743	.....
Johnstown (v)	638	424
Junction City (v)	443	394
Kalida (v)	622	444
Kelleys Island (v)	1,174	.....
Kennedy Heights (v)	209	.....
Kent (v)	4,541	3,501
Kenton (c)	6,652	5,557
Kettlerville (v)	145	.....
Killbuck (t)	370	.....
Kimbolton (v)	245	261
Kingston (v)	735	751
Kirby (v)	187	.....
Kossuth (v)	153	.....
Lafayette (v)	316	.....
Lagrange (v)	528	551
Lakeview (v)	553	.....
Lakewood hamlet	3,355	.....
Lancaster (c)	8,991	7,555
Larue (v)	997	913
Latty (v)	444	594
Laura (v)	378	.....
Laurelville (v)	450	266
Lebanon (v)	2,867	3,050
Leesburg (v)	783	617
Leesville (v)	269	373
Leesville Cross Roads (v)	178	203
Leetonia (v)	2,744	2,826
Leipsic (v)	1,726	1,353
Lewisburg (v)	560	486
Lewisville (v)	170	.....
Lexington (v)	448	432
Liberty Center (v)	606	500
Lima (c)	21,723	15,981
Limaville (v)	156	172
Lindsay (v)	614	458
Lisbon (v)	3,330	2,278
Lithopolis (v)	358	369
Little Sandusky (v)	181	.....
Lockington (v)	210	170
Lockland (v)	2,695	2,474
Lodi (v)	846	568
Logan (v)	3,480	3,119
London (v)	3,511	3,313
Lorain (c)	16,028	4,863
Loramie (v)	444	457
Loudonville (v)	1,581	1,444
Louisville (v)	1,374	1,323
Loveland (v)	1,260	1,153
Lowell (v)	381	441
Lowellville (v)	1,137	762
Lower Salem (v)	190	.....
Lucas (v)	306	347
Lynchburg (v)	907	763
McArthur (v)	941	888
McClure (v)	660	332
McComb (v)	1,195	1,030
McConnelsville (v)	1,825	1,771
McGuffey (v)	452	.....
Macksburg (v)	448	533
Madison (v)	768	738
Madisonville (v)	3,140	2,214
Magnetic Springs (v)	194	257
Magnolia (v)	431	.....
Maineville (v)	288	256
Malinta (v)	357	.....
Malta (v)	845	865
Malvern (v)	709	638
Manchester (v)	2,003	1,965
Mansfield (c)	17,640	13,473
Mantua (v)	743	676
Marblehead (v)	997	.....
Marengo (v)	242	276
Marietta (c)	13,348	8,273
Marion (c)	11,862	8,327
Marseilles (v)	251	213
Marshallville (v)	357	366
Martinsburg (v)	238	257
Martins Ferry (c)	7,760	6,250
Martinsville (v)	338	336
Marysville (v)	3,048	2,810
Mason (v)	629	564
Massillon (c)	11,944	10,092
Maumee (v)	1,856	1,645
Mechanicsburg (v)	1,617	1,459
Medina (v)	2,232	2,073
Melrose (v)	383	430
Mendon (v)	599	400
Mentor (v)	624	502
Metamora (v)	263	.....
Miamisburg (c)	3,941	2,952
Middleburg (v)	288	345
Middlepoint (v)	604	432
Middleport (v)	2,799	3,211
Middletown (c)	9,215	7,681
Midland (v)	338	328
Midvale (v)	491	.....
Midway (v)	274	.....
Mifflin (v)	185	.....
Milan (v)	653	627
Milford (v)	1,149	.....
Milford Center (v)	682	718
Millbury (v)	284	546
Milledgeville (v)	201	.....
Miller City (v)	163	.....
Millersburg (v)	1,998	1,923
Milton Center (v)	325	334
Miltonsburg (v)	130	123
Mineral City (v)	1,220	893
Mineral Ridge (v)	831	851
Minerva (v)	1,200	1,139
Mingo Junction (v)	2,954	1,856
Minster (v)	1,465	1,126
Monroeville (v)	1,211	.....
Montezuma (v)	317	.....
Montpelier (v)	1,869	1,293
Morristown (v)	350	371
Morrow (v)	869	842
Moscow (v)	475	591
Mt. Airy (v)	400	.....
Mt. Blanchard (v)	456	421
Mt. Cory (v)	312	334
Mt. Eaton (v)	232	278
Mt. Gilead (v)	1,528	1,329
Mt. Healthy (v)	1,354	.....
Mt. Orab (v)	561	336
Mt. Pleasant (v)	626	644
Mt. Sterling (v)	986	752
Mt. Vernon (c)	6,633	6,027
Mt. Victory (v)	734	689
Mt. Washington (v)	781	.....
Murray City (v)	1,118	.....
Mutual (v)	163	174
Napoleon (v)	3,639	2,764
Nashville (t)	266	.....
Navarre (v)	963	1,010
Nelsonville (v)	5,421	4,558
Nevada (v)	889	802
Neville (v)	265	340
New Albany (v)	224	223
Newark (c)	18,157	14,270
New Athens (v)	435	420
New Bloomington (v)	399	.....
New Bremen (v)	1,318	1,239
Newburg hamlet	5,909	.....
New Carlisle (v)	995	958
New Comerstown (v)	2,659	1,251
New Concord (v)	675	719
New Holland (v)	692	538
New Knoxville (v)	436	514
New Lebanon (v) (Miami county).	224	.....
New Lebanon (v) (Montgomery county).	145	149
New Lexington (v) (Highland county).	265	210
New Lexington (v) (Perry county).	1,701	1,470
New London (v)	1,180	1,096
New Madison (v)	590	478
New Matamoras (v)	817	590
New Paris (v)	790	842
New Philadelphia (c)	6,213	4,456
New Richmond (v)	1,916	2,379
New Riegel (v)	298	393
New Salem (v)	180	189
New Straitsville (v)	2,302	2,782
Newton Falls (v)	732	698
New Vienna (v)	805	871
New Washington (v)	824	704
Ney (v)	289	.....
Niles (c)	7,468	4,289
North Amherst (v)	1,758	1,648
North Baltimore (v)	3,561	2,857
North Bend (v)	532	.....
North Lewisburg (v)	846	866
North Robinson (v)	200	257
Norwalk (c)	7,074	7,195
Norwich (v)	253	234
Norwood (v)	6,480	.....
Nottingham (v)	939	.....
Oak Harbor (v)	1,631	1,681
Oak Hill (v)	825	657
Oakley (v)	528	.....
Oakwood (v)	342	378
Oberlin (v)	4,082	4,376
Ohio City	862	666
Olmsted Falls (v)	330	342
Orrville (v)	1,901	1,765
Osborn (v)	948	713
Osgood (v)	224	242
Osnaburg (v)	558	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
OHIO—Continued.		
Ostrander (v)	401	357
Ottawa (v)	2,322	1,717
Ottoville (v)	369	.....
Otway (v)	274	.....
Oxford (v)	2,009	1,922
Painesville (v)	5,024	4,755
Palestine (v)	210	.....
Pandora (v)	409	.....
Pataskala (v)	675	568
Patterson (v)	219	247
Paulding (v)	2,080	1,879
Payne (v)	1,336	1,146
Peebles (v)	763	358
Pemberville (v)	1,081	843
Peninsula (v)	579	562
Perrysburg (v)	1,766	1,747
Perryville (v)	513	522
Pickerington (v)	263	290
Piketon (v)	625	1,022
Pioneer (v)	603	596
Piqua (c)	12,172	9,090
Plain City (v)	1,432	1,245
Plainfield (v)	255	234
Pleasant City (v)	1,006	.....
Pleasant Hill (v)	557	521
Pleasantville Ridge (v)	953	1,027
Pleasantville (v)	501	521
Plymouth (v)	1,154	1,133
Poland (v)	370	391
Polk (v)	232	264
Pomeroy (c)	4,639	4,726
Portage (v)	546	438
Port Clinton (v)	2,450	2,049
Port Jefferson (v)	355	397
Portsmouth (c)	17,870	12,394
Port Washington (v)	424	487
Port William (v)	200	196
Proctorville (v)	523	480
Prospect (v)	983	830
Put in Bay (v)	317	282
Quaker City (v)	878	845
Quincy (v)	642	488
Racine (v)	327	.....
Rarden (v)	443	296
Ravenna (v)	4,003	3,417
Rawson (v)	473	458
Reading (v)	3,076	.....
Rendville (v)	790	859
Republic (v)	656	584
Reynoldsburg (v)	339	393
Richmond (v) (Jefferson Co.)	373	444
Richmond (v) (Lake Co.)	332	.....
Richwood (v)	1,640	1,415
Ridgeway (v)	447	321
Ripley (v)	2,248	2,483
Rising Sun (v)	660	485
Rochester (v)	167	218
Rock Creek (v)	478	448
Rockford (v)	1,207	993
Rockport hamlet	2,038	.....
Rocky Ridge (v)	414	483
Rocky River hamlet	1,319	.....
Rogers (v)	287	.....
Roseville (v)	1,207	714
Rossville (v)	251	254
Rushsylvania (v)	552	497
Rushville (v)	257	291
Russellville (v)	394	324
Sabina (v)	1,481	1,080
St. Bernard (v)	3,384	1,779
St. Clairsville (v)	1,210	1,191
St. Louisville (v)	285	264
St. Marys (v)	5,359	3,000
St. Paris (v)	1,222	1,145
Salem (c)	7,582	5,780
Salesville (v)	286	296
Salineville (v)	2,353	2,369
Sandusky (c)	19,664	18,471
Sarahsville (v)	279	306
Savannah (v)	290	325
Scio (v)	1,214	616
Scott (v)	547	733
Sebring (v)	387	.....
Senecaville (v)	623	461
Seven Mile (v)	256	288
Seville (v)	602	599
Shawnee (v)	2,966	3,266
Shelby (v)	4,685	1,977
Sherrodsville (v)	926	893
Sherwood (v)	455	.....
Shiloh (v)	597	644
Shreve (v)	1,043	1,012
Sidney (c)	5,688	4,850
Sinking Spring (v)	238	.....
Smithfield (v)	503	639
Smithville (v)	474	482
Somerset (v)	1,124	1,127
Somerville (v)	300	330
South Bloomfield (v)	223	272
South Brooklyn (v)	2,343	.....
South Charleston (v)	1,096	1,041
South Point (v)	281	.....
South Salem (v)	264	263
South Solon (v)	319	345
South Webster (v)	445	323
Sparta (v)	215	216
Spencerville (v)	1,874	1,266
Springboro (v)	433	413
Springfield (c)	38,253	31,895
Springhills (v)	157	158
Spring Valley (v)	522	538
Steubenville (c)	14,349	13,394
Stockport (v)	376	416
Strasburg (v)	461	.....
Stryker (v)	1,206	1,017
Sugar Grove (v)	350	275
Summerfield (v)	511	582
Sunbury (v)	464	475
Swanton (v)	887	508
Sycamore (v)	853	722
Sylvania (v)	617	545
Tarlton (v)	388	448
Taylorsville (v)	543	631
Terrace Park (v)	290	.....
Thorn (v)	374	405
Tiffin (c)	10,989	10,801
Tippecanoe (v)	1,703	1,465
Tiro (v)	293	.....
Toledo (c)	131,822	81,434
Tontogany (v)	352	283
Toronto (v)	3,526	2,536
Trenton (v)	387	.....
Trimble (v)	625	440
Troy (c)	5,881	4,494
Tuscarawas (v)	412	391
Urichsville (c)	4,582	3,842
Union City (v)	1,282	1,293
Uniontown (v)	245	.....
Unionville Center (v)	259	231
Upper Sandusky (v)	3,355	3,572
Urbana (c)	6,808	6,510
Utica (v)	826	763
Van Buren (v)	367	268
Vandalia (v)	284	265
Vanlue (v)	356	352
Van Wert (c)	6,422	5,512
Venedocia (v)	199	.....
Vermilion (v)	1,184	.....
Versailles (v)	1,478	1,385
Vinton (v)	304	318
Wadsworth (v)	1,764	1,574
Waldo (v)	278	151
Wapakoneta (v)	3,915	3,616
Warren (c)	8,529	5,973
Warsaw (v)	458	376
Washington (v)	374	546
Washington Court House (c)	5,751	5,742
Washingtonville (v)	1,092	.....
Waterville (v)	703	586
Wauseon (v)	2,148	2,060
Waverly (v)	1,854	1,567
Waynesburg (v)	613	510
Waynesfield (v)	542	480
Waynesville (v)	723	704
Webster (v)	204	.....
Wellington (v)	2,094	2,069
Wellston (c)	8,045	4,377
Wellsville (c)	6,146	5,247
West Alexandria (v)	740	575
West Cairo (v)	338	325
OHIO—Continued.		
West Carrollton (v)	987	360
West Elkton (v)	215	216
Western Star (v)	148	165
Westerville (v)	1,462	1,329
West Farmington (v)	516	.....
West Jefferson (v)	803	778
West Leipsic (v)	346	502
West Liberty (v)	1,236	.....
West Manchester hamlet	384	.....
West Mansfield (v)	875	431
West Milgrove (v)	236	207
West Milton (v)	904	796
Weston (v)	953	845
West Rushville (v)	161	195
West Salem (v)	656	756
West Union (v)	1,033	825
West Unity (v)	897	872
West Wheeling (t)	444	574
Wharton (v)	439	.....
White House (v)	621	507
Wilkesville (v)	223	262
Williamsburg (v)	1,002	828
Williamsport (v)	547	368
Willoughby (v)	1,753	1,219
Willshire (v)	560	566
Wilmington (c)	3,613	3,079
Wilmot (v)	354	.....
Winchester (v) (Adams Co)	796	.....
Winchester (v) (Preble Co.)	375	389
Windham (v)	283	.....
Winton Place (v)	1,219	.....
Woodsfield (v)	1,801	1,031
Woodstock (v)	325	310
Woodville (v)	831	.....
Wooster (c)	6,063	5,901
Worthington (v)	443	341
Wren (v)	242	.....
Wyoming (v)	1,450	1,454
Xenia (c)	8,696	7,301
Yellow Springs (v)	1,371	1,375
Youngstown (c)	44,885	33,220
Zaleski (v)	577	862
Zanesfield (v)	278	318
Zanesville (c)	23,538	21,009
Zoar (v)	290	.....
Oklahoma.		
Alva (c)	1,499	.....
Arapahoe (t)	253	.....
Beaver (t)	112	.....
Berlin (t)	60	.....
Billings (t)	406	.....
Blackwell (c)	2,283	.....
Braman (t)	249	.....
Burnett (t)	98	.....
Chandler (c)	1,430	.....
Cleveland (t)	211	.....
Crescent (t)	139	.....
Cross (t)	300	.....
Cushing (t)	226	.....
Edmond (c)	965	294
Elreno (c)	3,383	285
Enid (c)	3,444	.....
Guthrie (c)	10,006	5,333
Hennessey (c)	1,367	.....
Independence (t)	64	.....
Jefferson (t)	300	.....
Keokuk Falls (t)	198	.....
Kingfisher (c)	2,301	1,134
Langston (t)	251	.....
Lexington (t)	861	223
McLoud (t)	498	.....
Manchester (t)	158	.....
Medford (t)	551	.....
Moore (t)	129	.....
Mulhall (t)	564	.....
Newkirk (c)	1,754	.....
Noble (t)	349	.....
Norman (t)	2,225	787
North Enid (c)	205	.....
Oklahoma City	10,037	4,151
Orlando (t)	300	.....
Osage (c)	665	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
OKLAHOMA—Continued.		
Pawnee (c)	1,464	.....
Perkins (t)	719	.....
Perry (c)	3,351	.....
Ponca (c)	2,528	.....
Pond Creek (c)	822	.....
Renfrow (t)	129	.....
Ripley (t)	474	.....
Shawnee (c)	3,462	.....
Stillwater (c)	2,431	480
Stroud (c)	800	.....
Tecumseh (c)	1,193	.....
Tonkawa (t)	707	.....
Waukomis (c)	688	.....
Weatherford (c)	1,017	.....
Wellston (c)	383	.....
Oregon.		
Adams (t)	263	.....
Albany (c)	3,149	3,079
Amity (t)	292	.....
Antelope (v)	249	.....
Arlington (t)	388	356
Ashland (c)	2,634	1,784
Astoria (c)	8,381	6,184
Athena (t)	703	495
Aurora (c)	122	.....
Baker City	6,663	2,604
Bandon (t)	645	219
Bay City (t)	203	.....
Beaver Hill (t)	119	.....
Beaverton (t)	249	.....
Brownsville (c)	698	580
Burns (c)	547	264
Canby (c)	372	.....
Canyon City (t)	345	304
Carlton (c)	145	.....
Central Point (t)	322	534
Clatskanie (t)	311	212
Clatsop (t)	176	.....
Condon (t)	230	.....
Coquille (t)	728	494
Cornelius (c)	246	.....
Corvallis (c)	1,819	1,527
Cottage Grove (c)	974	.....
Dallas (c)	1,271	848
Dayton (c)	293	304
Drain (t)	193	.....
Dufur (v)	336	.....
Dun ee (t)	124	.....
Elgin (c)	603	227
Empire (c)	185	252
Enterprise (t)	396	242
Eugene (c)	3,236	.....
Falls City (t)	269	.....
Florence (t)	222	.....
Forest Grove (c)	1,096	668
Fossil (t)	288	153
Gardiner (t)	286	229
Gervais (t)	224	.....
Gold Hill (t)	385	.....
Granite (t)	245	.....
Grants Pass (c)	2,290	1,432
Halsey (c)	294	270
Harney (c)	82	240
Harrisburg (c)	502	413
Heppner (t)	1,146	675
Hillsboro (c)	980	.....
Hood River (t)	766	201
Hubbard (c)	213	117
Huntington (t)	821	321
Independence (c)	909	.....
Ione (t)	223	.....
Jacksonville (t)	653	743
Jefferson (c)	273	307
John Day (t)	282	211
Joseph (t)	237	249
Junction City	506	.....
Klamath Falls (t)	447	364
Lafayette (t)	359	365
La Grande (c)	2,991	2,583
Lakeview (t)	761	.....
Lebanon (c)	922	829
Long Creek (t)	123	60
McMinnville (c)	1,420	1,368
Marshfield (t)	1,391	1,461
Medford (t)	1,791	967
Milton (t)	804	544
Mitchell (t)	135	.....
Monmouth (t)	606	.....
Moro (t)	335	.....
Mt. Angel (t)	537	.....
Myrtle Creek (t)	189	.....
Myrtle Point (t)	530	354
Nehalem (t)	59	.....
Newberg (c)	945	514
Newport (c)	256	121
North Yamhill (c)	254	.....
Oakland (c)	368	339
Ontario (t)	445	.....
Oregon City	3,494	3,062
Pendleton (t)	4,406	2,506
Philomath (t)	343	.....
Portland (c)	90,426	46,385
Prairie City (t)	213	222
Prineville (c)	656	460
Rainier (t)	522	238
Riddle (t)	131	.....
Roseburg (c)	1,690	1,472
St. Helens (t)	258	220
Salem (c)	4,258	.....
Scio (c)	346	253
Seaside (t)	191	.....
Sheridan (c)	466	299
Sherwood (t)	111	.....
Silverton (c)	656	511
Sodaville (t)	178	66
Springfield (t)	353	371
Stayton (t)	324	381
Summerville (t)	184	280
Tangent (t)	84	.....
The Dalles (c)	3,542	3,029
Tillamook (c)	834	.....
Toledo (c)	302	.....
Union (c)	937	604
Vale (t)	127	131
Veronia (t)	62	.....
Wallowa (t)	243	.....
Wasco (t)	322	.....
Waterloo (t)	59	.....
Weston (t)	626	568
Woodburn (c)	828	405
Pennsylvania.		
Adamsburg (b)	184	223
Adamstown (b)	597	603
Akron (b)	653	606
Alba (b)	154	163
Albion (b)	695	366
Aldan (b)	296	.....
Alexandria (b)	406	488
Aliquippa (b)	620	.....
Allegheny (c)	129,896	105,287
Allentown (c)	35,416	25,228
Altoona (c)	38,973	30,337
Ambler (b)	1,884	1,073
Apollo (b)	2,924	2,156
Applewood (b)	122	.....
Archibald (b)	5,396	4,032
Arendtsville (b)	393	.....
Armagh (b)	131	162
Arnold (b)	1,426	.....
Arona (b)	382	.....
Ashland (b)	6,438	7,346
Ashley (b)	4,046	3,192
Ashville (b)	393	289
Aspinwall (b)	1,231	.....
Atglen (b)	404	397
Athens (b)	3,749	3,274
Attleboro (b)	377	.....
Atwood (b)	153	185
Auburn (b)	845	880
Austin (b)	2,300	1,679
Avalon (b)	2,130	804
Avoca (b)	3,487	3,031
Avondale (b)	640	.....
Avonmore (b)	630	.....
Baden (b)	427	390
Bangor (b)	4,106	2,509
PENNSYLVANIA—Continued.		
Barnesboro (b)	1,482	.....
Bath (b)	731	723
Beallsville (b)	388	360
Bear Lake (b)	275	313
Beaver (b)	2,348	1,552
Beaver Falls (b)	10,054	9,735
Beaver Meadow (b)	1,378	.....
Bechtelsville (b)	381	.....
Bedford (b)	2,167	2,242
Beech Creek (b)	449	437
Bellefonte (b)	4,216	3,946
Bellevernon (b)	1,901	1,147
Bellevue (b)	3,416	1,418
Bellwood (b)	1,545	1,146
Ben Avon (b)	859	.....
Bendersville (b)	342	370
Benson (b)	249	.....
Bentleyville (b)	613	229
Benton (b)	635	.....
Berlin (b)	1,030	912
Bernville (b)	344	365
Berrysburg (b)	398	426
Berwick (b) (Adams Co.)	345	381
Berwick (b) (Columbia Co.)	3,916	2,701
Bethany (b)	130	134
Bethel (b)	107	81
Bethlehem (b)	7,293	6,762
Big Run (b)	879	731
Birdsboro (b)	2,264	2,261
Birmingham (b)	240	225
Blain (b)	326	249
Blairsville (b)	3,386	3,126
Blakely (b)	3,915	2,452
Bloomfield (b)	772	737
Blooming Valley (b)	177	206
Bloomsburg (t)	6,170	4,635
Blossburg (b)	2,423	2,568
Bolivar (b)	486	410
Boyertown (b)	1,709	1,436
Braddock (b)	15,654	8,561
Bradford (c)	15,029	10,514
Bridgeport (b) (Fayette county).	1,805	1,030
Bridgeport (b) (Montgomery county).	3,097	2,651
Bridgewater (b)	1,347	1,177
Brisbin (b)	666	1,548
Bristol (b)	7,104	6,553
Broadtop (b)	258	240
Brockwayville (b)	1,777	929
Brookville (b)	2,472	2,478
Brownsville (b)	1,552	1,417
Burgettstown (b)	961	929
Burlington (b)	179	166
Burnside (b)	647	292
Butler (b)	10,853	8,734
California (b)	2,009	1,024
Callensburg (b)	248	241
Cambridge Springs (b)	1,495	912
Camp Hill (b)	360	191
Canonsburg (b)	2,714	2,113
Canton (b)	1,525	1,393
Carbondale (c)	15,536	10,833
Carlisle (b)	9,626	7,620
Carmichaels (b)	456	445
Carnegie (b)	7,330	.....
Carrolltown (b)	790	634
Casselman (b)	150	.....
Cassville (b)	168	185
Catasauqua (b)	3,963	3,704
Catawissa (b)	2,023	1,809
Center Hall (b)	537	441
Centerport (b)	141	133
Centerville (b) (Crawford county).	260	274
Centerville (b) (Washington county).	746	.....
Centralia (b)	2,048	2,761
Chambersburg (b)	8,864	7,863
Chapman (b)	319	392
Charleroi (b)	5,930	.....
Cherrytree (b)	312	324
Chester (c)	33,988	20,226
Chester Hill (b)	710	563
Chest Springs (b)	202	255

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
PENNSYLVANIA—Continued.		
Christina (b)	828	.....
Clarendon (b)	1,092	1,297
Clarion (b)	2,004	2,164
Clarksville (b)	220	.....
Claysville (b) (Washington county).	856	1,041
Clayville (b) (Jefferson Co.)	2,371	1,402
Clearfield (b)	5,081	2,248
Clifton Heights (b)	2,330	1,820
Clintonville (b)	262	253
Coal Center (b)	742	569
Coaldale (b)	348	272
Coalmont (b)	182	219
Coalport (b)	938	855
Coatesville (b)	5,721	3,680
Cochranton (b)	640	655
Cokeville (b)	674	664
College Hill (b)	890	.....
Collegeville (b)	611	.....
Collindale (b)	603	.....
Columbia (b)	12,316	10,599
Columbus (b)	334	292
Colwyn (b)	1,226	.....
Confluence (b)	871	444
Conneaut Lake (b)	343	291
Conneautville (b)	920	757
Connellsville (b)	7,160	5,629
Connoquenessing (b)	343	.....
Conshohocken (b)	5,762	5,470
Coopersburg (b)	556	454
Cooperstown (b)	243	290
Coplay (b)	1,581	880
Coraopolis (b)	2,555	962
Corry (c)	5,369	5,677
Corsica (b)	293	338
Coudersport (b)	3,217	1,530
Courtdale (b)	420	.....
Covington (b)	450	496
Crafton (b)	1,927	.....
Cressona (b)	1,738	1,481
Cross Roads (b)	167	.....
Curllsville (b)	131	154
Curwensville (b)	1,937	1,664
Daisytown (b)	435	.....
Dale (b)	1,503	.....
Dallas (b)	543	415
Dallastown (b)	1,181	779
Dalton (b)	681	.....
Danville (b)	8,042	7,998
Darby (b)	3,429	2,972
Darlington (b)	270	254
Dauphin (b)	566	740
Dawson (b)	825	668
Dayton (b)	451	372
Deemston (b)	428	.....
Delaware Watergap (b)	469	467
Delta (b)	684	565
Derry (b)	2,347	1,968
Dickson (b)	4,948	3,110
Dillsburg (b)	732	587
Donegal (b)	157	163
Dorrance (b)	2,211	586
Dover (b)	438	465
Downingtown (b)	2,133	1,920
Doylestown (b)	3,034	2,519
Driftwood (b)	509	628
Dubois (b)	9,375	6,149
Duboistown (b)	650	697
Dudley (b)	290	281
Dunbar (b)	1,662	1,381
Duncannon (b)	1,661	1,074
Duncansville (b)	1,512	1,277
Dundaff (b)	159	157
Dunmore (b)	12,583	8,315
Duquesne (b)	9,036	.....
Dushore (b)	884	783
Eaglesmere (b)	312	.....
East Bangor (b)	983	804
East Berlin (b)	668	595
East Brady (b)	1,233	1,228
East Conemaugh (b)	2,175	1,158
East Greensburg (b)	1,050	.....
East Greenville (b)	894	539
East McKeesport (b)	873	.....
East Mauch Chunk (b)	3,458	2,772
PENNSYLVANIA—Continued.		
Easton (c)	25,238	14,481
East Pittsburg (b)	2,883	.....
East Prospect (b)	292	261
East Side (b)	210	.....
East Stroudsburg (b)	2,648	1,819
Eastvale (b)	256	.....
East Washington (b)	1,051	.....
Ebensburg (b)	1,574	1,202
Eddystone (b)	776	.....
Edenburg (b)	704	751
Edgewood (b)	1,139	616
Edinboro (b)	691	1,107
Edwardsville (b)	5,165	3,284
Elco (b)	850	.....
Elderton (b)	293	243
Eldred (b)	963	1,050
Elgin (b)	138	169
Elizabeth (b)	1,866	1,804
Elizabetbtown (b)	1,473	1,218
Elizabetbville (b)	838	676
Elkland (b)	1,109	1,006
Elliott (b)	3,345	.....
Ellwood City (b)	2,243	.....
Elmburst (b)	444	443
Emaus (b)	1,468	883
Emlenton (b)	1,190	1,126
Emporium (b)	2,463	2,147
Emsworth (b)	958	.....
Enon Valley (b)	395	.....
Ephrata (b)	2,451	.....
Erie (c)	52,733	40,634
Esplen (b)	2,364	.....
Etna (b)	5,384	3,767
Evans City (b)	1,203	637
Everett (b)	1,864	1,679
Exeter (b)	1,948	790
Factoryville (b)	659	577
Fairchance (b)	1,219	1,092
Fairfield (b)	395	.....
Fairview (b) (Butler Co.)	235	303
Fairview (b) (Erie Co.)	327	305
Fallston (b)	549	541
Fawn Grove (b)	202	199
Fayette City (b)	1,595	931
Felton (b)	226	.....
Ferndale (b)	224	.....
Finleyville (b)	447	.....
Fleetwood (b)	978	878
Flemington (b)	864	912
Ford City (b)	2,870	1,255
Forest City (b)	4,279	2,319
Forksville (b)	152	191
Forty Fort (b)	1,557	1,031
Fountain Hill (b)	1,214	.....
Frackville (b)	2,594	2,520
Frankfort Springs (b)	128	180
Franklin (b) (Cambria Co.)	961	662
Franklin (c) (Venango Co.)	7,317	6,221
Franklintown (b)	250	232
Fredonia (b)	437	429
Freedom (b)	1,783	704
Freeland (b)	5,254	1,730
Freemansburg (b)	596	615
Freeport (b)	1,754	1,637
Friendsville (b)	110	139
Galeton (b)	2,415	.....
Gallitzin (b)	2,759	2,392
Garrett (b)	488	.....
Gaysport (b)	809	867
Geneva (b)	215	293
Georgetown (b)	271	274
Gettysburg (b)	3,495	3,221
Gilberton (b)	4,373	3,687
Girard (b)	954	626
Girardville (b)	3,666	3,584
Glasgow (b)	172	218
Glenburn (b)	307	290
Glen Campbell (b)	1,628	.....
Glendon (b)	704	907
Glenfield (b)	905	718
Glen Hope (b)	220	286
Glenolden (b)	873	.....
Glen Rock (b)	1,117	987
Goldsboro (b)	385	345
Gordon (b)	1,165	1,194
PENNSYLVANIA—Continued.		
Gouldsboro (b)	93	141
Grampian (b)	600	219
Grand Valley (b)	388	.....
Gratz (b)	489	490
Great Bend (b)	836	1,002
Greencastle (b)	1,463	1,525
Greenlane (b)	272	237
Greensboro (b)	399	427
Greensburg (b)	6,508	4,202
Greentree (b)	678	685
Greenville (b)	4,814	3,674
Grove City (b)	1,599	1,160
Halifax (b)	618	515
Hallstead (b)	1,404	1,167
Hamburg (b)	2,315	2,127
Hanover (b)	5,302	3,746
Harmony (b)	645	585
Harrisburg (c)	50,167	39,385
Harrisville (b)	319	.....
Hartleton (b)	237	261
Hartstown (b)	186	160
Hastings (b)	1,621	1,070
Hatboro (b)	823	781
Hatfield (b)	528	.....
Hawle (b)	1,925	1,968
Hazelton (c)	14,230	11,872
Hellertown (b)	745	708
Hollidaysburg (b)	2,998	2,975
Homer City (b)	570	505
Homestead (b)	12,554	7,911
Honesdale (b)	2,864	2,816
Honeybrook (b)	609	514
Hookstown (b)	259	297
Hooversville (b)	465	.....
Hopbottom (b)	326	299
Hopewell (b) (Bedford Co.)	482	.....
Hopewell (b) (Chester Co.)	182	213
Houtzdale (b)	1,482	2,231
Howard (b)	563	554
Hughestown (b)	1,548	1,454
Hughesville (b)	1,528	1,358
Hulmeville (b)	454	418
Hummelstown (b)	1,729	1,486
Huntingdon (b)	6,053	5,729
Hyde Park (b)	312	.....
Hydetown (b)	337	247
Hyndman (b)	1,242	1,056
Indiana (b)	4,142	1,963
Irvona (b)	723	.....
Irwin (b)	2,452	2,428
Jackson Center (b)	276	232
Jacksonville (b)	82	83
Jamestown (b)	834	822
Jeannette (b)	5,855	3,296
Jeddo (b)	1,632	358
Jefferson (b) (Greene Co.)	311	327
Jefferson (b) (York Co.)	374	374
Jenkintown (b)	2,091	1,609
Jennertown (b)	96	95
Jermyn (b)	2,567	2,650
Jersey Shore (b)	3,070	1,853
Johnsonburg (b)	3,894	1,280
Johnstown (c)	35,936	21,805
Jonestown (b)	571	643
Juniata (b)	1,709	.....
Kane (b)	5,296	2,944
Karns City (b)	265	427
Kennett Square (b)	1,516	1,326
Kingston (b)	3,846	2,381
Kittanning (b)	3,902	3,095
Knoxville (b) (Allegbany county).	3,511	1,723
Knoxville (b) (Tioga Co.)	862	679
Kutztown (b)	1,328	1,595
Laflin (b)	254	231
Lancaster (c)	41,459	32,011
Landingville (b)	244	316
Landisburg (b)	300	318
Lanesboro (b)	821	876
Langhorne (b)	801	727
Langhorne Manor (b)	222	.....
Lansdale (b)	2,754	1,858
Lansdowne (b)	2,630	875
Lansford (b)	4,888	4,004
La Plume (b)	274	253

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
PENNSYLVANIA—Continued.		
Laporte (b)	442	375
Latrobe (b)	4,614	3,589
Laurel Run (b)	696	606
Lawrenceville (b)	486	441
Lebanon (c)	17,628	14,664
Leechburg (b)	2,459	1,921
Lehighton (b)	4,629	2,959
Lenhartsville (b)	144	152
Leraysville (b)	375	374
Lewisberry (b)	228	170
Lewisburg (b)	3,457	3,248
Lewistown (b)	4,451	3,273
Lewisville (b)	619	459
Liberty (b)	263	.....
Ligonier (b)	1,259	782
Lilly (b)	1,276	915
Linesville (b)	661	552
Lititz (b)	1,637	1,494
Little Meadows (b)	213	223
Littlestown (b)	1,118	991
Livermore (b)	175	211
Liverpool (b)	653	821
Lock Haven (c)	7,210	7,358
Lockport (b)	225	240
Loganton (b)	432	385
Loganville (b)	334	296
Long Branch (b)	273	.....
Loretto (b)	240	236
Ludwick (b)	901	891
Lumber City (b)	224	266
Luzerne (b)	3,817	2,398
Lykens (b)	2,762	2,450
McAdoo (b)	2,122	.....
McConnellsburg (b)	576	594
McDonald (b)	2,475	1,698
McEwensville (b)	208	262
McKeesport (c)	34,227	20,741
McKees Rocks (b)	6,352	1,687
McSherrystown (b)	1,490	1,020
McVeytown (b)	520	599
Macungie (b)	692	644
Madison (b)	464	201
Mahaffey (b)	741	627
Mahanoy City (b)	13,504	11,286
Malvern (b)	975	641
Manchester (b)	507	513
Manheim (b)	2,019	2,070
Manns Choice (b)	312	363
Manor (b)	684	578
Manorville (b)	453	392
Mansfield (b)	1,847	1,762
Mapleton (b)	612	715
Marcus Hook (b)	1,209	.....
Marietta (b)	2,469	2,402
Marion Center (b)	294	367
Markelsburg (b)	260	279
Markleysburg (b)	210	.....
Mars (b)	777	.....
Martinsburg (b)	590	588
Marysville (b)	1,463	1,115
Masontown (b)	466	391
Mauch Chunk (b)	4,029	4,101
Mayfield (b)	2,300	1,695
Meadville (c)	10,291	9,520
Mechanicsburg (b) (Cumberland county).	3,841	3,691
Mechanicsburg (b) (Indiana county).	161	198
Media (b)	3,075	2,736
Mercer (b)	1,804	2,138
Mercersburg (b)	956	967
Meshoppen (b)	609	597
Meyersdale (b)	3,024	1,847
Middleboro (b)	207	195
Middleburg (b)	513	420
Middleport (b)	540	381
Middletown (b)	5,608	5,080
Mifflinburg (b)	1,436	1,417
Mifflintown (b)	953	877
Milesburg (b)	594	714
Milford (b)	884	793
Millersburg (b)	1,675	1,527
Millerstown (b) (Butler Co.)	950	1,162
Millerstown (b) (Perry Co.)	555	594
Mill Hall (b)	1,010	503
Millheim (b)	612	700
Millvale (b)	6,736	3,809
Mill Village (b)	321	320
Millville (b)	593	.....
Milton (b)	6,175	5,317
Miners Mills (b)	2,224	2,075
Minersville (b)	4,815	3,504
Monaca (b)	2,008	1,494
Monessen (b)	2,197	.....
Monongahela (c)	5,173	4,096
Monroe (b)	385	496
Montgomery (b)	1,063	777
Montooth (b)	796	.....
Montoursville (b)	1,665	1,278
Montrose (b)	1,827	1,735
Moosic (b)	1,227	.....
Morrisville (b)	1,371	1,203
Morton (b)	889	821
Mt. Carbon (b)	252	333
Mt. Carmel (b)	13,179	8,254
Mt. Holly Springs (b)	1,328	1,190
Mt. Jewett (b)	1,553	.....
Mt. Joy (b)	2,018	1,848
Mt. Morris (b)	345	.....
Mt. Oliver (b)	2,295	.....
Mt. Pleasant (b)	4,745	3,652
Mt. Union (b)	1,086	810
Muncy (b)	1,934	1,295
Nanticoke (b)	12,116	10,044
Narberth (b)	847	.....
Nazareth (b)	2,304	1,318
Nelson (b)	542	540
Nescopeck (b)	1,100	698
New Albany (b)	425	287
New Alexandria (b)	364	338
New Baltimore (b)	201	185
New Berlin (b)	616	617
New Bethlehem (b)	1,269	1,026
New Brighton (b)	6,820	5,616
New Buffalo (b)	171	220
Newburg (b) (Clearfield Co.)	314	354
Newburg (b) (Cumberland county).	340	376
Newcastle (c)	28,339	11,600
New Centerville (b)	105	104
New Columbus (b)	202	214
New Cumberland (b)	1,035	754
New Florence (b)	800	683
New Freedom (b)	550	364
New Galilee (b)	327	320
New Haven (b)	1,532	1,221
New Holland (b)	902	1,060
New Hope (b)	1,218	1,142
New Kensington (b)	4,665	.....
New Lebanon (b)	185	263
New Milford (b)	715	763
New Oxford (b)	663	585
New Paris (b)	205	196
New Philadelphia (b)	1,326	562
Newport (b)	1,734	1,417
New Ringgold (b)	228	240
Newry (b)	350	335
New Salem (b) (Westmoreland county).	381	311
New Salem (b) (York Co.)	241	231
Newton Hamilton (b)	384	333
Newtown (b)	1,463	1,213
Newville (b)	1,655	1,562
New Washington (b)	213	178
New Wilmington (b)	791	684
Nicholson (b)	893	734
Norristown (b)	22,265	19,791
North Bellevernon (b)	810	435
North Braddock (b)	6,535	.....
North Charleroi (b)	425	.....
Northeast (b)	2,068	1,538
North Irwin (b)	403	.....
Northumberland (b)	2,748	2,744
North Wales (b)	1,287	1,060
North Washington (b)	1,473	.....
North York (b)	1,185	.....
Norwood (b)	1,286	.....
Oakdale (b)	1,147	.....
Oakland (b)	1,003	955
Oakmont (b)	2,323	1,678
Ohiopyle (b)	423	.....
Oil City	13,264	10,932
Old Forge (b)	5,630	.....
Olyphant (b)	6,180	4,083
Orangeville (b)	439	.....
Orbisonia (b)	653	963
Orrstown (b)	245	262
Orwigsburg (b)	1,518	1,290
Osburn (b)	362	221
Osceola (b) (Clearfield Co.)	2,030	1,730
Osceola (b) (Tioga Co.)	693	838
Oxford (b)	2,032	1,711
Palo Alto (b)	1,707	1,424
Parkers Landing (c)	1,070	1,317
Parkesburg (b)	1,788	1,514
Parnassus (b)	1,791	516
Parryville (b)	723	605
Parsons (b)	2,529	2,412
Patterson (b)	817	826
Patterson Heights (b)	272	.....
Patton (b)	2,651	.....
Pen Argyl (b)	2,784	2,108
Penbrook (b)	864	.....
Penn (b)	763	931
Pennsburg (b)	1,032	627
Perkasie (b)	1,803	458
Petersburg (b)	781	555
Petrolia (b)	350	546
Philadelphia (c)	1,293,697	1,046,964
Philipsburg (b)	3,266	3,245
Phoenixville (b)	9,196	8,514
Picture Rocks (b)	614	510
Pinegrove (b)	1,084	1,103
Pitcairn (b)	2,601	.....
Pittsburg (c)	321,616	238,617
Pittston (c)	12,556	10,302
Pleasantville (b) (Bedford county).	218	257
Pleasantville (b) (Venango county).	671	928
Plymouth (b)	13,649	9,344
Point Marion (b)	575	.....
Polk (b)	1,037	.....
Portage (b)	816	564
Port Allegany (b)	1,853	1,230
Port Carbon (b)	2,168	1,976
Port Clinton (b)	478	606
Portersville (b)	196	190
Portland (b)	490	676
Port Royal (b)	546	519
Port Vue (b)	1,803	.....
Pottstown (b)	13,696	13,285
Pottsville (b)	15,710	14,117
Prompton (b)	258	269
Prospect (b)	361	343
Prospect Park (b)	1,050	.....
Punxsutawney (b)	4,375	2,792
Quakertown (b)	3,014	2,169
Quarryville (b)	565	.....
Queenstown (b)	69	123
Railroad (b)	213	201
Rainsburg (b)	219	247
Ramey (b)	866	.....
Rankin (b)	3,775	.....
Reading (c)	78,961	58,661
Red Lion (b)	1,337	524
Renovo (b)	4,082	4,154
Reynoldsville (b)	3,435	2,789
Riceville (b)	207	245
Richlandtown (b)	285	.....
Ridgeway (b)	3,515	1,903
Ridley Park (b)	1,234	.....
Rimersburg (b)	487	360
Riverside (b)	418	394
Roaring Spring (b)	1,344	920
Rochester (b)	4,688	3,649
Rock Hill (b)	495	657
Rockledge (b)	512	.....
Rockwood (b)	685	553
Rome (b)	233	226
Roscoe (b)	1,354	.....
Rosedale (b)	386	.....
Roseville (b)	215	211
Rouseville (b)	516	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
PENNSYLVANIA—Continued.		
Roxbury (b)	808	.....
Royalton (b)	1,106	.....
Royersford (b)	2,607	1,815
Rutledge (b)	369	269
Saegerstown (b)	607	745
St. Clair (b)	4,638	3,680
St. Clairsville (b)	102	134
St. Marys (b)	4,295	1,745
St. Petersburg (b)	482	655
Salisbury (b)	980	689
Salladasburg (b)	261	374
Saltillo (b)	377	254
Saltsburg (b)	828	1,088
Sandy Lake (b)	632	721
Saxonburg (b)	307	258
Saxton (b)	937	712
Sayre (b)	5,243	.....
Scalp Level (b)	450	.....
Schellsburg (b)	312	281
Schuylkill Haven (b)	3,654	3,088
Scottdale (b)	4,261	2,693
Scranton (c)	102,026	75,215
Selinsgrove (b)	1,326	1,315
Sellersville (b)	1,274	794
Seven Valley (b)	428	.....
Sewickley (b)	3,568	3,776
Shade Gap (b)	138	209
Shamokin (b)	18,202	14,403
Sharon (b)	8,916	7,459
Sharon Hill (b)	1,058	.....
Sharpsburg (b)	6,842	4,898
Sharpsville (b)	2,970	2,330
Sheakleyville (b)	164	191
Shelocta (b)	92	82
Shenandoah (b)	20,321	15,944
Sheraden (b)	2,948	.....
Shickshinny (b)	1,456	1,448
Shippensburg (b)	3,228	2,188
Shippenville (b)	313	336
Shiremanstown (b)	504	432
Shirleysburg (b)	230	325
Shrewsbury (b)	554	562
Silverdale (b)	255	.....
Siverly (b)	783	833
Slatington (b)	3,773	2,716
Sligo (b)	505	495
Slipperyrock (b)	993	448
Smethport (b)	1,704	1,150
Smicksburg (b)	237	229
Smithfield (b)	525	.....
Snydertown (b)	276	242
Somerfield (b)	178	.....
Somerset (b)	1,834	1,713
Souderton (b)	1,077	679
South Bethlehem (b) Armstrong county).	183	111
South Bethlehem (b) (Northampton county).	13,241	10,302
South Canonsburg (b)	610	.....
Southeast Greensburg (b)	620	.....
South Fork (b)	2,635	1,295
South Greensburg (b)	700	.....
South Philipsburg (b)	497	.....
South Renovo (b)	425	135
South Washington (b)	1,230	.....
South Waverly (b)	1,215	1,082
Southwest Greensburg (b)	831	.....
South Williamsport (b)	3,328	2,900
Spangler (b)	1,616	.....
Spartansburg (b)	488	516
Speers (b)	369	.....
Springboro (b)	603	490
Spring City (b)	2,566	1,797
Springfield (b)	324	.....
Spring Garden (b)	1,015	720
Spring Grove (b)	1,005	576
Starrucca (b)	404	431
State College (b)	851	.....
Steelton (b)	12,086	9,250
Stewartstown (b)	573	441
Stillwater (b)	177	.....
Stockdale (b)	731	.....
Stoneboro (b)	1,061	1,394
Stoystown (b)	306	291
Strasburgh (b)	916	918
Strattanville (b)	262	331
Stroudsburg (b)	3,450	2,419
Sugar Grove (b)	511	.....
Sugar Notch (b)	1,887	2,586
Summerhill (b)	591	.....
Summerville (b)	380	338
Summit Hill (b)	2,986	2,816
Sunbury (b)	9,810	5,930
Sunville (b)	92	106
Susquehanna (b)	3,813	3,872
Swarthmore (b)	903	.....
Swissvale (b)	1,716	.....
Swoyersville (b)	2,264	.....
Sylvania (b)	203	241
Tamaqua (b)	7,267	6,054
Tarentum (b)	5,472	4,627
Tatamy (b)	260	.....
Taylor (b)	4,215	.....
Telford (b)	181	125
Thompsontown (b)	273	291
Thomson (b)	309	302
Three Springs (b)	196	192
Throop (b)	2,204	.....
Tidioute (b)	1,237	1,328
Tioga (b)	524	557
Tionesta (b)	815	677
Titusville (c)	8,244	8,073
Topton (b)	542	500
Towanda (b)	4,663	4,169
Tower City (b)	2,167	2,053
Townville (b)	327	358
Trappe (b)	324	.....
Tremont (b)	1,947	2,064
Troutville (b)	308	.....
Troy (b)	1,450	1,307
Tullytown (b)	528	.....
Tunkhannock (b)	1,305	1,253
Tunnelhill (b)	674	730
Turbutville (b)	390	441
Turtle Creek (b)	3,262	.....
Twilight (b)	136	.....
Tyrone (b)	5,847	4,705
Union City (b)	3,104	2,261
Uniondale (b)	351	360
Uniontown (b) (Dauphin county).	359	333
Uniontown (b) (Fayette Co.)	7,344	6,359
Unionville (b)	360	348
Upland (b)	2,131	2,275
Ursina (b)	423	405
Utica (b)	268	321
Valencia (b)	149	.....
Vallonia (b)	533	548
Vandergrift (b)	2,076	.....
Vandergrift Heights (b)	1,910	.....
Vandling (b)	765	.....
Venango (b)	233	278
Verona (b)	1,904	1,477
Versailles (b)	870	.....
Volant (b)	120	.....
Wallaceton (b)	289	250
Wampum (b)	816	766
Warren (b)	8,043	4,332
Warrior Run (b)	965	.....
Washington (b) (Lancaster county).	577	562
Washington (b) (Washington county).	7,670	7,063
Washingtonville (b)	212	171
Waterford (b)	767	838
Watsontown (b)	1,898	2,157
Wattsburg (b)	351	382
Waverly (b)	489	292
Waymart (b)	432	438
Waynesboro (b)	5,396	3,811
Waynesburg (b)	2,544	2,101
Weatherly (b)	2,471	2,961
Weissport (b)	601	456
Wellersburg (b)	158	183
Wellsboro (b)	2,954	2,961
Wellsville (b)	296	.....
West Alexander (b)	462	444
West Bethlehem (b)	3,465	2,759
West Brownsville (b)	742	735
West Chester (b)	9,524	8,028
West Conshohocken (b)	1,958	1,666
West Easton (b)	1,000	.....
West Elizabeth (b)	747	719
West End (b)	329	.....
Westfield (b)	1,180	1,128
West Grove (b)	929	.....
West Hazelton (b)	2,516	931
West Liberty (b)	1,281	863
West Middlesex (b)	930	966
West Middletown (b)	241	235
West Millville (b)	559	376
Westmont (b)	499	.....
West Newton (b)	2,467	2,285
Westover (b)	654	.....
West Pittston (b)	5,846	3,906
West Reynoldsville (b)	774	.....
West Sunbury (b)	254	238
West Telford (b)	534	.....
West Washington (b)	2,693	.....
West Wyoming (b)	1,344	.....
Wheatland (b)	655	575
White Haven (b)	1,517	1,634
Wilkesbarre (c)	51,721	37,718
Wilkinsburg (b)	11,886	4,662
Williamsburg (b)	935	888
Williamsport (c)	28,757	27,132
Williamstown (b)	2,934	2,324
Wilmerding (b)	4,179	419
Wilmore (b)	264	350
Wind Gap (b)	711	.....
Winterstown (b)	217	209
Winton (b)	3,425	1,797
Womelsdorf (b)	1,136	1,141
Woodbury (b)	226	260
Woodcock (b)	109	140
Worthington (b)	398	246
Worthville (b)	154	176
Wrightsville (b)	2,266	1,912
Wyalusing (b)	525	438
Wyoming (b)	1,909	1,794
Yardley (b)	714	813
Yates (b)	433	414
Yeadon (b)	689	.....
Yoe (b)	525	.....
York (c)	33.708	20,793
York Haven (b)	824	.....
York Springs (b)	352	340
Yorkville (b)	1,125	916
Youngstown (b)	771	486
Youngsville (b)	836	667
Zelienople (b)	963	639
Rhode Island.		
Central Falls (c)	18,167	.....
Newport (c)	22,034	19,457
Pawtucket (c)	39,231	27,633
Providence (c)	175,597	132,146
Woonsocket (c)	28,204	20,830
South Carolina.		
Abbeville (t)	3,766	1,696
Aiken (t)	3,414	2,362
Allendale (t)	1,030	.....
Anderson (c)	5,498	3,018
Athens (t)	107	.....
Bamberg (t)	1,533	696
Barnwell (t)	1,329	937
Batesburg (t)	971	528
Beaufort (t)	4,110	3,587
Belton (t)	826	494
Bennettsville (t)	1,929	978
Bishopville (t)	715	422
Blacksburg (t)	1,285	1,245
Blackstock (t)	181	138
Blackville (t)	1,116	962
Blenheim (v)	176	95
Bowman (t)	134	.....
Bradley (t)	289	.....
Branchville (t)	1,101	732
Brookland (t)	1,089	.....
Brunson (t)	342	470
Calboun (t)	209	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
SOUTH CAROLINA—Cont'd.		
Camden (t)	2,441	3,533
Cameron (t)	320	.....
Campobello (t)	203	137
Carlisle (t)	358	.....
Central (t)	349	396
Chapin (t)	187	.....
Charleston (c)	55,807	54,955
Cheraw (t)	1,151	976
Cherokee Falls (t)	636	.....
Chester (t)	4,075	2,703
Chesterfield (t)	308	.....
Chicora (t)	50	.....
Clarendon (t)	97	.....
Clinton (t)	1,869	1,021
Clio (t)	508	.....
Clover (t)	961	287
Cokesbury (t)	394	355
Columbia (c)	21,108	15,353
Conway (t)	705	677
Cope (t)	80	.....
Coronaca (t)	236	.....
Cowpens (t)	692	349
Cross Hill (t)	459	216
Darlington (t)	3,028	2,389
Denmark (t)	724	.....
Dillon (t)	1,015	82
Donalds (t)	229	216
Dovesville (t)	147	.....
Due West (t)	631	644
Dunbar (v)	115	.....
Duncans (t)	149	.....
Easley (t)	903	421
Eau Clare (t)	714	.....
Ebenezer (t)	331	.....
Edgefield (t)	1,775	1,168
Ehrhardt (t)	215	.....
Elko (t)	208	100
Ellenton (t)	252	138
Elloree (t)	413	311
Eutawville (t)	305	224
Fairfax (t)	301	.....
Florence (c)	4,647	3,395
Foreston (t)	224	282
Fort Lawn (v)	126	.....
Fort Mill (t)	1,394	689
Fort Motte (t)	308	279
Fountain Inn (t)	497	212
Gaffney (c)	3,937	1,631
Gaston (t)	115	.....
Georgetown (c)	4,138	2,895
Glenn Springs (t)	187	138
Govan (t)	113	.....
Gray Court (t)	181	.....
Greelyville (t)	252	.....
Greenville (c)	11,860	8,607
Greenwood (t)	4,824	1,326
Greer (t)	648	320
Grover (t)	59	.....
Hampton (t)	536	318
Harleyville (t)	243	.....
Hartsville (t)	704	342
Heath Springs (t)	266	.....
Helena (t)	269	481
Hickory Grove (t)	289	134
Hodges (t)	257	255
Holly Hill (t)	256	814
Honea Path (t)	617	365
Inman (t)	294	134
Irmo (t)	193	.....
Jacksonboro (t)	44	58
Johnston (t)	865	827
Jonesville (t)	508	286
Kelton (t)	76	.....
Kershaw (t)	627	.....
Kingstree (t)	760	539
Kline (t)	93	.....
Lake City (t)	375	.....
Lamar (t)	220	.....
Lancaster (t)	1,477	1,094
Landrum (t)	263	155
Latta (t)	453	.....
Laurens (t)	4,029	2,245
Leesville (t)	538	229
Lewiedale (t)	173	115
Lexington (t)	806	342
SOUTH CAROLINA—Cont'd.		
Liberty (t)	368	211
Lincolnville (t)	400	388
Little Mountain (t)	283	.....
Little Rock (t)	90	.....
Livingston (t)	79	.....
Lowndesville (t)	241	268
Lucknow (t)	122	.....
McColl (t)	1,311	.....
McCormick (t)	237	.....
Manning (t)	1,430	1,069
Marion (t)	1,831	1,640
Maryville (v)	546	421
Mayesville (t)	761	706
Midway (t)	138	.....
Modoc (t)	77	102
Monks Corner (t)	202	113
Moultrieville (t)	511	.....
Mt. Carmel (t)	318	.....
Mt. Pleasant (t)	2,252	1,138
Mountville (t)	120	.....
Mullins (t)	828	242
Newberry (t)	4,607	3,020
Nichols (t)	82	57
Ninety Six (t)	414	445
North (t)	368	.....
Norway (t)	218	.....
Olar (t)	196	.....
Orangeburg (c)	4,455	2,964
Pacolet (t)	365	.....
Parksville (t)	143	145
Peak (t)	156	143
Pecks (t)	87	69
Pendleton (t)	568	476
Perry (t)	76	69
Pickens (t)	449	283
Port Royal (t)	601	524
Princeton (t)	241	195
Prosperity (t)	592	565
Reevesville (t)	137	109
Reidville (t)	162	156
Richburg (t)	240	186
Ridge Spring (t)	411	390
Ridgeville (t)	250	212
Ridgeway (t)	334	249
Rock Hill (c)	5,485	2,744
Rowesville (t)	252	174
St. George (t)	576	629
St. Matthews (t)	758	524
St. Stephens (t)	256	230
Sallys (t)	241	252
Saluda (t)	289	.....
Scranton (t)	208	.....
Seiglingville (t)	134	.....
Seneca (t)	920	.....
Sharon (t)	150	.....
Simpsonville (t)	195	.....
Smyrna (t)	48	.....
Spartanburg (c)	11,395	5,544
Springfield (v)	344	221
Spring Hill (t)	72	.....
Summerton (t)	236	.....
Summerville (t)	2,420	2,219
Sumter (c)	2,673	3,865
Swansea (t)	239	.....
Sycamore (t)	79	.....
Tatum (t)	200	.....
Timmonsville (t)	861	516
Tirzah (t)	131	.....
Travellers Rest (t)	106	.....
Trenton (t)	266	302
Trio (t)	168	.....
Troy (t)	263	311
Ulmers (t)	150	.....
Union (t)	5,400	1,609
Vances (t)	81	.....
Varnville (t)	372	553
Verdery (t)	180	86
Wagener (t)	192	.....
Walhalla (t)	1,307	820
Walterboro (t)	1,491	1,171
Wards (t)	135	.....
Waterloo (t)	189	291
Wellford (t)	346	.....
Westminster (t)	857	532
West Union (t)	289	235
SOUTH CAROLINA—Cont'd.		
Westville (t)	123	.....
White Rock (t)	71	.....
Whitmires (t)	131	.....
Williamston (t)	991	935
Willington (t)	361	.....
Williston (t)	617	503
Winnsboro (c)	1,765	1,738
Woodford (t)	205	.....
Woodruff (t)	596	380
Yorkville (t)	2,012	1,553
South Dakota.		
Aberdeen (c)	4,087	3,182
Alcester (t)	381	.....
Alexandria (c)	680	.....
Alpena (v)	153	.....
Andover (v)	225	232
Arlington (t)	314	270
Armour (t)	912	482
Artesian (v)	339	256
Ashton (c)	274	359
Belle Fourche (v)	451	.....
Beresford (v)	1,046	.....
Big Stone (c)	590	471
Blunt (v)	246	353
Bowdle (v)	622	.....
Bridgewater (t)	691	410
Bristol (v)	282	199
Britton (v)	519	514
Brookings (c)	2,346	1,518
Bryant (v	405	172
Canova (v)	169	.....
Canton (c)	1,943	1,101
Carthage (v)	265	200
Castlewood (t)	430	.....
Cavour (t)	98	.....
Centerville (c)	871	723
Chamberlain (c)	874	939
Claremont (v)	120	121
Clark (t)	684	592
Clear Lake (t)	491	147
Colman (v)	213	.....
Columbia (c)	143	400
Conde (v)	195	.....
Custer (c)	599	790
Davis (v)	151	.....
Deadwood (c)	3,498	2,366
Dell Rapids (c)	1,255	993
De Smet (c)	749	541
Doland (v)	235	216
East Sioux Falls (c)	232	577
Edgemont (c)	479	.....
Effington (t)	36	.....
Egan (v)	503	399
Elk Point (v)	1,081	.....
Elkton (v)	578	331
Emery (v)	247	.....
Erwin (t)	131	.....
Estelline (t)	357	210
Eureka (c)	961	552
Faulkton (c)	539	462
Flandreau (v)	1,244	569
Fort Pierre (c)	395	360
Frankfort (c)	198	186
Frederick (v)	251	281
Freeman (t)	525	.....
Garretson (c)	500	341
Gary (t)	345	277
Groton (c)	700	684
Harrold (v)	57	.....
Hartford (v)	423	.....
Hecla (v)	160	.....
Henry (v)	191	194
Hermosa (t)	77	172
Hetland (t)	162	.....
Highmore (c)	376	435
Hitchcock (t)	135	.....
Hot Springs (c)	1,319	1,423
Howard (v)	588	.....
Hudson (v)	400	202
Hurley (v)	444	344
Huron (c)	2,793	3,038
Ipswich (v)	397	539
Irene (v)	229	.....
Iroquois (t)	276	183
Jefferson (v)	364	229

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
South Dakota—Cont'd.		
Kimball (c)	453	593
Lake Preston (t)	706	337
Langford (v)	239	198
Lead (c)	6,210	2,581
Lennox (v)	591	363
Lesterville (v)	244	.....
Letcher (v)	130	.....
Madison (c)	2,550	1,736
Marion (v)	338	.....
Mellette (v)	354	241
Menno (t)	556	413
Milbank (c)	1,426	1,207
Miller (c)	544	536
Mitchell (c)	4,055	2,217
Montrose (t)	375	.....
Mt. Vernon (v)	222	127
Northville (v)	243	.....
Oldham (t)	222	.....
Olivet (t)	156	105
Parker (c)	893	728
Parkston (t)	596	262
Pierre (c)	2,306	3,235
Plankinton (c)	465	604
Ramona (t)	172	.....
Rapid City	1,342	2,128
Redfield (c)	1,015	796
Revillo (v)	187	.....
Roscoe (v)	92	114
Roswell (v)	50	.....
St. Lawrence (c)	115	320
Salem (c)	741	429
Scotland (c)	964	1,083
Sioux Falls (c)	10,266	10,177
Sisseton (t)	928	.....
South Sioux Falls (t)	114	.....
Spearfish (c)	1,166	678
Spencer (c)	332	.....
Springfield (c)	525	302
Sturgis (c)	1,100	668
Summit (t)	237	.....
Toronto (t)	447	148
Tripp (t)	366	226
Tyndall (c)	1,167	509
Valley Springs (c)	388	308
Vermilion (c)	2,183	1,496
Viborg (v)	222	.....
Vienna (v)	171	.....
Volga (v)	396	298
Wakonda (v)	220	.....
Watertown (c)	3,352	2,672
Waubay (v)	430	.....
Webster (c)	1,506	618
Wentworth (t)	181	.....
Wessington Springs (v)	320	.....
White (v)	454	137
White Lake (c)	264	366
White Rock (t)	170	.....
Whitewood (t)	311	443
Willow Lakes (t)	210	240
Wilmot (t)	352	.....
Wolsey (t)	122	.....
Woonsocket (c)	648	687
Worthing (v)	213	.....
Yankton (c)	4,125	3,670
Tennessee.		
Athens (t)	1,849	2,224
Bartlett (t)	200	.....
Bellbuckle (t)	665	715
Bells (t)	758	690
Binghamton (t)	382	.....
Bluff City (t)	548	662
Bolivar (t)	1,035	1,100
Bonair (t)	991	.....
Bristol (t)	5,271	3,324
Brownsville (c)	2,645	2,516
Camden (t)	399	330
Cave Bluff (t)	152	.....
Chattanooga (c)	30,154	29,100
Clarksville (c)	9,431	7,924
Cleveland (t)	3,858	2,863
Clifton (t)	639	529
Clinton (t)	1,111	1,198
Collierville (t)	829	696
Columbia (t)	6,052	5,370
Covington (t)	2,787	1,067
Dayton (c)	2,004	2,710
Dickson (t)	1,363	938
Double Spring (t)	149	.....
Dover (t)	400	.....
Dyer (t)	1,204	606
Dyersburg (c)	3,647	2,009
Fayetteville (t)	2,708	2,410
Franklin (t)	2,180	2,250
Gadsden (t)	229	267
Gallatin (t)	2,409	2,078
Gallaway (t)	77	81
Gates (t)	167	204
Germantown (t)	270	268
Grand Junction (t)	393	.....
Greeneville (t)	1,817	1,779
Halls (t)	395	441
Harriman (t)	3,442	716
Humboldt (t)	2,866	1,837
Huntingdon (t)	1,332	707
Iron City (t)	331	.....
Jacksboro (t)	621	374
Jackson (c)	14,511	10,039
Jellico (t)	1,283	758
Johnson City (t)	4,645	4,161
Jonesboro (t)	854	937
Kingston (t)	548	.....
Knoxville (c)	32,637	22,535
La Follette (t)	366	.....
La Grange (t)	355	500
Lawrenceburg (t)	823	618
Lebanon (t)	1,956	1,883
Lenox (t)	327	.....
Lewisburg (t)	1,421	631
Lexington (t)	1,332	715
Longview (t)	180	.....
Lookout Mountain (t)	452	.....
Loudon (t)	875	942
Lynchburg (t)	417	500
McKenzie (t)	1,266	1,166
McMinnville (t)	1,980	1,677
Martin (c)	1,730	.....
Mason (t)	448	252
Memphis (c)	102,320	64,495
Middleton (t)	287	191
Midway (t)	78	.....
Milan (c)	1,682	1,546
Morristown (t)	2,973	1,999
Mt. Pleasant (t)	2,007	466
Murfreesboro (c)	3,999	3,739
Nashville (c)	80,865	76,168
Newbern (t)	1,433	1,236
Newport (t)	1,630	658
Obion (t)	1,034	660
Paris (c)	2,018	1,917
Petersburg (t)	411	290
Pulaski (t)	2,838	2,274
Raleigh (t)	279	139
Rheatown (t)	158	.....
Richmond (t)	73	.....
Ripley (t)	1,640	682
Rockwood (t)	2,899	2,305
Rogersville (t)	1,386	1,153
Rutherford (t)	677	536
Selmer (t)	588	.....
Shelbyville (t)	2,236	1,823
Somerville (t)	777	892
South Fulton (t)	455	623
South Pittsburg (t)	1,789	1,479
Sparta (t)	895	712
Spring City (t)	640	598
Springfield (t)	1,732	1,372
Sweetwater (t)	1,716	879
Thomastown (t)	186	.....
Toone (t)	241	254
Trenton (c)	2,328	1,693
Troy (t)	416	394
Tullahoma (t)	2,684	2,439
Union City (t)	3,407	3,441
Walling (t)	78	.....
Wartrace (t)	642	686
Waverly (t)	786	.....
Whiteville (t)	468	209
Winchester (t)	1,338	1,313
Woodbury (t)	468	576
Texas.		
Abilene (c)	3,411	3,194
Alvarado (c)	1,342	1,543
Alvin (t)	986	261
Amarillo (t)	1,442	482
Arlington (t)	1,079	664
Atlanta (t)	1,301	1,764
Austin (c)	22,258	14,575
Baird (t)	1,502	850
Ballinger (t)	1,128	.....
Bartlett (t)	957	206
Bastrop (t)	2,145	1,634
Beaumont (c)	9,427	3,296
Belcher (t)	305	516
Bells (t)	474	429
Belton (c)	3,700	3,000
Blooming Grove (v)	585	175
Blossom (t)	874	695
Bonham (t)	5,042	3,361
Bowie (t)	2,600	1,486
Brandon (v)	457	.....
Brenham (c)	5,968	5,209
Bridgeport (t)	900	498
Brownsville (c)	6,305	6,134
Brownwood (c)	3,965	2,176
Bryan (c)	3,589	2,979
Burnet (t)	1,003	1,454
Caldwell (t)	1,535	1,250
Calvert (t)	3,322	2,632
Cameron (c)	3,341	1,608
Celeste (t)	671	250
Childress (t)	692	.....
Cisco (t)	1,514	1,063
Clarksville (c)	2,069	1,588
Cleburne (t)	7,493	3,278
Coleman (t)	1,362	906
Collinsville (t)	666	332
Columbus (c)	1,824	2,199
Comanche (t)	2,070	1,226
Commerce (t)	1,800	810
Cooper (t)	1,518	629
Corpus Christi (c)	4,703	4,387
Corsicana (c)	9,313	6,285
Crawford (t)	443	.....
Crockett (t)	2,612	1,445
Cuero (t)	3,422	2,442
Dallas (c)	42,638	38,067
Decatur (t)	1,562	1,746
De Leon (t)	807	364
Denison (c)	11,807	10,958
Denton (c)	4,187	2,558
Dodd (t)	369	333
Dublin (c)	2,370	2,025
Eagle Lake (t)	1,107	769
Eastland (t)	596	.....
El Paso (c)	15,906	10,338
Ennis (c)	4,919	2,171
Farmersville (v)	1,856	1,093
Ferris (t)	904	311
Flatonia (c)	1,210	1,304
Floresville (t)	895	913
Fort Worth (c)	26,688	23,076
Frost (t)	621	.....
Gainesville (c)	7,874	6,594
Galveston (c)	37,798	29,084
Garland (t)	819	478
Garrison (v)	530	252
Gatesville (c)	1,865	1,375
Georgetown (t)	2,790	2,447
Goldthwaite (t)	1,282	.....
Gonzales (c)	4,297	1,641
Graham (c)	878	667
Granbury (t)	1,410	1,164
Grandview (v)	713	257
Granger (t)	841	261
Greenville (t)	6,860	4,330
Groesbeck (c)	1,462	663
Hallettsville (t)	1,457	1,011
Hearne (t)	2,129	.....
Henrietta (t)	1,614	2,100
Hico (t)	1,480	649
Hillsboro (c)	5,346	2,541
Holland (t)	678	368
Honey Grove (c)	2,483	1,828
Houston (c)	44,633	27,557
Houston Heights (t)	800	.....

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
TEXAS—Continued.		
Howe (t)	531	284
Hubbard (c)	1,608	894
Huntsville (t)	2,485	1,509
Italy (t)	1,061	370
Itasca (v)	1,277	548
Jacksboro (t)	1,311	751
Jacksonville (c)	1,568	970
Jefferson (c)	2,850	3,072
Kaufman (c)	2,378	1,282
Kerens (v)	735	.....
Kerrville (t)	1,423	1,044
Killeen (t)	780	285
Kosse (t)	717	647
Ladonia (t)	1,409	765
La Grange (c)	2,392	1,626
Lampasas (t)	2,107	2,804
Lancaster (t)	1,045	741
Laporte (t)	537	.....
Laredo (c)	13,429	11,319
Leonard (t)	750	392
Liberty (t)	865	.....
Lockhart (t)	2,306	1,233
Lone Oak (t)	496	443
Longview (t)	3,591	2,034
Lott (t)	614	.....
Lufkin (t)	1,527	529
Luling (t)	1,349	1,792
McGregor (t)	1,435	774
McKinney (c)	4,342	2,489
Mansfield (t)	694	418
Marlin (t)	3,092	2,058
Marshall (c)	7,855	7,207
Meridian (t)	923	.....
Mesquite (v)	406	135
Mexia (t)	2,393	1,674
Midlothian (v)	832	297
Milford (t)	653	353
Mineola (t)	1,725	1,333
Mineral Wells (t)	2,048	577
Montague (t)	579	795
Morgan (v)	766	426
Nacogdoches (c)	1,827	1,138
Navasota (t)	3,857	2,997
Nevada (t)	356	247
New Braunfels (c)	2,097	1,608
Nocona (t)	961	381
Oak Cliff (t)	3,630	2,470
Orange (c)	3,835	3,173
Palestine (c)	8,297	5,838
Palmer (t)	480	250
Paris (c)	9,358	8,254
Pecos City (t)	639	393
Pittsburg (t)	1,783	1,203
Plano (t)	1,304	842
Port Arthur (t)	900	.....
Pottsboro (t)	400	286
Quanah (t)	1,651	1,477
Quinlan (v)	362	.....
Quintana (t)	301	475
Ravenna (t)	290	237
Rockdale (c)	2,515	1,505
Rockport (t)	1,153	1,069
Rockwall (c)	1,245	843
Rogers (t)	664	.....
Royse City (t)	503	299
Rusk (t)	846	1,383
Sabine Pass (t)	363	.....
St. Jo (t)	825	710
San Antonio (c)	53,321	37,673
San Augustine (t)	261	744
San Felipe (t)	241	177
San Marcos (t)	2,292	2,335
Savoy (t)	343	344
Schulenburg (t)	1,149	816
Seguin (t)	2,421	1,716
Sherman (c)	10,243	7,335
Shiner (t)	845	340
Smithville (t)	2,577	616
Spanish Fort (t)	247	.....
Springtown (t)	518	657
Stephenville (c)	1,902	909
Sulphur Springs (t)	3,635	3,038
Sweetwater (t)	670	614
Taylor (t)	4,211	2,584
Tehuacana (t)	382	.....
Temple (c)	7,065	4,047
Terrell (c)	6,330	2,988
Texarkana (c)	5,256	2,852
Tom Bean (t)	299	.....
Trenton (t)	420	.....
Troupe (t)	724	465
Tyler (t)	8,069	6,908
Uvalde (t)	1,889	1,265
Valley Mills (v)	519	300
Van Alstyne (t)	1,940	737
Vernon (t)	1,993	2,857
Victoria (c)	4,010	3,046
Waco (c)	20,686	14,445
Waxahachie (t)	4,215	3,076
Weatherford (c)	4,786	3,369
Weimar (t)	1,337	1,443
West (t)	851	.....
Whitesboro (t)	1,243	1,170
Whitewright (t)	1,804	880
Wichita Falls (t)	2,480	1,987
Wills Point (t)	1,347	1,025
Winnsboro (t)	899	388
Wolfe City (t)	1,549	867
Wylie (t)	773	239
Yoakum (t)	3,499	1,745
Yorktown (t)	846	522
Utah.		
Alpine (c)	520	466
American Fork (c)	2,732	.....
Bear River (c)	362	.....
Beaver (c)	1,701	.....
Bountiful (c)	1,442	.....
Brigham (c)	2,859	2,139
Castle Dale (t)	559	303
Cedar (c)	1,425	967
Charleston (t)	234	.....
Coalville (c)	808	1,166
Corinne (c)	323	.....
Elsinore (t)	625	.....
Ephraim (c)	2,086	.....
Eureka (c)	3,085	1,733
Fairview (c)	1,119	844
Farmington (c)	968	.....
Fillmore City	1,037	.....
Fountain Green (t)	755	677
Glenwood (t)	422	.....
Goshen (t)	645	298
Grantsville (c)	1,058	.....
Gunnison (t)	829	.....
Heber (c)	1,534	1,538
Huntington (t)	653	513
Hyrum (c)	1,652	.....
Kanab (t)	710	409
Kaysville (c)	1,708	548
Lehi City	2,719	.....
Logan (c)	5,451	4,565
Manti (c)	2,408	1,950
Mendon (c)	494	.....
Mercur (c)	2,351	.....
Midway (t)	719	.....
Minersville (t)	437	.....
Monroe (t)	1,057	880
Morgan (c)	600	333
Moroni (c)	1,224	958
Mt. Pleasant (c)	2,372	2,254
Nephi (c)	2,208	2,034
Newton (t)	429	.....
Ogden (c)	16,313	14,889
Panguitch (c)	883	.....
Park City	3,759	2,850
Parowan (c)	1,039	.....
Payson (c)	2,636	2,135
Pleasant Grove (c)	2,460	1,926
Price (t)	539	209
Providence (t)	877	.....
Provo City	6,185	5,159
Redmond (t)	451	.....
Richfield (c)	1,969	1,531
Richmond (c)	1,111	.....
St. George (c)	1,600	.....
Salem (t)	894	527
Salina (t)	847	.....
Salt Lake City	53,531	44,843
UTAH—Continued.		
Sandy (c)	1,030	.....
Santaquin (t)	889	.....
Scipio (t)	578	.....
Scofield (t)	642	.....
Smithfield (c)	1,494	1,080
Spanish Fork (c)	2,735	2,214
Spring City	1,135	1,044
Springville (c)	3,422	2,849
Tooele (c)	1,200	.....
Vernal (t)	664	.....
Washington (c)	529	.....
Wellsville (c)	908	.....
Willard (c)	580	492
Vermont.		
Barre (c)	8,448	4,146
Barton (v)	1,050	778
Barton Landing (v)	677	482
Bellows Falls (v)	4,337	3,092
Bennington (v)	5,656	3,971
Bennington Center (v)	215	.....
Bradford (v)	614	610
Brattleboro (v)	5,297	5,467
Burlington (c)	18,640	14,590
Cabot (v)	226	199
Chester (v)	950	.....
Derby (v)	297	.....
Derby Line (v)	309	.....
Enosburg Falls (v)	954	974
Essex Junction (v)	1,141	.....
Fair Haven (v)	2,470	.....
Hardwick (v)	1,334	.....
Hyde Park (v)	422	.....
Johnson (v)	587	.....
Ludlow (v)	1,454	1,081
Lyndon Center (v)	232	.....
Lyndonville (v)	1,274	606
Middlebury (v)	1,897	1,762
Montpelier (c)	6,266	4,160
Morrisville (v)	1,262	.....
Newport (v)	1,874	1,730
North Bennington (v)	670	.....
Northfield (v)	1,508	1,222
North Troy (v)	562	600
Plainfield (v)	341	.....
Proctor (v)	2,013	.....
Randolph (v)	1,540	1,573
Readsboro (v)	658	.....
Richford (v)	1,513	1,162
Rutland (c)	11,499	.....
St. Albans (c)	6,239	.....
St. Johnsbury (v)	5,666	3,857
Springfield (v)	2,040	1,512
Stowe (v)	500	.....
Swanton (v)	1,168	1,878
Vergennes (c)	1,753	1,773
Waterbury (v)	1,597	955
Wells River (v)	565	526
West Derby (v)	913	.....
Wilmington (v)	410	.....
Windsor (v)	1,656	1,384
Winooski (v)	3,783	3,659
Woodstock (v)	1,284	1,218
Virginia.		
Abingdon (t)	1,306	1,674
Alexandria (c)	14,528	14,339
Ashland (t)	1,147	948
Barton Heights (t)	763	.....
Basic City (t)	1,270	.....
Bedford City (t)	2,416	2,897
Belle Haven (t)	331	.....
Berkley (t)	4,988	3,891
Berryville (t)	938	.....
Big Stone Gap (t)	1,617	.....
Blacksburg (t)	768	.....
Blackstone (t)	585	580
Bond (t)	295	.....
Bowling Green (t)	458	511
Boydton (t)	527	.....
Boykins (t)	224	173
Bridgewater (t)	384	.....
Bristol (c)	4,579	2,902
Broadway (t)	400	497

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
VIRGINIA—Continued.		
Buchanan (t)	716	802
Buena Vista (c)	2,388	1,044
Burkeville (t)	510	404
Cape Charles (t)	1,040	.....
Charlottesville (c)	6,449	5,591
Chase (c)	542	618
Chatham (t)	918	757
Christiansburg (t)	659	.....
Claremont (v)	565	189
Clarksville (t)	723	656
Clifton Forge (t)	3,212	1,792
Clinchport (t)	183	.....
Clintwood (t)	255	.....
Clover (t)	400	422
Coeburn (t)	295	.....
Colonial Beach (t)	453	.....
Columbia (t)	216	239
Courtland (t)	288	.....
Covington (t)	2,950	704
Crewe (t)	1,329	887
Culpeper (t)	1,618	1,620
Danville (c)	16,520	10,305
Dayton (t)	425	.....
Duffield (t)	98	.....
Dumfries (t)	160	.....
East Stone Gap (t)	349	.....
Eastville (t)	313	.....
Edinburg (t)	512	512
Emporia (t)	1,027	.....
Fairfax (t)	373	.....
Falls Church (t)	1,007	792
Farmville (t)	2,471	2,404
Fincastle (t)	652	.....
Floyd (t)	402	.....
Franklin (t)	1,143	875
Fredericksburg (c)	5,068	4,528
Front Royal (t)	1,005	868
Gate City (t)	521	.....
Glade Spring (t)	304	500
Gladeville (t)	511	186
Gordonsville (t)	603	962
Goshen (t)	253	.....
Graham (t)	1,554	1,021
Grundy (t)	200	.....
Hamilton (t)	364	407
Hampton (t)	2,764	2,513
Harrisonburg (t)	3,521	2,792
Herndon (t)	692	795
Hillsboro (t)	131	156
Holland (t)	133	.....
Honaker (t)	295	.....
Houston (t)	687	1,285
Iron Gate (t)	392	199
Keysville (t)	82	126
Lawrenceville (t)	760	305
Lebanon (t)	325	310
Leesburg (t)	1,513	1,650
Lexington (t)	3,203	3,059
Louisa (t)	261	.....
Lovettsville (t)	97	.....
Luray (t)	1,147	1,386
Lynchburg (c)	18,891	19,709
McDowell (t)	136	.....
Manassas (t)	817	530
Manchester (c)	9,715	9,246
Marion (t)	2,045	1,651
Martinsburg (t)	2,384	.....
Mechanicsburg (t)	113	.....
Middleburg (t)	296	429
Middletown (t)	423	410
Monterey (t)	246	.....
Mt. Crawford (t)	330	.....
Mt. Jackson (t)	472	.....
Mt. Sidney (t)	197	304
Newbern (t)	152	.....
Newcastle (t)	299	214
New Hope (t)	124	.....
New Market (t)	684	697
Newport News (c)	19,635	4,449
Norfolk (c)	46,624	34,871
Northside (t)	584	.....
North Tazewell (t)	320	.....
Norton (t)	654	.....
Occoquan (t)	297	297
Onancock (t)	938	.....

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
VIRGINIA—Continued.		
Orange (t)	536	571
Pearisburg (t)	464	341
Pennington Gap (t)	399	.....
Petersburg (c)	21,810	22,680
Phoebus (t)	2,094	.....
Pocahontas (t)	2,789	2,953
Port Royal (t)	193	236
Portsmouth (c)	17,427	13,268
Pulaski (t)	2,813	2,112
Radford (c)	3,344	2,060
Remington (t)	198	.....
Richlands (t)	475	.....
Richmond (c)	85,050	81,388
Ridgeway (t)	332	236
Roanoke (c)	21,495	16,159
Rocky Mount (t)	612	628
Salem (t)	3,412	3,279
Saltville (t)	1,051	.....
Scottsville (t)	1,248	362
Seddon (t) (Bland P. O.)	249	.....
Shenandoah (t)	1,220	751
Shendun (t)	381	.....
Singersglen (t)	108	.....
Smithfield (t)	1,225	891
Smithville (t)	96	.....
South Boston (t)	1,851	1,789
Staunton (c)	7,289	6,975
Stephens City (t)	490	443
Strasburg (t)	690	646
Stuart (t)	371	332
Suffolk (t)	3,827	3,354
Tacoma (t)	247	.....
Tappahannock (t)	554	452
Tazewell (t)	1,096	604
Timberville (t)	173	.....
Upperville (t)	376	.....
Vienna (t)	317	.....
Vinton (t)	1,438	1,057
Virgilina (t)	200	.....
Warrenton (t)	1,627	1,346
Washington (t)	300	252
Waterford (t)	383	385
Waverly (t)	493	.....
Waynesboro (t)	856	646
West Clifton Forge (t)	367	.....
West Point (t)	1,307	2,018
Wiehle (t)	51	.....
Williamsburg (c)	2,044	1,831
Winchester (c)	5,161	5,196
Woodstock (t)	1,069	1,068
Wytheville (t)	3,003	2,570
Yorktown (t)	151	221
Washington.		
Aberdeen (t)	3,747	1,638
Anacortes (c)	1,476	1,131
Asotin (t)	470	200
Auburn (c)	489	740
Ballard (c)	4,568	1,173
Blaine (c)	1,592	1,563
Bossburg (v)	247	.....
Buckley (t)	1,014	.....
Castle Rock (t)	750	681
Centralia (c)	1,600	2,026
Chehalis (c)	1,775	1,309
Cheney (t)	781	647
Colfax (c)	2,121	1,649
Colton (t)	251	.....
Columbia (t)	337	.....
Colville (t)	594	539
Cosmopolis (t)	1,004	287
Davenport (t)	1,000	396
Dayton (c)	2,216	1,880
Edmonds (c)	474	.....
Elberton (t)	297	.....
Ellensburg (c)	1,737	2,768
Elma (t)	894	345
Everett (c)	7,838	.....
Fairhaven (c)	4,228	4,076
Farmington (t)	434	418
Garfield (t)	697	317
Gilman (t) (Issaquah P. O.)	700	.....
Goldendale (c)	738	702
Hamilton (t)	392	203

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
WASHINGTON—Continued.		
Hoquiam (c)	2,608	1,302
Ilwaco (t)	584	517
Kalama (t)	554	325
Kelso (t)	694	354
Kent (t)	755	853
Kettle Falls (t)	297	.....
La Conner (t)	564	398
Latah (t)	253	232
Lynden (t)	365	560
Marysville (c)	728	262
Medical Lake (t)	516	617
Montesano (t)	1,194	1,632
Mt. Vernon (t)	1,120	770
New Whatcom (c)	6,834	4,827
Northport (c)	787	.....
North Yakima (c)	3,154	1,535
Oakesdale (t)	928	528
Ocosta (v)	166	.....
Olympia (c)	3,863	4,698
Orting (t)	728	623
Palous (c)	929	1,119
Pasco (t)	254	.....
Pataha City	157	.....
Pomeroy (c)	953	661
Port Angeles (c)	2,321	.....
Port Orchard (t)	197	.....
Port Townsend (c)	3,443	4,558
Prosser (t)	229	.....
Pullman (c)	1,308	868
Puyallup (c)	1,884	1,732
Republic (c)	2,050	.....
Ritzville (t)	761	.....
Rockford (t)	433	644
Rosalia (t)	379	248
Roslyn (t)	2,786	1,484
Seattle (c)	80,671	42,837
Sero Woolley (t)	885	.....
Shelton (t)	833	648
Sydney (v)	254	226
Snohomish (c)	2,101	1,993
South Bend (c)	711	.....
Spangle (t)	331	303
Spokane (c)	36,848	19,922
Sprague (c)	695	1,689
Steilacoom (t)	1,015	270
Sumas (c)	319	.....
Sumner (t)	351	580
Tacoma (c)	37,714	36,006
Tekoa (t)	717	301
Toledo (t)	285	276
Tumwater (t)	270	410
Uniontown (t)	404	279
Vancouver (c)	3,126	3,545
Waitsburg (c)	1,011	817
Wallawalla (c)	10,049	4,709
Waterville (t)	482	293
Wenatchee (t)	451	.....
Wilbur (c)	595	410
Winlock (t)	655	.....
Yakima City (t)	287	196
West Virginia.		
Addison (t)	297	.....
Alderson (t)	518	663
Ansted (t)	1,090	.....
Aracoma (t)	444	.....
Barboursville (t)	429	.....
Bayard (t)	540	.....
Beckley (v)	342	158
Belington (t)	430	.....
Benwood (c)	4,511	2,934
Berkeley Springs (t)	781	.....
Bethany (v)	245	.....
Beverly (t)	464	343
Blacksville (t)	180	.....
Bluefield (c)	4,644	1,775
Bolivar (t)	781	804
Bramwell (t)	825	499
Brandonville (t)	68	82
Bridgeport (t)	464	455
Brooklyn (t)	632	285
Bruceton (t)	80	.....
Buckhannon (t)	1,589	1,403

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
WEST VIRGINIA—Continued.		
Buffalo (v)	364	238
Cairo (t)	653	.....
Cameron (t)	964	.....
Centerville (t)	156	.....
Central City (t)	1,580	.....
Ceredo (v)	1,279	923
Charles Town	2,392	2,287
Charleston (c)	11,099	6,742
Clarksburg (t)	4,050	3,008
Clifton (v)	427	673
Cowen (t)	257	.....
Culloden (t)	99	.....
Davis (t)	2,391	918
Eastbank (t)	468	.....
Elizabeth (t)	657	710
Elk Garden (t)	581	723
Elkins (t)	2,016	737
Elm Grove (t)	768	594
Fairmount (c)	5,655	1,023
Fairview (v)	407	361
Fayetteville (t)	413	.....
Fetterman (t)	796	557
Frankford (t)	138	.....
Franklin (t)	205	.....
Friendly (t)	253	.....
Glenville (t)	398	329
Grafton (c)	5,650	3,159
Grantsville (t)	225	.....
Greenmont (t)	349	.....
Guyandot (t)	1,450	1,502
Harpers Ferry (t)	896	958
Harrisville (t)	472	361
Hartford (v)	515	446
Hawks Nest (t)	109	.....
Hedgesville (t)	342	448
Henderson (v)	304	.....
Hendricks (t)	317	.....
Henry (t)	339	.....
Hillsboro (v)	204	166
Hill Top (t)	263	.....
Hinton (c)	3,763	2,570
Hundred (t)	261	.....
Huntington (c)	11,923	10,108
Hurricane (v)	240	207
Junior (t)	335	.....
Kenova (v)	863	.....
Keyser (t)	2,536	2,165
Keystone (t)	1,088	.....
Kingwood (t)	700	.....
Leatherwood (t)	123	.....
Leon (v)	250	242
Lewisburg (t)	872	1,016
Littleton (t)	509	.....
McMechen (t)	1,465	427
Mannington (t)	1,681	908
Marlington (v)	171	.....
Martinsburg (t)	7,564	7,226
Mason (v)	904	1,029
Middlebourn (t)	403	.....
Middleway (t)	466	.....
Milton (t)	582	548
Monongah (t)	1,786	.....
Montgomery (t)	1,594	.....
Moorefield (t)	460	495
Morgantown (t)	1,895	1,011
Moundsville (c)	5,362	2,688
Mt. Hope (t)	351	.....
Newburg (t)	751	778
New Cumberland (t)	2,198	2,305
New Martinsville (t)	1,089	692
Oceana (t)	187	.....
Parkersburg (c)	11,703	8,408
Parsons (t)	618	.....
Paw Paw (t)	693	772
Pennsboro (t)	738	570
Peterstown (t)	167	.....
Philippi (t)	665	378
Piedmont (t)	2,115	.....
Pleasant Valley (t)	180	.....
Point Pleasant (t)	1,934	1,853
Powellton (t)	503	491
Ravenswood (t)	1,074	817
Reedy (t)	300	.....
Ripley (t)	579	417
Rivesville (t)	164	165
WEST VIROINIA—Continued.		
Romney (t)	580	451
Ronceverte (t)	968	481
Rowlesburg (t)	652	560
St. Albans (t)	816	.....
St. George (t)	152	316
St. Marys (v)	825	520
Salem (t)	746	310
Seneca (t)	723	.....
Shepherdstown (t)	1,184	1,515
Shinnston (t)	535	403
Sistersville (c)	2,979	469
South Elkins (t)	206	.....
South Morgantown (t)	405	285
Spencer (t)	737	431
Springfield (t)	143	.....
Summersville (t)	223	.....
Sutton (t)	864	276
Terra Alta (t)	616	443
Thomas (t)	2,126	269
Triadelphia (t)	287	515
Troy (t)	148	.....
Tunnelton (t)	479	.....
Union (t)	256	348
Wardensville (t)	152	106
Watson (t) (Capon Springs)	18	.....
Welch (t)	442	.....
Wellsburg (c)	2,588	2,235
West Columbia (v)	205	250
West Milford (t)	187	210
Weston (t)	2,560	2,143
West Union (t)	623	312
Wheeling (c)	38,878	34,522
Winfield (v)	338	302
Wisconsin.		
Abbotsford (v)	443	.....
Ableman (v)	430	332
Albany (v)	797	698
Algoma (c)	1,738	1,015
Alma (c)	1,201	1,428
Altoona (c)	721	805
Amery (v)	905	451
Amherst (v)	558	438
Aniwa (v)	367	.....
Antigo (c)	5,145	4,424
Appleton (c)	15,085	11,869
Arcadia (v)	1,273	659
Ashland (c)	13,074	9,956
Auburndale (v)	241	253
Augusta (c)	1,256	1,187
Avoca (v)	406	278
Baldwin (v)	631	482
Bangor (v)	633	499
Baraboo (c)	5,751	4,605
Barron (c)	1,493	829
Bayfield (v)	1,689	1,373
Beaverdam (c)	5,128	4,222
Belleville (v)	385	319
Belmont (v)	509	378
Beloit (c)	10,436	6,315
Benton (v)	546	414
Berlin (c)	4,489	4,149
Birnamwood (v)	475	.....
Black River Falls (c)	1,938	2,261
Blair (v)	438	.....
Blanchardville (v)	573	.....
Bloomer (v)	811	631
Bloomington (v)	611	587
Boscobel (c)	1,637	1,570
Boyd (v)	674	545
Brandon (v)	663	660
Brillion (v)	855	582
Brodhead (c)	1,584	1,461
Browntown (v)	246	.....
Buffalo (c)	254	223
Burlington (c)	2,526	2,043
Cadott (v)	840	889
Cambria (v)	561	524
Cameron (v)	394	.....
Camp Douglas (v)	432	225
Cashton (v)	510	.....
Cassville (v)	979	886
Cedarburg (c)	1,626	1,361
Cedar Grove (v)	327	.....
WISCONSIN—Continued.		
Chetek (c)	531	406
Chilton (c)	1,460	1,424
Chippewa Falls (c)	8,094	8,670
Clear Lake (v)	527	.....
Clinton (v)	871	856
Clintonville (c)	1,653	1,466
Colby (c)	667	.....
Columbus (c)	2,349	1,977
Cuba City (v)	636	.....
Cudahy (v)	1,366	.....
Cumberland (c)	1,328	1,219
Dane (v)	280	.....
Darlington (c)	1,808	1,589
Dartford (v)	450	204
Deerfield (v)	515	338
Delavan (c)	2,244	2,038
Depere (c)	4,038	3,625
De Soto (v)	387	355
Dodgeville (c)	1,865	1,722
Durand (c)	1,458	1,154
Eagle (v)	324	.....
Eau Claire (c)	17,517	17,415
Edgar (v)	478	.....
Edgarton (c)	2,192	1,595
Elkhart Lake (v)	464	.....
Elkhorn (c)	1,731	1,447
Ellsworth (v)	1,052	670
Elroy (c)	1,685	1,413
Embarrass (v)	270	.....
Evansville (c)	1,864	1,523
Fairchild (v)	947	645
Fennimore (v)	1,035	616
Fond du Lac (c)	15,110	12,024
Fort Atkinson (c)	3,043	2,283
Fountain City	1,031	972
Fox Lake (v)	890	814
Fremont (v)	263	275
Galesville (v)	862	537
Glenwood (c)	1,789	.....
Grafton (v)	478	434
Grand Rapids (c)	4,493	1,702
Grantsburg (v)	612	410
Gratiot (v)	335	.....
Green Bay (c)	18,684	9,069
Greenwood (c)	708	.....
Hammond (v)	404	388
Hartford (c)	1,632	1,296
Hartland (v)	629	486
Hazel Green (v)	442	426
Highland (v)	913	751
Hilbert (v)	497	.....
Hillsboro (v)	785	461
Horicon (c)	1,376	1,354
Hortonville (v)	913	440
Hudson (c)	3,259	2,885
Hustisford (v)	540	513
Independence (v)	630	382
Iola (v)	558	.....
Janesville (c)	13,185	10,836
Jefferson (c)	2,584	2,287
Juneau (c)	891	701
Kaukauna (c)	5,115	4,667
Kendall (v)	460	304
Kenosha (c)	11,606	6,532
Kewaskum (v)	679	557
Kewaunee (c)	1,773	1,216
Kiel (v)	924	497
Kilbourn City (v)	1,134	961
La Crosse (c)	28,895	25,090
La Farge (v)	488	.....
Lake Geneva (c)	2,585	2,297
Lake Mills (v)	1,387	1,053
Lancaster (c)	2,403	1,543
Lavalle (v)	386	333
Linden (v)	543	462
Little Chute (v)	944	380
Lodi (v)	1,068	736
Lomira (v)	492	.....
Lone Rock (v)	512	342
Lowell (v)	333	304
Loyal (v)	645	.....
Lynxville (v)	322	243
McMillan (v)	200	.....
Madison (c)	19,164	13,426
Maiden Rock (v)	304	343

(c) City; (t) Town; (v) Village; (b) Borough.

CITIES, TOWNS, VILLAGES, AND BOROUGHS.	1900	1890
WISCONSIN—Continued.		
Manawa (v)	744	350
Manitowoc (c)	11,786	7,710
Marathon (v)	528	258
Marinette (c)	16,195	11,523
Marion (v)	602	470
Markesan (v)	706	475
Marshfield (c)	5,240	3,450
Mauston (c)	1,718	1,343
Mayville (c)	1,815	1,165
Mazomanie (v)	902	1,034
Medford (c)	1,758	1,193
Menasha (c)	5,589	4,581
Menominee (c)	5,655	5,491
Menominee Falls (v)	687	422
Merrill (c)	8,537	6,809
Merrillan (v)	739	639
Merrimac (v)	350	.....
Milwaukee (c)	285,315	204,468
Mineral Point (c)	2,991	2,694
Mondovi (c)	1,208	503
Monroe (c)	3,927	3,768
Montfort (v)	627	467
Monticello (v)	559	407
Mosinee (v)	657	427
Mt. Horeb (v)	864	.....
Muscoda (v)	743	605
Necedah (v)	1,209	1,708
Neenah (c)	5,954	5,083
Neillsville (c)	2,104	1,936
Nekoosa (v)	745	.....
New Lisbon (c)	1,014	990
New London (c)	2,742	2,050
New Richmond (c)	1,631	1,408
North Freedom (v)	485	316
North Milwaukee (v)	1,049	.....
Norwalk (v)	357	.....
Oconomowoc (c)	2,880	2,729
Oconto (c)	5,646	5,219
Omro (v)	1,358	1,232
Onalaska (c)	1,368	1,587
Ontario (v)	389	.....
Oregon (v)	697	595
Osceola (v)	466	384
Oshkosh (c)	28,284	22,836
Osseo (v)	472	.....
Palmyra (v)	716	567
Pardeeville (v)	788	.....
Pepin (v)	407	369
Pewaukee (v)	714	680
Phillips (c)	1,820	.....
Pittsville (c)	634	653
Plainfield (v)	728	459
Platteville (c)	3,340	2,740
Plymouth (c)	2,257	1,503
Portage (c)	5,459	5,143
Port Washington (c)	3,010	1,659
Potosi (v)	434	.....
Poynette (v)	633	517
Prairie du Chien (c)	3,232	3,131
Prairie du Sac (v)	656	562
Prentice (v)	939	365
Prescott (c)	1,002	911
Princeton (v)	1,202	986
Racine (c)	29,102	21,014
Randolph (v)	738	405
Readstown (v)	403	.....
Reedsburg (c)	2,225	1,737
Reedsville (v)	428	.....
Reeseville (v)	393	329
Rhinelander (c)	4,998	2,658
Rice Lake (c)	3,002	2,130
Richland Center (c)	2,321	1,819
Rio (v)	479	339
Ripon (c)	3,818	3,358
River Falls (c)	2,008	1,783
St. Croix Falls (v)	622	745
Sauk City (v)	810	876
Scandinavia (v)	320	.....
Schleisingerville (v)	549	432
Seymour (c)	1,026	733
Sharon (v)	945	878
Shawano (c)	1,863	1,505
Sheboygan (c)	22,962	16,359
Sheboygan Falls (v)	1,301	1,118
Shullsburg (c)	1,250	1,393
Soldiers Grove (v)	680	.....
South Milwaukee (c)	3,392	.....
Sparta (c)	3,555	2,795
Spring Green (v)	621	625
Spring Valley (v)	1,021	.....
Stanley (c)	2,387	.....
Stevens Point (c)	9,524	7,896
Stoughton (c)	3,431	2,470
Sturgeon Bay (c)	3,372	2,195
Sun Prairie (v)	938	704
Superior (c)	31,091	11,983
Theresa (v)	355	.....
Thorp (v)	838	723
Tigerton (v)	723	.....
Tomah (c)	2,840	2,199
Tomahawk (c)	2,291	1,816
Trempealeau (v)	609	.....
Turtle Lake (v)	326	.....
Two Rivers (c)	3,784	2,870
Union Grove (v)	520	432
Viola (v)	432	.....
Viroqua (c)	1,950	1,270
Waterloo (v)	1,137	862
Watertown (c)	8,437	8,755
Waukesha (c)	7,419	6,321
Waunakee (v)	443	312
Waupaca (c)	2,912	2,127
Waupun (c)	3,185	2,757
Wausau (c)	12,354	9,253
Wauwatosa (c)	2,842	.....
Wauseka (v)	471	.....
West Bend (c)	2,119	1,296
Westby (v)	524	.....
West Salem (v)	725	542
Weyauwega (v)	911	706
Whitefish Bay (v)	512	.....
Whitehall (v)	600	304
Whitewater (c)	3,405	4,359
Wilton (v)	400	.....
Winneconne (v)	1,042	1,086
Wittenberg (v)	798	726
Wonewoc (v)	811	619
Wrightstown (v)	420	476
Wyoming.		
Buffalo (t)	710	1,087
Carbon (t)	634	1,140
Casper (c)	883	544
Cheyenne (c)	14,087	11,690
Douglas (t)	734	491
Evanston (c)	2,110	1,995
Gillette (t)	151	.....
Green River (t)	1,361	723
Lander (t)	737	525
Laramie (c)	8,207	6,388
Lusk (t)	180	253
Newcastle (c)	756	1,715
Rawlins (c)	2,317	2,235
Rock Springs (c)	4,363	3,406
Sheridan (c)	1,559	281
Sundance (t)	294	515
Thermopolis (t)	299	.....

(c) City; (t) Town; (v) Village; (b) Borough.

Deacidified using the Bookkeeper process.
Neutralizing agent: Magnesium Oxide
Treatment Date: February 2019

PreservationTechnologies
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